



November 15th, 2025

Division for Air Quality
300 Sower Blvd., 1st Floor
Frankfort, Kentucky 40601

Re: *Permit Renewal Application*
Permittee Name: Montebello Packaging Inc.
Agency Interest:2908

To whom it may concern,

Montebello Packaging Inc. located in Lebanon, Kentucky respectfully submits the following renewal Conditional Major Permit Application. The facility is not requesting any changes to permit limits or requirements. Outlined in the permit narrative are updates to the tube and can lines that are located at this facility. Attached are the updated emission calculations along with the DE7007AI form associated with the renewal application.

If there are any questions or concerns, please contact Nathan Sheehan at (859) 885-3331 or email or nsheehan@hallenvironmental.net.

Sincerely,

Nathan Sheehan
Engineering Consultant

ATTACHMENTS

Attachment A..... DEP 7007 Forms
Attachment B Emission Calculations
Attachment C Safety Data Sheets
Attachment D Current Air Permit Mark-Up

Permit Narrative

There have been some minor changes to the tube and can lines located at this facility along with the materials used in the production process. Outlined below are the changes associated on a per line basis. Emission updates are included and PTE is based on the previously approved 7920 operating hours. This is based on unavoidable downtime for maintenance and cleaning that must be completed in order to continue operation.

Emissions Overview

Emissions remained fairly consisted with previously reported amounts. The worst-case single HAP is now Methyl Isobutyl Ketone (MIBK)) at 9.3 tons per year. There is little concern with exceeding the 9 ton per year limit as the material with a high percentage of MIBK has a very low actual annual usage along with the fact that actual operating hours are significantly lower than 7920 hours.

Emission Totals

Pollutant	Uncontrolled PTE (tons)	Controlled PTE (tons)
VOC	690.4	23.6
PM	118.3	5.9
Single HAP	156.3	9.3
Combined HAP	253.1	15.5

Line Updates

Line 1: No changes other than worse-case materials were updated to reflect paints/adhesives currently used. Emissions from this line still are routed to RTO #1.

Line 2: No changes other than worse-case materials were updated to reflect paints/adhesives currently used. Emissions from this line still are routed to RTO #1.

Line 3: Line processes $\frac{3}{4}$ " tubes compared to the $\frac{1}{2}$ " tubes currently shown on the permit. Paint/Adhesive usages were updated to reflect the smaller tube size. Worse-case materials were updated to reflect paints/adhesives currently used. Emissions from this line still are routed to RTO #1.

Line 4: Line processes 1 $\frac{3}{8}$ " tubes compared to the $\frac{1}{2}$ " tubes currently shown on the permit. Paint/Adhesive usages were updated to reflect the smaller tube size. Worse-case materials were updated to reflect paints/adhesives currently used. Emissions from this line still are routed to RTO #1.

Line 5: Line processes 1 ½" tubes compared to the ½" tubes currently shown on the permit. Paint/Adhesive usages were updated to reflect the smaller tube size. Worse-case materials were updated to reflect paints/adhesives currently used. Emissions from this line still are routed to RTO #2.

Line 6: Has been removed from the site and can be removed from the permit.

Line 7: Line processes 1 ½" cans. Paint/Adhesive usages were updated to reflect the smaller tube size. Worse-case materials were updated to reflect paints/adhesives currently used. Emissions from this line still are routed to RTO #2. It is requested that this becomes emission unit 07 to correlate with the line number. This change is shown on the permit markup attached.

Line 8: Line was replaced and now processes 1 ½" tubes compared to the cans currently shown on the permit. Paint/Adhesive usages were updated to reflect the smaller tube size. Worse-case materials were updated to reflect paints/adhesives currently used. Emissions from this line still are routed to RTO #2. It is requested that this be updated to emission unit 08 to correlate with the line number. This change is shown on the permit markup attached.

Natural Gas Usage

No changes at this time are requested for the natural gas combustion total, but it is requested that this emission unit be changes to Emission Unit 9 to allow for continuity between the Line Emission numbers and the associated line. This change is shown on the permit markup attached.

Dip Tank

Insignificant activity 01 "Dip Tank" is no longer at the site and can be removed from the permit. This change is shown in Attachment D.

Attachment A

DEP7007 Forms

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007AI

Administrative Information

- ☐ Section AI.1: Source Information
☐ Section AI.2: Applicant Information
☐ Section AI.3: Owner Information
☐ Section AI.4: Type of Application
☐ Section AI.5: Other Required Information
☐ Section AI.6: Signature Block
☐ Section AI.7: Notes, Comments, and Explanations

Additional Documentation

☐ Additional Documentation attached

Source Name: Montebello Packaging Inc.

KY EIS (AFS) #: 21- 155-00028

Permit #: F-21-001

Agency Interest (AI) ID: 2908

Date: 10/18/2025

Section AI.1: Source Information

Physical Location Address:	Street:	<u>650 Industrial Drive</u>			
	City:	<u>Lebanon</u>	County:	<u>Marion</u>	Zip Code:
Mailing Address:	Street or P.O. Box:	<u>650 Industrial Drive</u>			
	City:	<u>Lebanon</u>	State:	<u>Kentucky</u>	Zip Code:

Standard Coordinates for Source Physical Location

Longitude: 37.551962 (decimal degrees) Latitude: -85.266241 (decimal degrees)

Primary (NAICS) Category: _____ Primary NAICS #: _____

Classification (SIC) Category:

Fabrication Metal Products

Primary SIC #:

3499

Briefly discuss the type of business conducted at this site:

Montebello mks collapsible aluminum tubes and aluminum aerosol cans. Impact extrusion presses form the tubes and cans. Coatings are applied to the inside and outside. Inside coatings are applied with rollers, coatings are solvent based.

Description of Area Surrounding Source:

☐ Rural Area

☒ Industrial Park

☐ Residential Area

☐ Urban Area

☐ Industrial Area

☐ Commercial Area

Is any part of the source located on federal land?

☐ Yes

☒ No

Number of Employees:

~150

Approximate distance to nearest residence or commercial property:

300 feet

Property Area:

12 acres

Is this source portable?

☐ Yes

☒ No

What other environmental permits or registrations does this source currently hold or need to obtain in Kentucky?

NPDES/KPDES:

☒ Currently Hold

☐ Need

☐ N/A

Solid Waste:

☐ Currently Hold

☐ Need

☒ N/A

RCRA:

☐ Currently Hold

☐ Need

☒ N/A

UST:

☐ Currently Hold

☐ Need

☒ N/A

Type of Regulated Waste Activity:

☐ Mixed Waste Generator

☐ Generator

☐ Recycler

☐ Other: _____

☐ U.S. Importer of Hazardous Waste

☐ Transporter

☐ Treatment/Storage/Disposal Facility

☒ N/A

Section AI.2: Applicant Information**Applicant Name:** Montebello Packaging Inc.**Title:** (if individual) _____**Mailing Address:** **Street or P.O. Box:** 650 Industrial Drive
City: Lebanon **State:** KY **Zip Code:** 40033**Email:** (if individual) _____**Phone:** (270) 692-5760**Technical Contact****Name:** Nathan Sheehan**Title:** Environmental Consultant**Mailing Address:** **Street or P.O. Box:** 1376 Danville Loop #1
City: Nicholasville **State:** KY **Zip Code:** 40356**Email:** nsheehan@hallenvironmental.net**Phone:** 859-885-3331**Air Permit Contact for Source****Name:** Jim Epley**Title:** Environmental Supervisor**Mailing Address:** **Street or P.O. Box:** 650 Industrial Drive
City: Lebanon **State:** KY **Zip Code:** 40033**Email:** jepley@montebellopkg.com**Phone:** 270-692-5760 ext 3208

Section AI.3: Owner Information☒ **Owner same as applicant****Name:** _____**Title:** _____**Mailing Address:** **Street or P.O. Box:** _____
City: _____ **State:** _____ **Zip Code:** _____**Email:** _____**Phone:** _____**List names of owners and officers of the company who have an interest in the company of 5% or more.****Name****Position**

Section AI.4: Type of Application

Current Status:	☐ Title V	☒ Conditional Major	☐ State-Origin	☐ General Permit	☐ Registration	☐ None
	☐ Name Change	☐ Initial Registration	☐ Significant Revision	☐ Administrative Permit Amendment		
Requested Action: (check all that apply)	☒ Renewal Permit	☐ Revised Registration	☒ Minor Revision	☐ Initial Source-wide Operating Permit		
	☐ 502(b)(10) Change	☐ Extension Request	☐ Addition of New Facility	☐ Portable Plant Relocation Notice		
	☐ Revision	☐ Off Permit Change	☐ Landfill Alternate Compliance Submittal	☐ Modification of Existing Facilities		
	☐ Ownership Change	☐ Closure				
Requested Status:	☐ Title V	☒ Conditional Major	☐ State-Origin	☐ PSD	☐ NSR	☐ Other: _____

Is the source requesting a limitation of potential emissions?

☒ Yes☐ No

Pollutant:	Requested Limit:	Pollutant:	Requested Limit:
☐ Particulate Matter	_____	☒ Single HAP	_____
☒ Volatile Organic Compounds (VOC)	_____	☐ Combined HAPs	_____
☐ Carbon Monoxide	_____	☐ Air Toxics (40 CFR 68, Subpart F)	_____
☐ Nitrogen Oxides	_____	☐ Carbon Dioxide	_____
☐ Sulfur Dioxide	_____	☐ Greenhouse Gases (GHG)	_____
☐ Lead	_____	☐ Other	_____

For New Construction:

Proposed Start Date of Construction:
(MM/YYYY)

Proposed Operation Start-Up Date: (MM/YYYY)

For Modifications:

Proposed Start Date of Modification:
(MM/YYYY)

Proposed Operation Start-Up Date: (MM/YYYY)

Applicant is seeking coverage under a permit shield.

☐ Yes☒ No

Identify any non-applicable requirements for which permit shield is sought on a separate attachment to the application.

Section AI.5 Other Required Information

Indicate the documents attached as part of this application:

☐ DEP7007A Indirect Heat Exchangers and Turbines	☐ DEP7007CC Compliance Certification
☐ DEP7007B Manufacturing or Processing Operations	☐ DEP7007DD Insignificant Activities
☐ DEP7007C Incinerators and Waste Burners	☐ DEP7007EE Internal Combustion Engines
☐ DEP7007F Episode Standby Plan	☐ DEP7007FF Secondary Aluminum Processing
☐ DEP7007J Volatile Liquid Storage	☐ DEP7007GG Control Equipment
☐ DEP7007K Surface Coating or Printing Operations	☐ DEP7007HH Haul Roads
☐ DEP7007L Mineral Processes	☐ Confidentiality Claim
☐ DEP7007M Metal Cleaning Degreasers	☐ Ownership Change Form
☒ DEP7007N Source Emissions Profile	☐ Secretary of State Certificate
☐ DEP7007P Perchloroethylene Dry Cleaning Systems	☐ Flowcharts or diagrams depicting process
☐ DEP7007R Emission Offset Credit	☐ Digital Line Graphs (DLG) files of buildings, roads, etc.
☐ DEP7007S Service Stations	☐ Site Map
☐ DEP7007T Metal Plating and Surface Treatment Operations	☐ Map or drawing depicting location of facility
☐ DEP7007V Applicable Requirements and Compliance Activities	☐ Safety Data Sheet (SDS)
☐ DEP7007Y Good Engineering Practice and Stack Height Determination	☐ Emergency Response Plan
☐ DEP7007AA Compliance Schedule for Non-complying Emission Units	☐ Other: _____
☐ DEP7007BB Certified Progress Report	

Section AI.6: Signature Block

I, the undersigned, hereby certify under penalty of law, that I am a responsible official*, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.


Authorized Signature

Dale Despain
Type or Printed Name of Signatory

11-12-25
Date

Production Manager
Title of Signatory

*Responsible official as defined by 401 KAR 52:001.

Section AI.7: Notes, Comments, and Explanations

Attachment B

Emission Calculations

Emission Totals

Pollutant	Uncontrolled PTE (tons)	Controlled PTE (tons)
VOC	690.4	23.6
PM	118.3	5.9
Single HAP	156.3	9.3
Combined HAP	253.1	15.5

Methyl isobutyl ketone (Hexone)

INTERNAL VOC

	Size of Tube	Throughput	Throughput	Gallons Per Part Internal Coating	Internal Coating Throughput	Maximum VOC Content	VOC emissions	VOC emissions		Capture Efficiency	Control Efficiency	Controlled VOC	Fugitive VOC	Transfer Efficiency	Maximum Solid Content	PM Emissions (Controlled)	PM Emissions (uncontrolled)	Control Efficiency	PM Emissions (Controlled)
Line	Inches	parts per minute	Parts per hour	gallons	gallons per hour	lb/gal	lb/hr	ton/yr	Associated RTO	%						lb/hr	ton/yr		
	1 7/8"	130	7800	0.00011	0.858	6.20	5.3196	21.065616		98.1%	91.00%	1.859883237	0.400246704	50%	4.09	1.75461	6.9482556	95%	0.34741278
	2 1 1/8 "	130	7800	0.00019	1.482	6.20	9.1884	36.386064		98.1%	91.00%	3.212525591	0.691335216	50%	4.09	3.30369	12.0015324	95%	0.60007662
	3 3/4"	130	7800	0.00092	0.7176	6.20	4.44912	17.6185152		98.1%	91.00%	0.334751789	0.034751789	50%	4.09	1.467492	5.81126832	95%	0.290563416
	4 3/8"	130	7800	0.00033	2.574	6.20	15.9588	63.196848		98.1%	91.00%	5.57964971	1.200740112	50%	4.09	5.26383	20.8447668	95%	1.04223834
	5 1 1/2"	170	10200	0.0004	25.296	6.20	25.296	100.17216		98.1%	96.05%	3.881621114	1.90327104	50%	4.09	8.3436	33.040656	95%	1.6520328
	8 1 1/2"	170	10200	0.0004	4.08	6.20	25.296	100.17216		98.1%	96.05%	3.881621114	1.90327104	50%	4.09	8.3436	33.040656	95%	1.6520328
									338.6113632			19.97083947	6.433615901			111.6871351			5.584356756

EXTERNAL VOC

	Size of Tube	Throughput	Throughput	Gallons Per Part External Coating	External Coating Throughput	Maximum VOC Content	VOC emissions (uncontrolled)	VOC emissions (uncontrolled)		Capture Efficiency	Control Efficiency	Controlled VOC	Fugitive VOC
Line	Inches	parts per minute	Parts per hour	gallons	gallons per hour	lb/gal	lb/hr	ton/yr	Associated RTO	%			
1	1/8"	130	7800	0.000108	0.8424	4.45	3.7448892	14.83	1	98.1%	91.00%	1.309319619	0.281765463
2	1 1/8 "	130	7800	0.000196	1.5288	4.45	6.7962804	26.91	1	98.1%	91.00%	2.376172642	0.511352137
3	3/4"	130	7800	0.000091	0.7098	4.45	3.1554159	12.50	1	98.1%	91.00%	0.237413492	
4	1 3/8"	130	7800	0.000306	2.3868	4.45	10.6105194	42.02	1	98.1%	91.00%	3.709738921	0.79833548
5	1 1/2"	170	10200	0.000364	3.7128	4.45	16.5052524	65.36	2	98.1%	96.05%	2.5326983	1.241855191
8	1 1/2"	170	10200	0.000364	3.7128	4.45	16.5052524	65.36	2	98.1%	96.05%	2.5326983	1.241855191
									226.98			13.5638508	4.312576954

End Seal

[illegible]

INTERNAL VOC															
Line	Controlled														
	Xylene Emissions ton/yr	Methyl isobutyl ketone (Hexane) Emissions ton/yr	Ethylbenzene Emissions ton/yr	o-cresol Emissions ton/yr	Phenol Emissions ton/yr	Isophorane Emissions ton/yr	Formaldehyde Emissions ton/yr	Cumene Emissions ton/yr	Toluene Emissions ton/yr	Naphthalene Emissions ton/yr	Glycol Ether Emissions ton/yr	O-Xylene Emissions ton/yr	M-Cresol Emissions ton/yr	Cresol Emissions ton/yr	Combined HAP Ton/yr
1	0.39	0.83	0.12	0.01	0.01	0.15	0.01	0.01	0.35	0.00	0.14	0.59	0.00	0.00	0.98
2	0.68	1.43	0.21	0.02	0.02	0.26	0.02	0.01	0.60	0.00	0.24	1.03	0.00	0.00	1.69
3	0.33	0.69	0.10	0.01	0.01	0.12	0.01	0.01	0.29	0.00	0.11	0.50	0.00	0.00	0.82
4	1.17	2.48	0.36	0.04	0.04	0.45	0.04	0.02	1.05	0.00	0.41	1.78	0.00	0.00	2.93
5	0.82	1.72	0.25	0.03	0.02	0.31	0.03	0.02	0.73	0.00	0.29	1.24	0.00	0.00	2.04
8	0.82	1.72	0.25	0.03	0.02	0.31	0.03	0.02	0.73	0.00	0.29	1.24	0.00	0.00	2.04
	4.20	8.87	1.28	0.13	0.13	1.60	0.15	0.08	3.75	0.00	1.48	6.38	0.00	0.00	10.48

EXTERNAL VOC															
Line	Controlled														
	Xylene Emissions ton/yr	Methyl isobutyl ketone (Hexane) Emissions ton/yr	Ethylbenzene Emissions ton/yr	o-cresol Emissions ton/yr	Phenol Emissions ton/yr	Isophorane Emissions ton/yr	Formaldehyde Emissions ton/yr	Cumene Emissions ton/yr	Toluene Emissions ton/yr	Naphthalene Emissions ton/yr	Glycol Ether Emissions ton/yr	O-Xylene Emissions ton/yr	M-Cresol Emissions ton/yr	Cresol Emissions ton/yr	Combined HAP Ton/yr
1	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.21	0.00	0.00	0.00	0.26
2	0.07	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.38	0.00	0.00	0.00	0.47
3	0.03	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.22
4	0.10	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.60	0.00	0.00	0.00	0.73
5	0.07	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.41	0.00	0.00	0.00	0.50
8	0.07	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.41	0.00	0.00	0.00	0.50
	0.38	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.0	0.05	2.18	0.00	0.00	0.00	2.67

INTERNAL VOC																				
Line	Size of Tube Inches	Throughput parts per minute	Throughput Parts per hour	Gallons Per Part Internal Coating gallons	Internal Coating Throughput gallons per hour	Xylene content lb/gal	Methyl isobutyl ketone (Hexone) Content lb/gal	Ethylbenzene Content lb/gal	o-cresol Content lb/gal	Phenol Content lb/gal	Isophorone Content lb/gal	Formaldehyde Content lb/gal	Cumene Content lb/gal	Toluene Content lb/gal	Naphthalene Content lb/gal	Glycol Ether Content lb/gal	O-Xylene Content lb/gal	M-Cresol Content lb/gal	Cresol Content lb/gal	Combined HAP lb/gal
	7 1 1/2"	100	6000	0.0001994	1.1964	2.68	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	3.13

EXTERNAL VOC																				
Line	Size of Tube Inches	Throughput parts per minute	Throughput Parts per hour	Gallons Per Part External Coating gallons	External Coating Throughput gallons per hour	Xylene content lb/gal	Methyl isobutyl ketone (Hexone) Content lb/gal	Ethylbenzene Content lb/gal	o-cresol Content lb/gal	Phenol Content lb/gal	Isophorone Content lb/gal	Formaldehyde Content lb/gal	Cumene Content lb/gal	Toluene Content lb/gal	Naphthalene Content lb/gal	Glycol Ether Content lb/gal	O-Xylene Content lb/gal	M-Cresol Content lb/gal	Cresol Content lb/gal	Combined HAP lb/gal
	7 1 1/2"	100	6000	0.0001994	1.1964	0.12	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.71	0.00	0.00	0.00	0.88

INTERNAL VOC															
Line	Uncontrolled														
	Xylene Emissions ton/yr	Methyl isobutyl ketone (Hexone) Emissions ton/yr	Ethylbenzene Emissions ton/yr	o-cresol Emissions ton/yr	Phenol Emissions ton/yr	Isophorone Emissions ton/yr	Formaldehyde Emissions ton/yr	Cumene Emissions ton/yr	Toluene Emissions ton/yr	Naphthalene Emissions ton/yr	Glycol Ether Emissions ton/yr	O-Xylene Emissions ton/yr	M-Cresol Emissions ton/yr	Cresol Emissions ton/yr	Combined HAP Ton/yr
7	12.69	0.00	2.12	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	14.81

EXTERNAL VOC															
Line	Uncontrolled														
	Xylene Emissions ton/yr	ketone (Hexone) Emissions ton/yr	Ethylbenzene Emissions ton/yr	o-cresol Emissions ton/yr	Phenol Emissions ton/yr	Isophorone Emissions ton/yr	Formaldehyde Emissions ton/yr	Cumene Emissions ton/yr	Toluene Emissions ton/yr	Naphthalene Emissions ton/yr	Glycol Ether Emissions ton/yr	O-Xylene Emissions ton/yr	M-Cresol Emissions ton/yr	Cresol Emissions ton/yr	Combined HAP Ton/yr
7	0.58	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.08	3.38	0.00	0.00	0.00	4.15

INTERNAL VOC															
Line	Controlled														
	Xylene Emissions ton/yr	Methyl isobutyl ketone (Hexone) Emissions ton/yr	Ethylbenzene Emissions ton/yr	O-cresol Emissions ton/yr	Phenol Emissions ton/yr	Isophorane Emissions ton/yr	Formaldehyde Emissions ton/yr	Cumene Emissions ton/yr	Toluene Emissions ton/yr	Naphthalene Emissions ton/yr	Glycol Ether Emissions ton/yr	O-Xylene Emissions ton/yr	M-Cresol Emissions ton/yr	Cresol Emissions ton/yr	Combined HAP ton/yr
7	0.49	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.57

EXTERNAL VOC															
Line	Controlled														
	Xylene Emissions ton/yr	Methyl isobutyl ketone (Hexone) Emissions ton/yr	Ethylbenzene Emissions ton/yr	O-cresol Emissions ton/yr	Phenol Emissions ton/yr	Isophorane Emissions ton/yr	Formaldehyde Emissions ton/yr	Cumene Emissions ton/yr	Toluene Emissions ton/yr	Naphthalene Emissions ton/yr	Glycol Ether Emissions ton/yr	O-Xylene Emissions ton/yr	M-Cresol Emissions ton/yr	Cresol Emissions ton/yr	Combined HAP ton/yr
7	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.16

Cleaning Usages (2023-2024)

Product	2023 Gallons	2023 Hours Operated	2023 Usage (Gal/hr)	2024 Gallons	2024 Hours Operated	2024 Usage (Gal/hr)	Max Hourly Usage	Safety Factor	Updated max Usage	VOC Density	VOC emissions lb/hr	VOC emissions Ton per year	Capture Efficiency %	Control Efficiency %	Controlled VOC tons	Fugitive VOC tons
Acetone	6820	5880	1.15986	7755	5880	1.318878	1.31888	1.2	1.582653061	6.6331	N/A	N/A	84.0%	91.00%	0	0
Toluene	1265	5880	0.21514	1100	5880	0.187075	0.21514	1.2	0.258163265	7.26	1.874265306	8.209282041	84.0%	91.00%	0.141694457	0.299882449
L-1615 (BMS)	2695	5880	0.45833	3135	5880	0.533163	0.53316	1.2	0.639795918	4.89538	3.132044143	13.71835335	84.0%	91.00%	0.236782537	0.501127063
AROMATIC 150 FLUID	880	5880	0.14966	605	5880	0.102891	0.14966	1.2	0.179591837	7.34301	1.318744653	5.77610158	84.0%	91.00%	0.099697096	0.210999144
Glycol Ether EB	0	5880	0.00000	55	5880	0.009354	0.00935	1.2	0.01122449	7.533	0.084554082	0.370346878	84.0%	91.00%	0.006392289	0.013528653
Dibasic Ester	440	5880	0.07483	0	5880	0.000000	0.07483	1.2	0.089795918	8.86	0.795591837	3.484692245	84.0%	91.00%	0.060146743	0.127294694
N-METHYL PYRROLIDONE	275	5880	0.04677	55	5880	0.009354	0.04677	1.2	0.056122449	8.6	0.482653061	2.114020408	84.0%	91.00%	0.036488571	0.07722449
L-1956	2695	5880	0.45833	3135	5880	0.533163	0.53316	1.2	0.639795918	8.133	5.203460204	22.79115569	84.0%	91.00%	0.393381591	0.832553633

Uncontrolled Emissions														
Xylene Emissions	Methyl isobutyl ketone (Hexone) Emissions	Ethylbenzene Emissions	o-cresol Emissions	Phenol Emissions	Isophorone Emissions	Formaldehyde Emissions	Cumene Emissions	Toluene Emissions	Naphthalene Emissions	Glycol Ether Emissions	O-Xylene Emissions	M-Cresol Emissions	Cresol Emissions	Combined HAP
ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	Ton/yr
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.42	0.00	0.00	0.00	0.00	0.00	7.42
5.11	5.92	1.29	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	12.39
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.53
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.24	0.00	2.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.30
13.36	5.92	3.36	0.00	0.00	0.00	0.00	0.00	7.49	0.53	0.00	0.00	0.00	0.00	30.64

Controlled Emissions														
Xylene Emissions	Methyl isobutyl ketone (Hexone) Emissions	Ethylbenzene Emissions	o-cresol Emissions	Phenol Emissions	Isophorone Emissions	Formaldehyde Emissions	Cumene Emissions	Toluene Emissions	Naphthalene Emissions	Glycol Ether Emissions	O-Xylene Emissions	M-Cresol Emissions	Cresol Emissions	Combined HAP
ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	Ton/yr
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.56
0.39	0.45	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.04
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.62	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78
1.01	0.45	0.25	0.00	0.00	0.00	0.00	0.00	0.57	0.04	0.00	0.00	0.00	0.00	2.32

Ink Usage

Line	Size of Tube	Gallons Per Hour	Maximum VOC Content	VOC emissions (uncontrolled)	VOC emissions (uncontrolled)
	Inches	gallons	lb/gal	lb/hr	ton/yr
1	7/8"	0.02	1.1	0.022	0.09
2	1 1/8 "	0.02	1.1	0.022	0.09
3	3/4"	0.02	1.1	0.022	0.09
4	1 3/8"	0.02	1.1	0.022	0.09
5	1 1/2"	0.02	1.1	0.022	0.09
7	1 1/2"	0.02	1.1	0.022	0.09
8	1 1/2"	0.02	1.1	0.022	0.09

0.61

Attachment C

Safety Data Sheets

DATA BASED ON FORMULATION

VOLATILE COMPOSITION REPORT

Product Code: 21S11MC

CAS Number	Component	Weight Percent	Weight/ Gallon	HAP
111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	16.2	7.51	
1330-20-7	XYLENE	13.7	7.23	✓
108-65-6	PROPYLENE GLYCOL MONO METHYL ETHER ACETATE	12.7	8.06	
78-93-3	METHYL ETHYL KETONE	12.1	6.71	
71-36-3	BUTANOL	4.8	6.75	
100-41-4	BENZENE, ETHYL	2.5	7.25	✓
97-85-8	ISOBUTYL ISOBUTYRATE	0.2	7.10	
		SUM:	62.2	

Lbs HAP per gallon of solids: 4.16

HAP Total Weight%: 16.2

9/9/2025

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
COATING SUPPLIER ENVIRONMENTAL DATA SHEET

Coating Manufacturer: Sherwin-Williams
Coating Code Number: 21S11MC

1.	Coating Density Standard Wt/Gal Cup	<u>8.05</u> lb/gal	<u>0.97</u> kg/l
2.	Solvent System (Volatiles) Calculated Density:	<u>7.29</u> lb/gal	<u>0.87</u> kg/l
3.	Organic Solvent Density:	<u>7.29</u> lb/gal	<u>0.87</u> kg/l
4.	Coating Solids (Non Volatiles): ASTM 2369 (EPA Method 24)	a. <u>37.8</u> b. <u>31.3</u>	Weight Percent Volume Percent
5.	Total Volatiles (H2O Included): ASTM 2369 (EPA Method 24)	a. <u>62.2</u> b. <u>68.7</u>	Weight Percent Volume Percent
6.	Total Exempt Solvent:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
7.	Total Organic Volatiles: (Less H2O)	a. <u>62.2</u> b. <u>68.7</u>	Weight Percent Volume Percent
8.	Coating Water Content: a. Water content as Charged: b. Calculated:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
9.	VOC Content: * (Coating Less Water & Exempt Solvent) (Solids)	<u>5.0</u> lb/gal <u>16.0</u> lb/gal	<u>0.60</u> kg/l <u>1.92</u> kg/l

*Note : The VOC reported is based on laboratory or small production quantities. Diluting the coating with organic solvents at the point of application will alter the VOC level. Consult your Valspar Sales Representative for additional information in such cases.

SAFETY DATA SHEET

21S11MC

Section 1. Identification

Product name : 7GR38E Gold Epoxy Interior TUBE

Product code : 21S11MC

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : The Sherwin Williams Company
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : (800) 424-9300

Product Information Telephone Number : 866-722-9710

Transportation Emergency Telephone Number : (800) 424-9300

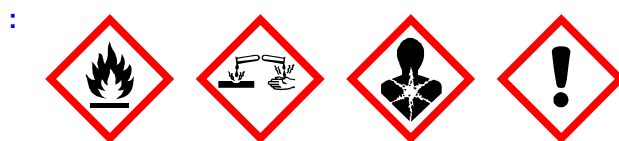
Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 6.1% (oral), 22.5% (dermal), 6.1% (inhalation)

GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements : Highly flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye damage.
May cause drowsiness or dizziness.
May cause cancer.
May cause damage to organs through prolonged or repeated exposure.

Section 2. Hazards identification

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling.

Response

: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage

: Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. Contains Formaldehyde - a potential cancer hazard.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

CAS number/other identifiers

Ingredient name	% by weight	Identifiers
2-Butoxyethanol	≥10 - ≤25	111-76-2
Xylene, mixed isomers	≤14	1330-20-7
2-methoxy-1-methylethyl acetate	≥10 - ≤25	108-65-6
Methyl Ethyl Ketone	≥10 - ≤25	78-93-3
1-Butanol	≤5	71-36-3
Ethylbenzene	≤3	100-41-4
Formaldehyde (max.)	<0.1	50-00-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Section 4. First aid measures

- Ingestion** : Adverse symptoms may include the following:
stomach pains
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Remark** : Flammable liquid.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Contains a formaldehyde-based resin which, under certain conditions of use, may release formaldehyde. Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
2-Butoxyethanol	111-76-2	ACGIH TLV (United States, 1/2024) A3. TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) Absorbed through skin. TWA 10 hours: 5 ppm. TWA 10 hours: 24 mg/m ³ . OSHA PEL (United States, 5/2018) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 240 mg/m ³ .
Xylene, mixed isomers	1330-20-7	ACGIH TLV (United States, 1/2024) [p-xylene and mixtures containing p-xylene] A4. Ototoxicant. TWA 8 hours: 20 ppm. OSHA PEL (United States, 5/2018) [Xylenes] TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m ³ .
2-methoxy-1-methylethyl acetate	108-65-6	OARS WEEL (United States, 9/2024) TWA 8 hours: 50 ppm.
Methyl Ethyl Ketone	78-93-3	ACGIH TLV (United States, 1/2024) Absorbed through skin. TWA 8 hours: 75 ppm. STEL 15 minutes: 150 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 200 ppm. TWA 10 hours: 590 mg/m ³ . STEL 15 minutes: 300 ppm. STEL 15 minutes: 885 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 200 ppm. TWA 8 hours: 590 mg/m ³ .
1-Butanol	71-36-3	ACGIH TLV (United States, 1/2024) TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) Absorbed through skin. CEIL: 50 ppm. CEIL: 150 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 300 mg/m ³ .
Ethylbenzene	100-41-4	ACGIH TLV (United States, 1/2024) A3. Ototoxicant. TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 100 ppm. TWA 10 hours: 435 mg/m ³ . STEL 15 minutes: 125 ppm. STEL 15 minutes: 545 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m ³ .

Section 8. Exposure controls/personal protection

Formaldehyde (max.)	50-00-0	ACGIH TLV (United States, 1/2024) A1. Skin sensitizer , Inhalation sensitizer. STEL 15 minutes: 0.3 ppm. TWA 8 hours: 0.1 ppm. OSHA PEL Z2 (United States, 2/2013) TWA 8 hours: 0.75 ppm. STEL 15 minutes: 2 ppm. NIOSH REL (United States, 10/2020) NIA. TWA 10 hours: 0.016 ppm. CEIL 15 minutes: 0.1 ppm. OSHA PEL (United States, 5/2018) TWA 8 hours: 0.75 ppm. STEL 15 minutes: 2 ppm.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
2-Butoxyethanol	111-76-2	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 30 ppm. TWA 8 hours: 20 ppm. CA British Columbia Provincial (Canada, 9/2024) TWA 8 hours: 20 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) C3. TWAEV 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 97 mg/m³. OEL 8 hours: 20 ppm.
Xylene	1330-20-7	CA Saskatchewan Provincial (Canada, 4/2021) [Xylene] STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 9/2024) [xylene (o, m & p isomers)] TWA 8 hours: 100 ppm. STEL 15 minutes: 150 ppm. CA Ontario Provincial (Canada, 6/2019) [Xylene (o-, m-, p-isomers)] STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA Quebec Provincial (Canada, 2/2024) [Xylene] TWAEV 8 hours: 100 ppm. TWAEV 8 hours: 434 mg/m³. STEV 15 minutes: 150 ppm. STEV 15 minutes: 651 mg/m³. CA Alberta Provincial (Canada, 3/2023) [Dimethylbenzene] OEL 8 hours: 100 ppm. OEL 15 minutes: 651 mg/m³. OEL 15 minutes: 150 ppm. OEL 8 hours: 434 mg/m³.
Methyl ethyl ketone	78-93-3	CA Saskatchewan Provincial (Canada,

Section 8. Exposure controls/personal protection

Normal butyl alcohol	71-36-3	4/2021) STEL 15 minutes: 300 ppm. TWA 8 hours: 200 ppm. CA British Columbia Provincial (Canada, 9/2024) Repr. Absorbed through skin. TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 200 ppm. STEL 15 minutes: 300 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 50 ppm. TWAEV 8 hours: 150 mg/m³. STEV 15 minutes: 100 ppm. STEV 15 minutes: 300 mg/m³. CA Alberta Provincial (Canada, 3/2023) OEL 15 minutes: 300 ppm. OEL 8 hours: 200 ppm. OEL 8 hours: 590 mg/m³. OEL 15 minutes: 885 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 30 ppm. TWA 8 hours: 20 ppm. CA British Columbia Provincial (Canada, 9/2024) TWA 8 hours: 15 ppm. C: 30 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 60 mg/m³. OEL 8 hours: 20 ppm.
Ethylbenzene	100-41-4	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 125 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 9/2024) Carc 2B. TWA 8 hours: 20 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) C3. TWAEV 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 100 ppm. OEL 8 hours: 434 mg/m³. OEL 15 minutes: 543 mg/m³. OEL 15 minutes: 125 ppm.
Ethyl alcohol	64-17-5	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 1250 ppm. TWA 8 hours: 1000 ppm. CA British Columbia Provincial (Canada,

Section 8. Exposure controls/personal protection

9/2024)
 STEL 15 minutes: 1000 ppm.
CA Ontario Provincial (Canada, 6/2019)
 STEL 15 minutes: 1000 ppm.
CA Quebec Provincial (Canada, 2/2024)
 C3.
 STEV 15 minutes: 1000 ppm.
CA Alberta Provincial (Canada, 3/2023)
 OEL 8 hours: 1000 ppm.
 OEL 8 hours: 1880 mg/m³.

Occupational exposure limits (Mexico)

Ingredient name	CAS #	Exposure limits
2-Butoxyethanol	111-76-2	NOM-010-STPS-2014 (Mexico, 4/2016) A3. TWA 8 hours: 20 ppm.
Xylene, mixed isomers	1330-20-7	NOM-010-STPS-2014 (Mexico, 4/2016) [Xileno, mezcla] A4. STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm.
Methyl Ethyl Ketone	78-93-3	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 200 ppm. STEL 15 minutes: 300 ppm.
1-Butanol	71-36-3	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 20 ppm.
Ethylbenzene	100-41-4	NOM-010-STPS-2014 (Mexico, 4/2016) A3. TWA 8 hours: 20 ppm.

Biological exposure indices (United States)

Ingredient name	Exposure indices
2-Butoxyethanol	ACGIH BEI (United States, 1/2024) BEI: 200 mg/g creatinine, butoxyacetic acid (BAA) [in urine]. Sampling time: end of shift.
Xylene, mixed isomers	ACGIH BEI (United States, 1/2024) [xylenes (technical or commercial grades)] BEI: 0.3 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.
Methyl Ethyl Ketone	ACGIH BEI (United States, 1/2024) BEI: 2 mg/l, methyl ethyl ketone [in urine]. Sampling time: end of shift.
Ethylbenzene	ACGIH BEI (United States, 1/2024) BEI: 150 mg/g creatinine, sum of mandelic acid and phenylglyoxylic acid [in urine]. Sampling time: end of shift.

Biological exposure indices (Canada)

No exposure indices known.

Biological exposure indices (Mexico)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure indices
2-Butoxyethanol	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 200 mg/g creatinine, butoxyacetic acid (BAA) [in urine]. Sampling time: exposure sample at the end of the work shift.
Xylene, mixed isomers	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) [xilenos (grado técnico o comercial)] BEI: 1.5 g/g creatinine, methyl hippuric acids [in urine]. Sampling time: at the end of the work shift.
Methyl Ethyl Ketone	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 2 mg/L, MEK [in urine]. Sampling time: at the end of the work shift.
Ethylbenzene	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 0.7 g/g creatinine [non-specific. The determinant is nonspecific, since it can be found after exposure to other chemicals.; semi-quantitative. The biological determinant is an indicator of chemical exposure, but the quantitative interpretation of the measure is ambiguous. These biological determinants should be used as a screening test if a quantitative test is not possible.], Sum of mandelic acid and acid phenylglyoxylic [in urine]. Sampling time: at the end of the shift at the end of the work week. BEI: semi-quantitative. The biological determinant is an indicator of chemical exposure, but the quantitative interpretation of the measure is ambiguous. These biological determinants should be used as a screening test if a quantitative test is not possible., ethylbenzene [in exhaled air]. Sampling time: uncritical.

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Liquid.
- Color** : Gold.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.

Section 9. Physical and chemical properties

Boiling point or initial boiling point and boiling range	: 78°C (172.4°F)
Flash point	: Closed cup: 13°C (55.4°F) [Pensky-Martens Closed Cup]
Evaporation rate	: 89 (butyl acetate = 1)
Flammability	: Flammable liquid.
Lower and upper explosion limit/flammability limit	: Lower: 1% Upper: 13.1%
Vapor pressure	: 12.1 kPa (90.6 mm Hg)
Relative vapor density	: 2.48 [Air = 1]
Relative density	: 0.97
Density	: 0.97 g/cm ³
Solubility(ies)	:

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): <20.5 mm ² /s (<20.5 cSt)
Molecular weight	: Not applicable.
Particle characteristics	
Median particle size	: Not applicable.
Heat of combustion	: 19.335 kJ/g

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name

Result

2-Butoxyethanol

Guinea pig - Dermal - LD50

>2000 mg/kg

Rat - Oral - LD50

1300 mg/kg

Guinea pig - Inhalation - LCLo Vapor

>3.1 mg/l [1 hours]

Rat - Oral - LD50

4300 mg/kg

Toxic effects: Liver - Other changes Kidney, Ureter, and Bladder - Other changes

Rat - Inhalation - LC50 Gas.

6700 ppm [4 hours]

Toxic effects: Behavioral - Somnolence (general depressed activity)

Xylene, mixed isomers

Rat - Oral - LD50

8532 mg/kg

Rabbit - Dermal - LD50

>5 g/kg

Rabbit - Dermal - LD50

6480 mg/kg

Rat - Oral - LD50

2737 mg/kg

Rat - Oral - LD50

790 mg/kg

Toxic effects: Liver - Fatty liver degeneration Kidney, Ureter, and Bladder - Other changes Blood - Other changes

Rabbit - Dermal - LD50

3400 mg/kg

Rat - Inhalation - LC50 Vapor

24000 mg/m³ [4 hours]

Rat - Oral - LD50

3500 mg/kg

Toxic effects: Liver - Other changes Kidney, Ureter, and Bladder - Other changes

Rabbit - Dermal - LD50

>5000 mg/kg

Rat - Oral - LD50

100 mg/kg

Rabbit - Dermal - LD50

270 mg/kg

Rat - Inhalation - LC50 Gas.

250 ppm [4 hours]

Formaldehyde (max.)

Ethylbenzene

Conclusion/Summary [Product]

: Not available.

Skin corrosion/irritation

Product/ingredient name

Result

Section 11. Toxicological information

2-Butoxyethanol

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

Xylene, mixed isomers

Rat - Skin - Mild irritant

Duration of treatment/exposure: 8 hours

Amount/concentration applied: 60 uL

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Rabbit - Skin - Moderate irritant

Amount/concentration applied: 100 %

Methyl Ethyl Ketone

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 14 mg

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 402 mg

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

1-Butanol

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 20 mg

Ethylbenzene

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 15 mg

Formaldehyde (max.)

Human - Skin - Mild irritant

Duration of treatment/exposure: 72 hours

Amount/concentration applied: 150 ug l

Human - Skin - Severe irritant

Amount/concentration applied: 0.01 %

Rabbit - Skin - Mild irritant

Amount/concentration applied: 540 mg

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 50 mg

Rabbit - Skin - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2 mg

Rabbit - Skin - Severe irritant

Amount/concentration applied: 0.8 %

Mouse - Skin - Moderate irritant

Amount/concentration applied: 7 %

Rat - Skin - Moderate irritant

Amount/concentration applied: 7 %

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name

Result

Section 11. Toxicological information

2-Butoxyethanol

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 100 mg

Xylene, mixed isomers

Rabbit - Eyes - Mild irritant

Amount/concentration applied: 87 mg

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 5 mg

1-Butanol

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 0.005 Ml

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 1.62 mg

Ethylbenzene

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 500 mg

Formaldehyde (max.)

Human - Eyes - Mild irritant

Duration of treatment/exposure: 6 minutes

Amount/concentration applied: 1 ppm

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 750 ug

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 750 ug

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 37 %

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 10 mg

Mouse - Eyes - Moderate irritant

Amount/concentration applied: 3 %

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Section 11. Toxicological information

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
2-Butoxyethanol	-	3	-
Xylene, mixed isomers	-	3	-
Ethylbenzene	-	2B	-
Formaldehyde (max.)	+	1	Known to be a human carcinogen.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Result

2-Butoxyethanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Xylene, mixed isomers	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
2-methoxy-1-methylethyl acetate	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Methyl Ethyl Ketone	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1-Butanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Ethylbenzene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Formaldehyde (max.)	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (respiratory system) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name

Result

Xylene, mixed isomers	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Ethylbenzene	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Formaldehyde (max.)	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

Section 11. Toxicological information

Aspiration hazard

Product/ingredient name

Xylene, mixed isomers
Ethylbenzene

Result

ASPIRATION HAZARD - Category 1
ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Not available.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains
nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

Section 11. Toxicological information

General	: May cause damage to organs through prolonged or repeated exposure.
Carcinogenicity	: May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
7GR38E Gold Epoxy Interior TUBE	4159.7	11179.8	N/A	58.0	N/A
2-Butoxyethanol	1200	N/A	N/A	11	N/A
Xylene, mixed isomers	4300	2500	N/A	N/A	N/A
2-methoxy-1-methylethyl acetate	8532	N/A	N/A	N/A	N/A
Methyl Ethyl Ketone	2737	6480	N/A	N/A	N/A
1-Butanol	2500	3400	N/A	24	N/A
Ethylbenzene	3500	N/A	N/A	11	N/A
Formaldehyde (max.)	500	270	250	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name

Result

2-Butoxyethanol

Acute - LC50 - Marine water

Crustaceans - Common shrimp, sand shrimp - *Crangon crangon*
800 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Marine water

Fish - Inland silverside - *Menidia beryllina*
1250 ppm [96 hours]

Effect: Mortality

Xylene, mixed isomers

Acute - LC50 - Marine water

Crustaceans - Daggerblade grass shrimp - *Palaemon pugio*
8500 µg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*
Age: 31 days; Size: 18.4 mm; Weight: 0.077 g
13.4 mg/l [96 hours]

Effect: Mortality

Methyl Ethyl Ketone

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Larvae
Age: <24 hours
5091 mg/l [48 hours]

Effect: Intoxication

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*
Age: 31 days; Size: 22 mm; Weight: 0.167 g
3220 mg/l [96 hours]

Effect: Mortality

Acute - EC50 - Marine water

Algae - Diatom - *Skeletonema costatum*

Section 12. Ecological information

1-Butanol	>500 mg/l [96 hours] <u>Effect</u> : Population Acute - LC50 - Fresh water Fish - Fathead minnow - <i>Pimephales promelas</i> <u>Age</u> : 33 days; <u>Size</u> : 20.6 mm; <u>Weight</u> : 0.119 g 1730 mg/l [96 hours] <u>Effect</u> : Mortality Acute - EC50 - Fresh water Daphnia - Water flea - <i>Daphnia magna</i> <u>Age</u> : 6 to 24 hours 1983 mg/l [48 hours] <u>Effect</u> : Intoxication
	Acute - LC50 - Fresh water Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i> 4200 µg/l [96 hours] <u>Effect</u> : Mortality Acute - EC50 - Fresh water Daphnia - Water flea - <i>Daphnia magna</i> - Neonate <u>Age</u> : ≤24 hours 2.93 mg/l [48 hours] <u>Effect</u> : Intoxication Acute - EC50 - Fresh water Algae - Green algae - <i>Raphidocelis subcapitata</i> 3600 µg/l [96 hours] <u>Effect</u> : Population
Ethylbenzene	Chronic - NOEC - Marine water Algae - Brown algae - <i>Phyllospora comosa</i> - Embryo <u>Age</u> : 7 days 1 mg/l [96 hours] <u>Effect</u> : Mortality Acute - LC50 - Fresh water US EPA Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i> 1.41 ppm [96 hours] <u>Effect</u> : Mortality Acute - EC50 - Fresh water Daphnia - Water flea - <i>Daphnia magna</i> - Embryo <u>Age</u> : 8 hours 3.26 mg/l [48 hours] <u>Effect</u> : Development Chronic - NOEC - Fresh water Crustaceans - European crayfish - <i>Astacus astacus</i> - Egg 3000 ppm [21 days] <u>Effect</u> : Mortality Acute - EC50 - Marine water Algae - Green algae - <i>Ulva pertusa</i> <u>Size</u> : 9.4 mm 0.442 mg/l [96 hours] <u>Effect</u> : Reproduction Chronic - NOEC - Fresh water Fish - Nile tilapia - <i>Oreochromis niloticus</i> - Fingerling <u>Weight</u> : 1.8 g 1.56 mg/l [12 weeks] <u>Effect</u> : Cells
Formaldehyde (max.)	

Conclusion/Summary [Product] : Not available.

Section 12. Ecological information

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-Butoxyethanol	-	-	Readily
Xylene, mixed isomers	-	-	Readily
Methyl Ethyl Ketone	-	-	Readily
1-Butanol	-	-	Readily
Ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Xylene, mixed isomers	-	8.1 to 25.9	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT

Section 14. Transport information

Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	II	II	II	II	II
Environmental hazards	No.	No.	No.	No.	No.
Additional information	- ERG No. 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). ERG No. 128	- ERG No. 128	-	Emergency schedules F-E, S-E

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

U.S. Federal regulations :

SARA 313

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED and rely on information provided to us by our raw material suppliers. Our suppliers often provide an estimated value or range less than a certain upper limit. We calculate MAXIMUM THEORETICAL VALUES using defined values, if provided, or the upper limit reported by our supplier. Additionally, the suppliers' information may include amounts present in the product as unintentional byproducts or impurities. Variations may occur in individual batches due to adjustments made during production. Reporting of chemicals in this section does not necessarily indicate their presence in the final formulated product.

Section 15. Regulatory information

Ingredient name	% by weight	CAS number
Glycol Ethers (SARA)	17	
2-Butoxyethanol	16	111-76-2
Xylene, mixed isomers	14	1330-20-7
1-Butanol	5	71-36-3
Ethylbenzene	2	100-41-4

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists

: **Australia inventory (AIIIC)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		3
Physical hazards		0

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1	Calculation method
CARCINOGENICITY - Category 1A	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

Date of issue/Date of revision	: 9/3/2025	Date of previous issue	: 8/2/2025	Version	: 2.02	22/23
21S11MC	7GR38E Gold Epoxy Interior TUBE				SHW-85-NA-GHS-US	

Section 16. Other information

History

Date of printing : 9/3/2025

Date of issue/Date of revision : 9/3/2025

Date of previous issue : 8/2/2025

Version : 2.02

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

📌 Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

DATA BASED ON FORMULATION

VOLATILE COMPOSITION REPORT

Product Code: 31S06A003

CAS Number	Component	Weight Percent	Weight/ Gallon	HAP
64742-94-5	AROMATIC NAPHTHA, HEAVY	24.9	7.47	
124-17-4	DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	8.4	8.16	✓
71-36-3	BUTANOL	6.1	6.75	
108-94-1	CYCLOHEXANONE	6.0	7.89	
1119-40-0	DIMETHYL GLUTARATE	2.9	9.04	
1330-20-7	XYLENE	1.4	7.23	✓
106-65-0	DIMETHYL SUCCINATE	0.9	9.04	
627-93-0	DIMETHYL ADIPATE	0.8	9.04	
100-41-4	BENZENE, ETHYL	0.3	7.25	✓
95-63-6	1,2,4-TRIMETHYLBENZENE	0.2	8.30	
78-83-1	ISOBUTYL ALCOHOL	0.2	6.66	
91-20-3	NAPHTHALENE	0.2	8.00	✓
		SUM:	52.3	

Lbs HAP per gallon of solids: 2.11

HAP Total Weight%: 10.3

9/9/2025

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
COATING SUPPLIER ENVIRONMENTAL DATA SHEET

Coating Manufacturer: Sherwin-Williams
Coating Code Number: 31S06A003

1.	Coating Density Standard Wt/Gal Cup	<u>8.50</u> lb/gal	<u>1.02</u> kg/l
2.	Solvent System (Volatiles) Calculated Density:	<u>7.60</u> lb/gal	<u>0.91</u> kg/l
3.	Organic Solvent Density:	<u>7.60</u> lb/gal	<u>0.91</u> kg/l
4.	Coating Solids (Non Volatiles): ASTM 2369 (EPA Method 24)	a. <u>47.7</u> b. <u>41.5</u>	Weight Percent Volume Percent
5.	Total Volatiles (H2O Included): ASTM 2369 (EPA Method 24)	a. <u>52.3</u> b. <u>58.5</u>	Weight Percent Volume Percent
6.	Total Exempt Solvent:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
7.	Total Organic Volatiles: (Less H2O)	a. <u>52.3</u> b. <u>58.5</u>	Weight Percent Volume Percent
8.	Coating Water Content:		
	a. Water content as Charged:	a. <u>0.0</u>	Weight Percent
	b. Calculated:	b. <u>0.0</u>	Volume Percent
9.	VOC Content: *		
	(Coating Less Water & Exempt Solvent)	<u>4.4</u> lb/gal	<u>0.53</u> kg/l
	(Solids)	<u>10.7</u> lb/gal	<u>1.28</u> kg/l

*Note : The VOC reported is for the coating as supplied, and is an average for batches produced. Diluting the coating with organic solvents at the point of application will alter the VOC level. Consult your Valspar Sales Representative for additional information in such cases.

SAFETY DATA SHEET

31S06A003

Section 1. Identification

Product name : Clear Basecoat

Product code : 31S06A003

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : The Sherwin Williams Company
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : (800) 424-9300

Product Information Telephone Number : 866-722-9710

Transportation Emergency Telephone Number : (800) 424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 10% (oral), 10% (dermal), 10% (inhalation)

GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements : Flammable liquid and vapor.
May be fatal if swallowed and enters airways.
May cause an allergic skin reaction.
Causes serious eye damage.
May cause drowsiness or dizziness.
May cause cancer.
May cause damage to organs through prolonged or repeated exposure.

Date of issue/Date of revision : 7/11/2025

Date of previous issue : 6/13/2025

Version : 3

1/24

31S06A003

Clear Basecoat

SHW-85-NA-GHS-US

Section 2. Hazards identification

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Contaminated work clothing should not be allowed out of the workplace.

Response

: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage

: Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. Contains Formaldehyde - a potential cancer hazard.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

CAS number/other identifiers

Ingredient name	% by weight	Identifiers
Heavy Aromatic Naphtha	≥25 - ≤50	64742-94-5
1-Butanol	≤10	71-36-3
Cyclohexanone	≤6.8	108-94-1
Xylene, mixed isomers	≤1.6	1330-20-7
Epoxy Polymer	≤1.5	-
Ethylbenzene	≤0.3	100-41-4
1,2,4-Trimethylbenzene	≤0.3	95-63-6
Naphthalene	≤0.3	91-20-3
Formaldehyde (max.)	<0.1	50-00-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Section 4. First aid measures

Ingestion : Adverse symptoms may include the following:
stomach pains
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Remark : Flammable liquid.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Contains a formaldehyde-based resin which, under certain conditions of use, may release formaldehyde. Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Heavy Aromatic Naphtha 1-Butanol	64742-94-5 71-36-3	None. ACGIH TLV (United States, 1/2024) TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) Absorbed through skin. CEIL: 50 ppm. CEIL: 150 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 300 mg/m ³ .
Cyclohexanone	108-94-1	ACGIH TLV (United States, 1/2024) A3. Absorbed through skin. TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm. NIOSH REL (United States, 10/2020) Absorbed through skin. TWA 10 hours: 25 ppm. TWA 10 hours: 100 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 50 ppm. TWA 8 hours: 200 mg/m ³ .
Xylene, mixed isomers	1330-20-7	ACGIH TLV (United States, 1/2024) [p-xylene and mixtures containing p-xylene] A4. Ototoxicant. TWA 8 hours: 20 ppm. OSHA PEL (United States, 5/2018) [Xylenes] TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m ³ .
Proprietary Ethylbenzene	25036-25-3 100-41-4	None. ACGIH TLV (United States, 1/2024) A3. Ototoxicant. TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 100 ppm. TWA 10 hours: 435 mg/m ³ . STEL 15 minutes: 125 ppm. STEL 15 minutes: 545 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m ³ .
1,2,4-Trimethylbenzene	95-63-6	ACGIH TLV (United States, 1/2024) A4. TWA 8 hours: 10 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 25 ppm. TWA 10 hours: 125 mg/m ³ .
Naphthalene	91-20-3	ACGIH TLV (United States, 1/2024) A3. Absorbed through skin. TWA 8 hours: 10 ppm. TWA 8 hours: 52 mg/m ³ . NIOSH REL (United States, 10/2020) TWA 10 hours: 10 ppm.

Section 8. Exposure controls/personal protection

Formaldehyde (max.)	50-00-0	TWA 10 hours: 50 mg/m³. STEL 15 minutes: 15 ppm. STEL 15 minutes: 75 mg/m³. OSHA PEL (United States, 5/2018) TWA 8 hours: 10 ppm. TWA 8 hours: 50 mg/m³. ACGIH TLV (United States, 1/2024) A1. Skin sensitizer , Inhalation sensitizer. STEL 15 minutes: 0.3 ppm. TWA 8 hours: 0.1 ppm. OSHA PEL Z2 (United States, 2/2013) TWA 8 hours: 0.75 ppm. STEL 15 minutes: 2 ppm. NIOSH REL (United States, 10/2020) NIA. TWA 10 hours: 0.016 ppm. CEIL 15 minutes: 0.1 ppm. OSHA PEL (United States, 5/2018) TWA 8 hours: 0.75 ppm. STEL 15 minutes: 2 ppm.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Normal butyl alcohol	71-36-3	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 30 ppm. TWA 8 hours: 20 ppm. CA British Columbia Provincial (Canada, 9/2024) TWA 8 hours: 15 ppm. C: 30 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 60 mg/m³. OEL 8 hours: 20 ppm.
Cyclohexanone	108-94-1	CA Saskatchewan Provincial (Canada, 4/2021) Absorbed through skin. STEL 15 minutes: 50 ppm. TWA 8 hours: 20 ppm. CA British Columbia Provincial (Canada, 9/2024) Absorbed through skin. TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm. CA Ontario Provincial (Canada, 6/2019) Absorbed through skin. TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm. CA Quebec Provincial (Canada, 2/2024) C3. Absorbed through skin. TWAEV 8 hours: 20 ppm. STEV 15 minutes: 50 ppm. CA Alberta Provincial (Canada, 3/2023) Absorbed through skin. OEL 8 hours: 20 ppm.

Section 8. Exposure controls/personal protection

Xylene	1330-20-7	OEL 8 hours: 80 mg/m³. OEL 15 minutes: 200 mg/m³. OEL 15 minutes: 50 ppm. CA Saskatchewan Provincial (Canada, 4/2021) [Xylene] STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 9/2024) [xylene (o, m & p isomers)] TWA 8 hours: 100 ppm. STEL 15 minutes: 150 ppm. CA Ontario Provincial (Canada, 6/2019) [Xylene (o-, m-, p-isomers)] STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA Quebec Provincial (Canada, 2/2024) [Xylene] TWA EV 8 hours: 100 ppm. TWA EV 8 hours: 434 mg/m³. STEV 15 minutes: 150 ppm. STEV 15 minutes: 651 mg/m³. CA Alberta Provincial (Canada, 3/2023) [Dimethylbenzene] OEL 8 hours: 100 ppm. OEL 15 minutes: 651 mg/m³. OEL 15 minutes: 150 ppm. OEL 8 hours: 434 mg/m³.
Ethylbenzene	100-41-4	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 125 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 9/2024) Carc 2B. TWA 8 hours: 20 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) C3. TWA EV 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 100 ppm. OEL 8 hours: 434 mg/m³. OEL 15 minutes: 543 mg/m³. OEL 15 minutes: 125 ppm.
Naphthalene	91-20-3	CA Saskatchewan Provincial (Canada, 4/2021) Absorbed through skin. STEL 15 minutes: 15 ppm. TWA 8 hours: 10 ppm. CA British Columbia Provincial (Canada, 9/2024) Carc 2B. Absorbed through skin. TWA 8 hours: 10 ppm. CA Ontario Provincial (Canada, 6/2019) Absorbed through skin. TWA 8 hours: 10 ppm. CA Quebec Provincial (Canada, 2/2024) C3. Absorbed through skin. TWA EV 8 hours: 10 ppm.

Section 8. Exposure controls/personal protection

CA Alberta Provincial (Canada, 3/2023)

Absorbed through skin.
OEL 15 minutes: 15 ppm.
OEL 8 hours: 10 ppm.
OEL 8 hours: 52 mg/m³.
OEL 15 minutes: 79 mg/m³.

Occupational exposure limits (Mexico)

Ingredient name	CAS #	Exposure limits
1-Butanol	71-36-3	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 20 ppm.
Cyclohexanone	108-94-1	NOM-010-STPS-2014 (Mexico, 4/2016) A3. Absorbed through skin. TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm.
Xylene, mixed isomers	1330-20-7	NOM-010-STPS-2014 (Mexico, 4/2016) [Xileno, mezcla] A4. STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm.
Naphthalene	91-20-3	NOM-010-STPS-2014 (Mexico, 4/2016) A4. Absorbed through skin. TWA 8 hours: 10 ppm. STEL 15 minutes: 15 ppm.

Biological exposure indices (United States)

Ingredient name	Exposure indices
Cyclohexanone	ACGIH BEI (United States, 1/2024) BEI: 80 mg/l [Semi-quantitative: The determinant is an indicator of exposure to the chemical, but the quantitative interpretation of the measurement is ambiguous. These determinants should be used as a screening test if a quantitative test is not practical or as a confirmatory test if the quantitative test is not specific and the origin of the determinant is in question.], 1,2-cyclohexanediol [in urine]. Sampling time: end of shift at end of workweek. BEI: 8 mg/l [Semi-quantitative: The determinant is an indicator of exposure to the chemical, but the quantitative interpretation of the measurement is ambiguous. These determinants should be used as a screening test if a quantitative test is not practical or as a confirmatory test if the quantitative test is not specific and the origin of the determinant is in question.], cyclohexanol [in urine]. Sampling time: end of shift.
Xylene, mixed isomers	ACGIH BEI (United States, 1/2024) [xylenes (technical or commercial grades)] BEI: 0.3 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.
Ethylbenzene	ACGIH BEI (United States, 1/2024) BEI: 150 mg/g creatinine, sum of mandelic

Section 8. Exposure controls/personal protection

Naphthalene	acid and phenylglyoxylic acid [in urine]. Sampling time: end of shift. ACGIH BEI (United States, 1/2024) BEI: Nonquantitative: Biological monitoring should be considered for this compound based on the review; however, a specific BEI® could not be determined due to insufficient data., 1-naphthol + 2-naphthol [(sample not specified)]. Sampling time: end of shift.

Biological exposure indices (Canada)

No exposure indices known.

Biological exposure indices (Mexico)

Ingredient name	Exposure indices
Cyclohexanone	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 8 mg/L [non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.; semi-quantitative.The biological determinant is an indicator of chemical exposure, but the quantitative interpretation of the measure is ambiguous. These biological determinants should be used as a screening test if a quantitative test is not possible.], cyclohexanol [in urine]. Sampling time: at the end of the work shift. BEI: 80 mg/L [non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.; semi-quantitative.The biological determinant is an indicator of chemical exposure, but the quantitative interpretation of the measure is ambiguous. These biological determinants should be used as a screening test if a quantitative test is not possible.], 1,2-cyclohexanediol [in urine]. Sampling time: at the end of the shift at the end of the work week.
Xylene, mixed isomers	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) [xilenos (grado técnico o comercial)] BEI: 1.5 g/g creatinine, methyl hippuric acids [in urine]. Sampling time: at the end of the work shift.

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Liquid.
- Color** : Various
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.

Section 9. Physical and chemical properties

Boiling point or initial boiling point and boiling range	: 117°C (242.6°F)
Flash point	: Closed cup: 37°C (98.6°F) [Pensky-Martens Closed Cup]
Evaporation rate	: 0.53 (butyl acetate = 1)
Flammability	: Flammable liquid.
Lower and upper explosion limit/flammability limit	: Lower: 0.8% Upper: 11.2%
Vapor pressure	: 0.79 kPa (5.9 mm Hg)
Relative vapor density	: 2.55 [Air = 1]
Relative density	: 1.03
Density	: 1.03 g/cm ³
Solubility(ies)	:

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): <20.5 mm ² /s (<20.5 cSt)
Molecular weight	: Not applicable.
Particle characteristics	
Median particle size	: Not applicable.
Heat of combustion	: 20.155 kJ/g

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name

Result

1-Butanol

Rat - Oral - LD50

790 mg/kg

Toxic effects: Liver - Fatty liver degeneration Kidney, Ureter, and Bladder - Other changes Blood - Other changes

Rabbit - Dermal - LD50

3400 mg/kg

Rat - Inhalation - LC50 Vapor

24000 mg/m³ [4 hours]

Rat - Oral - LD50

1800 mg/kg

Rat - Inhalation - LC50 Gas.

8000 ppm [4 hours]

Rat - Oral - LD50

4300 mg/kg

Toxic effects: Liver - Other changes Kidney, Ureter, and Bladder - Other changes

Rat - Inhalation - LC50 Gas.

6700 ppm [4 hours]

Toxic effects: Behavioral - Somnolence (general depressed activity)

Ethylbenzene

Rat - Oral - LD50

3500 mg/kg

Toxic effects: Liver - Other changes Kidney, Ureter, and Bladder - Other changes

Rabbit - Dermal - LD50

>5000 mg/kg

Rat - Oral - LD50

5 g/kg

Rat - Inhalation - LC50 Vapor

18000 mg/m³ [4 hours]

Rat - Oral - LD50

490 mg/kg

Rabbit - Dermal - LD50

>20 g/kg

Rat - Oral - LD50

100 mg/kg

Rabbit - Dermal - LD50

270 mg/kg

Rat - Inhalation - LC50 Gas.

250 ppm [4 hours]

1,2,4-Trimethylbenzene

Naphthalene

Formaldehyde (max.)

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

Result

Section 11. Toxicological information

Heavy Aromatic Naphtha

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 uL

1-Butanol

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 20 mg

Cyclohexanone

Human - Skin - Mild irritant

Duration of treatment/exposure: 48 hours

Amount/concentration applied: 50 %

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

Xylene, mixed isomers

Rat - Skin - Mild irritant

Duration of treatment/exposure: 8 hours

Amount/concentration applied: 60 uL

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Rabbit - Skin - Moderate irritant

Amount/concentration applied: 100 %

Ethylbenzene

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 15 mg

Naphthalene

Rabbit - Skin - Mild irritant

Amount/concentration applied: 495 mg

Rabbit - Skin - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 0.05 Ml

Formaldehyde (max.)

Human - Skin - Mild irritant

Duration of treatment/exposure: 72 hours

Amount/concentration applied: 150 ug l

Human - Skin - Severe irritant

Amount/concentration applied: 0.01 %

Rabbit - Skin - Mild irritant

Amount/concentration applied: 540 mg

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 50 mg

Rabbit - Skin - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2 mg

Rabbit - Skin - Severe irritant

Amount/concentration applied: 0.8 %

Mouse - Skin - Moderate irritant

Amount/concentration applied: 7 %

Rat - Skin - Moderate irritant

Amount/concentration applied: 7 %

Conclusion/Summary [Product]

: Not available.

Serious eye damage/eye irritation

Product/ingredient name

Result

Section 11. Toxicological information

1-Butanol

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 0.005 Ml

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 1.62 mg

Cyclohexanone

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 250 ug

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 20 mg

Xylene, mixed isomers

Rabbit - Eyes - Mild irritant

Amount/concentration applied: 87 mg

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 5 mg

Ethylbenzene

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 500 mg

Formaldehyde (max.)

Human - Eyes - Mild irritant

Duration of treatment/exposure: 6 minutes

Amount/concentration applied: 1 ppm

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 750 ug

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 750 ug

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 37 %

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 10 mg

Mouse - Eyes - Moderate irritant

Amount/concentration applied: 3 %

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Section 11. Toxicological information

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Cyclohexanone	-	3	-
Xylene, mixed isomers	-	3	-
Ethylbenzene	-	2B	-
Naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.
Formaldehyde (max.)	+	1	Known to be a human carcinogen.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Result

Heavy Aromatic Naphtha

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Narcotic effects) - Category 3

1-Butanol

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Respiratory tract irritation) - Category 3

Cyclohexanone

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Narcotic effects) - Category 3

Xylene, mixed isomers

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Narcotic effects) - Category 3

Ethylbenzene

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Respiratory tract irritation) - Category 3

1,2,4-Trimethylbenzene

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Narcotic effects) - Category 3

Formaldehyde (max.)

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Respiratory tract irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(respiratory system) - Category 1

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Respiratory tract irritation) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name

Result

Section 11. Toxicological information

Xylene, mixed isomers	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Ethylbenzene	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Formaldehyde (max.)	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

Aspiration hazard

Product/ingredient name

Result

Heavy Aromatic Naphtha	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
1,2,4-Trimethylbenzene	ASPIRATION HAZARD - Category 1
Naphthalene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Not available.

Potential acute health effects

Eye contact	: Causes serious eye damage.
Inhalation	: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: May cause an allergic skin reaction.
Ingestion	: Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	: Adverse symptoms may include the following: stomach pains nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Section 11. Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Clear Basecoat	14318.1	11171.0	116121.0	N/A	N/A
1-Butanol	2500	3400	N/A	24	N/A
Cyclohexanone	1800	1100	8000	N/A	N/A
Xylene, mixed isomers	4300	2500	N/A	N/A	N/A
Ethylbenzene	3500	N/A	N/A	11	N/A
1,2,4-Trimethylbenzene	5000	N/A	N/A	18	N/A
Naphthalene	490	N/A	N/A	N/A	N/A
Formaldehyde (max.)	500	270	250	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name

1-Butanol

Result

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 33 days; Size: 20.6 mm; Weight: 0.119 g

1730 mg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna*

Age: 6 to 24 hours

1983 mg/l [48 hours]

Effect: Intoxication

Cyclohexanone

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 30 days; Size: 20.2 mm; Weight: 0.127 g

527 mg/l [96 hours]

Effect: Mortality

Chronic - EC10

Algae - Green algae - *Chlamydomonas reinhardtii* - Exponential

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Section 12. Ecological information

growth phase

Age: 7 days

3.56 mg/l [72 hours]

Effect: Population

Acute - EC50

Algae - Green algae - *Chlamydomonas reinhardtii* - Exponential growth phase

Age: 7 days

32.9 mg/l [72 hours]

Effect: Population

Xylene, mixed isomers

Acute - LC50 - Marine water

Crustaceans - Daggerblade grass shrimp - *Palaemon pugio*
8500 µg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 31 days; Size: 18.4 mm; Weight: 0.077 g

13.4 mg/l [96 hours]

Effect: Mortality

Ethylbenzene

Acute - LC50 - Fresh water

Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss*
4200 µg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Neonate

Age: ≤24 hours

2.93 mg/l [48 hours]

Effect: Intoxication

Acute - EC50 - Fresh water

Algae - Green algae - *Raphidocelis subcapitata*
3600 µg/l [96 hours]

Effect: Population

1,2,4-Trimethylbenzene

Acute - LC50 - Marine water

Crustaceans - Scud - *Elasmopus pecteniscus* - Adult
4910 µg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 34 days

7720 µg/l [96 hours]

Effect: Mortality

Naphthalene

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Neonate

Age: ≤24 hours

1.6 mg/l [48 hours]

Effect: Intoxication

Acute - LC50 - Fresh water

Fish - Crimson-spotted rainbowfish - *Melanotaenia fluviatilis* - Larvae

Age: 1 days

213 µg/l [96 hours]

Effect: Mortality

Chronic - NOEC - Fresh water

Fish - Mozambique tilapia - *Oreochromis mossambicus*

Age: 4 months; Size: 5.4 cm; Weight: 5.5 g

1.5 mg/l [60 days]

Effect: Growth

Section 12. Ecological information

Chronic - NOEC - Marine water

Crustaceans - Fiddler crab - *Uca pugnax* - Adult

Size: 12.7 to 21.4 mm

0.5 mg/l [3 weeks]

Effect: Growth

Chronic - NOEC - Marine water

Algae - Brown algae - *Phyllospora comosa* - Embryo

Age: 7 days

1 mg/l [96 hours]

Effect: Mortality

Acute - LC50 - Fresh water

US EPA

Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss*

1.41 ppm [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Embryo

Age: 8 hours

3.26 mg/l [48 hours]

Effect: Development

Chronic - NOEC - Fresh water

Crustaceans - European crayfish - *Astacus astacus* - Egg

3000 ppm [21 days]

Effect: Mortality

Acute - EC50 - Marine water

Algae - Green algae - *Ulva pertusa*

Size: 9.4 mm

0.442 mg/l [96 hours]

Effect: Reproduction

Chronic - NOEC - Fresh water

Fish - Nile tilapia - *Oreochromis niloticus* - Fingerling

Weight: 1.8 g

1.56 mg/l [12 weeks]

Effect: Cells

Formaldehyde (max.)

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
1-Butanol	-	-	Readily
Xylene, mixed isomers	-	-	Readily
Ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Heavy Aromatic Naphtha	-	99 to 5780	High
Xylene, mixed isomers	-	8.1 to 25.9	Low
1,2,4-Trimethylbenzene	-	243	Low
Naphthalene	-	36.5 to 168	Low

Section 12. Ecological information

Mobility in soil

Soil/Water partition coefficient : Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT. Marine pollutant (Heavy Aromatic Naphtha, Naphthalene)
Transport hazard class(es)	3 	3 	3 	3 	3  
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	Yes. The environmentally hazardous substance mark is not required.	Yes.
Additional information	-	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class	-	The environmentally hazardous substance mark may appear if required by other transportation regulations.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. Emergency schedules F-E, S-

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Section 14. Transport information

	ERG No. 128	3). ERG No. 128	ERG No. 128		E

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

U.S. Federal regulations :

SARA 313

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED and rely on information provided to us by our raw material suppliers. Our suppliers often provide an estimated value or range less than a certain upper limit. We calculate MAXIMUM THEORETICAL VALUES using defined values, if provided, or the upper limit reported by our supplier. Additionally, the suppliers' information may include amounts present in the product as unintentional byproducts or impurities. Variations may occur in individual batches due to adjustments made during production. Reporting of chemicals in this section does not necessarily indicate their presence in the final formulated product.

Ingredient name	% by weight	CAS number
Glycol Ethers (SARA)	9	
2-(2-Butoxyethoxy)ethyl Acetate	9	124-17-4
1-Butanol	6	71-36-3
Xylene, mixed isomers	1	1330-20-7
Ethylbenzene	0.3	100-41-4
Naphthalene	0.2	91-20-3

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Section 15. Regulatory information

International lists

: **Australia inventory (AIIIC)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		3
Physical hazards		0

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

History

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Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available

Section 16. Other information

SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

DATA BASED ON FORMULATION

VOLATILE COMPOSITION REPORT

Product Code: 31S39EA

CAS Number	Component	Weight Percent	Weight/ Gallon	HAP
64742-94-5	AROMATIC NAPHTHA, HEAVY	17.3	7.47	
108-94-1	CYCLOHEXANONE	4.2	7.89	
71-36-3	BUTANOL	3.6	6.75	
1119-40-0	DIMETHYL GLUTARATE	3.1	9.04	
124-17-4	DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	2.7	8.16	✓
1330-20-7	XYLENE	1.1	7.23	✓
106-65-0	DIMETHYL SUCCINATE	1.0	9.04	
627-93-0	DIMETHYL ADIPATE	0.9	9.04	
111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	0.4	7.51	
67-63-0	ISOPROPANOL	0.3	6.55	
78-83-1	ISOBUTYL ALCOHOL	0.2	6.66	
100-41-4	BENZENE, ETHYL	0.2	7.25	✓
95-63-6	1,2,4-TRIMETHYLBENZENE	0.1	8.30	
91-20-3	NAPHTHALENE	0.1	8.00	✓

SUM: 35.2

Lbs HAP per gallon of solids: 0.96

HAP Total Weight%: 4.1

9/9/2025

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
COATING SUPPLIER ENVIRONMENTAL DATA SHEET

Coating Manufacturer: Sherwin-Williams
Coating Code Number: 31S39EA

1.	Coating Density Standard Wt/Gal Cup	<u>11.20</u> lb/gal	<u>1.34</u> kg/l
2.	Solvent System (Volatiles) Calculated Density:	<u>7.59</u> lb/gal	<u>0.91</u> kg/l
3.	Organic Solvent Density:	<u>7.59</u> lb/gal	<u>0.91</u> kg/l
4.	Coating Solids (Non Volatiles): ASTM 2369 (EPA Method 24)	a. <u>64.8</u> b. <u>48.1</u>	Weight Percent Volume Percent
5.	Total Volatiles (H2O Included): ASTM 2369 (EPA Method 24)	a. <u>35.2</u> b. <u>51.9</u>	Weight Percent Volume Percent
6.	Total Exempt Solvent:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
7.	Total Organic Volatiles: (Less H2O)	a. <u>35.2</u> b. <u>51.9</u>	Weight Percent Volume Percent
8.	Coating Water Content:		
	a. Water content as Charged:	a. <u>0.0</u>	Weight Percent
	b. Calculated:	b. <u>0.0</u>	Volume Percent
9.	VOC Content: *		
	(Coating Less Water & Exempt Solvent)	<u>3.9</u> lb/gal	<u>0.47</u> kg/l
	(Solids)	<u>8.2</u> lb/gal	<u>0.98</u> kg/l

*Note : The VOC reported is for the coating as supplied, and is an average for batches produced. Diluting the coating with organic solvents at the point of application will alter the VOC level. Consult your Valspar Sales Representative for additional information in such cases.

SAFETY DATA SHEET

31S39EA

Section 1. Identification

Product name : HH CRUDO WHITE

Product code : 31S39EA

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : The Sherwin Williams Company
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : (800) 424-9300

Product Information Telephone Number : 866-722-9710

Transportation Emergency Telephone Number : (800) 424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 7.1% (oral), 7.1% (dermal), 7.1% (inhalation)

GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements : Flammable liquid and vapor.
May be fatal if swallowed and enters airways.
May cause an allergic skin reaction.
Causes serious eye damage.
May cause drowsiness or dizziness.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.

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Section 2. Hazards identification

Precautionary statements

- Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Contaminated work clothing should not be allowed out of the workplace.
- Response** : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
- Storage** : Store locked up. Store in a well-ventilated place. Keep container tightly closed.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. Contains Formaldehyde - a potential cancer hazard.
- Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	Identifiers
Titanium Dioxide	≥25 - ≤50	13463-67-7
Heavy Aromatic Naphtha	≥10 - ≤25	64742-94-5
Cyclohexanone	≤5	108-94-1
1-Butanol	≤5	71-36-3
Aluminum Hydroxide	≤3	21645-51-2
Xylene, mixed isomers	≤2	1330-20-7
Epoxy Polymer	<1	-
Ethylbenzene	≤0.3	100-41-4
1,2,4-Trimethylbenzene	≤0.3	95-63-6
Naphthalene	≤0.3	91-20-3
Unsaturated Fatty Acids	≤0.3	85711-46-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Section 4. First aid measures

Ingestion : Adverse symptoms may include the following:
stomach pains
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Remark : Flammable liquid.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Section 6. Accidental release measures

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Contains a formaldehyde-based resin which, under certain conditions of use, may release formaldehyde. Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Titanium Dioxide	13463-67-7	ACGIH TLV (United States, 1/2024) A3. TWA 8 hours: 2.5 mg/m ³ . Form: respirable fraction, finescale particles. NIOSH REL (United States, 10/2020) NIA. OSHA PEL (United States, 5/2018) TWA 8 hours: 15 mg/m ³ . Form: Total dust.
Heavy Aromatic Naphtha Cyclohexanone	64742-94-5 108-94-1	None. ACGIH TLV (United States, 1/2024) A3. Absorbed through skin. TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm. NIOSH REL (United States, 10/2020) Absorbed through skin. TWA 10 hours: 25 ppm. TWA 10 hours: 100 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 50 ppm. TWA 8 hours: 200 mg/m ³ .
1-Butanol	71-36-3	ACGIH TLV (United States, 1/2024) TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) Absorbed through skin. CEIL: 50 ppm. CEIL: 150 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 300 mg/m ³ .
Aluminum Hydroxide	21645-51-2	ACGIH TLV (United States, 1/2024) [Aluminum, metal and insoluble compounds] A4. TWA 8 hours: 1 mg/m ³ . Form: Respirable fraction.
Xylene, mixed isomers	1330-20-7	ACGIH TLV (United States, 1/2024) [p-xylene and mixtures containing p-xylene] A4. Ototoxicant. TWA 8 hours: 20 ppm. OSHA PEL (United States, 5/2018) [Xylenes] TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m ³ .
Proprietary Ethylbenzene	25036-25-3 100-41-4	None. ACGIH TLV (United States, 1/2024) A3. Ototoxicant. TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 100 ppm. TWA 10 hours: 435 mg/m ³ . STEL 15 minutes: 125 ppm. STEL 15 minutes: 545 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m ³ .

Section 8. Exposure controls/personal protection

1,2,4-Trimethylbenzene	95-63-6	ACGIH TLV (United States, 1/2024) A4. TWA 8 hours: 10 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 25 ppm. TWA 10 hours: 125 mg/m ³ .
Naphthalene	91-20-3	ACGIH TLV (United States, 1/2024) A3. Absorbed through skin. TWA 8 hours: 10 ppm. TWA 8 hours: 52 mg/m ³ . NIOSH REL (United States, 10/2020) TWA 10 hours: 10 ppm. TWA 10 hours: 50 mg/m ³ . STEL 15 minutes: 15 ppm. STEL 15 minutes: 75 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 10 ppm. TWA 8 hours: 50 mg/m ³ .
Unsaturated Fatty Acids	85711-46-2	None.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Cyclohexanone	108-94-1	CA Saskatchewan Provincial (Canada, 4/2021) Absorbed through skin. STEL 15 minutes: 50 ppm. TWA 8 hours: 20 ppm. CA British Columbia Provincial (Canada, 9/2024) Absorbed through skin. TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm. CA Ontario Provincial (Canada, 6/2019) Absorbed through skin. TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm. CA Quebec Provincial (Canada, 2/2024) C3. Absorbed through skin. TWA EV 8 hours: 20 ppm. STEV 15 minutes: 50 ppm. CA Alberta Provincial (Canada, 3/2023) Absorbed through skin. OEL 8 hours: 20 ppm. OEL 8 hours: 80 mg/m ³ . OEL 15 minutes: 200 mg/m ³ . OEL 15 minutes: 50 ppm.
Normal butyl alcohol	71-36-3	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 30 ppm. TWA 8 hours: 20 ppm. CA British Columbia Provincial (Canada, 9/2024) TWA 8 hours: 15 ppm. C: 30 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) TWA EV 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023)

Section 8. Exposure controls/personal protection

Xylene	1330-20-7	OEL 8 hours: 60 mg/m³. OEL 8 hours: 20 ppm. CA Saskatchewan Provincial (Canada, 4/2021) [Xylene] STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 9/2024) [xylene (o, m & p isomers)] TWA 8 hours: 100 ppm. STEL 15 minutes: 150 ppm. CA Ontario Provincial (Canada, 6/2019) [Xylene (o-, m-, p-isomers)] STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA Quebec Provincial (Canada, 2/2024) [Xylene] TWA_{AEV} 8 hours: 100 ppm. TWA_{AEV} 8 hours: 434 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 651 mg/m³. CA Alberta Provincial (Canada, 3/2023) [Dimethylbenzene] OEL 8 hours: 100 ppm. OEL 15 minutes: 651 mg/m³. OEL 15 minutes: 150 ppm. OEL 8 hours: 434 mg/m³.
2-Butoxyethanol	111-76-2	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 30 ppm. TWA 8 hours: 20 ppm. CA British Columbia Provincial (Canada, 9/2024) TWA 8 hours: 20 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) C3. TWA_{AEV} 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 97 mg/m³. OEL 8 hours: 20 ppm.
Ethylbenzene	100-41-4	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 125 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 9/2024) Carc 2B. TWA 8 hours: 20 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) C3. TWA_{AEV} 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 100 ppm. OEL 8 hours: 434 mg/m³. OEL 15 minutes: 543 mg/m³.

Section 8. Exposure controls/personal protection

Naphthalene	91-20-3	OEL 15 minutes: 125 ppm. CA Saskatchewan Provincial (Canada, 4/2021) Absorbed through skin. STEL 15 minutes: 15 ppm. TWA 8 hours: 10 ppm. CA British Columbia Provincial (Canada, 9/2024) Carc 2B. Absorbed through skin. TWA 8 hours: 10 ppm. CA Ontario Provincial (Canada, 6/2019) Absorbed through skin. TWA 8 hours: 10 ppm. CA Quebec Provincial (Canada, 2/2024) C3. Absorbed through skin. TWAEV 8 hours: 10 ppm. CA Alberta Provincial (Canada, 3/2023) Absorbed through skin. OEL 15 minutes: 15 ppm. OEL 8 hours: 10 ppm. OEL 8 hours: 52 mg/m³. OEL 15 minutes: 79 mg/m³.

Occupational exposure limits (Mexico)

Ingredient name	CAS #	Exposure limits
Cyclohexanone	108-94-1	NOM-010-STPS-2014 (Mexico, 4/2016) A3. Absorbed through skin. TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm.
1-Butanol	71-36-3	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 20 ppm.
Xylene, mixed isomers	1330-20-7	NOM-010-STPS-2014 (Mexico, 4/2016) [Xileno, mezcla] A4. STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm.
Naphthalene	91-20-3	NOM-010-STPS-2014 (Mexico, 4/2016) A4. Absorbed through skin. TWA 8 hours: 10 ppm. STEL 15 minutes: 15 ppm.

Biological exposure indices (United States)

Ingredient name	Exposure indices
Cyclohexanone	ACGIH BEI (United States, 1/2024) BEI: 80 mg/l [Semi-quantitative: The determinant is an indicator of exposure to the chemical, but the quantitative interpretation of the measurement is ambiguous. These determinants should be used as a screening test if a quantitative test is not practical or as a confirmatory test if the quantitative test is not specific and the origin of the determinant is in question.], 1,2-cyclohexanediol [in urine]. Sampling time: end of shift at end of workweek. BEI: 8 mg/l [Semi-quantitative: The determinant is an indicator of exposure to the chemical, but the quantitative interpretation of the measurement is ambiguous. These

Section 8. Exposure controls/personal protection

Xylene, mixed isomers	determinants should be used as a screening test if a quantitative test is not practical or as a confirmatory test if the quantitative test is not specific and the origin of the determinant is in question.], cyclohexanol [in urine]. Sampling time: end of shift. ACGIH BEI (United States, 1/2024) [xylenes (technical or commercial grades)] BEI: 0.3 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.
Ethylbenzene	ACGIH BEI (United States, 1/2024) BEI: 150 mg/g creatinine, sum of mandelic acid and phenylglyoxylic acid [in urine]. Sampling time: end of shift.
Naphthalene	ACGIH BEI (United States, 1/2024) BEI: Nonquantitative: Biological monitoring should be considered for this compound based on the review; however, a specific BEI® could not be determined due to insufficient data., 1-naphthol + 2-naphthol [(sample not specified)]. Sampling time: end of shift.

Biological exposure indices (Canada)

No exposure indices known.

Biological exposure indices (Mexico)

Ingredient name	Exposure indices
Cyclohexanone	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 8 mg/L [non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.; semi-quantitative.The biological determinant is an indicator of chemical exposure, but the quantitative interpretation of the measure is ambiguous. These biological determinants should be used as a screening test if a quantitative test is not possible.], cyclohexanol [in urine]. Sampling time: at the end of the work shift. BEI: 80 mg/L [non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.; semi-quantitative.The biological determinant is an indicator of chemical exposure, but the quantitative interpretation of the measure is ambiguous. These biological determinants should be used as a screening test if a quantitative test is not possible.], 1,2-cyclohexanediol [in urine]. Sampling time: at the end of the shift at the end of the work

Section 8. Exposure controls/personal protection

Xylene, mixed isomers

week.

Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) [xilenos (grado técnico o comercial)]

BEI: 1.5 g/g creatinine, methyl hippuric acids [in urine]. Sampling time: at the end of the work shift.

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state	: Liquid.
Color	: White.
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not applicable.
Melting point/freezing point	: Not available.
Boiling point or initial boiling point and boiling range	: 117°C (242.6°F)
Flash point	: Closed cup: 37°C (98.6°F) [Pensky-Martens Closed Cup]
Evaporation rate	: 0.53 (butyl acetate = 1)
Flammability	: Flammable liquid.
Lower and upper explosion limit/flammability limit	: Lower: 0.8% Upper: 11.2%
Vapor pressure	: 0.79 kPa (5.9 mm Hg)
Relative vapor density	: 2.55 [Air = 1]
Relative density	: 1.34
Density	: 1.33 g/cm ³
Solubility(ies)	:

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): <20.5 mm ² /s (<20.5 cSt)
Molecular weight	: Not applicable.
<u>Particle characteristics</u>	
Median particle size	: Not applicable.
Heat of combustion	: 14.023 kJ/g

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

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Section 10. Stability and reactivity

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name

Result

Cyclohexanone

Rat - Oral - LD50

1800 mg/kg

Rat - Inhalation - LC50 Gas.

8000 ppm [4 hours]

Rat - Oral - LD50

790 mg/kg

Toxic effects: Liver - Fatty liver degeneration Kidney, Ureter, and Bladder - Other changes Blood - Other changes

Rabbit - Dermal - LD50

3400 mg/kg

Rat - Inhalation - LC50 Vapor

24000 mg/m³ [4 hours]

Rat - Oral - LD50

4300 mg/kg

Toxic effects: Liver - Other changes Kidney, Ureter, and Bladder - Other changes

Rat - Inhalation - LC50 Gas.

6700 ppm [4 hours]

Toxic effects: Behavioral - Somnolence (general depressed activity)

Rat - Oral - LD50

3500 mg/kg

Toxic effects: Liver - Other changes Kidney, Ureter, and Bladder - Other changes

Rabbit - Dermal - LD50

>5000 mg/kg

Rat - Oral - LD50

5 g/kg

Rat - Inhalation - LC50 Vapor

18000 mg/m³ [4 hours]

Rat - Oral - LD50

490 mg/kg

Rabbit - Dermal - LD50

>20 g/kg

1-Butanol

Xylene, mixed isomers

Ethylbenzene

1,2,4-Trimethylbenzene

Naphthalene

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

Result

Section 11. Toxicological information

Titanium Dioxide	Human - Skin - Mild irritant <u>Duration of treatment/exposure:</u> 72 hours <u>Amount/concentration applied:</u> 300 ug l
Heavy Aromatic Naphtha	Rabbit - Skin - Mild irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 500 uL
Cyclohexanone	Human - Skin - Mild irritant <u>Duration of treatment/exposure:</u> 48 hours <u>Amount/concentration applied:</u> 50 %
1-Butanol	Rabbit - Skin - Mild irritant <u>Amount/concentration applied:</u> 500 mg Rabbit - Skin - Moderate irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 20 mg
Xylene, mixed isomers	Rat - Skin - Mild irritant <u>Duration of treatment/exposure:</u> 8 hours <u>Amount/concentration applied:</u> 60 uL Rabbit - Skin - Moderate irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 500 mg
Ethylbenzene	Rabbit - Skin - Moderate irritant <u>Amount/concentration applied:</u> 100 % Rabbit - Skin - Mild irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 15 mg
Naphthalene	Rabbit - Skin - Mild irritant <u>Amount/concentration applied:</u> 495 mg Rabbit - Skin - Severe irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 0.05 MI

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name	Result
Cyclohexanone	Rabbit - Eyes - Severe irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 250 ug Rabbit - Eyes - Severe irritant <u>Amount/concentration applied:</u> 20 mg
1-Butanol	Rabbit - Eyes - Severe irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 2 mg Rabbit - Eyes - Severe irritant <u>Amount/concentration applied:</u> 0.005 MI
Xylene, mixed isomers	Rabbit - Eyes - Severe irritant <u>Amount/concentration applied:</u> 1.62 mg Rabbit - Eyes - Mild irritant <u>Amount/concentration applied:</u> 87 mg Rabbit - Eyes - Severe irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 5 mg
Ethylbenzene	Rabbit - Eyes - Severe irritant <u>Amount/concentration applied:</u> 500 mg

Section 11. Toxicological information

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Titanium Dioxide	-	2B	-
Cyclohexanone	-	3	-
Xylene, mixed isomers	-	3	-
Ethylbenzene	-	2B	-
Naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Result

Section 11. Toxicological information

Heavy Aromatic Naphtha	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Cyclohexanone	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1-Butanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Xylene, mixed isomers	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Ethylbenzene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1,2,4-Trimethylbenzene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
Xylene, mixed isomers	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Ethylbenzene	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Aspiration hazard

Product/ingredient name	Result
Heavy Aromatic Naphtha	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
1,2,4-Trimethylbenzene	ASPIRATION HAZARD - Category 1
Naphthalene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Not available.

Potential acute health effects

Eye contact	: Causes serious eye damage.
Inhalation	: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: May cause an allergic skin reaction.
Ingestion	: Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain watering redness

Section 11. Toxicological information

- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains
nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

- General** : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
HH CRUDO WHITE	24205.4	18370.9	185596.6	N/A	N/A
Cyclohexanone	1800	1100	8000	N/A	N/A
1-Butanol	2500	3400	N/A	24	N/A
Xylene, mixed isomers	4300	2500	N/A	N/A	N/A
Ethylbenzene	3500	N/A	N/A	11	N/A
1,2,4-Trimethylbenzene	5000	N/A	N/A	18	N/A
Naphthalene	490	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name

Titanium Dioxide

Cyclohexanone

1-Butanol

Xylene, mixed isomers

Ethylbenzene

1,2,4-Trimethylbenzene

Result

Acute - LC50 - Marine water

Fish - Mummichog - *Fundulus heteroclitus*
>1000 mg/l [96 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*
Age: 30 days; Size: 20.2 mm; Weight: 0.127 g
527 mg/l [96 hours]

Effect: Mortality

Chronic - EC10

Algae - Green algae - *Chlamydomonas reinhardtii* - Exponential growth phase

Age: 7 days

3.56 mg/l [72 hours]

Effect: Population

Acute - EC50

Algae - Green algae - *Chlamydomonas reinhardtii* - Exponential growth phase

Age: 7 days

32.9 mg/l [72 hours]

Effect: Population

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*
Age: 33 days; Size: 20.6 mm; Weight: 0.119 g
1730 mg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna*

Age: 6 to 24 hours

1983 mg/l [48 hours]

Effect: Intoxication

Acute - LC50 - Marine water

Crustaceans - Daggerblade grass shrimp - *Palaemon pugio*
8500 µg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*
Age: 31 days; Size: 18.4 mm; Weight: 0.077 g
13.4 mg/l [96 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss*
4200 µg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Neonate

Age: ≤24 hours

2.93 mg/l [48 hours]

Effect: Intoxication

Acute - EC50 - Fresh water

Algae - Green algae - *Raphidocelis subcapitata*
3600 µg/l [96 hours]

Effect: Population

Acute - LC50 - Marine water

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Section 12. Ecological information

Crustaceans - Scud - *Elasmopus pecteniscus* - Adult
4910 µg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 34 days

7720 µg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Neonate

Age: ≤24 hours

1.6 mg/l [48 hours]

Effect: Intoxication

Acute - LC50 - Fresh water

Fish - Crimson-spotted rainbowfish - *Melanotaenia fluviatilis* - Larvae

Age: 1 days

213 µg/l [96 hours]

Effect: Mortality

Chronic - NOEC - Fresh water

Fish - Mozambique tilapia - *Oreochromis mossambicus*

Age: 4 months; Size: 5.4 cm; Weight: 5.5 g

1.5 mg/l [60 days]

Effect: Growth

Chronic - NOEC - Marine water

Crustaceans - Fiddler crab - *Uca pugnax* - Adult

Size: 12.7 to 21.4 mm

0.5 mg/l [3 weeks]

Effect: Growth

Naphthalene

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
1-Butanol	-	-	Readily
Xylene, mixed isomers	-	-	Readily
Ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Heavy Aromatic Naphtha	-	99 to 5780	High
Xylene, mixed isomers	-	8.1 to 25.9	Low
1,2,4-Trimethylbenzene	-	243	Low
Naphthalene	-	36.5 to 168	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

Section 12. Ecological information

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.
Additional information	- <u>ERG No.</u> 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). <u>ERG No.</u> 128	- <u>ERG No.</u> 128	-	<u>Emergency schedules</u> F-E, S- E

Section 14. Transport information

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

U.S. Federal regulations :

SARA 313

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED and rely on information provided to us by our raw material suppliers. Our suppliers often provide an estimated value or range less than a certain upper limit. We calculate MAXIMUM THEORETICAL VALUES using defined values, if provided, or the upper limit reported by our supplier. Additionally, the suppliers' information may include amounts present in the product as unintentional byproducts or impurities. Variations may occur in individual batches due to adjustments made during production. Reporting of chemicals in this section does not necessarily indicate their presence in the final formulated product.

Ingredient name	% by weight	CAS number
Glycol Ethers (SARA)	3	
1-Butanol	4	71-36-3
2-(2-Butoxyethoxy)ethyl Acetate	3	124-17-4
Xylene, mixed isomers	1	1330-20-7
Ethylbenzene	0.2	100-41-4
Naphthalene	0.2	91-20-3

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists :

- Australia inventory (AIIIC):** Not determined.
- China inventory (IECSC):** Not determined.
- Japan inventory (CSCL):** Not determined.
- Japan inventory (ISHL):** Not determined.
- Korea inventory (KECI):** Not determined.
- New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- Philippines inventory (PICCS):** Not determined.
- Taiwan Chemical Substances Inventory (TCSI):** Not determined.
- Thailand inventory:** Not determined.
- Turkey inventory:** Not determined.
- Vietnam inventory:** Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		3
Physical hazards		0

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

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Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is

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Section 16. Other information

responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

DATA BASED ON FORMULATION

VOLATILE COMPOSITION REPORT

Product Code: 51S27AB

CAS Number	Component	Weight Percent	Weight/ Gallon	HAP
78-93-3	METHYL ETHYL KETONE	39.7	6.71	
108-94-1	CYCLOHEXANONE	21.2	7.89	
123-42-2	DIACETONE ALCOHOL	4.4	7.83	
78-59-1	ISOPHORONE	3.6	7.68	✓
34590-94-8	DIPROPYLENE GLYCOL METHYL ETHER	2.7	7.92	
108-65-6	PROPYLENE GLYCOL MONO METHYL ETHER ACETATE	2.7	8.06	
108-10-1	METHYL ISOBUTYL KETONE	2.5	6.68	✓
111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	1.3	7.51	

SUM: 78.1

Lbs HAP per gallon of solids: 3.05

HAP Total Weight%: 6.1

9/9/2025

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
COATING SUPPLIER ENVIRONMENTAL DATA SHEET

Coating Manufacturer: Sherwin-Williams
Coating Code Number: 51S27AB

1.	Coating Density Standard Wt/Gal Cup	<u>7.74</u> lb/gal	<u>0.93</u> kg/l
2.	Solvent System (Volatiles) Calculated Density:	<u>7.15</u> lb/gal	<u>0.86</u> kg/l
3.	Organic Solvent Density:	<u>7.15</u> lb/gal	<u>0.86</u> kg/l
4.	Coating Solids (Non Volatiles): ASTM 2369 (EPA Method 24)	a. <u>21.9</u> b. <u>15.5</u>	Weight Percent Volume Percent
5.	Total Volatiles (H2O Included): ASTM 2369 (EPA Method 24)	a. <u>78.1</u> b. <u>84.5</u>	Weight Percent Volume Percent
6.	Total Exempt Solvent:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
7.	Total Organic Volatiles: (Less H2O)	a. <u>78.1</u> b. <u>84.5</u>	Weight Percent Volume Percent
8.	Coating Water Content: a. Water content as Charged: b. Calculated:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
9.	VOC Content: * (Coating Less Water & Exempt Solvent) (Solids)	<u>6.0</u> lb/gal <u>39.1</u> lb/gal	<u>0.73</u> kg/l <u>4.69</u> kg/l

*Note : The VOC reported is based on laboratory or small production quantities. Diluting the coating with organic solvents at the point of application will alter the VOC level. Consult your Valspar Sales Representative for additional information in such cases.

SAFETY DATA SHEET

51S27AB

Section 1. Identification

Product name : 380C35 Clear Interior Lining
Product code : 51S27AB
Other means of identification : Not available.
Product type : Liquid.
Relevant identified uses of the substance or mixture and uses advised against
Paint or paint related material.

Manufacturer : The Sherwin Williams Company
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : (800) 424-9300

Product Information Telephone Number : 866-722-9710

Transportation Emergency Telephone Number : (800) 424-9300

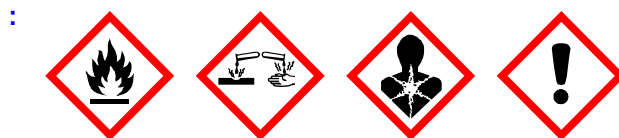
Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 2.7% (oral), 6.4% (dermal), 7% (inhalation)

GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements : Highly flammable liquid and vapor.
Causes skin irritation.
Causes serious eye damage.
May cause drowsiness or dizziness.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.

Precautionary statements

Section 2. Hazards identification

Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash thoroughly after handling.
Response	: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Storage	: Store locked up. Store in a well-ventilated place. Keep container tightly closed.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. Contains Formaldehyde - a potential cancer hazard. Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Not available.
<u>CAS number/other identifiers</u>	

Ingredient name	% by weight	Identifiers
Methyl Ethyl Ketone	≥25 - ≤50	78-93-3
Cyclohexanone	≥10 - ≤25	108-94-1
Diacetone Alcohol	≤5	123-42-2
Isophorone	≤5	78-59-1
2-Methoxymethylethoxypropanol	≤3	34590-94-8
2-methoxy-1-methylethyl acetate	≤3	108-65-6
Methyl Isobutyl Ketone	≤3	108-10-1
Polymeric Ester	≤3	-
2-Butoxyethanol	≤2	111-76-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 4. First aid measures

- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

- Remark** : Flammable liquid.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Methyl Ethyl Ketone	78-93-3	ACGIH TLV (United States, 1/2024) Absorbed through skin. TWA 8 hours: 75 ppm. STEL 15 minutes: 150 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 200 ppm. TWA 10 hours: 590 mg/m ³ . STEL 15 minutes: 300 ppm. STEL 15 minutes: 885 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 200 ppm. TWA 8 hours: 590 mg/m ³ .
Cyclohexanone	108-94-1	ACGIH TLV (United States, 1/2024) A3. Absorbed through skin. TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm. NIOSH REL (United States, 10/2020) Absorbed through skin. TWA 10 hours: 25 ppm. TWA 10 hours: 100 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 50 ppm. TWA 8 hours: 200 mg/m ³ .
Diacetone Alcohol	123-42-2	ACGIH TLV (United States, 1/2024) TWA 8 hours: 50 ppm. TWA 8 hours: 238 mg/m ³ . NIOSH REL (United States, 10/2020) TWA 10 hours: 50 ppm. TWA 10 hours: 240 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 50 ppm. TWA 8 hours: 240 mg/m ³ .
Isophorone	78-59-1	ACGIH TLV (United States, 1/2024) A3. C: 5 ppm. C: 28 mg/m ³ . NIOSH REL (United States, 10/2020) TWA 10 hours: 4 ppm. TWA 10 hours: 23 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 25 ppm. TWA 8 hours: 140 mg/m ³ .
2-Methoxymethylethoxypropanol	34590-94-8	ACGIH TLV (United States, 1/2024) [

Section 8. Exposure controls/personal protection

2-methoxy-1-methylethyl acetate	108-65-6	(2-Methoxymethylethoxy)propanol] Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 606 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 909 mg/m³. ACGIH TLV (United States, 1/2024) [dipropylene glycol methyl ether] TWA 8 hours: 50 ppm. NIOSH REL (United States, 10/2020) Absorbed through skin. TWA 10 hours: 100 ppm. TWA 10 hours: 600 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 900 mg/m³. OSHA PEL (United States, 5/2018) Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 600 mg/m³. OARS WEEL (United States, 9/2024) TWA 8 hours: 50 ppm.
Methyl Isobutyl Ketone	108-10-1	ACGIH TLV (United States, 1/2024) A3. TWA 8 hours: 20 ppm. STEL 15 minutes: 75 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 50 ppm. TWA 10 hours: 205 mg/m³. STEL 15 minutes: 75 ppm. STEL 15 minutes: 300 mg/m³. OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 410 mg/m³.
Proprietary 2-Butoxyethanol	111-76-2	None. ACGIH TLV (United States, 1/2024) A3. TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) Absorbed through skin. TWA 10 hours: 5 ppm. TWA 10 hours: 24 mg/m³. OSHA PEL (United States, 5/2018) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 240 mg/m³.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Methyl ethyl ketone	78-93-3	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 300 ppm. TWA 8 hours: 200 ppm. CA British Columbia Provincial (Canada, 9/2024) Repr. Absorbed through skin. TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 200 ppm.

Section 8. Exposure controls/personal protection

Cyclohexanone	108-94-1	STEL 15 minutes: 300 ppm. CA Quebec Provincial (Canada, 2/2024) TWA EV 8 hours: 50 ppm. TWA EV 8 hours: 150 mg/m³. STEV 15 minutes: 100 ppm. STEV 15 minutes: 300 mg/m³. CA Alberta Provincial (Canada, 3/2023) OEL 15 minutes: 300 ppm. OEL 8 hours: 200 ppm. OEL 8 hours: 590 mg/m³. OEL 15 minutes: 885 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) Absorbed through skin. STEL 15 minutes: 50 ppm. TWA 8 hours: 20 ppm. CA British Columbia Provincial (Canada, 9/2024) Absorbed through skin. TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm. CA Ontario Provincial (Canada, 6/2019) Absorbed through skin. TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm. CA Quebec Provincial (Canada, 2/2024) C3. Absorbed through skin. TWA EV 8 hours: 20 ppm. STEV 15 minutes: 50 ppm. CA Alberta Provincial (Canada, 3/2023) Absorbed through skin. OEL 8 hours: 20 ppm. OEL 8 hours: 80 mg/m³. OEL 15 minutes: 200 mg/m³. OEL 15 minutes: 50 ppm.
4-Hydroxy-4-methyl-2-pentanone	123-42-2	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 60 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 9/2024) TWA 8 hours: 50 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 50 ppm. CA Quebec Provincial (Canada, 2/2024) TWA EV 8 hours: 50 ppm. TWA EV 8 hours: 238 mg/m³. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 50 ppm. OEL 8 hours: 238 mg/m³.
3,5,5-Trimethyl-2-cyclohexen-1-one	78-59-1	CA Saskatchewan Provincial (Canada, 4/2021) CEIL: 5 ppm. CA British Columbia Provincial (Canada, 9/2024) C: 5 ppm. CA Ontario Provincial (Canada, 6/2019) Ceiling Limit: 5 ppm. CA Quebec Provincial (Canada, 2/2024)

Section 8. Exposure controls/personal protection

Dipropylene glycol monomethyl ether	34590-94-8	C3. C: 5 ppm. CA Alberta Provincial (Canada, 3/2023) C: 28 mg/m³. C: 5 ppm. CA Saskatchewan Provincial (Canada, 4/2021) Absorbed through skin. STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 9/2024) [dipropylene glycol methyl ether] TWA 8 hours: 100 ppm. STEL 15 minutes: 150 ppm. CA Ontario Provincial (Canada, 6/2019) Absorbed through skin. STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA Quebec Provincial (Canada, 2/2024) [Dipropylene glyco monomethyl ether] Absorbed through skin. TWA EV 8 hours: 100 ppm. TWA EV 8 hours: 606 mg/m³. STEV 15 minutes: 150 ppm. STEV 15 minutes: 909 mg/m³. CA Alberta Provincial (Canada, 3/2023) Absorbed through skin. OEL 8 hours: 100 ppm. OEL 15 minutes: 909 mg/m³. OEL 8 hours: 606 mg/m³. OEL 15 minutes: 150 ppm.
Methyl isobutyl ketone	108-10-1	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 75 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 9/2024) Carc 2B. TWA 8 hours: 20 ppm. STEL 15 minutes: 75 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. STEL 15 minutes: 75 ppm. CA Quebec Provincial (Canada, 2/2024) C3. TWA EV 8 hours: 20 ppm. STEV 15 minutes: 75 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 205 mg/m³. OEL 8 hours: 50 ppm. OEL 15 minutes: 75 ppm. OEL 15 minutes: 307 mg/m³.
2-Butoxyethanol	111-76-2	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 30 ppm. TWA 8 hours: 20 ppm. CA British Columbia Provincial (Canada, 9/2024) TWA 8 hours: 20 ppm.

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CA Ontario Provincial (Canada, 6/2019)
TWA 8 hours: 20 ppm.
CA Quebec Provincial (Canada, 2/2024)
C3.
TWA EV 8 hours: 20 ppm.
CA Alberta Provincial (Canada, 3/2023)
OEL 8 hours: 97 mg/m³.
OEL 8 hours: 20 ppm.

Occupational exposure limits (Mexico)

Ingredient name	CAS #	Exposure limits
Methyl Ethyl Ketone	78-93-3	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 200 ppm. STEL 15 minutes: 300 ppm.
Cyclohexanone	108-94-1	NOM-010-STPS-2014 (Mexico, 4/2016) A3. Absorbed through skin. TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm.
Diacetone Alcohol	123-42-2	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 50 ppm.
Isophorone	78-59-1	NOM-010-STPS-2014 (Mexico, 4/2016) A3. CEIL: 5 ppm.
Methyl Isobutyl Ketone	108-10-1	NOM-010-STPS-2014 (Mexico, 4/2016) A3. TWA 8 hours: 50 ppm. STEL 15 minutes: 75 ppm.
2-Butoxyethanol	111-76-2	NOM-010-STPS-2014 (Mexico, 4/2016) A3. TWA 8 hours: 20 ppm.

Biological exposure indices (United States)

Ingredient name	Exposure indices
Methyl Ethyl Ketone	ACGIH BEI (United States, 1/2024) BEI: 2 mg/l, methyl ethyl ketone [in urine]. Sampling time: end of shift.
Cyclohexanone	ACGIH BEI (United States, 1/2024) BEI: 80 mg/l [Semi-quantitative: The determinant is an indicator of exposure to the chemical, but the quantitative interpretation of the measurement is ambiguous. These determinants should be used as a screening test if a quantitative test is not practical or as a confirmatory test if the quantitative test is not specific and the origin of the determinant is in question.], 1,2-cyclohexanediol [in urine]. Sampling time: end of shift at end of workweek. BEI: 8 mg/l [Semi-quantitative: The determinant is an indicator of exposure to the chemical, but the quantitative interpretation of the measurement is ambiguous. These determinants should be used as a screening test if a quantitative test is not practical or as a confirmatory test if the quantitative test is not specific and the origin of the determinant is in question.], cyclohexanol [in urine]. Sampling time: end of shift.

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Methyl Isobutyl Ketone	ACGIH BEI (United States, 1/2024) BEI: 1 mg/l, methyl isobutyl ketone [in urine]. Sampling time: end of shift.
2-Butoxyethanol	ACGIH BEI (United States, 1/2024) BEI: 200 mg/g creatinine, butoxyacetic acid (BAA) [in urine]. Sampling time: end of shift.

Biological exposure indices (Canada)

No exposure indices known.

Biological exposure indices (Mexico)

Ingredient name	Exposure indices
Methyl Ethyl Ketone	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 2 mg/L, MEK [in urine]. Sampling time: at the end of the work shift.
Cyclohexanone	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 8 mg/L [non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.; semi-quantitative.The biological determinant is an indicator of chemical exposure, but the quantitative interpretation of the measure is ambiguous. These biological determinants should be used as a screening test if a quantitative test is not possible.], cyclohexanol [in urine]. Sampling time: at the end of the work shift. BEI: 80 mg/L [non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.; semi-quantitative.The biological determinant is an indicator of chemical exposure, but the quantitative interpretation of the measure is ambiguous. These biological determinants should be used as a screening test if a quantitative test is not possible.], 1,2-cyclohexanediol [in urine]. Sampling time: at the end of the shift at the end of the work week.
Methyl Isobutyl Ketone	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 2 mg/L, MIBK [in urine]. Sampling time:

Section 8. Exposure controls/personal protection

2-Butoxyethanol

at the end of the work shift.

Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)

BEI: 200 mg/g creatinine, butoxyacetic acid (BAA) [in urine]. Sampling time: exposure sample at the end of the work shift.

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state	: Liquid.
Color	: Various
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not applicable.
Melting point/freezing point	: Not available.
Boiling point or initial boiling point and boiling range	: 78°C (172.4°F)
Flash point	: Closed cup: -6°C (21.2°F) [Pensky-Martens Closed Cup]
Evaporation rate	: 89 (butyl acetate = 1)
Flammability	: Flammable liquid.
Lower and upper explosion limit/flammability limit	: Lower: 0.8% Upper: 14%
Vapor pressure	: 12.1 kPa (90.6 mm Hg)
Relative vapor density	: 2.48 [Air = 1]
Relative density	: 0.92
Density	: 0.91 g/cm ³
Solubility(ies)	:

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): >20.5 mm ² /s (>20.5 cSt)
Molecular weight	: Not applicable.
<u>Particle characteristics</u>	
Median particle size	: Not applicable.
Heat of combustion	: 25.543 kJ/g

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

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Section 10. Stability and reactivity

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name

Result

Methyl Ethyl Ketone

Rabbit - Dermal - LD50

6480 mg/kg

Rat - Oral - LD50

2737 mg/kg

Cyclohexanone

Rat - Oral - LD50

1800 mg/kg

Rat - Inhalation - LC50 Gas.

8000 ppm [4 hours]

Diacetone Alcohol

Rat - Oral - LD50

2520 mg/kg

Toxic effects: Behavioral - Tremor Behavioral - Convulsions or effect on seizure threshold Liver - Other changes

Rabbit - Dermal - LD50

13500 mg/kg

Isophorone

Rat - Oral - LD50

1870 mg/kg

Rat - Dermal - LD50

1390 mg/kg

Rat - Inhalation - LC50 Gas.

1281 ppm [4 hours]

Toxic effects: Behavioral - Somnolence (general depressed activity) Lung, Thorax, or Respiration - Dyspnea

2-methoxy-1-methylethyl acetate

Rat - Oral - LD50

8532 mg/kg

Rabbit - Dermal - LD50

>5 g/kg

Methyl Isobutyl Ketone

Rat - Oral - LD50

2080 mg/kg

2-Butoxyethanol

Guinea pig - Dermal - LD50

>2000 mg/kg

Rat - Oral - LD50

1300 mg/kg

Guinea pig - Inhalation - LCLo Vapor

>3.1 mg/l [1 hours]

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

Result

Section 11. Toxicological information

Methyl Ethyl Ketone

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 14 mg

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 402 mg

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Cyclohexanone

Human - Skin - Mild irritant

Duration of treatment/exposure: 48 hours

Amount/concentration applied: 50 %

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

Diacetone Alcohol

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

Isophorone

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 mg

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 0.5 MI

2-Methoxymethylethoxypropanol

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

Methyl Isobutyl Ketone

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

2-Butoxyethanol

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name

Result

Cyclohexanone

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 250 ug

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 20 mg

Diacetone Alcohol

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 20 mg

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 uL

Isophorone

Guinea pig - Eyes - Severe irritant

Duration of treatment/exposure: 4 hours

Amount/concentration applied: 840 ppm

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 920 ug

2-Methoxymethylethoxypropanol

Human - Eyes - Mild irritant

Amount/concentration applied: 8 mg

Rabbit - Eyes - Mild irritant

Section 11. Toxicological information

Methyl Isobutyl Ketone

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 uL

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 40 mg

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 100 mg

2-Butoxyethanol

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Cyclohexanone	-	3	-
Isophorone	-	2B	-
Methyl Isobutyl Ketone	-	2B	-
2-Butoxyethanol	-	3	-

Reproductive toxicity

Not available.

Section 11. Toxicological information

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Result

Methyl Ethyl Ketone	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Cyclohexanone	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Diacetone Alcohol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Isophorone	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
2-methoxy-1-methylethyl acetate	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Methyl Isobutyl Ketone	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
2-Butoxyethanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Not available.

Potential acute health effects

Eye contact	: Causes serious eye damage.
Inhalation	: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: Causes skin irritation.
Ingestion	: Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight

Section 11. Toxicological information

- increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
380C35 Clear Interior Lining	3283.6	4662.3	38461.5	299.7	N/A
Methyl Ethyl Ketone	2737	6480	N/A	N/A	N/A
Cyclohexanone	1800	1100	8000	N/A	N/A
Diacetone Alcohol	2520	13500	N/A	N/A	N/A
Isophorone	1870	1390	N/A	N/A	N/A
2-methoxy-1-methylethyl acetate	8532	N/A	N/A	N/A	N/A
Methyl Isobutyl Ketone	2080	N/A	N/A	11	N/A
2-Butoxyethanol	1200	N/A	N/A	11	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name

Methyl Ethyl Ketone

Result

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Larvae

Age: <24 hours

5091 mg/l [48 hours]

Effect: Intoxication

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 31 days; Size: 22 mm; Weight: 0.167 g

3220 mg/l [96 hours]

Effect: Mortality

Acute - EC50 - Marine water

Algae - Diatom - *Skeletonema costatum*

>500 mg/l [96 hours]

Effect: Population

Cyclohexanone

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 30 days; Size: 20.2 mm; Weight: 0.127 g

527 mg/l [96 hours]

Effect: Mortality

Chronic - EC10

Algae - Green algae - *Chlamydomonas reinhardtii* - Exponential growth phase

Age: 7 days

3.56 mg/l [72 hours]

Effect: Population

Acute - EC50

Algae - Green algae - *Chlamydomonas reinhardtii* - Exponential growth phase

Age: 7 days

32.9 mg/l [72 hours]

Effect: Population

Diacetone Alcohol

Acute - LC50 - Fresh water

Fish - Bluegill - *Lepomis macrochirus*

420 ppm [96 hours]

Effect: Mortality

Isophorone

Acute - EC50 - Marine water

Algae - Diatom - *Skeletonema costatum*

105 ppm [96 hours]

Effect: Population

Acute - LC50 - Marine water

Crustaceans - Opossum shrimp - *Americamysis bahia*

47.2 ppm [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas* - Fry

Age: 1 weeks; Size: 3 to 5.5 mm; Weight: 0.67 mg

138 ppm [96 hours]

Effect: Mortality

Chronic - NOEC - Fresh water

Fish - Fathead minnow - *Pimephales promelas* - Embryo

Age: <24 hours

0.65 mg/l [32 days]

Effect: Growth

Methyl Isobutyl Ketone

Acute - LC50 - Fresh water

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Section 12. Ecological information

Fish - Fathead minnow - *Pimephales promelas*

Age: 29 days; Size: 21 mm; Weight: 0.141 g

505 mg/l [96 hours]

Effect: Mortality

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

78 mg/l [21 days]

Effect: Behavior

Chronic - NOEC - Fresh water

Fish - Fathead minnow - *Pimephales promelas* - Embryo

Age: <24 hours

168 mg/l [33 days]

Effect: Mortality

Acute - LC50 - Marine water

Crustaceans - Common shrimp, sand shrimp - *Crangon crangon*

800 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Marine water

Fish - Inland silverside - *Menidia beryllina*

1250 ppm [96 hours]

Effect: Mortality

2-Butoxyethanol

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl Ethyl Ketone	-	-	Readily
Methyl Isobutyl Ketone	-	-	Readily
2-Butoxyethanol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Isophorone	-	7	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	II	II	II	II	II
Environmental hazards	No.	No.	No.	No.	No.
Additional information	- <u>ERG No.</u> 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). <u>ERG No.</u> 128	- <u>ERG No.</u> 128	-	<u>Emergency schedules</u> F-E, S-E

Section 14. Transport information

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

U.S. Federal regulations :

SARA 313

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED and rely on information provided to us by our raw material suppliers. Our suppliers often provide an estimated value or range less than a certain upper limit. We calculate MAXIMUM THEORETICAL VALUES using defined values, if provided, or the upper limit reported by our supplier. Additionally, the suppliers' information may include amounts present in the product as unintentional byproducts or impurities. Variations may occur in individual batches due to adjustments made during production. Reporting of chemicals in this section does not necessarily indicate their presence in the final formulated product.

Ingredient name	% by weight	CAS number
Glycol Ethers (SARA)	1	
Methyl Isobutyl Ketone	2	108-10-1
2-Butoxyethanol	1	111-76-2

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists

: **Australia inventory (AIIIC)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		3
Physical hazards		0

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method

History

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Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The

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Section 16. Other information

conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

DATA BASED ON FORMULATION

VOLATILE COMPOSITION REPORT

Product Code: 53S17AA XR3204-1-H23

CAS Number	Component	Weight Percent	Weight/ Gallon	HAP
78-93-3	METHYL ETHYL KETONE	38.2	6.71	
108-88-3	TOLUENE	15.5	7.26	✓
108-65-6	PROPYLENE GLYCOL MONO METHYL ETHER ACETATE	7.2	8.06	
78-59-1	ISOPHORONE	6.6	7.68	✓
112-07-2	ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	6.1	7.84	✓
108-10-1	METHYL ISOBUTYL KETONE	3.8	6.68	✓
123-42-2	DIACETONE ALCOHOL	3.4	7.83	
111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	1.0	7.51	
71-36-3	BUTANOL	0.2	6.75	

SUM: 82.0

Lbs HAP per gallon of solids: 19.19

HAP Total Weight%: 32.0

9/9/2025

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
COATING SUPPLIER ENVIRONMENTAL DATA SHEET

Coating Manufacturer: Sherwin-Williams
Coating Code Number: 53S17AA XR3204-1-H23

1.	Coating Density Standard Wt/Gal Cup	<u>7.51</u> lb/gal	<u>0.90</u> kg/l
2.	Solvent System (Volatiles) Calculated Density:	<u>7.04</u> lb/gal	<u>0.84</u> kg/l
3.	Organic Solvent Density:	<u>7.04</u> lb/gal	<u>0.84</u> kg/l
4.	Coating Solids (Non Volatiles): ASTM 2369 (EPA Method 24)	a. <u>18.0</u> b. <u>12.5</u>	Weight Percent Volume Percent
5.	Total Volatiles (H2O Included): ASTM 2369 (EPA Method 24)	a. <u>82.0</u> b. <u>87.5</u>	Weight Percent Volume Percent
6.	Total Exempt Solvent:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
7.	Total Organic Volatiles: (Less H2O)	a. <u>82.0</u> b. <u>87.5</u>	Weight Percent Volume Percent
8.	Coating Water Content: a. Water content as Charged: b. Calculated:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
9.	VOC Content: * (Coating Less Water & Exempt Solvent) (Solids)	<u>6.2</u> lb/gal <u>49.2</u> lb/gal	<u>0.74</u> kg/l <u>5.90</u> kg/l

*Note : The VOC reported is based on laboratory or small production quantities. Diluting the coating with organic solvents at the point of application will alter the VOC level. Consult your Valspar Sales Representative for additional information in such cases.

SAFETY DATA SHEET

53S17AA

Section 1. Identification

Product name : 374-5020 Epoxy HENOLIC H23 Lining

Product code : 53S17AA

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : The Sherwin Williams Company
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : (800) 424-9300

Product Information Telephone Number : 866-722-9710

Transportation Emergency Telephone Number : (800) 424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 19.3% (dermal), 3.4% (inhalation)

GHS label elements

Hazard pictograms :



Signal word : Danger

Section 2. Hazards identification

Hazard statements : Highly flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
May damage fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling.

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage : Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. Contains Formaldehyde - a potential cancer hazard.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	Identifiers
Methyl Ethyl Ketone	≥25 - ≤50	78-93-3
Toluene	≥10 - ≤25	108-88-3
2-methoxy-1-methylethyl acetate	≤10	108-65-6
Isophorone	≤9.5	78-59-1
2-Butoxyethyl Acetate	≤9.8	112-07-2
Methyl Isobutyl Ketone	≤5	108-10-1
Diacetone Alcohol	≤4.9	123-42-2
Polymeric Ester	≤3	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 4. First aid measures

- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

- Remark** : Flammable liquid.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Methyl Ethyl Ketone	78-93-3	ACGIH TLV (United States, 1/2024) Absorbed through skin. TWA 8 hours: 75 ppm. STEL 15 minutes: 150 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 200 ppm. TWA 10 hours: 590 mg/m ³ . STEL 15 minutes: 300 ppm. STEL 15 minutes: 885 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 200 ppm. TWA 8 hours: 590 mg/m ³ .
Toluene	108-88-3	ACGIH TLV (United States, 1/2024) A4. Ototoxicant. TWA 8 hours: 20 ppm. OSHA PEL Z2 (United States, 2/2013) TWA 8 hours: 200 ppm. CEIL: 300 ppm. AMP 10 minutes: 500 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 100 ppm. TWA 10 hours: 375 mg/m ³ . STEL 15 minutes: 150 ppm. STEL 15 minutes: 560 mg/m ³ .
2-methoxy-1-methylethyl acetate	108-65-6	OARS WEEL (United States, 9/2024) TWA 8 hours: 50 ppm.
Isophorone	78-59-1	ACGIH TLV (United States, 1/2024) A3. C: 5 ppm. C: 28 mg/m ³ . NIOSH REL (United States, 10/2020) TWA 10 hours: 4 ppm. TWA 10 hours: 23 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 25 ppm. TWA 8 hours: 140 mg/m ³ .
2-Butoxyethyl Acetate	112-07-2	ACGIH TLV (United States, 1/2024) A3. TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 5 ppm. TWA 10 hours: 33 mg/m ³ .
Methyl Isobutyl Ketone	108-10-1	ACGIH TLV (United States, 1/2024) A3. TWA 8 hours: 20 ppm.

Section 8. Exposure controls/personal protection

Diacetone Alcohol	123-42-2	STEL 15 minutes: 75 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 50 ppm. TWA 10 hours: 205 mg/m³. STEL 15 minutes: 75 ppm. STEL 15 minutes: 300 mg/m³. OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 410 mg/m³. ACGIH TLV (United States, 1/2024) TWA 8 hours: 50 ppm. TWA 8 hours: 238 mg/m³. NIOSH REL (United States, 10/2020) TWA 10 hours: 50 ppm. TWA 10 hours: 240 mg/m³. OSHA PEL (United States, 5/2018) TWA 8 hours: 50 ppm. TWA 8 hours: 240 mg/m³. None.
Proprietary		

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Methyl ethyl ketone	78-93-3	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 300 ppm. TWA 8 hours: 200 ppm. CA British Columbia Provincial (Canada, 9/2024) Repr. Absorbed through skin. TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 200 ppm. STEL 15 minutes: 300 ppm. CA Quebec Provincial (Canada, 2/2024) TWA_{EV} 8 hours: 50 ppm. TWA_{EV} 8 hours: 150 mg/m³. STEV 15 minutes: 100 ppm. STEV 15 minutes: 300 mg/m³. CA Alberta Provincial (Canada, 3/2023) OEL 15 minutes: 300 ppm. OEL 8 hours: 200 ppm. OEL 8 hours: 590 mg/m³. OEL 15 minutes: 885 mg/m³.
toluene	108-88-3	CA Saskatchewan Provincial (Canada, 4/2021) Absorbed through skin. STEL 15 minutes: 60 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 9/2024) Repr. TWA 8 hours: 20 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) Ototoxicant. TWA_{EV} 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023)

Section 8. Exposure controls/personal protection

3,5,5-Trimethyl-2-cyclohexen-1-one	78-59-1	Absorbed through skin. OEL 8 hours: 50 ppm. OEL 8 hours: 188 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) CEIL: 5 ppm. CA British Columbia Provincial (Canada, 9/2024) C: 5 ppm. CA Ontario Provincial (Canada, 6/2019) Ceiling Limit: 5 ppm. CA Quebec Provincial (Canada, 2/2024) C3. C: 5 ppm. CA Alberta Provincial (Canada, 3/2023) C: 28 mg/m³. C: 5 ppm.
Ethylene glycol butyl ether acetate	112-07-2	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 30 ppm. TWA 8 hours: 20 ppm. CA British Columbia Provincial (Canada, 9/2024) TWA 8 hours: 20 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) C3. TWA EV 8 hours: 10 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 131 mg/m³. OEL 8 hours: 20 ppm.
Methyl isobutyl ketone	108-10-1	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 75 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 9/2024) Carc 2B. TWA 8 hours: 20 ppm. STEL 15 minutes: 75 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. STEL 15 minutes: 75 ppm. CA Quebec Provincial (Canada, 2/2024) C3. TWA EV 8 hours: 20 ppm. STEV 15 minutes: 75 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 205 mg/m³. OEL 8 hours: 50 ppm. OEL 15 minutes: 75 ppm. OEL 15 minutes: 307 mg/m³.
4-Hydroxy-4-methyl-2-pentanone	123-42-2	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 60 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada,

Section 8. Exposure controls/personal protection

2-Butoxyethanol	111-76-2	9/2024) TWA 8 hours: 50 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 50 ppm. CA Quebec Provincial (Canada, 2/2024) TWA 8 hours: 50 ppm. TWA 8 hours: 238 mg/m³. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 50 ppm. OEL 8 hours: 238 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 30 ppm. TWA 8 hours: 20 ppm. CA British Columbia Provincial (Canada, 9/2024) TWA 8 hours: 20 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) C3. TWA 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 97 mg/m³. OEL 8 hours: 20 ppm.

Occupational exposure limits (Mexico)

Ingredient name	CAS #	Exposure limits
Methyl Ethyl Ketone	78-93-3	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 200 ppm. STEL 15 minutes: 300 ppm.
Toluene	108-88-3	NOM-010-STPS-2014 (Mexico, 4/2016) A4. TWA 8 hours: 20 ppm.
Isophorone	78-59-1	NOM-010-STPS-2014 (Mexico, 4/2016) A3. CEIL: 5 ppm.
2-Butoxyethyl Acetate	112-07-2	NOM-010-STPS-2014 (Mexico, 4/2016) A3. TWA 8 hours: 20 ppm.
Methyl Isobutyl Ketone	108-10-1	NOM-010-STPS-2014 (Mexico, 4/2016) A3. TWA 8 hours: 50 ppm. STEL 15 minutes: 75 ppm.
Diacetone Alcohol	123-42-2	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 50 ppm.

Biological exposure indices (United States)

Ingredient name	Exposure indices
Methyl Ethyl Ketone	ACGIH BEI (United States, 1/2024) BEI: 2 mg/l, methyl ethyl ketone [in urine]. Sampling time: end of shift.
Toluene	ACGIH BEI (United States, 1/2024) BEI: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift. BEI: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift. BEI: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek.

Section 8. Exposure controls/personal protection

Methyl Isobutyl Ketone	ACGIH BEI (United States, 1/2024) BEI: 1 mg/l, methyl isobutyl ketone [in urine]. Sampling time: end of shift.

Biological exposure indices (Canada)

No exposure indices known.

Biological exposure indices (Mexico)

Ingredient name	Exposure indices
Methyl Ethyl Ketone	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 2 mg/L, MEK [in urine]. Sampling time: at the end of the work shift.
Toluene	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 0.05 mg/L, toluene [in blood]. Sampling time: sample time not specified. BEI: 1.6 g/g creatinine [Basal level.The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu; non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.], hippuric acid [in urine]. Sampling time: at the end of the work shift. BEI: 0.5 mg/L [Basal level.The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu], o-cresol [in urine]. Sampling time: at the end of the work shift.
Methyl Isobutyl Ketone	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 2 mg/L, MIBK [in urine]. Sampling time: at the end of the work shift.

Section 8. Exposure controls/personal protection

Appropriate engineering controls	: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
<u>Individual protection measures</u>	
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
<u>Skin protection</u>	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state	: Liquid.
Color	: Clear.
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not applicable.
Melting point/freezing point	: Not available.
Boiling point or initial boiling point and boiling range	: 78°C (172.4°F)

Section 9. Physical and chemical properties

Flash point	: Closed cup: -4°C (24.8°F) [Pensky-Martens Closed Cup]
Evaporation rate	: 5.6 (butyl acetate = 1)
Flammability	: Flammable liquid.
Lower and upper explosion limit/flammability limit	: Lower: 0.5% Upper: 13.1%
Vapor pressure	: 12.1 kPa (90.6 mm Hg)
Relative vapor density	: 2.48 [Air = 1]
Relative density	: 0.89
Density	: 0.89 g/cm ³
Solubility(ies)	:

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): <20.5 mm ² /s (<20.5 cSt)
Molecular weight	: Not applicable.
<u>Particle characteristics</u>	
Median particle size	: Not applicable.
Heat of combustion	: 25.954 kJ/g

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name

Result

Methyl Ethyl Ketone

Rabbit - Dermal - LD50

6480 mg/kg

Rat - Oral - LD50

2737 mg/kg

Rat - Oral - LD50

636 mg/kg

Rat - Inhalation - LC50 Vapor

49 g/m³ [4 hours]

Rat - Oral - LD50

8532 mg/kg

Rabbit - Dermal - LD50

>5 g/kg

Rat - Oral - LD50

1870 mg/kg

Rat - Dermal - LD50

1390 mg/kg

Rat - Inhalation - LC50 Gas.

1281 ppm [4 hours]

Toxic effects: Behavioral - Somnolence (general depressed activity) Lung, Thorax, or Respiration - Dyspnea

Rat - Oral - LD50

2400 mg/kg

Toxic effects: Kidney, Ureter, and Bladder - Hematuria Kidney, Ureter, and Bladder - Other changes in urine composition

Rabbit - Dermal - LD50

1500 mg/kg

Toxic effects: Kidney, Ureter, and Bladder - Hematuria Kidney, Ureter, and Bladder - Other changes in urine composition Blood - Normocytic anemia

Rat - Oral - LD50

2080 mg/kg

Rat - Oral - LD50

2520 mg/kg

Toxic effects: Behavioral - Tremor Behavioral - Convulsions or effect on seizure threshold Liver - Other changes

Rabbit - Dermal - LD50

13500 mg/kg

Toluene

2-methoxy-1-methylethyl acetate

Isophorone

2-Butoxyethyl Acetate

Methyl Isobutyl Ketone

Diacetone Alcohol

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

Result

Methyl Ethyl Ketone

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 14 mg

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 402 mg

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Section 11. Toxicological information

Toluene

Pig - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 250 uL

Rabbit - Skin - Mild irritant

Amount/concentration applied: 435 mg

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 20 mg

Rabbit - Skin - Moderate irritant

Amount/concentration applied: 500 mg

Isophorone

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 mg

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 0.5 MI

2-Butoxyethyl Acetate

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

Methyl Isobutyl Ketone

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Diacetone Alcohol

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

Conclusion/Summary [Product]

: Not available.

Serious eye damage/eye irritation

Product/ingredient name

Result

Toluene

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 0.5 minutes

Amount/concentration applied: 100 mg

Rabbit - Eyes - Mild irritant

Amount/concentration applied: 870 ug

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 0.1 MI

Isophorone

Guinea pig - Eyes - Severe irritant

Duration of treatment/exposure: 4 hours

Amount/concentration applied: 840 ppm

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 920 ug

2-Butoxyethyl Acetate

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Methyl Isobutyl Ketone

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 uL

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 40 mg

Diacetone Alcohol

Rabbit - Eyes - Severe irritant

Section 11. Toxicological information

Amount/concentration applied: 20 mg

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 uL

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Isophorone	-	2B	-
Methyl Isobutyl Ketone	-	2B	-

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Result

Section 11. Toxicological information

Methyl Ethyl Ketone	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Toluene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
2-methoxy-1-methylethyl acetate	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Isophorone	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Methyl Isobutyl Ketone	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Diacetone Alcohol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
Toluene	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Aspiration hazard

Product/ingredient name	Result
Toluene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Not available.

Potential acute health effects

Eye contact	: Causes serious eye irritation.
Inhalation	: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: Causes skin irritation.
Ingestion	: Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations

Section 11. Toxicological information

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : May damage fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
374-5020 Epoxy HENOLIC H23 Lining	3225.8	9211.6	N/A	111.7	N/A
Methyl Ethyl Ketone	2737	6480	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	49	N/A
2-methoxy-1-methylethyl acetate	8532	N/A	N/A	N/A	N/A
Isophorone	1870	1390	N/A	N/A	N/A
2-Butoxyethyl Acetate	500	1500	N/A	11	N/A
Methyl Isobutyl Ketone	2080	N/A	N/A	11	N/A
Diacetone Alcohol	2520	13500	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name

Methyl Ethyl Ketone

Result

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Larvae

Age: <24 hours

5091 mg/l [48 hours]

Effect: Intoxication

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 31 days; Size: 22 mm; Weight: 0.167 g

3220 mg/l [96 hours]

Effect: Mortality

Acute - EC50 - Marine water

Algae - Diatom - *Skeletonema costatum*

>500 mg/l [96 hours]

Effect: Population

Toluene

Acute - LC50 - Fresh water

Fish - Coho salmon, silver salmon - *Oncorhynchus kisutch* - Fry

Weight: 1 g

5500 µg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Juvenile (Fledgling,

Hatchling, Weanling)

6000 µg/l [48 hours]

Effect: Intoxication

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

Age: ≤24 hours

1 mg/l [21 days]

Effect: Mortality

Acute - EC50 - Fresh water

Algae - Green algae - *Raphidocelis subcapitata*

12.5 mg/l [72 hours]

Effect: Growth

Isophorone

Acute - EC50 - Marine water

Algae - Diatom - *Skeletonema costatum*

105 ppm [96 hours]

Effect: Population

Acute - LC50 - Marine water

Crustaceans - Opossum shrimp - *Americamysis bahia*

47.2 ppm [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas* - Fry

Age: 1 weeks; Size: 3 to 5.5 mm; Weight: 0.67 mg

138 ppm [96 hours]

Effect: Mortality

Chronic - NOEC - Fresh water

Fish - Fathead minnow - *Pimephales promelas* - Embryo

Age: <24 hours

0.65 mg/l [32 days]

Effect: Growth

Methyl Isobutyl Ketone

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 29 days; Size: 21 mm; Weight: 0.141 g

Section 12. Ecological information

505 mg/l [96 hours]
Effect: Mortality
Chronic - NOEC - Fresh water
Daphnia - Water flea - *Daphnia magna*
78 mg/l [21 days]
Effect: Behavior
Chronic - NOEC - Fresh water
Fish - Fathead minnow - *Pimephales promelas* - Embryo
Age: <24 hours
168 mg/l [33 days]
Effect: Mortality
Acute - LC50 - Fresh water
Fish - Bluegill - *Lepomis macrochirus*
420 ppm [96 hours]
Effect: Mortality

Diacetone Alcohol

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl Ethyl Ketone	-	-	Readily
Toluene	-	-	Readily
2-Butoxyethyl Acetate	-	-	Readily
Methyl Isobutyl Ketone	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Toluene	-	90	Low
Isophorone	-	7	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.

Section 13. Disposal considerations

Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	II	II	II	II	II
Environmental hazards	No.	No.	No.	No.	No.
Additional information	- <u>ERG No.</u> 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). <u>ERG No.</u> 128	- <u>ERG No.</u> 128	-	<u>Emergency schedules</u> F-E, S-E

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

U.S. Federal regulations :

[SARA 313](#)

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED and rely on information provided to us by our raw material suppliers. Our suppliers often provide an estimated value or range less than a certain upper limit. We calculate MAXIMUM THEORETICAL VALUES using defined values, if provided, or the upper limit reported by our supplier. Additionally, the suppliers' information may include amounts present in the product as unintentional byproducts or impurities. Variations may occur in individual batches due to adjustments made during production. Reporting of chemicals in this section does not necessarily indicate their presence in the final formulated product.

Ingredient name	% by weight	CAS number
Glycol Ethers (SARA)	7	
Toluene	16	108-88-3
2-Butoxyethyl Acetate	6	112-07-2
Methyl Isobutyl Ketone	4	108-10-1

[California Prop. 65](#)

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

[International regulations](#)

[Montreal Protocol](#)

Not listed.

[Stockholm Convention on Persistent Organic Pollutants](#)

Not listed.

International lists

: **Australia inventory (AIIIC):** Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

[Hazardous Material Information System \(U.S.A.\)](#)

Health	*	3
Flammability		3
Physical hazards		0

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

[Procedure used to derive the classification](#)

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53S17AA	374-5020 Epoxy HENOLIC H23 Lining	SHW-85-NA-GHS-US	

Section 16. Other information

Classification	Justification
FLAMMABLE LIQUIDS - Category 2 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

History

Date of printing : 8/2/2025

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Date of previous issue : 6/20/2025

Version : 3

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

DATA BASED ON FORMULATION

VOLATILE COMPOSITION REPORT

Product Code: 3846047

CAS Number	Component	Weight Percent	Weight/ Gallon	HAP
108-10-1	METHYL ISOBUTYL KETONE	35.2	6.68	✓
107-98-2	PROPYLENE GLYCOL MONO METHYL ETHER	21.8	7.65	
108-65-6	PROPYLENE GLYCOL MONO METHYL ETHER ACETATE	6.8	8.06	
71-36-3	BUTANOL	2.8	6.75	
1330-20-7	XYLENE	2.1	7.23	✓
100-41-4	BENZENE, ETHYL	0.9	7.25	✓
50-00-0	FORMALDEHYDE	0.6	6.83	✓
1589-47-5	2-METHOXYPROPANOL	0.1	7.66	

SUM: 70.3

Lbs HAP per gallon of solids: 13.44

HAP Total Weight%: 38.8

9/9/2025

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
COATING SUPPLIER ENVIRONMENTAL DATA SHEET

Coating Manufacturer: Sherwin-Williams
Coating Code Number: 3846047

1.	Coating Density Standard Wt/Gal Cup	<u>7.82</u> lb/gal	<u>0.94</u> kg/l
2.	Solvent System (Volatiles) Calculated Density:	<u>7.10</u> lb/gal	<u>0.85</u> kg/l
3.	Organic Solvent Density:	<u>7.10</u> lb/gal	<u>0.85</u> kg/l
4.	Coating Solids (Non Volatiles): ASTM 2369 (EPA Method 24)	a. <u>29.7</u> b. <u>22.6</u>	Weight Percent Volume Percent
5.	Total Volatiles (H2O Included): ASTM 2369 (EPA Method 24)	a. <u>70.3</u> b. <u>77.4</u>	Weight Percent Volume Percent
6.	Total Exempt Solvent:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
7.	Total Organic Volatiles: (Less H2O)	a. <u>70.3</u> b. <u>77.4</u>	Weight Percent Volume Percent
8.	Coating Water Content: a. Water content as Charged: b. Calculated:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
9.	VOC Content: * (Coating Less Water & Exempt Solvent) (Solids)	<u>5.5</u> lb/gal <u>24.4</u> lb/gal	<u>0.66</u> kg/l <u>2.92</u> kg/l

*Note : The VOC reported is for the coating as supplied, and is an average for batches produced. Diluting the coating with organic solvents at the point of application will alter the VOC level. Consult your Valspar Sales Representative for additional information in such cases.

SAFETY DATA SHEET

3846047

Section 1. Identification

Product name : 3846047 Gold Epoxy

Product code : 3846047

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : The Sherwin Williams Company
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : (800) 424-9300

Product Information Telephone Number : 866-722-9710

Transportation Emergency Telephone Number : (800) 424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1
GERM CELL MUTAGENICITY - Category 2
CARCINOGENICITY - Category 1A
TOXIC TO REPRODUCTION - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 35.3% (dermal), 21.9% (inhalation)

GHS label elements

Hazard pictograms



Signal word : Danger

Date of issue/Date of revision : 8/2/2025

Date of previous issue : 7/2/2025

Version : 2.02

1/26

3846047

3846047 Gold Epoxy

SHW-85-NA-GHS-US

Section 2. Hazards identification

Hazard statements : Highly flammable liquid and vapor.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing genetic defects.
May cause cancer.
May damage fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage : Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. Contains Formaldehyde - a potential cancer hazard.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	Identifiers
Methyl Isobutyl Ketone	≥25 - ≤38	108-10-1
1-Methoxy-2-propanol	≥10 - ≤25	107-98-2
2-methoxy-1-methylethyl acetate	≤10	108-65-6
1-Butanol	≤3	71-36-3
Xylene, mixed isomers	≤3	1330-20-7
Phenol	≤1.2	108-95-2
Ethylbenzene	<1	100-41-4
Formaldehyde (max.)	<1	50-00-0
Paratertiarybutylphenol	<1	98-54-4
2-Methoxy-1-propanol	≤0.3	1589-47-5

Date of issue/**Date of revision** : 8/2/2025 **Date of previous issue** : 7/2/2025 **Version** : 2.02 2/26
3846047 3846047 Gold Epoxy **SHW-85-NA-GHS-US**

Section 3. Composition/information on ingredients

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness

Section 4. First aid measures

- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds

Section 5. Fire-fighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Remark** : Flammable liquid.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Methyl Isobutyl Ketone	108-10-1	ACGIH TLV (United States, 1/2024) A3. TWA 8 hours: 20 ppm. STEL 15 minutes: 75 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 50 ppm. TWA 10 hours: 205 mg/m ³ . STEL 15 minutes: 75 ppm. STEL 15 minutes: 300 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 410 mg/m ³ .
1-Methoxy-2-propanol	107-98-2	ACGIH TLV (United States, 1/2024) A4. TWA 8 hours: 50 ppm. TWA 8 hours: 184 mg/m ³ . STEL 15 minutes: 100 ppm. STEL 15 minutes: 369 mg/m ³ . NIOSH REL (United States, 10/2020) TWA 10 hours: 100 ppm. TWA 10 hours: 360 mg/m ³ . STEL 15 minutes: 150 ppm. STEL 15 minutes: 540 mg/m ³ .
2-methoxy-1-methylethyl acetate	108-65-6	OARS WEEL (United States, 9/2024) TWA 8 hours: 50 ppm.
1-Butanol	71-36-3	ACGIH TLV (United States, 1/2024) TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) Absorbed through skin. CEIL: 50 ppm. CEIL: 150 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 300 mg/m ³ .
Xylene, mixed isomers	1330-20-7	ACGIH TLV (United States, 1/2024) [p-xylene and mixtures containing p-xylene] A4. Ototoxicant. TWA 8 hours: 20 ppm.

Section 8. Exposure controls/personal protection

Phenol	108-95-2	OSHA PEL (United States, 5/2018) [Xylenes] TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m³. ACGIH TLV (United States, 1/2024) A4. Absorbed through skin. TWA 8 hours: 5 ppm. TWA 8 hours: 19 mg/m³. NIOSH REL (United States, 10/2020) Absorbed through skin. TWA 10 hours: 5 ppm. TWA 10 hours: 19 mg/m³. CEIL 15 minutes: 15.6 ppm. CEIL 15 minutes: 60 mg/m³. OSHA PEL (United States, 5/2018) Absorbed through skin. TWA 8 hours: 5 ppm. TWA 8 hours: 19 mg/m³.
Ethylbenzene	100-41-4	ACGIH TLV (United States, 1/2024) A3. Ototoxicant. TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 100 ppm. TWA 10 hours: 435 mg/m³. STEL 15 minutes: 125 ppm. STEL 15 minutes: 545 mg/m³. OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m³.
Formaldehyde (max.)	50-00-0	ACGIH TLV (United States, 1/2024) A1. Skin sensitizer , Inhalation sensitizer. STEL 15 minutes: 0.3 ppm. TWA 8 hours: 0.1 ppm. OSHA PEL Z2 (United States, 2/2013) TWA 8 hours: 0.75 ppm. STEL 15 minutes: 2 ppm. NIOSH REL (United States, 10/2020) NIA. TWA 10 hours: 0.016 ppm. CEIL 15 minutes: 0.1 ppm. OSHA PEL (United States, 5/2018) TWA 8 hours: 0.75 ppm. STEL 15 minutes: 2 ppm.
Paratertiarybutylphenol 2-Methoxy-1-propanol	98-54-4 1589-47-5	None. None.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Methyl isobutyl ketone	108-10-1	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 75 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 9/2024) Carc 2B. TWA 8 hours: 20 ppm. STEL 15 minutes: 75 ppm. CA Ontario Provincial (Canada, 6/2019)

Section 8. Exposure controls/personal protection

Propylene glycol monomethyl ether	107-98-2	TWA 8 hours: 20 ppm. STEL 15 minutes: 75 ppm. CA Quebec Provincial (Canada, 2/2024) C3. TWA EV 8 hours: 20 ppm. STEV 15 minutes: 75 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 205 mg/m³. OEL 8 hours: 50 ppm. OEL 15 minutes: 75 ppm. OEL 15 minutes: 307 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 9/2024) STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm. CA Quebec Provincial (Canada, 2/2024) TWA EV 8 hours: 50 ppm. STEV 15 minutes: 100 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 100 ppm. OEL 15 minutes: 553 mg/m³. OEL 8 hours: 369 mg/m³. OEL 15 minutes: 150 ppm.
Normal butyl alcohol	71-36-3	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 30 ppm. TWA 8 hours: 20 ppm. CA British Columbia Provincial (Canada, 9/2024) TWA 8 hours: 15 ppm. C: 30 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) TWA EV 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 60 mg/m³. OEL 8 hours: 20 ppm.
Xylene	1330-20-7	CA Saskatchewan Provincial (Canada, 4/2021) [Xylene] STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 9/2024) [xylene (o, m & p isomers)] TWA 8 hours: 100 ppm. STEL 15 minutes: 150 ppm. CA Ontario Provincial (Canada, 6/2019) [Xylene (o-, m-, p-isomers)] STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm.

Section 8. Exposure controls/personal protection

Phenol	108-95-2	CA Quebec Provincial (Canada, 2/2024) [Xylene] TWA EV 8 hours: 100 ppm. TWA EV 8 hours: 434 mg/m³. STEV 15 minutes: 150 ppm. STEV 15 minutes: 651 mg/m³. CA Alberta Provincial (Canada, 3/2023) [Dimethylbenzene] OEL 8 hours: 100 ppm. OEL 15 minutes: 651 mg/m³. OEL 15 minutes: 150 ppm. OEL 8 hours: 434 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) Absorbed through skin. STEL 15 minutes: 7.5 ppm. TWA 8 hours: 5 ppm. CA British Columbia Provincial (Canada, 9/2024) Absorbed through skin. TWA 8 hours: 5 ppm. CA Ontario Provincial (Canada, 6/2019) Absorbed through skin. TWA 8 hours: 5 ppm. CA Quebec Provincial (Canada, 2/2024) Absorbed through skin. TWA EV 8 hours: 5 ppm. TWA EV 8 hours: 19 mg/m³. CA Alberta Provincial (Canada, 3/2023) Absorbed through skin. OEL 8 hours: 19 mg/m³. OEL 8 hours: 5 ppm.
Ethylbenzene	100-41-4	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 125 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 9/2024) Carc 2B. TWA 8 hours: 20 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) C3. TWA EV 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 100 ppm. OEL 8 hours: 434 mg/m³. OEL 15 minutes: 543 mg/m³. OEL 15 minutes: 125 ppm.
Formaldehyde	50-00-0	CA Saskatchewan Provincial (Canada, 4/2021) Sensitizer. CEIL: 0.3 ppm. CA British Columbia Provincial (Canada, 9/2024) Carc 1A, Carc 1. Skin sensitizer , Inhalation sensitizer. TWA 8 hours: 0.1 ppm. STEL 15 minutes: 0.3 ppm. CA Ontario Provincial (Canada, 6/2019) Ceiling Limit: 1.5 ppm.

Section 8. Exposure controls/personal protection

2-Methoxy-1-propanol	1589-47-5	STEL 15 minutes: 1 ppm. CA Quebec Provincial (Canada, 2/2024) C2. Skin sensitizer , Inhalation sensitizer. C: 1.5 ppm. CA Alberta Provincial (Canada, 3/2023) A2. C: 1.3 mg/m³. OEL 8 hours: 0.75 ppm. OEL 8 hours: 0.9 mg/m³. C: 1 ppm. CA British Columbia Provincial (Canada, 9/2024) TWA 8 hours: 20 ppm. STEL 15 minutes: 40 ppm.

Occupational exposure limits (Mexico)

Ingredient name	CAS #	Exposure limits
Methyl Isobutyl Ketone	108-10-1	NOM-010-STPS-2014 (Mexico, 4/2016) A3. TWA 8 hours: 50 ppm. STEL 15 minutes: 75 ppm.
1-Methoxy-2-propanol	107-98-2	NOM-010-STPS-2014 (Mexico, 4/2016) STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm.
1-Butanol	71-36-3	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 20 ppm.
Xylene, mixed isomers	1330-20-7	NOM-010-STPS-2014 (Mexico, 4/2016) [Xileno, mezcla] A4. STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm.
Phenol	108-95-2	NOM-010-STPS-2014 (Mexico, 4/2016) A4. Absorbed through skin. TWA 8 hours: 5 ppm.
Formaldehyde (max.)	50-00-0	NOM-010-STPS-2014 (Mexico, 4/2016) A2. Sensitizer. CEIL: 0.3 ppm.

Biological exposure indices (United States)

Ingredient name	Exposure indices
Methyl Isobutyl Ketone	ACGIH BEI (United States, 1/2024) BEI: 1 mg/l, methyl isobutyl ketone [in urine]. Sampling time: end of shift.
Xylene, mixed isomers	ACGIH BEI (United States, 1/2024) [xylenes (technical or commercial grades)] BEI: 0.3 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.
Phenol	ACGIH BEI (United States, 1/2024) BEI: 250 mg/g creatinine, phenol [in urine]. Sampling time: end of shift.
Ethylbenzene	ACGIH BEI (United States, 1/2024) BEI: 150 mg/g creatinine, sum of mandelic acid and phenylglyoxylic acid [in urine]. Sampling time: end of shift.

Biological exposure indices (Canada)

Section 8. Exposure controls/personal protection

No exposure indices known.

Biological exposure indices (Mexico)

Ingredient name	Exposure indices
Methyl Isobutyl Ketone	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 2 mg/L, MIBK [in urine]. Sampling time: at the end of the work shift.
Xylene, mixed isomers	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) [xilenos (grado técnico o comercial)] BEI: 1.5 g/g creatinine, methyl hippuric acids [in urine]. Sampling time: at the end of the work shift.
Phenol	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 250 mg/g creatinine [Basal level. The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the value; non-specific. The determinant is nonspecific, since it can be found after exposure to other chemicals.], phenol [in urine]. Sampling time: at the end of the work shift.

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Liquid.
- Color** : Gold.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : 113°C (235.4°F)
- Flash point** : Closed cup: 21°C (69.8°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 1.62 (butyl acetate = 1)
- Flammability** : Flammable liquid.
- Lower and upper explosion limit/flammability limit** : Lower: 1%
Upper: 13.74%
- Vapor pressure** : 2.1 kPa (16 mm Hg)
- Relative vapor density** : 2.55 [Air = 1]
- Relative density** : 0.93
- Density** : 0.93 g/cm³
- Solubility(ies)** :

Section 9. Physical and chemical properties

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)
Molecular weight	: Not applicable.
Particle characteristics	
Median particle size	: Not applicable.
Heat of combustion	: 22.96 kJ/g

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result
Methyl Isobutyl Ketone	Rat - Oral - LD50 2080 mg/kg
1-Methoxy-2-propanol	Rabbit - Dermal - LD50 13 g/kg Rat - Oral - LD50 6600 mg/kg <u>Toxic effects</u> : Brain and Coverings - Other degenerative changes Behavioral - General anesthetic Lung, Thorax, or Respiration - Dyspnea
2-methoxy-1-methylethyl acetate	Rat - Oral - LD50 8532 mg/kg Rabbit - Dermal - LD50 >5 g/kg

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1-Butanol	Rat - Oral - LD50 790 mg/kg <u>Toxic effects:</u> Liver - Fatty liver degeneration Kidney, Ureter, and Bladder - Other changes Blood - Other changes Rabbit - Dermal - LD50 3400 mg/kg Rat - Inhalation - LC50 Vapor 24000 mg/m ³ [4 hours]
Xylene, mixed isomers	Rat - Oral - LD50 4300 mg/kg <u>Toxic effects:</u> Liver - Other changes Kidney, Ureter, and Bladder - Other changes Rat - Inhalation - LC50 Gas. 6700 ppm [4 hours] <u>Toxic effects:</u> Behavioral - Somnolence (general depressed activity)
Phenol	Rat - Oral - LD50 317 mg/kg <u>Toxic effects:</u> Behavioral - Convulsions or effect on seizure threshold Rat - Dermal - LD50 669 mg/kg <u>Toxic effects:</u> Behavioral - Tremor Kidney, Ureter, and Bladder - Hematuria Skin After topical exposure - Cutaneous sensitization (experimental) Rabbit - Dermal - LD50 630 mg/kg Rat - Inhalation - LC50 Vapor 316 mg/m ³ [4 hours]
Ethylbenzene	Rat - Oral - LD50 3500 mg/kg <u>Toxic effects:</u> Liver - Other changes Kidney, Ureter, and Bladder - Other changes Rabbit - Dermal - LD50 >5000 mg/kg
Formaldehyde (max.)	Rat - Oral - LD50 100 mg/kg Rabbit - Dermal - LD50 270 mg/kg Rat - Inhalation - LC50 Gas. 250 ppm [4 hours]

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

Methyl Isobutyl Ketone

Result

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 20 mg

Rat - Skin - Mild irritant

1-Methoxy-2-propanol

1-Butanol

Xylene, mixed isomers

Section 11. Toxicological information

Phenol	<u>Duration of treatment/exposure:</u> 8 hours <u>Amount/concentration applied:</u> 60 uL Rabbit - Skin - Moderate irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 500 mg Rabbit - Skin - Moderate irritant <u>Amount/concentration applied:</u> 100 % Pig - Skin - Severe irritant <u>Duration of treatment/exposure:</u> 0.5 minutes <u>Amount/concentration applied:</u> 400 uL Rabbit - Skin - Mild irritant <u>Amount/concentration applied:</u> 100 mg Rabbit - Skin - Severe irritant <u>Amount/concentration applied:</u> 535 mg
	Ethylbenzene <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 15 mg Human - Skin - Mild irritant <u>Duration of treatment/exposure:</u> 72 hours <u>Amount/concentration applied:</u> 150 ug l Human - Skin - Severe irritant <u>Amount/concentration applied:</u> 0.01 % Rabbit - Skin - Mild irritant <u>Amount/concentration applied:</u> 540 mg Rabbit - Skin - Moderate irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 50 mg Rabbit - Skin - Severe irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 2 mg Rabbit - Skin - Severe irritant <u>Amount/concentration applied:</u> 0.8 % Mouse - Skin - Moderate irritant <u>Amount/concentration applied:</u> 7 % Rat - Skin - Moderate irritant <u>Amount/concentration applied:</u> 7 %
	Formaldehyde (max.) <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 500 mg Rabbit - Skin - Mild irritant <u>Duration of treatment/exposure:</u> 4 hours <u>Amount/concentration applied:</u> 500 mg
Paratertiarybutylphenol	

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name

Methyl Isobutyl Ketone

Result

Rabbit - Eyes - Moderate irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 100 uL
Rabbit - Eyes - Severe irritant
Amount/concentration applied: 40 mg
Rabbit - Eyes - Mild irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 500 mg

1-Methoxy-2-propanol

Section 11. Toxicological information

1-Butanol

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 0.005 Ml

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 1.62 mg

Xylene, mixed isomers

Rabbit - Eyes - Mild irritant

Amount/concentration applied: 87 mg

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 5 mg

Phenol

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 0.5 minutes

Amount/concentration applied: 5 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 5 mg

Ethylbenzene

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 500 mg

Formaldehyde (max.)

Human - Eyes - Mild irritant

Duration of treatment/exposure: 6 minutes

Amount/concentration applied: 1 ppm

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 750 ug

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 750 ug

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 37 %

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 10 mg

Mouse - Eyes - Moderate irritant

Amount/concentration applied: 3 %

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 50 ug

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 10 mg

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

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Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Methyl Isobutyl Ketone	-	2B	-
Xylene, mixed isomers	-	3	-
Phenol	-	3	-
Ethylbenzene	-	2B	-
Formaldehyde (max.)	+	1	Known to be a human carcinogen.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
Methyl Isobutyl Ketone	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1-Methoxy-2-propanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
2-methoxy-1-methylethyl acetate	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1-Butanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Xylene, mixed isomers	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Ethylbenzene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Formaldehyde (max.)	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (respiratory system) - Category 1
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Paratertiarybutylphenol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
2-Methoxy-1-propanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

Section 11. Toxicological information

(Respiratory tract irritation) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name

Xylene, mixed isomers

Phenol

Ethylbenzene

Formaldehyde (max.)

Result

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

Aspiration hazard

Product/ingredient name

Xylene, mixed isomers

Ethylbenzene

Result

ASPIRATION HAZARD - Category 1

ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Not available.

Potential acute health effects

Eye contact

: Causes serious eye damage.

Inhalation

: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact

: Causes skin irritation. May cause an allergic skin reaction.

Ingestion

: Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact

: Adverse symptoms may include the following:
pain
watering
redness

Inhalation

: Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact

: Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 11. Toxicological information

Ingestion : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : Suspected of causing genetic defects.

Reproductive toxicity : May damage fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
3846047 Gold Epoxy	7608.5	18427.2	N/A	21.8	N/A
Methyl Isobutyl Ketone	2080	N/A	N/A	11	N/A
1-Methoxy-2-propanol	6600	13000	N/A	N/A	N/A
2-methoxy-1-methylethyl acetate	8532	N/A	N/A	N/A	N/A
1-Butanol	2500	3400	N/A	24	N/A
Xylene, mixed isomers	4300	2500	N/A	N/A	N/A
Phenol	100	630	N/A	3	N/A
Ethylbenzene	3500	N/A	N/A	11	N/A
Formaldehyde (max.)	500	270	250	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name

Methyl Isobutyl Ketone

Result

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 29 days; Size: 21 mm; Weight: 0.141 g

505 mg/l [96 hours]

Effect: Mortality

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

78 mg/l [21 days]

Effect: Behavior

Chronic - NOEC - Fresh water

Fish - Fathead minnow - *Pimephales promelas* - Embryo

Age: <24 hours

168 mg/l [33 days]

Effect: Mortality

1-Butanol

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 33 days; Size: 20.6 mm; Weight: 0.119 g

1730 mg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna*

Age: 6 to 24 hours

1983 mg/l [48 hours]

Effect: Intoxication

Xylene, mixed isomers

Acute - LC50 - Marine water

Crustaceans - Daggerblade grass shrimp - *Palaemon pugio*

8500 µg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 31 days; Size: 18.4 mm; Weight: 0.077 g

13.4 mg/l [96 hours]

Effect: Mortality

Phenol

Acute - LC50 - Fresh water

Fish - common carp - *Cyprinus carpio* - Larvae

Size: 8 mm

1.75 µg/l [96 hours]

Effect: Mortality

Chronic - NOEC - Fresh water

Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss*

118 µg/l [90 days]

Effect: Mortality

Acute - LC50 - Marine water

Crustaceans - Opossum shrimp - *Archaeomysis kokuboi* -

Juvenile (Fledgling, Hatchling, Weanling)

800 µg/l [48 hours]

Effect: Mortality

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

Age: <24 hours

1.5 mg/l [21 days]

Effect: Reproduction

Chronic - NOEC - Marine water

Algae - Neptune's Necklace - *Hormosira banksii* - Gamete

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16 µg/l [72 hours]

Effect: Development

Acute - EC50 - Fresh water

Algae - Green algae - *Raphidocelis subcapitata*

Age: 4 to 7 days

61.1 µg/l [96 hours]

Effect: Population

Acute - LC50 - Fresh water

Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*

4200 µg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Neonate

Age: ≤24 hours

2.93 mg/l [48 hours]

Effect: Intoxication

Acute - EC50 - Fresh water

Algae - Green algae - *Raphidocelis subcapitata*

3600 µg/l [96 hours]

Effect: Population

Chronic - NOEC - Marine water

Algae - Brown algae - *Phyllospora comosa* - Embryo

Age: 7 days

1 mg/l [96 hours]

Effect: Mortality

Acute - LC50 - Fresh water

US EPA

Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*

1.41 ppm [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Embryo

Age: 8 hours

3.26 mg/l [48 hours]

Effect: Development

Chronic - NOEC - Fresh water

Crustaceans - European crayfish - *Astacus astacus* - Egg

3000 ppm [21 days]

Effect: Mortality

Acute - EC50 - Marine water

Algae - Green algae - *Ulva pertusa*

Size: 9.4 mm

0.442 mg/l [96 hours]

Effect: Reproduction

Chronic - NOEC - Fresh water

Fish - Nile tilapia - *Oreochromis niloticus* - Fingerling

Weight: 1.8 g

1.56 mg/l [12 weeks]

Effect: Cells

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 31 to 35 days; Weight: 97 mg

5140 µg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

OECD

Algae - Green algae - *Scenedesmus quadricauda* - Exponential

Ethylbenzene

Formaldehyde (max.)

Paratertiarybutylphenol

Section 12. Ecological information

growth phase
11.08 mg/l [72 hours]
Effect: Population
Chronic - NOEC - Fresh water
OECD
Algae - Green algae - *Scenedesmus quadricauda* - Exponential growth phase
1 mg/l [72 hours]
Effect: Population
Chronic - NOEC - Fresh water
OECD
Fish - Chinese Rare Minnow - *Gobiocypris rarus* - Embryo
0.5 mg/l [28 days]
Effect: Multiple
Acute - EC50 - Fresh water
Daphnia - Water flea - *Daphnia magna*
Age: 6 to 24 hours
3.9 mg/l [48 hours]
Effect: Intoxication
Chronic - NOEC - Fresh water
ASTM
Crustaceans - Shrimp - *Neocaridina sp.* - Sub-adult
265.38 µg/l [21 days]
Effect: Population

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl Isobutyl Ketone	-	-	Readily
1-Butanol	-	-	Readily
Xylene, mixed isomers	-	-	Readily
Ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Xylene, mixed isomers	-	8.1 to 25.9	Low
Phenol	-	647	High
Paratertiarybutylphenol	-	44 to 48	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT. Marine pollutant (Epoxy Polymer, Phenol)
Transport hazard class(es)	3 	3 	3 	3 	3  
Packing group	II	II	II	II	II
Environmental hazards	No.	No.	No.	Yes. The environmentally hazardous substance mark is not required.	Yes.
Additional information	- ERG No. 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). ERG No. 128	- ERG No. 128	The environmentally hazardous substance mark may appear if required by other transportation regulations.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. Emergency schedules F-E, S-E

Section 14. Transport information

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

U.S. Federal regulations :

SARA 313

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED and rely on information provided to us by our raw material suppliers. Our suppliers often provide an estimated value or range less than a certain upper limit. We calculate MAXIMUM THEORETICAL VALUES using defined values, if provided, or the upper limit reported by our supplier. Additionally, the suppliers' information may include amounts present in the product as unintentional byproducts or impurities. Variations may occur in individual batches due to adjustments made during production. Reporting of chemicals in this section does not necessarily indicate their presence in the final formulated product.

Ingredient name	% by weight	CAS number
Phenol	1	108-95-2
Methyl Isobutyl Ketone	35	108-10-1
1-Butanol	3	71-36-3
Xylene, mixed isomers	2	1330-20-7
Ethylbenzene	0.9	100-41-4
Formaldehyde (max.)	0.6	50-00-0

SARA 302/304

SARA 302/304 (40 CFR part 302) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists

: **Australia inventory (AIIIC)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		3
Physical hazards		0

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
GERM CELL MUTAGENICITY - Category 2	Calculation method
CARCINOGENICITY - Category 1A	Calculation method
TOXIC TO REPRODUCTION - Category 1B	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method

History

Date of printing : 8/2/2025

Date of issue/Date of revision : 8/2/2025

Date of previous issue : 7/2/2025

Version : 2.02

Key to abbreviations : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 SGG = Segregation Group
 UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

DATA BASED ON FORMULATION

VOLATILE COMPOSITION REPORT

Product Code: 5061056

CAS Number	Component	Weight Percent	Weight/ Gallon	HAP
123-42-2	DIACETONE ALCOHOL	16.0	7.83	
108-10-1	METHYL ISOBUTYL KETONE	15.6	6.68	✓
107-98-2	PROPYLENE GLYCOL MONO METHYL ETHER	15.5	7.65	
71-36-3	BUTANOL	6.7	6.75	
108-65-6	PROPYLENE GLYCOL MONO METHYL ETHER ACETATE	4.8	8.06	
64742-95-6	AROMATIC NAPHTHA, LIGHT	4.0	7.25	
95-63-6	1,2,4-TRIMETHYLBENZENE	1.1	8.30	
1319-77-3	CRESOL	0.5	8.62	✓
108-67-8	1,3,5-TRIMETHYLBENZENE	0.5	7.20	
526-73-8	1,2,3-TRIMETHYLBENZENE	0.5	7.45	
1330-20-7	XYLENE	0.3	7.23	✓
98-82-8	CUMENE	0.3	8.00	✓

SUM: 65.8

Lbs HAP per gallon of solids: 4.89

HAP Total Weight%: 16.7

9/11/2025

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
COATING SUPPLIER ENVIRONMENTAL DATA SHEET

Coating Manufacturer: Sherwin-Williams
Coating Code Number: 5061056

1.	Coating Density Standard Wt/Gal Cup	<u>8.06</u> lb/gal	<u>0.97</u> kg/l
2.	Solvent System (Volatiles) Calculated Density:	<u>7.32</u> lb/gal	<u>0.88</u> kg/l
3.	Organic Solvent Density:	<u>7.32</u> lb/gal	<u>0.88</u> kg/l
4.	Coating Solids (Non Volatiles): ASTM 2369 (EPA Method 24)	a. <u>34.2</u> b. <u>27.5</u>	Weight Percent Volume Percent
5.	Total Volatiles (H2O Included): ASTM 2369 (EPA Method 24)	a. <u>65.8</u> b. <u>72.5</u>	Weight Percent Volume Percent
6.	Total Exempt Solvent:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
7.	Total Organic Volatiles: (Less H2O)	a. <u>65.8</u> b. <u>72.5</u>	Weight Percent Volume Percent
8.	Coating Water Content: a. Water content as Charged: b. Calculated:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
9.	VOC Content: * (Coating Less Water & Exempt Solvent) (Solids)	<u>5.3</u> lb/gal <u>19.3</u> lb/gal	<u>0.64</u> kg/l <u>2.31</u> kg/l

*Note : The VOC reported is for the coating as supplied, and is an average for batches produced. Diluting the coating with organic solvents at the point of application will alter the VOC level. Consult your Valspar Sales Representative for additional information in such cases.

SAFETY DATA SHEET

5061056

Section 1. Identification

Product name : 5061056 Gold Epoxy

Product code : 5061056

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : The Sherwin Williams Company
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : (800) 424-9300

Product Information Telephone Number : 866-722-9710

Transportation Emergency Telephone Number : (800) 424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
CARCINOGENICITY - Category 1A
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 15.6% (dermal), 31.6% (inhalation)

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : Flammable liquid and vapor.
Causes serious eye damage.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause cancer.
Suspected of damaging fertility or the unborn child.

Precautionary statements

Date of issue/Date of revision : 8/2/2025

Date of previous issue : 7/2/2025

Version : 2.01

1/26

5061056

5061056 Gold Epoxy

SHW-85-NA-GHS-US

Section 2. Hazards identification

- Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid breathing vapor.
- Response** : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
- Storage** : Store locked up. Store in a well-ventilated place. Keep container tightly closed.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. Contains Formaldehyde - a potential cancer hazard.
- Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

CAS number/other identifiers

Ingredient name	% by weight	Identifiers
Diacetone Alcohol	≥10 - ≤25	123-42-2
Methyl Isobutyl Ketone	≥10 - ≤25	108-10-1
1-Methoxy-2-propanol	≥10 - ≤25	107-98-2
1-Butanol	≤10	71-36-3
2-methoxy-1-methylethyl acetate	≤5	108-65-6
Light Aromatic Hydrocarbons	≤5	64742-95-6
1,2,4-Trimethylbenzene	≤2.4	95-63-6
1,2,3-Trimethylbenzene	<1	526-73-8
1,3,5-Trimethylbenzene	<1	108-67-8
Paratertiarybutylphenol	<1	98-54-4
Xylene, mixed isomers	≤0.3	1330-20-7
Cumene	≤0.3	98-82-8
Formaldehyde (max.)	<0.1	50-00-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 4. First aid measures

- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

- Remark** : Flammable liquid.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Diacetone Alcohol	123-42-2	ACGIH TLV (United States, 1/2024) TWA 8 hours: 50 ppm. TWA 8 hours: 238 mg/m ³ . NIOSH REL (United States, 10/2020) TWA 10 hours: 50 ppm. TWA 10 hours: 240 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 50 ppm. TWA 8 hours: 240 mg/m ³ .
Methyl Isobutyl Ketone	108-10-1	ACGIH TLV (United States, 1/2024) A3. TWA 8 hours: 20 ppm. STEL 15 minutes: 75 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 50 ppm. TWA 10 hours: 205 mg/m ³ . STEL 15 minutes: 75 ppm. STEL 15 minutes: 300 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 410 mg/m ³ .
1-Methoxy-2-propanol	107-98-2	ACGIH TLV (United States, 1/2024) A4. TWA 8 hours: 50 ppm. TWA 8 hours: 184 mg/m ³ . STEL 15 minutes: 100 ppm. STEL 15 minutes: 369 mg/m ³ . NIOSH REL (United States, 10/2020) TWA 10 hours: 100 ppm. TWA 10 hours: 360 mg/m ³ . STEL 15 minutes: 150 ppm. STEL 15 minutes: 540 mg/m ³ .
1-Butanol	71-36-3	ACGIH TLV (United States, 1/2024) TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) Absorbed through skin. CEIL: 50 ppm. CEIL: 150 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 300 mg/m ³ .
2-methoxy-1-methylethyl acetate	108-65-6	OARS WEEL (United States, 9/2024) TWA 8 hours: 50 ppm.
Light Aromatic Hydrocarbons	64742-95-6	None.

Section 8. Exposure controls/personal protection

1,2,4-Trimethylbenzene	95-63-6	ACGIH TLV (United States, 1/2024) A4. TWA 8 hours: 10 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 25 ppm. TWA 10 hours: 125 mg/m³.
1,2,3-Trimethylbenzene	526-73-8	ACGIH TLV (United States, 1/2024) [trimethyl benzene, isomers] TWA 8 hours: 10 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 25 ppm. TWA 10 hours: 125 mg/m³.
1,3,5-Trimethylbenzene	108-67-8	ACGIH TLV (United States, 1/2024) [trimethyl benzene, isomers] TWA 8 hours: 10 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 25 ppm. TWA 10 hours: 125 mg/m³.
Paratertiarybutylphenol Xylene, mixed isomers	98-54-4 1330-20-7	None. ACGIH TLV (United States, 1/2024) [p-xylene and mixtures containing p-xylene] A4. Ototoxicant. TWA 8 hours: 20 ppm. OSHA PEL (United States, 5/2018) [Xylenes] TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m³.
Cumene	98-82-8	ACGIH TLV (United States, 1/2024) A3. TWA 8 hours: 5 ppm. NIOSH REL (United States, 10/2020) Absorbed through skin. TWA 10 hours: 50 ppm. TWA 10 hours: 245 mg/m³. OSHA PEL (United States, 5/2018) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 245 mg/m³.
Formaldehyde (max.)	50-00-0	ACGIH TLV (United States, 1/2024) A1. Skin sensitizer , Inhalation sensitizer. STEL 15 minutes: 0.3 ppm. TWA 8 hours: 0.1 ppm. OSHA PEL Z2 (United States, 2/2013) TWA 8 hours: 0.75 ppm. STEL 15 minutes: 2 ppm. NIOSH REL (United States, 10/2020) NIA. TWA 10 hours: 0.016 ppm. CEIL 15 minutes: 0.1 ppm. OSHA PEL (United States, 5/2018) TWA 8 hours: 0.75 ppm. STEL 15 minutes: 2 ppm.

[Occupational exposure limits \(Canada\)](#)

Section 8. Exposure controls/personal protection

Ingredient name	CAS #	Exposure limits
4-Hydroxy-4-methyl-2-pentanone	123-42-2	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 60 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 9/2024) TWA 8 hours: 50 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 50 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 50 ppm. TWAEV 8 hours: 238 mg/m ³ . CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 50 ppm. OEL 8 hours: 238 mg/m ³ .
Methyl isobutyl ketone	108-10-1	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 75 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 9/2024) Carc 2B. TWA 8 hours: 20 ppm. STEL 15 minutes: 75 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. STEL 15 minutes: 75 ppm. CA Quebec Provincial (Canada, 2/2024) C3. TWAEV 8 hours: 20 ppm. STEV 15 minutes: 75 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 205 mg/m ³ . OEL 8 hours: 50 ppm. OEL 15 minutes: 75 ppm. OEL 15 minutes: 307 mg/m ³ .
Propylene glycol monomethyl ether	107-98-2	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 9/2024) STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 50 ppm. STEV 15 minutes: 100 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 100 ppm. OEL 15 minutes: 553 mg/m ³ . OEL 8 hours: 369 mg/m ³ . OEL 15 minutes: 150 ppm.
Normal butyl alcohol	71-36-3	CA Saskatchewan Provincial (Canada,

Section 8. Exposure controls/personal protection

1,2,4-Trimethylbenzene	95-63-6	4/2021) STEL 15 minutes: 30 ppm. TWA 8 hours: 20 ppm. CA British Columbia Provincial (Canada, 9/2024) TWA 8 hours: 15 ppm. C: 30 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 60 mg/m³. OEL 8 hours: 20 ppm. CA Saskatchewan Provincial (Canada, 4/2021) [Trimethyl benzene] STEL 15 minutes: 30 ppm. TWA 8 hours: 25 ppm. CA British Columbia Provincial (Canada, 9/2024) [trimethyl benzene (mixed isomers)] TWA 8 hours: 25 ppm. CA Ontario Provincial (Canada, 6/2019) [Trimethyl benzene (mixed isomers)] TWA 8 hours: 25 ppm. CA Quebec Provincial (Canada, 2/2024) [Trimethyl benzene] Sensitizer. TWAEV 8 hours: 25 ppm. CA Alberta Provincial (Canada, 3/2023) [Trimethyl benzene] OEL 8 hours: 123 mg/m³. OEL 8 hours: 25 ppm. CA Saskatchewan Provincial (Canada, 4/2021) [Xylene] STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 9/2024) [xylene (o, m & p isomers)] TWA 8 hours: 100 ppm. STEL 15 minutes: 150 ppm. CA Ontario Provincial (Canada, 6/2019) [Xylene (o-, m-, p-isomers)] STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA Quebec Provincial (Canada, 2/2024) [Xylene] TWAEV 8 hours: 100 ppm. TWAEV 8 hours: 434 mg/m³. STEV 15 minutes: 150 ppm. STEV 15 minutes: 651 mg/m³. CA Alberta Provincial (Canada, 3/2023) [Dimethylbenzene] OEL 8 hours: 100 ppm. OEL 15 minutes: 651 mg/m³. OEL 15 minutes: 150 ppm. OEL 8 hours: 434 mg/m³. CA Saskatchewan Provincial (Canada,
Xylene	1330-20-7	
Cumene	98-82-8	

Section 8. Exposure controls/personal protection

		4/2021) STEL 15 minutes: 74 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 9/2024) Carc 2B. TWA 8 hours: 25 ppm. STEL 15 minutes: 75 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 50 ppm. CA Quebec Provincial (Canada, 2/2024) C3. TWAEV 8 hours: 5 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 50 ppm. OEL 8 hours: 246 mg/m ³ .

Occupational exposure limits (Mexico)

Ingredient name	CAS #	Exposure limits
Diacetone Alcohol	123-42-2	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 50 ppm.
Methyl Isobutyl Ketone	108-10-1	NOM-010-STPS-2014 (Mexico, 4/2016) A3. TWA 8 hours: 50 ppm. STEL 15 minutes: 75 ppm.
1-Methoxy-2-propanol	107-98-2	NOM-010-STPS-2014 (Mexico, 4/2016) STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm.
1-Butanol	71-36-3	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 20 ppm.
1,2,4-Trimethylbenzene	95-63-6	NOM-010-STPS-2014 (Mexico, 4/2016) [Trimetil benceno, mezcla de Isómeros] TWA 8 hours: 25 ppm.
Cumene	98-82-8	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 50 ppm.

Biological exposure indices (United States)

Ingredient name	Exposure indices
Methyl Isobutyl Ketone	ACGIH BEI (United States, 1/2024) BEI: 1 mg/l, methyl isobutyl ketone [in urine]. Sampling time: end of shift.
Xylene, mixed isomers	ACGIH BEI (United States, 1/2024) [xylenes (technical or commercial grades)] BEI: 0.3 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.

Biological exposure indices (Canada)

No exposure indices known.

Biological exposure indices (Mexico)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure indices
Methyl Isobutyl Ketone	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 2 mg/L, MIBK [in urine]. Sampling time: at the end of the work shift.

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state	: Liquid.
Color	: Gold.
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not applicable.
Melting point/freezing point	: Not available.
Boiling point or initial boiling point and boiling range	: 113°C (235.4°F)
Flash point	: Closed cup: 36°C (96.8°F) [Pensky-Martens Closed Cup]
Evaporation rate	: 1.62 (butyl acetate = 1)
Flammability	: Flammable liquid.
Lower and upper explosion limit/flammability limit	: Lower: 0.7% Upper: 13.74%
Vapor pressure	: 2.1 kPa (16 mm Hg)
Relative vapor density	: 2.55 [Air = 1]
Relative density	: 0.96
Density	: 0.96 g/cm ³
Solubility(ies)	:

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): >20.5 mm ² /s (>20.5 cSt)
Molecular weight	: Not applicable.
<u>Particle characteristics</u>	
Median particle size	: Not applicable.
Heat of combustion	: 24.227 kJ/g

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

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Section 10. Stability and reactivity

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name

Result

Diacetone Alcohol

Rat - Oral - LD50

2520 mg/kg

Toxic effects: Behavioral - Tremor Behavioral - Convulsions or effect on seizure threshold Liver - Other changes

Rabbit - Dermal - LD50

13500 mg/kg

Methyl Isobutyl Ketone

Rat - Oral - LD50

2080 mg/kg

1-Methoxy-2-propanol

Rabbit - Dermal - LD50

13 g/kg

Rat - Oral - LD50

6600 mg/kg

Toxic effects: Brain and Coverings - Other degenerative changes Behavioral - General anesthetic Lung, Thorax, or Respiration - Dyspnea

1-Butanol

Rat - Oral - LD50

790 mg/kg

Toxic effects: Liver - Fatty liver degeneration Kidney, Ureter, and Bladder - Other changes Blood - Other changes

Rabbit - Dermal - LD50

3400 mg/kg

Rat - Inhalation - LC50 Vapor

24000 mg/m³ [4 hours]

Rat - Oral - LD50

8532 mg/kg

Rabbit - Dermal - LD50

>5 g/kg

2-methoxy-1-methylethyl acetate

Rat - Oral - LD50

8400 mg/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Tremor Lung, Thorax, or Respiration - Other changes

Light Aromatic Hydrocarbons

Rat - Oral - LD50

5 g/kg

Rat - Inhalation - LC50 Vapor

18000 mg/m³ [4 hours]

Rat - Oral - LD50

5000 mg/kg

Rat - Inhalation - LC50 Vapor

24000 mg/m³ [4 hours]

Rat - Oral - LD50

4300 mg/kg

Toxic effects: Liver - Other changes Kidney, Ureter, and Bladder - Other changes

Xylene, mixed isomers

Section 11. Toxicological information

Cumene	Rat - Inhalation - LC50 Gas. 6700 ppm [4 hours] <u>Toxic effects:</u> Behavioral - Somnolence (general depressed activity)
	Rat - Oral - LD50 1400 mg/kg <u>Toxic effects:</u> Gastrointestinal - Gastritis
	Rat - Inhalation - LC50 Vapor 39000 mg/m ³ [4 hours]
Formaldehyde (max.)	Rat - Oral - LD50 100 mg/kg
	Rabbit - Dermal - LD50 270 mg/kg
	Rat - Inhalation - LC50 Gas. 250 ppm [4 hours]

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

Result

Diacetone Alcohol	Rabbit - Skin - Mild irritant <u>Amount/concentration applied:</u> 500 mg
Methyl Isobutyl Ketone	Rabbit - Skin - Mild irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 500 mg
1-Methoxy-2-propanol	Rabbit - Skin - Mild irritant <u>Amount/concentration applied:</u> 500 mg
1-Butanol	Rabbit - Skin - Moderate irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 20 mg
1,3,5-Trimethylbenzene	Rabbit - Skin - Moderate irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 20 mg
Paratertiarybutylphenol	Rabbit - Skin - Mild irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 500 mg
Xylene, mixed isomers	Rabbit - Skin - Mild irritant <u>Duration of treatment/exposure:</u> 4 hours <u>Amount/concentration applied:</u> 500 mg
	Rat - Skin - Mild irritant <u>Duration of treatment/exposure:</u> 8 hours <u>Amount/concentration applied:</u> 60 uL
	Rabbit - Skin - Moderate irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 500 mg
Cumene	Rabbit - Skin - Moderate irritant <u>Amount/concentration applied:</u> 100 %
	Rabbit - Skin - Mild irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 10 mg
	Rabbit - Skin - Moderate irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 100 mg
Formaldehyde (max.)	Human - Skin - Mild irritant <u>Duration of treatment/exposure:</u> 72 hours

Section 11. Toxicological information

Amount/concentration applied: 150 ug l
Human - Skin - Severe irritant
Amount/concentration applied: 0.01 %
Rabbit - Skin - Mild irritant
Amount/concentration applied: 540 mg
Rabbit - Skin - Moderate irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 50 mg
Rabbit - Skin - Severe irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 2 mg
Rabbit - Skin - Severe irritant
Amount/concentration applied: 0.8 %
Mouse - Skin - Moderate irritant
Amount/concentration applied: 7 %
Rat - Skin - Moderate irritant
Amount/concentration applied: 7 %

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name

Result

Diacetone Alcohol

Rabbit - Eyes - Severe irritant
Amount/concentration applied: 20 mg

Rabbit - Eyes - Severe irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 100 uL

Methyl Isobutyl Ketone

Rabbit - Eyes - Moderate irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 100 uL

1-Methoxy-2-propanol

Rabbit - Eyes - Severe irritant
Amount/concentration applied: 40 mg
Rabbit - Eyes - Mild irritant

1-Butanol

Duration of treatment/exposure: 24 hours
Amount/concentration applied: 500 mg

Rabbit - Eyes - Severe irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 2 mg

Rabbit - Eyes - Severe irritant
Amount/concentration applied: 0.005 MI

Light Aromatic Hydrocarbons

Rabbit - Eyes - Severe irritant
Amount/concentration applied: 1.62 mg

Rabbit - Eyes - Mild irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 100 uL

1,3,5-Trimethylbenzene

Rabbit - Eyes - Mild irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 500 mg

Paratertiarybutylphenol

Rabbit - Eyes - Severe irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 50 ug

Rabbit - Eyes - Severe irritant
Amount/concentration applied: 10 mg

Xylene, mixed isomers

Rabbit - Eyes - Mild irritant
Amount/concentration applied: 87 mg

Section 11. Toxicological information

Cumene

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 5 mg

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Rabbit - Eyes - Mild irritant

Amount/concentration applied: 86 mg

Human - Eyes - Mild irritant

Duration of treatment/exposure: 6 minutes

Amount/concentration applied: 1 ppm

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 750 ug

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 750 ug

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 37 %

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 10 mg

Mouse - Eyes - Moderate irritant

Amount/concentration applied: 3 %

Formaldehyde (max.)

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
Methyl Isobutyl Ketone	-	2B	-
Xylene, mixed isomers	-	3	-
Cumene	-	2B	Reasonably anticipated to be a human carcinogen.
Formaldehyde (max.)	+	1	Known to be a human carcinogen.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Result

Diacetone Alcohol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Methyl Isobutyl Ketone	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
1-Methoxy-2-propanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1-Butanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
2-methoxy-1-methylethyl acetate	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Light Aromatic Hydrocarbons	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
1,2,4-Trimethylbenzene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1,2,3-Trimethylbenzene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
1,3,5-Trimethylbenzene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Paratertiarybutylphenol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Xylene, mixed isomers	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Cumene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Formaldehyde (max.)	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (respiratory system) - Category 1
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name

Result

Section 11. Toxicological information

Xylene, mixed isomers

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Formaldehyde (max.)

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

Aspiration hazard

Product/ingredient name

Result

Light Aromatic Hydrocarbons
1,2,4-Trimethylbenzene
1,2,3-Trimethylbenzene
1,3,5-Trimethylbenzene
Xylene, mixed isomers
Cumene

ASPIRATION HAZARD - Category 1
ASPIRATION HAZARD - Category 1
ASPIRATION HAZARD - Category 1
ASPIRATION HAZARD - Category 1
ASPIRATION HAZARD - Category 1
ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Not available.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

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Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
5061056 Gold Epoxy	11057.6	42885.9	N/A	46.2	N/A
Diacetone Alcohol	2520	13500	N/A	N/A	N/A
Methyl Isobutyl Ketone	2080	N/A	N/A	11	N/A
1-Methoxy-2-propanol	6600	13000	N/A	N/A	N/A
1-Butanol	2500	3400	N/A	24	N/A
2-methoxy-1-methylethyl acetate	8532	N/A	N/A	N/A	N/A
Light Aromatic Hydrocarbons	8400	N/A	N/A	N/A	N/A
1,2,4-Trimethylbenzene	5000	N/A	N/A	18	N/A
1,3,5-Trimethylbenzene	5000	N/A	N/A	24	N/A
Xylene, mixed isomers	4300	2500	N/A	N/A	N/A
Cumene	1400	N/A	N/A	39	N/A
Formaldehyde (max.)	500	270	250	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name

Result

Diacetone Alcohol

Acute - LC50 - Fresh water

Fish - Bluegill - *Lepomis macrochirus*

420 ppm [96 hours]

Effect: Mortality

Methyl Isobutyl Ketone

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 29 days; Size: 21 mm; Weight: 0.141 g

505 mg/l [96 hours]

Effect: Mortality

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Section 12. Ecological information

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

78 mg/l [21 days]

Effect: Behavior

Chronic - NOEC - Fresh water

Fish - Fathead minnow - *Pimephales promelas* - Embryo

Age: <24 hours

168 mg/l [33 days]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 33 days; Size: 20.6 mm; Weight: 0.119 g

1730 mg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna*

Age: 6 to 24 hours

1983 mg/l [48 hours]

Effect: Intoxication

Acute - LC50 - Marine water

Crustaceans - Scud - *Elasmopus pecteniscus* - Adult

4910 µg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 34 days

7720 µg/l [96 hours]

Effect: Mortality

Acute - LC50 - Marine water

Crustaceans - Dungeness or edible crab - *Cancer magister* - Zoea

Age: 1

13 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Goldfish - *Carassius auratus*

Age: 1 to 1.5 years; Size: 13 to 20 cm; Weight: 20 to 80 g

12.52 mg/l [96 hours]

Effect: Mortality

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

Age: ≤24 hours

0.4 mg/l [21 days]

Effect: Reproduction

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 31 to 35 days; Weight: 97 mg

5140 µg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

OECD

Algae - Green algae - *Scenedesmus quadricauda* - Exponential growth phase

11.08 mg/l [72 hours]

Effect: Population

Chronic - NOEC - Fresh water

OECD

Algae - Green algae - *Scenedesmus quadricauda* - Exponential

1-Butanol

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

Paratertiarybutylphenol

Section 12. Ecological information

growth phase
1 mg/l [72 hours]
Effect: Population
Chronic - NOEC - Fresh water
OECD
Fish - Chinese Rare Minnow - *Gobiocypris rarus* - Embryo
0.5 mg/l [28 days]
Effect: Multiple

Acute - EC50 - Fresh water
Daphnia - Water flea - *Daphnia magna*
Age: 6 to 24 hours
3.9 mg/l [48 hours]
Effect: Intoxication

Chronic - NOEC - Fresh water
ASTM
Crustaceans - Shrimp - *Neocaridina sp.* - Sub-adult
265.38 µg/l [21 days]
Effect: Population

Acute - LC50 - Marine water
Crustaceans - Daggerblade grass shrimp - *Palaemon pugio*
8500 µg/l [48 hours]
Effect: Mortality

Acute - LC50 - Fresh water
Fish - Fathead minnow - *Pimephales promelas*
Age: 31 days; Size: 18.4 mm; Weight: 0.077 g
13.4 mg/l [96 hours]
Effect: Mortality

Acute - LC50 - Fresh water
Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*
2700 µg/l [96 hours]
Effect: Mortality

Acute - EC50 - Marine water
Crustaceans - Brine shrimp - *Artemia sp.* - Nauplii
Age: 2 to 3
7.4 mg/l [48 hours]
Effect: Intoxication

Acute - EC50 - Fresh water
Algae - Green algae - *Raphidocelis subcapitata*
2600 µg/l [72 hours]
Effect: Growth

Chronic - NOEC - Marine water
Algae - Brown algae - *Phyllospora comosa* - Embryo
Age: 7 days
1 mg/l [96 hours]
Effect: Mortality

Acute - LC50 - Fresh water
US EPA
Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*
1.41 ppm [96 hours]
Effect: Mortality

Acute - EC50 - Fresh water
Daphnia - Water flea - *Daphnia magna* - Embryo
Age: 8 hours
3.26 mg/l [48 hours]
Effect: Development

Chronic - NOEC - Fresh water
Crustaceans - European crayfish - *Astacus astacus* - Egg

Xylene, mixed isomers

Cumene

Formaldehyde (max.)

Section 12. Ecological information

3000 ppm [21 days]
Effect: Mortality
Acute - EC50 - Marine water
Algae - Green algae - *Ulva pertusa*
Size: 9.4 mm
0.442 mg/l [96 hours]
Effect: Reproduction
Chronic - NOEC - Fresh water
Fish - Nile tilapia - *Oreochromis niloticus* - Fingerling
Weight: 1.8 g
1.56 mg/l [12 weeks]
Effect: Cells

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl Isobutyl Ketone	-	-	Readily
1-Butanol	-	-	Readily
Light Aromatic Hydrocarbons	-	-	Readily
Xylene, mixed isomers	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Light Aromatic Hydrocarbons	-	10 to 2500	High
1,2,4-Trimethylbenzene	-	243	Low
1,2,3-Trimethylbenzene	-	194.98	Low
1,3,5-Trimethylbenzene	-	161	Low
Paratertiarybutylphenol	-	44 to 48	Low
Xylene, mixed isomers	-	8.1 to 25.9	Low
Cumene	-	35.48	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a

Section 13. Disposal considerations

safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.
Additional information	- <u>ERG No.</u> 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). <u>ERG No.</u> 128	- <u>ERG No.</u> 128	-	<u>Emergency schedules</u> F-E, S-E

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

U.S. Federal regulations :

[SARA 313](#)

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED and rely on information provided to us by our raw material suppliers. Our suppliers often provide an estimated value or range less than a certain upper limit. We calculate MAXIMUM THEORETICAL VALUES using defined values, if provided, or the upper limit reported by our supplier. Additionally, the suppliers' information may include amounts present in the product as unintentional byproducts or impurities. Variations may occur in individual batches due to adjustments made during production. Reporting of chemicals in this section does not necessarily indicate their presence in the final formulated product.

Ingredient name	% by weight	CAS number
Cumene	0.3	98-82-8
Methyl Isobutyl Ketone	16	108-10-1
1-Butanol	7	71-36-3
1,2,4-Trimethylbenzene	1	95-63-6

[SARA 302/304](#)

SARA 302/304 (40 CFR part 302) supplier notification can be found on the Environmental Data Sheet.

[California Prop. 65](#)

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

[International regulations](#)

[Montreal Protocol](#)

Not listed.

[Stockholm Convention on Persistent Organic Pollutants](#)

Not listed.

International lists

: **Australia inventory (AIIIC):** Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

[Hazardous Material Information System \(U.S.A.\)](#)

Health	*	3
Flammability		3
Physical hazards		0

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Section 16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 CARCINOGENICITY - Category 1A TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method

History

Date of printing : 8/2/2025

Date of issue/Date of revision : 8/2/2025

Date of previous issue : 7/2/2025

Version : 2.01

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

1. Identification

Product identifier	Acetone
Other means of identification	
Product code	0120001
Manufacturer information	Superior Industrial Solutions, Inc. 1402 North Capitol Avenue, Suite #100 Indianapolis, IN 46202 US General Information: (317) 781-4400 Chemical Emergency: (317) 781-4470 Website: www.relyonsuperior.com SDS Request: SDSInfo@relyonsuperior.com
Recommended use	Solvent
Recommended restrictions	None known.

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word Danger

Hazard statement

H225	Highly flammable liquid and vapor.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

Precautionary statement

Prevention

P262	Do not get in eyes, on skin, or on clothing.
P261	Avoid breathing vapors or mist.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection/face protection.

Response

P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P311	Call a POISON CENTER or doctor/physician.
P303 + P361 + P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P304 + P340	If inhaled: Remove person to fresh air and keep comfortable for breathing
P312	Call a poison center/doctor if you feel unwell.
P305 + P351 + P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use appropriate media to extinguish.

Storage

P235	Keep cool.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2-Propanone		67-64-1	100

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.
Most important symptoms/effects, acute and delayed	May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not taste or swallow. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value
Acetone	PEL	2400 mg/m ³
		1000 ppm

Components	Type	Value
2-Propanone (CAS 67-64-1)	PEL	2400 mg/m ³
		1000 ppm

US. ACGIH Threshold Limit Values

Material	Type	Value
Acetone	STEL	500 ppm
	TWA	250 ppm

Components	Type	Value
2-Propanone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value
Acetone	TWA	590 mg/m ³
		250 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2-Propanone (CAS 67-64-1)	TWA	590 mg/m3 250 ppm

Biological limit values

ACGIH Biological Exposure Indices

Material	Value	Determinant	Specimen	Sampling Time
2-Propanone (CAS 67-64-1)	25 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Face shield is recommended, if splashing is possible.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Chemical respirator with organic vapor cartridge.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Clear.
Physical state	Liquid.
Color	Colorless.
Odor	Pungent.
pH	Not available.
Melting point/freezing point	Not determined
Initial boiling point and boiling range	132.8 °F (56 °C) estimated
Flash point	-4.0 °F (-20.0 °C) Pensky-Martens Closed Cup
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	2.5 % estimated
Flammability limit - upper (%)	12.8 % estimated
Vapor pressure	181 mm Hg at 20°C
Vapor density	> 1 (Air = 1)
Solubility(ies)	
Solubility (water)	Soluble

Auto-ignition temperature Not determined

Other information

Pounds per gallon 6.6331 lb/gal

Specific gravity 0.796

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport

Chemical stability Material is stable under normal conditions. Stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Avoid heat, sparks, open flames and other ignition sources. Suitable precautions should be utilized if using this product at temperatures above the flash point. Contact with incompatible materials.

Incompatible materials Acids. Strong oxidizing agents.

Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation May cause drowsiness or dizziness. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact Causes skin irritation.

Eye contact Causes serious eye irritation.

Ingestion Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity In high concentrations, vapors are anesthetic and may cause headache, fatigue, dizziness and central nervous system effects. Harmful if swallowed.

Components	Species	Test Results
2-Propanone (CAS 67-64-1)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	20000 mg/kg
Inhalation		
LC50	Rat	50.1 mg/l, 8 Hours
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	Not classifiable as to carcinogenicity to humans.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Not listed.		
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Not listed.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Not listed.		
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects	

Specific target organ toxicity - single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
2-Propanone (CAS 67-64-1)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia magna</i>) 10294 - 17704 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss) 4740 - 6330 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

2-Propanone -0.24

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F
D018: Waste Benzene
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

US RCRA Hazardous Waste U List: Reference

2-Propanone (CAS 67-64-1) U002

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT NON-BULK

UN number UN1090
Proper shipping name Acetone
Hazard class 3
Packing group II
Reportable quantity 5000
ERG code 127

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA) Restrictions of Use

None known

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

2-Propanone (CAS 67-64-1)

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312

Yes

Hazardous chemical**Classified hazard categories**

Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

2-Propanone (CAS 67-64-1)

6532

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

2-Propanone (CAS 67-64-1)

35 %WV

DEA Exempt Chemical Mixtures Code Number

2-Propanone (CAS 67-64-1)

6532

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

2-Propanone (CAS 67-64-1)

Low priority

US state regulations**California Proposition 65**

WARNING: This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Acetaldehyde (CAS 75-07-0)

Listed: April 1, 1988

Benzene (CAS 71-43-2)

Listed: February 27, 1987

Cumene (CAS 98-82-8)

Listed: April 6, 2010

California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2)

Listed: December 26, 1997

Methanol (CAS 67-56-1)

Listed: March 16, 2012

Toluene (CAS 108-88-3)

Listed: January 1, 1991

California Proposition 65 - CRT: Listed date/Male reproductive toxin

Benzene (CAS 71-43-2)

Listed: December 26, 1997

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

2-Propanone (CAS 67-64-1)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	12-05-2014
Revision date	05-12-2021
Version #	04
Disclaimer	Superior Industrial Solutions, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's sole responsibility to determine whether the particular purpose and use of the product is proper, suitable and safe, and to ensure safe conditions for handling, storage and disposal of the product, and the user assumes all liability for loss, injury, damage or expense arising out of its use. This information is based on data available to us and is accurate to the best of our knowledge at the time of printing. However, no representation or warranty is expressed or implied, including warranties of merchantability or fitness for a particular purpose, regarding the accuracy or completeness of the information contained herein. All materials may present known and unknown hazards and should be used with caution. Buyer assumes all risk and liabilities arising out of these hazards. Buyer accepts and uses this material on these conditions.
Revision information	This document has undergone significant changes and should be reviewed in its entirety.



SAFETY DATA SHEET

1. Identification

Other means of identification None known.
 Product identifier **AROMATIC 150 FLUID**
 Recommended use ALL PROPER AND LEGAL PURPOSES
 Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Brenntag Mid-South, Inc.
 Address 1405 Highway 136, West
 Henderson, KY 42420
 Telephone 270-830-1222
 E-mail Not available.

Emergency phone number 800-424-9300 CHEMTREC

2. Hazard(s) identification

Physical hazards Flammable liquids Category 4
 Health hazards Acute toxicity, oral Category 4
 Carcinogenicity Category 2
 Aspiration hazard Category 1
 Environmental hazards Not classified.
 OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Combustible liquid. Harmful if swallowed. May be fatal if swallowed and enters airways.
 Suspected of causing cancer.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from flames and hot surfaces-No smoking. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response If swallowed: Immediately call a poison center/doctor. Rinse mouth. Do NOT induce vomiting. If exposed or concerned: Get medical advice/attention. In case of fire: Use appropriate media to extinguish.

Storage Store in a well-ventilated place. Keep cool. Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information 88.4% of the mixture consists of component(s) of unknown acute inhalation toxicity.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM.		64742-94-5	88.4
NAPHTHALENE		91-20-3	9.9

Chemical name	Common name and synonyms	CAS number	%
BENZENE, 1,2,4-TRIMETHYL-		95-63-6	1.7

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Combustible liquid.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent entry into waterways, sewer, basements or confined areas. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from open flames, hot surfaces and sources of ignition. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
NAPHTHALENE (CAS 91-20-3)	PEL	50 mg/m ³
		10 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
NAPHTHALENE (CAS 91-20-3)	TWA	10 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
BENZENE, 1,2,4-TRIMETHYL- (CAS 95-63-6)	TWA	125 mg/m ³
		25 ppm
NAPHTHALENE (CAS 91-20-3)	STEL	75 mg/m ³
		15 ppm
	TWA	50 mg/m ³
		10 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines**US - California OELs: Skin designation**

NAPHTHALENE (CAS 91-20-3)

Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

NAPHTHALENE (CAS 91-20-3)

Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

Eye/face protection Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance**

Physical state	Liquid.
Form	Liquid.

Material name: AROMATIC 150 FLUID

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Color	CLEAR
Odor	AROMATIC
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	1 °F (-17.22 °C)
Initial boiling point and boiling range	411.29 °F (210.72 °C) estimated
Flash point	151.0 °F (66.1 °C)
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	7.47 lbs/gal 0.90 g/ml
Explosive properties	Not explosive.
Flammability class	Combustible IIIA estimated
Oxidizing properties	Not oxidizing.
Specific gravity	0.9

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics

Aspiration may cause pulmonary edema and pneumonitis.

Information on toxicological effects**Acute toxicity**

May be fatal if swallowed and enters airways.

Product**Species****Test Results****AROMATIC 150 FLUID****Acute****Dermal**

ATEmix

2579 mg/kg

Oral

ATEmix

585.9 mg/kg

Components**Species****Test Results****BENZENE, 1,2,4-TRIMETHYL- (CAS 95-63-6)****Acute****Dermal**

LD50

Rabbit

> 3160 mg/kg

Oral

LD50

Rat

6 g/kg

NAPHTHALENE (CAS 91-20-3)**Acute****Dermal**

LD50

Rabbit

> 2 g/kg

Oral

LD50

Rat

490 mg/kg

Skin corrosion/irritation

Due to partial or complete lack of data the classification is not possible.

Serious eye damage/eye irritation

Due to partial or complete lack of data the classification is not possible.

Respiratory or skin sensitization**Respiratory sensitization**

Due to partial or complete lack of data the classification is not possible.

Skin sensitization

Due to partial or complete lack of data the classification is not possible.

Germ cell mutagenicity

Due to partial or complete lack of data the classification is not possible.

Carcinogenicity

Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

NAPHTHALENE (CAS 91-20-3)

2B Possibly carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

NAPHTHALENE (CAS 91-20-3)

Reasonably Anticipated to be a Human Carcinogen.

Reproductive toxicity

Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - single exposure

Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - repeated exposure

Due to partial or complete lack of data the classification is not possible.

Aspiration hazard

May be fatal if swallowed and enters airways.

Chronic effects

Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
BENZENE, 1,2,4-TRIMETHYL- (CAS 95-63-6)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 7.19 - 8.28 mg/l, 96 hours
NAPHTHALENE (CAS 91-20-3)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia magna</i>) 1.09 - 3.4 mg/l, 48 hours
Fish	LC50	Pink salmon (<i>Oncorhynchus gorbuscha</i>) 1.11 - 1.68 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

NAPHTHALENE 3.3

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number UN1268

UN proper shipping name PETROLEUM DISTILLATES, N.O.S. MARINE POLLUTANT (NAPHTHALENE)

Transport hazard class(es)

Class COMBUSTIBLE LIQUID

Subsidiary risk -

Packing group III

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport information on packaging may be different from that listed. Transportation information on packaging may be different from that listed.

IMDG

UN number UN3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT (NAPHTHALENE)

Transport hazard class(es)

Class 9

Subsidiary risk -

Packing group III

Environmental hazards

Marine pollutant Yes

EmS F-A, S-F

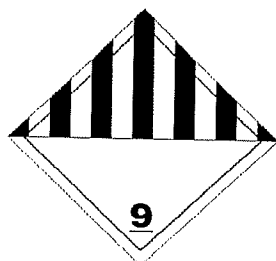
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

NAPHTHALENE

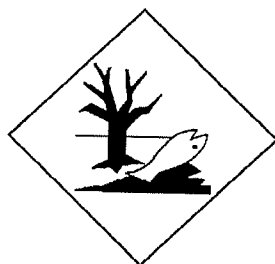
DOT

COMBUSTIBLE
LIQUID

IMDG



Marine pollutant



General information

IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

NAPHTHALENE (CAS 91-20-3)

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Carcinogenicity
Aspiration hazard

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
BENZENE, 1,2,4-TRIMETHYL-	95-63-6	1.7
NAPHTHALENE	91-20-3	9.9

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Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

NAPHTHALENE (CAS 91-20-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations

California Proposition 65



WARNING: This product can expose you to NAPHTHALENE, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

NAPHTHALENE (CAS 91-20-3)

Listed: April 19, 2002

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

BENZENE, 1,2,4-TRIMETHYL- (CAS 95-63-6)

NAPHTHALENE (CAS 91-20-3)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 01-12-2016

Revision date 04-27-2022

Version # 15

HMIS® ratings Health: 3*
Flammability: 2
Physical hazard: 0

NFPA ratings Health: 2
Flammability: 2
Instability: 0

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Revision information Transport Information: Agency Name, Packaging Type, and Transport Mode Selection

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. product identifiers

Article No. (manufacturer/supplier) 2861.0010
Trade name/designation Internal lacquer BO-A2263/S2b
UFI: JS60-J0JV-W00R-ESQM

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses:

Coating material to protect surfaces

1.3. Details of the supplier of the safety data sheet

supplier (manufacturer/importer/downstream user/distributor)

Eclatin AG
Lack- und Farbenfabrik Telephone: +41 32 622 41 41
Bürenstrasse 131 Telefax: +41 32 623 91 23
CH-4574 Lüsslingen

Department responsible for information:

Labor
E-mail info@eclatin.ch

1.4. Emergency telephone number

Emergency telephone number +41 32 622 41 41
Toxikologisches Zentrum 145 (+41 44 251 51 51)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

*

Classification according to Regulation (EC) No 1272/2008 [CLP]

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
STOT SE 3 / H335	STOT-single exposure	May cause respiratory irritation.

2.2. Label elements

*

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



Danger

Hazard statements

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves and eye/face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/ physician.
P370 + P378	In case of fire: Use extinguishing powder or sand to extinguish.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.

Hazard components for labelling

m-cresol

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butan-1-ol
Cashew Nutshell Extract, Decarboxylated, Distilled
formaldehyde

Supplemental hazard information

not applicable

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

*

Description combination of modified syntetic resins and phenolic resins

Classification according to Regulation (EC) No 1272/2008 [CLP]

EC No. CAS No. Index No.	REACH No. Designation classification // Remark	weight-%
200-751-6 71-36-3 603-004-00-6	01-2119484630-38 butan-1-ol Flam. Liq. 3 H226 / Acute Tox. 4 H302 / STOT SE 3 H335 / Skin Irrit. 2 H315 / Eye Dam. 1 H318 / STOT SE 3 H336 Acute toxicity estimate (ATE), ATE (oral): 2292 mg/kg bw	5 - 10
203-905-0 111-76-2 603-014-00-0	01-2119475108-36 2-butoxyethanol Acute Tox. 4 H302 / Acute Tox. 4 H312 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 Acute toxicity estimate (ATE), ATE (oral): 1300 mg/kg bw / ATE (dermal): 2000 mg/kg bw	5 - 10
202-422-2 95-47-6 601-022-00-9	01-2119485822-30 ortho-xylene Acute Tox. 4 H312 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / STOT SE 3 H335 / Asp. Tox. 1 H304 / Flam. Liq. 3 H226 Acute toxicity estimate (ATE), ATE (dermal): 2000 mg/kg bw	5 - 10
215-535-7 1330-20-7 601-022-00-9	01-2119488216-32 Xylene Acute Tox. 4 H312 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / STOT SE 3 H335 / STOT RE 2 H373 / Asp. Tox. 1 H304 / Flam. Liq. 3 H226 Acute toxicity estimate (ATE), ATE (dermal): 1700 mg/kg bw	5 - 10
204-658-1 123-86-4 607-025-00-1	01-2119485493-29 n-butyl acetate Flam. Liq. 3 H226 / STOT SE 3 H336 / EUH066	1 - 5
203-767-1 110-43-0 606-024-00-3	01-2119902391-49 heptan-2-one Flam. Liq. 3 H226 / Acute Tox. 4 H332 / Acute Tox. 4 H302	1 - 5
202-859-9 100-51-6 603-057-00-5	01-2119492630-38 benzyl alcohol Acute Tox. 4 H332 / Acute Tox. 4 H302 Acute toxicity estimate (ATE), ATE (oral): 1 mg/kg bw	1 - 5
232-355-4 8007-24-7	01-2119502450-57 Cashew Nutshell Extract, Decarboxylated, Distilled Acute Tox. 4 H302 / Acute Tox. 4 H312 / Skin Irrit. 2 H315 / Eye Dam. 1 H318 / Skin Sens. 1A H317 Acute toxicity estimate (ATE), ATE (oral): 500 mg/kg bw / ATE (dermal): 1000 mg/kg bw	1 - 5
202-849-4 100-41-4 601-023-00-4	01-2119489370-35 ethylbenzene Flam. Liq. 2 H225 / Acute Tox. 4 H332 / STOT RE 2 H373 / Asp. Tox. 1 H304	1 - 5

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203-577-9	01-2119448335-38	
108-39-4	m-cresol	1 - 5
604-004-00-9	Acute Tox. 3 H311 / Acute Tox. 3 H301 / Skin Corr. 1B H314	
215-293-2	01-2119565142-45	
1319-77-3	mix-cresol	0.1 - 0.5
604-004-00-9	Acute Tox. 3 H311 / Acute Tox. 3 H301 / Skin Corr. 1B H314	
200-001-8	01-2119488953-20	
50-00-0	formaldehyde	0.05 - 0.1
605-001-00-5	Carc. 1B H350 / Muta. 2 H341 / Acute Tox. 3 H301 / Acute Tox. 3 H311 / Acute Tox. 3 H331 / Skin Corr. 1B H314 / Skin Sens. 1 H317 Specific concentration limit (SCL): Skin Corr. 1B H314 >= 25 / Skin Irrit. 2 H315 >= 5 / Eye Irrit. 2 H319 >= 5 / STOT SE 3 H335 >= 5 / Skin Sens. 1 H317 >= 0.2	

Additional information

Full text of classification: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

In all cases of doubt, or when symptoms persist, seek medical advice.

4.3. Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Unsuitable extinguishing media

strong water jet

5.2. Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent

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authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

6.4. Reference to other sections

Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Further information

Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values:

butan-1-ol

Index No. 603-004-00-6 / EC No. 200-751-6 / CAS No. 71-36-3

WEL, STEL: 154 mg/m³; 50 ppm

Remark: (may be absorbed through the skin)

2-butoxyethanol

Index No. 603-014-00-0 / EC No. 203-905-0 / CAS No. 111-76-2

WEL, TWA: 123 mg/m³; 25 ppm

WEL, STEL: 246 mg/m³; 50 ppm

Remark: (may be absorbed through the skin)

BMGV, TWA: 240 mmol/mol creatinine

Remark: Butoxyacetic acid; urine; end of exposure or end of shift

ortho-xylene

Index No. 601-022-00-9 / EC No. 202-422-2 / CAS No. 95-47-6

WEL, TWA: 220 mg/m³; 50 ppm

WEL, STEL: 441 mg/m³; 100 ppm

*

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Remark: (may be absorbed through the skin)
BMGV, TWA: 650 mmol/mol creatinine
Remark: methyl hippuric acid; urine; end of exposure or end of shift

Xylene

Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7
WEL, TWA: 220 mg/m³; 50 ppm
WEL, STEL: 441 mg/m³; 100 ppm
Remark: (may be absorbed through the skin)
BMGV, TWA: 650 mmol/mol creatinine
Remark: methyl hippuric acid; urine; end of exposure or end of shift

heptan-2-one

Index No. 606-024-00-3 / EC No. 203-767-1 / CAS No. 110-43-0
WEL, TWA: 237 mg/m³; 50 ppm
WEL, STEL: 475 mg/m³; 100 ppm
Remark: (may be absorbed through the skin)

ethylbenzene

Index No. 601-023-00-4 / EC No. 202-849-4 / CAS No. 100-41-4
WEL, TWA: 441 mg/m³; 100 ppm
WEL, STEL: 552 mg/m³; 125 ppm
Remark: (may be absorbed through the skin)

formaldehyde

Index No. 605-001-00-5 / EC No. 200-001-8 / CAS No. 50-00-0
WEL, TWA: 2.5 mg/m³; 2 ppm
WEL, STEL: 2.5 mg/m³; 2 ppm

Additional information

TWA : Long-term occupational exposure limit value
STEL : short-term occupational exposure limit value
Ceiling : peak limitation

DNEL:

Xylene

Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7
DNEL long-term dermal (systemic), Workers: 212 mg/kg bw/day
DNEL acute inhalative (local), Workers: 442 mg/m³
DNEL acute inhalative (systemic), Workers:
DNEL long-term inhalative (local), Workers: 221 mg/m³
DNEL long-term inhalative (systemic), Workers: 221 mg/m³
DNEL long-term oral (repeated), Consumer: 12,5 mg/kg bw/day
DNEL long-term dermal (systemic), Consumer: 125 mg/kg bw/day
DNEL acute inhalative (local), Consumer: 260 mg/m³
DNEL acute inhalative (systemic), Consumer: 260 mg/m³
DNEL long-term inhalative (local), Consumer: 65,3 mg/m³
DNEL long-term inhalative (systemic), Consumer: 65,3 mg/m³

ethylbenzene

Index No. 601-023-00-4 / EC No. 202-849-4 / CAS No. 100-41-4
DNEL long-term dermal (systemic), Workers: 180 mg/kg bw/day
DNEL long-term inhalative (systemic), Workers: 77 mg/m³
DNEL long-term oral (repeated), Consumer: 1,6 mg/kg bw/day
DNEL long-term inhalative (systemic), Consumer: 15 mg/m³

butan-1-ol

Index No. 603-004-00-6 / EC No. 200-751-6 / CAS No. 71-36-3
DNEL long-term oral (repeated), Workers: 3,125 mg/kg
DNEL acute inhalative (local), Workers: 310 mg/m³
DNEL acute inhalative (systemic), Workers: 310 mg/m³
DNEL long-term inhalative (local), Workers: 310 mg/m³
DNEL long-term inhalative (systemic), Workers: 310 mg/m³
DNEL long-term oral (local): 3,125 mg/kg
DNEL long-term inhalative (local), Consumer: 55 mg/m³

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DNEL long-term inhalative (systemic), Consumer: 55 mg/m³

benzyl alcohol

Index No. 603-057-00-5 / EC No. 202-859-9 / CAS No. 100-51-6

DNEL acute dermal, short-term (systemic), Workers: 40 mg/kg

DNEL long-term dermal (systemic), Workers: 8 mg/kg

DNEL acute inhalative (systemic), Workers: 110 mg/m³

DNEL long-term inhalative (systemic), Workers: 22 mg/m³

DNEL acute dermal, short-term (systemic), Consumer: 20 mg/kg

DNEL long-term dermal (systemic), Consumer: 4 mg/kg

DNEL acute inhalative (systemic), Consumer: 27 mg/m³

DNEL long-term inhalative (systemic), Consumer: 5,4 mg/m³

2-butoxyethanol

Index No. 603-014-00-0 / EC No. 203-905-0 / CAS No. 111-76-2

DNEL acute dermal, short-term (systemic), Workers: 89 mg/kg bw/day

DNEL long-term dermal (systemic), Workers: 75 mg/kg bw/day

DNEL acute inhalative (local), Workers: 246 mg/m³

DNEL acute inhalative (systemic), Workers: 663 mg/m³

DNEL long-term inhalative (systemic), Workers: 98 mg/m³

DNEL long-term oral (repeated), Consumer: 3,2 mg/kg bw/day

DNEL acute dermal, short-term (systemic), Consumer: 44,5 mg/kg

DNEL long-term dermal (systemic), Consumer: 38 mg/kg

DNEL acute inhalative (local), Consumer: 123 mg/m³

DNEL acute inhalative (systemic), Consumer: 426 mg/m³

DNEL long-term inhalative (systemic), Consumer: 49 mg/m³

DNEL short-term oral (systemic): 13,4 mg/kg bw/day

n-butyl acetate

Index No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

DNEL long-term inhalative (systemic), Workers: 480 mg/m³

DNEL long-term inhalative (systemic), Consumer: 102,34 mg/m³

ortho-xylene

Index No. 601-022-00-9 / EC No. 202-422-2 / CAS No. 95-47-6

DNEL long-term dermal (systemic), Workers: 212 mg/kg bw/day

DNEL acute inhalative (local), Workers: 442 mg/m³

DNEL acute inhalative (systemic), Workers:

DNEL long-term inhalative (local), Workers: 221 mg/m³

DNEL long-term inhalative (systemic), Workers: 221 mg/m³

DNEL long-term oral (repeated), Consumer: 12,5 mg/kg bw/day

DNEL long-term dermal (systemic), Consumer: 125 mg/kg bw/day

DNEL acute inhalative (local), Consumer: 260 mg/m³

DNEL acute inhalative (systemic), Consumer: 260 mg/m³

DNEL long-term inhalative (local), Consumer: 65,3 mg/m³

DNEL long-term inhalative (systemic), Consumer: 65,3 mg/m³

PNEC:

Xylene

Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

PNEC aquatic, freshwater: 0,327 mg/L

PNEC aquatic, marine water: 0,327 mg/L

PNEC sediment, freshwater: 12,46 mg/kg

PNEC sediment, marine water: 12,46 mg/kg

PNEC, soil: 2,31 mg/kg

PNEC sewage treatment plant (STP): 6,58 mg/L

ethylbenzene

Index No. 601-023-00-4 / EC No. 202-849-4 / CAS No. 100-41-4

PNEC aquatic, freshwater: 0,1 mg/L

PNEC aquatic, marine water: 0,01 mg/L

PNEC sediment, freshwater: 13,7 mg/kg

PNEC sediment, marine water: 1,37 mg/kg

PNEC, soil: 2,68 mg/kg

PNEC sewage treatment plant (STP):

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butan-1-ol

Index No. 603-004-00-6 / EC No. 200-751-6 / CAS No. 71-36-3

PNEC aquatic, freshwater: 0,082 mg/L
PNEC aquatic, marine water: 0,0082 mg/L
PNEC aquatic, intermittent release: 2,25 mg/L
PNEC sediment, freshwater: 0,178 mg/kg
PNEC sediment, marine water: 0,0178 mg/kg
PNEC, soil: 0,015 mg/kg
PNEC sewage treatment plant (STP): 2476 mg/L

benzyl alcohol

Index No. 603-057-00-5 / EC No. 202-859-9 / CAS No. 100-51-6

PNEC aquatic, freshwater: 1 mg/L
PNEC aquatic, marine water: 0,1 mg/L
PNEC aquatic, intermittent release: 2,3 mg/L
PNEC sediment, freshwater: 5,27 mg/kg
PNEC sediment, marine water: 0,527 mg/kg
PNEC, soil: 0,456 mg/kg
PNEC sewage treatment plant (STP): 39 mg/L

2-butoxyethanol

Index No. 603-014-00-0 / EC No. 203-905-0 / CAS No. 111-76-2

PNEC aquatic, freshwater: 8,8 mg/L
PNEC aquatic, marine water: 0,88 mg/L
PNEC aquatic, intermittent release: 9,1 mg/L
PNEC sediment, freshwater: 34,6 mg/kg dw
PNEC, soil:
PNEC sewage treatment plant (STP): 463 mg/L

n-butyl acetate

Index No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

PNEC aquatic, freshwater: 0,18 mg/L
PNEC aquatic, marine water: 0,018 mg/L
PNEC aquatic, intermittent release: 0,36 mg/L
PNEC sediment, freshwater: 0,981 mg/kg Sediment dry weight
PNEC sediment, marine water: 0,0981 mg/kg Sediment dry weight
PNEC, soil: 0,0903 mg/kg Sediment dry weight
PNEC sewage treatment plant (STP): 35,6 mg/L

ortho-xylene

Index No. 601-022-00-9 / EC No. 202-422-2 / CAS No. 95-47-6

PNEC aquatic, freshwater: 0,327 mg/L
PNEC aquatic, marine water: 0,327 mg/L
PNEC sediment, freshwater: 12,46 mg/kg
PNEC sediment, marine water: 12,46 mg/kg
PNEC, soil: 2,31 mg/kg
PNEC sewage treatment plant (STP): 6,58 mg/L

8.2. **Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Personal protection equipment

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)

Thickness of the glove material > 0,4 mm ; Breakthrough time: > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Wear closely fitting protective glasses in case of splashes.

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Body protection

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. **Information on basic physical and chemical properties** *

Physical state:	Liquid
Colour:	refer to label
Odour:	characteristic
Odour threshold:	not applicable
Melting point/freezing point:	not applicable
Initial boiling point and boiling range:	116 °C Source: butan-1-ol
Flammability:	Flammable liquid and vapour.
Lower and upper explosion limit:	
Lower explosion limit:	1.14 Vol-%
Upper explosion limit:	13 Vol-% Source: benzyl alcohol
Flash point:	23 °C Method: DIN 53213
Auto-ignition temperature:	240 °C Source: 2-butoxyethanol
Decomposition temperature:	not applicable
pH at 20 °C:	not applicable
Cinematic viscosity (40°C):	< 220 mm²/s
Viscosity at 20 °C:	35 s 4 mm Method: DIN 53211
Solubility(ies):	
Water solubility at 20 °C:	partially soluble
Partition coefficient: n-octanol/water:	see section 12
Vapour pressure at 20 °C:	2.14 mbar
Density and/or relative density:	
Density at 20 °C:	0.98 g/cm³
Relative vapour density:	not applicable
particle characteristics:	not applicable

9.2. **Other information** *

Solid content:	50 weight-%
solvent content:	
Organic solvents:	50 weight-%
Water:	0 weight-%

SECTION 10: Stability and reactivity

10.1. **Reactivity**

No information available.

10.2. **Chemical stability**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

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10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. Conditions to avoid

Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. Incompatible materials

not applicable

10.6. Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

*

Acute toxicity

Harmful if swallowed.

Xylene

oral, LD50, Rat: 3500 mg/kg
dermal, LD50, Rabbit: > 1700 mg/kg
inhalative (vapours), LC50, Rat, male: 6700 ppm (4 h)

ethylbenzene

oral, LD50, Rat: 3,5 mg/kg
dermal, LD50, Rabbit: 15,4 mg/kg

butan-1-ol

oral, LD50, Rat: 2292 mg/kg
Method: OECD 401
Harmful if swallowed.
dermal, LD50, Rabbit: 3430 mg/kg
Method: OECD 402

benzyl alcohol

oral, LD50, Rat: 1,23 mg/kg
dermal, LD50, Rat: 1,23 mg/kg
dermal, LD50, Rabbit: 2 mg/kg
oral, NOEL, Rat: 400 mg/kg
oral, NOEL, Mouse: 200
inhalative (vapours), NOAEC, Rat: 1072 mg/m³
Method: OECD 412

2-butoxyethanol

oral, LD50, Rat: 1300 mg/kg
Method: OECD 401
dermal, LD50, Rat: > 2000 mg/kg
oral, LD50, Guinea pig: 1414 mg/kg
Method: OECD 401
inhalative (vapours), LC0, Guinea pig, female: > 3,1 mg/L
Method: (49 CFR 173.132)
inhalative (vapours), LC0, Guinea pig, male: > 3,4 mg/L
Method: (49 CFR 173.132)
dermal, LD50, Rabbit, male: 1,06 mg/kg

n-butyl acetate

oral, LD50, Rat: 10760 mg/kg
Method: OECD 423
dermal, LD50, Rabbit: 14112 mg/kg
Method: OECD 402
inhalative (dust and mist), LC50, Rat: 23,4 mg/L (4 h)
Method: OECD 403

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oral, LD50, Rat: 500 mg/kg
dermal, LD50, Rat: > 1000 mg/kg
oral, LD50, Mouse: 500 mg/kg

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dermal, LD50, Mouse: > 2000 mg/kg
ortho-xylene
oral, LD50, Rat: 4300 mg/kg
dermal, LD50, Rabbit: 2000 mg/kg
oral, LD50, Rat, male: 5,523 mg/kg
Method: EU Test B.1
Algae toxicity, EC50, Pseudokirchneriella subcapitata: 2,2 mg/L (73 h)
Method: OECD 201
inhalative (vapours), LC50, Rat, male: 6700 ppm (4 h)

Skin corrosion/irritation; Serious eye damage/eye irritation

Causes skin irritation.

Causes serious eye damage.

ethylbenzene

Skin, Rabbit (24 h)
Causes mild skin irritation.
eyes, Rabbit
Causes slight eye irritation

butan-1-ol

Skin, Rabbit (4 h)
Method: BASF - Test
eyes

benzyl alcohol

Skin, Rabbit (4 h)
Method: OECD 404
non-irritant.; not corrosive
eyes, Rabbit
Method: OECD 405
Causes serious eye irritation.; not corrosive

2-butoxyethanol

Skin, Rabbit (4 h)
Method: Directive 67/548/EEC, Annex V, B.4.
eyes, Rabbit (24 h)
Method: OECD 405

n-butyl acetate

Skin, Rabbit (4 h)
Method: OECD 404
No skin irritation
eyes
Method: OECD 405
No eye irritation

Respiratory or skin sensitisation

May cause an allergic skin reaction.

benzyl alcohol

Skin, Guinea pig: ; Evaluation not sensitising.
Method: OECD 406

2-butoxyethanol

Skin, Guinea pig: ; Evaluation not sensitising.
Method: OECD 406
Maximization test

n-butyl acetate

Skin, Guinea pig: ; Evaluation not sensitising.
Method: OECD 406
Mouse mouse ear swelling test (MEST)

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Skin:
No data available
Respiratory system:

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No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

ethylbenzene

Germ cell mutagenicity; Evaluation negative
Hamster; Mouse; ovaries
Carcinogenicity; Evaluation Carc. Cat. 2
Method: Group II B (IARC): Possible carcinogenic to humans (ethylbenzene)
human

butan-1-ol

teratogenicity, oral
Method: NOAEL
Rat; 1.454 mg/kg; Toxicological effects in dams
teratogenicity, oral
Method: NOAEL
Rat; 5.654 mg/kg
teratogenicity, inhalative
Method: NOAEL
Rat; 10.8 mg/l; Toxicological effects in dams
teratogenicity, inhalative
Method: NOAEL
Rat; 24.7 mg/l
Reproductive toxicity, inhalative
Method: NOAEL
Rat; 18.5 mg/l; parents
Reproductive toxicity, inhalative
Method: NOAEL
Mouse; 18.5 mg/l; F1

benzyl alcohol

Germ cell mutagenicity; Evaluation negative
Method: OECD 471 (Ames test)
OECD 474
Carcinogenicity
No data available
Reproductive toxicity
No data available

2-butoxyethanol

Germ cell mutagenicity; Evaluation In vitro tests showed no mutagenic effects.
Carcinogenicity; Evaluation Didn't show any carcinogenic effects in animal tests.
Reproductive toxicity
teratogenicity; Evaluation Didn't show any effect on fetus development in animal studies.

n-butyl acetate

Germ cell mutagenicity; Evaluation Ames test negative.

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Germ cell mutagenicity
No data available
Carcinogenicity
No data available
Reproductive toxicity
No data available

STOT-single exposure; STOT-repeated exposure

May cause respiratory irritation.

Xylene

Specific target organ toxicity (repeated exposure)
Liver and kidney damage; central nervous system
Causes damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Liver and kidney damage; central nervous system; hearing organs

ethylbenzene

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Repeated dose toxicity, Rat: 75 mg/kg
Method OECD 407
RTECS-no.: DA0700000
depression of central nervous system
movement disorders; headache; Vomiting

benzyl alcohol

Specific target organ toxicity (single exposure)
Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)
Based on available data, the classification criteria are not met.
Repeated dose toxicity (subacute, subchronic, chronic)
No data available

n-butyl acetate

Specific target organ toxicity (single exposure)
central nervous system; May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure)
human; Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).; Steam in high concentration leads to unconsciousness.

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Specific target organ toxicity (single exposure)
No data available
Specific target organ toxicity (repeated exposure)
No data available

ortho-xylene

Specific target organ toxicity (repeated exposure)
Causes damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Liver and kidney damage; central nervous system; hearing organs

Aspiration hazard

butan-1-ol

Aspiration hazard

benzyl alcohol

Aspiration hazard
May be harmful if swallowed.; May be harmful if inhaled.; non-irritant.

n-butyl acetate

Aspiration hazard; Evaluation No classification for aspiration toxicity

Cashew Nutshell Extract, Decarboxylated, Distilled

Aspiration hazard
No data available

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall assessment on CMR properties

EC No. CAS No.	Designation	Classification according to Regulation (EC) No 1272/2008 [CLP]
200-001-8 50-00-0	formaldehyde	Carc. 1B

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

SECTION 12: Ecological information

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Classification according to Regulation (EC) No 1272/2008 [CLP]
Do not allow to enter into surface water or drains.

12.1. Toxicity

*

Xylene

Fish toxicity, LC50, fish: 2,6 mg/L (96 h)
Method: OECD 203
Algae toxicity, ErC50, *Pseudokirchneriella subcapitata*: 4,6 mg/L (72 h)
Method: OECD 201
Algae toxicity, LC50, *Pseudokirchneriella subcapitata*: 4,6 mg/L (72 h)
Method: OECD 201
Fish toxicity, LC50, *Oncorhynchus mykiss* (Rainbow trout) (96 h)
Method: OECD 203
Daphnia toxicity, IC50, *Daphnia magna*: 1 mg/L (24 h)
Method: OECD 202
Algae toxicity, LC50, *Selenastrum capricornutum*: 2,2 mg/L (73 h)
Method: OECD 201
Bacteria toxicity, NOEC, Activated sludge: 16 mg/L (28 d)
Method: OECD 301 F

ethylbenzene

Fish toxicity, LC50, *Oncorhynchus mykiss* (Rainbow trout): 4,2 mg/L (96 h)
Daphnia toxicity, EC50, *Daphnia magna* 1,8 - 2,4 mg/L (48 h)
Algae toxicity, EC50, *Skeletonema costatum*: 4,9 mg/L (72 h)
Algae toxicity, EC50, *Pseudokirchneriella subcapitata*: 7,2 mg/L (48 h)
Shellfish Toxicity, LC50, *Mysidopsis bahia*: > 5,2 mg/L (48 h)
Toxicity of Microorganisms, EC50, microorganisms: 96 mg/L (24 h)

butan-1-ol

Fish toxicity, LC50, *Pimephales promelas* (fathead minnow): 1376 mg/L (96 h)
Method: OECD 203
Daphnia toxicity, EC50, *Daphnia magna* (Big water flea): 1328 mg/L (48 h)
Method: OECD 202
Algae, EC50, *Selenastrum capricornutum*: 225 mg/L (96 h)
Method: OECD 201
literature value
Bacteria toxicity, EC10, *Pseudomonas putida*: 2476 mg/L (17 h)
Method: DIN 38412

benzyl alcohol

Fish toxicity, LC50, *Oncorhynchus mykiss* (Rainbow trout): 2,18 mg/L (96 h)
Daphnia toxicity, EC50, *Daphnia pulex* (water flea): 2,94 mg/L (48 h)
Algae toxicity, ErC50, *Pseudokirchneriella subcapitata*: 0,11 mg/L (72 h)
Algae, EC50, Algae: 2,6 mg/L (72 h)
Fish toxicity, LC50, *Lepomis macrochirus* (Bluegill): 10 ppm (96 h)
Algae toxicity, NOEC, *Skeletonema costatum*: 0,027 mg/L (72 h)

2-butoxyethanol

Fish toxicity, LC50, *Oncorhynchus mykiss* (Rainbow trout): 1474 mg/L (96 h)
Method: OECD 203
Daphnia toxicity, EC50, *Daphnia pulex* (water flea): 1550 mg/L (48 h)
Method: OECD 202
Algae toxicity, ErC50, *Pseudokirchneriella subcapitata*: > 1 mg/L (72 h)
Method: OECD 201
Algae toxicity, NOEC, *Pseudokirchneriella subcapitata*: 62,5 mg/L (72 h)
Method: OECD 201
Bacteria toxicity, EC0, *Pseudomonas putida*: 700 mg/L (16 h)
Method: DIN 38412
Daphnia toxicity, EC50, *Daphnia magna*: 1,55 mg/L (48 h)
Method: OECD 202
Algae toxicity, EbC50, *Desmodesmus subspicatus*: 623 mg/L (72 h)
Method: OECD 201
Daphnia toxicity, EC50, *Daphnia magna*: 297 mg/L (21 d)
Method: OECD 211
Daphnia toxicity, NOEC, *Daphnia magna*: 100 mg/L (21 d)

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Method: OECD 211

Daphnia toxicity, growth test (Eb-Cx) 10% , Daphnia magna: 134 mg/L (21 d)

Method: OECD 211

Algae toxicity, growth test (Eb-Cx) 10% , Pseudokirchneriella subcapitata: 308 mg/L (72 h)

Method: OECD 201

Algae toxicity, Growth rate (ErCx) 10%, Pseudokirchneriella subcapitata: 679 mg/L (72 h)

Method: OECD 201

n-butyl acetate

Fish toxicity, LC50: 18 mg/L (96 h)

Method: OECD 203

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 44 mg/L (48 h)

Algae toxicity, EC50, Desmodesmus subspicatus: 647,7 mg/L (72 h)

(Growth inhibition)

Algae toxicity, NOEC, Desmodesmus subspicatus: 200 mg/L

(Growth inhibition)

Bacteria toxicity, IC50, Tetrahymena: 356 mg/L (40 h)

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Fish toxicity, LC50, Cyprinodon variegatus: > 1000 mg/L (96 h)

Daphnia toxicity, EC50, Daphnia magna: 40,46 mg/L (48 h)

Algae toxicity, ErC50: 1300 mg/L (72 h)

Algae toxicity, EC50: 1300 mg/L (72 h)

Algae toxicity, EC50, green alga: 5,82 mg/L (72 h)

ortho-xylene

Fish toxicity, LC50, fish: 2,6 mg/L (96 h)

Method: OECD 203

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 4,6 mg/L (72 h)

Method: OECD 201

Algae toxicity, LC50, Pseudokirchneriella subcapitata: 4,6 mg/L (72 h)

Method: OECD 201

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout) (96 h)

Method: OECD 203

Daphnia toxicity, IC50, Daphnia magna: 1 mg/L (24 h)

Method: OECD 202

Algae toxicity, LC50, Selenastrum capricornutum: 2,2 mg/L (73 h)

Method: OECD 201

Bacteria toxicity, NOEC, Activated sludge: 16 mg/L (28 d)

Method: OECD 301 F

Long-term Ecotoxicity

Xylene

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 4,36 mg/L (73 h)

Method: OECD 201

Fish toxicity, NOEC, fish: > 1,3 mg/L (56 d)

Daphnia toxicity, EL50, Daphnia magna: 2,9 mg/L (21 d)

Method: OECD 211

Daphnia toxicity, NOEC, Daphnia pulex: 1,17 mg/L (7 d)

Method: US EPA 600/4-91-003

Daphnia toxicity, LOEC, Daphnia magna (Big water flea): 3,16 mg/L (21 d)

Method: OECD 211

Algae toxicity, growth test (Eb-Cx) 10% , Pseudokirchneriella subcapitata: 0,72 mg/L (73 h)

Method: OECD 201

Daphnia toxicity, growth test (Eb-Cx) 10% , Daphnia magna: 1,91 mg/L (21 d)

Method: OECD 211

ethylbenzene

Daphnia toxicity, NOEC, Ceriodaphnia dubia (Wasserfloh): 0,96 mg/L (7 d)

Algae toxicity, NOEC, Pseudokirchneriella subcapitata: 3,4 mg/L (96 h)

Daphnia toxicity, LC50, Ceriodaphnia dubia (Wasserfloh): 3,6 mg/L (7 d)

Bacteria toxicity, EC50, Nitrosomonas sp: 96 mg/L (24 h)

Daphnia toxicity, LOEC, Ceriodaphnia dubia (Wasserfloh): 1,7 mg/L (7 d)

butan-1-ol

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Daphnia toxicity, NOEL, Daphnia magna (Big water flea): 4,1 mg/L (21 d)
Method: OECD 211

ortho-xylene

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 4,36 mg/L (73 h)

Method: OECD 201

Fish toxicity, NOEC, fish: > 1,3 mg/L (56 d)

Daphnia toxicity, EL50, Daphnia magna: 2,9 mg/L (21 d)

Method: OECD 211

Daphnia toxicity, NOEC, Daphnia pulex: 1,17 mg/L (7 d)

Method: US EPA 600/4-91-003

Daphnia toxicity, LOEC, Daphnia magna (Big water flea): 3,16 mg/L (21 d)

Method: OECD 211

Algae toxicity, growth test (Eb-Cx) 10% , Pseudokirchneriella subcapitata: 0,72 mg/L (73 h)

Method: OECD 201

Daphnia toxicity, growth test (Eb-Cx) 10% , Daphnia magna: 1,91 mg/L (21 d)

Method: OECD 211

12.2. Persistence and degradability

*

Xylene

Persistence and degradability:

Method: Rapid photochemical oxidation in air

Biodegradation: 98 percent (28 d)

Readily biodegradable (according to OECD criteria)

ethylbenzene

Biodegradation, aerobic: 70 - 80 percent (28 d); Evaluation Readily biodegradable (according to OECD criteria).

butan-1-ol

Biodegradation: 92 percent (20 d); Evaluation Readily biodegradable (according to OECD criteria)

aerobic.; Activated sludge; Biochemical oxygen demand

benzyl alcohol

Biodegradation: 92 - 96 percent (14 d)

Method: OECD 301C

Readily biodegradable (according to OECD criteria)

2-butoxyethanol

Biodegradation: 90,4 percent (28 d); Evaluation Readily biodegradable (according to OECD criteria).

Method: OECD 301B

aerobic; activated sludge; based on: CO₂ formation (% of theoretical value).; The criterion for the 10 day time window is fulfilled.

n-butyl acetate

Persistence and degradability: Evaluation No data available

Biodegradation: 83 percent (28 d); Evaluation Readily biodegradable (according to OECD criteria).

Method: OECD 301D

aerobic.

Cashew Nutshell Extract, Decarboxylated, Distilled

Biodegradation: 83,8 percent (28 d)

ortho-xylene

Persistence and degradability:

Method: Rapid photochemical oxidation in air

Biodegradation: 98 percent (28 d)

Readily biodegradable (according to OECD criteria)

12.3. Bioaccumulative potential

Xylene

Distribution coefficient n-octanol/water (log KOW): 3,49

ethylbenzene

Distribution coefficient n-octanol/water (log KOW): 3,6

butan-1-ol

Partition coefficient: n-octanol/water:

Bioaccumulation is not to be expected.

Distribution coefficient n-octanol/water (log KOW): 0,88

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benzyl alcohol

Distribution coefficient n-octanol/water (log KOW): 1,05

Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

2-butoxyethanol

Distribution coefficient n-octanol/water (log KOW): 0,81 ; Evaluation Bioaccumulation is not to be expected.

n-butyl acetate

Distribution coefficient n-octanol/water (log KOW):

No data available

Cashew Nutshell Extract, Decarboxylated, Distilled

Partition coefficient: n-octanol/water:

No data available

ortho-xylene

Distribution coefficient n-octanol/water (log KOW): 3,49

Bioconcentration factor (BCF)

benzyl alcohol

Bioconcentration factor (BCF), fish: 1,37

12.4. Mobility in soil

Xylene

soil: Evaluation Absorbs slowly into the soil

Water: Evaluation Floats on the water

butan-1-ol

Mobility in soil:

The substance does not evaporate from the water surface into the atmosphere.; Does not adsorb to the ground.

benzyl alcohol

soil:

No further relevant information available.

2-butoxyethanol

Water: Evaluation The substance does not evaporate from the water surface into the atmosphere.

The product is water soluble.

soil: Evaluation Adsorption at ground level not to be expected.

n-butyl acetate

:

No data available

Cashew Nutshell Extract, Decarboxylated, Distilled

soil:

No data available

ortho-xylene

soil: Evaluation Absorbs slowly into the soil

Water: Evaluation Floats on the water

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal / Product

Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste. Dispose of waste according to applicable legislation.

List of proposed waste codes/waste designations in accordance with EWC

080111* Waste paint and varnish containing organic solvents or other dangerous substances

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*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

**Appropriate disposal / Package
Recommendation**

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

- 14.1. **UN number or ID number**
UN 1263
- 14.2. **UN proper shipping name**
Land transport (ADR/RID): Paint
Sea transport (IMDG): PAINT
Air transport (ICAO-TI / IATA-DGR): Paint
- 14.3. **Transport hazard class(es)**
3
- 14.4. **Packing group**
III
- 14.5. **Environmental hazards**
Land transport (ADR/RID) not applicable
Marine pollutant not applicable
- 14.6. **Special precautions for user**
Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8
- Further information**
- Land transport (ADR/RID)**
Tunnel restriction code D/E
- Sea transport (IMDG)**
EmS-No. F-E, S-E
- 14.7. **Maritime transport in bulk according to IMO instruments**
No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

- 15.1. **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- EU legislation**
- Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]**
VOC-value (in g/L): 489
- National regulations**
- Restrictions of occupation**
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

15.2. **Chemical Safety Assessment**

*

For the following substances of this mixture a chemical safety assessment has been carried out:

EC No. CAS No.	Designation	REACH No.
200-751-6 71-36-3	butan-1-ol	01-2119484630-38
203-905-0 111-76-2	2-butoxyethanol	01-2119475108-36
202-422-2 95-47-6	ortho-xylene	01-2119485822-30
215-535-7 1330-20-7	Xylene	01-2119488216-32

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204-658-1 123-86-4	n-butyl acetate	01-2119485493-29
203-767-1 110-43-0	heptan-2-one	01-2119902391-49
202-859-9 100-51-6	benzyl alcohol	01-2119492630-38
232-355-4 8007-24-7	Cashew Nutshell Extract, Decarboxylated, Distilled	01-2119502450-57
202-849-4 100-41-4	ethylbenzene	01-2119489370-35
203-577-9 108-39-4	m-cresol	01-2119448335-38
215-293-2 1319-77-3	mix-cresol	01-2119565142-45
200-001-8 50-00-0	formaldehyde	01-2119488953-20

SECTION 16: Other information

*

Full text of classification in section 3

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
STOT SE 3 / H335	STOT-single exposure	May cause respiratory irritation.
Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
STOT SE 3 / H336	STOT-single exposure	May cause drowsiness or dizziness.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
STOT RE 2 / H373	STOT-repeated exposure	May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Skin Sens. 1A / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Flam. Liq. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.
Acute Tox. 3 / H311	Acute toxicity (dermal)	Toxic in contact with skin.
Acute Tox. 3 / H301	Acute toxicity (oral)	Toxic if swallowed.
Skin Corr. 1B / H314	Skin corrosion/irritation	Causes severe skin burns and eye damage.
Carc. 1B / H350	Carcinogenicity	May cause cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Muta. 2 / H341	Germ cell mutagenicity	Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Acute Tox. 3 / H331	Acute toxicity (inhalative)	Toxic if inhaled.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.

Classification procedure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 3	Flammable liquids	On basis of test data.
Acute Tox. 4	Acute toxicity (oral)	Calculation method.
Skin Irrit. 2	Skin corrosion/irritation	Calculation method.
Eye Dam. 1	Serious eye damage/eye irritation	Calculation method.
Skin Sens. 1	Respiratory or skin sensitisation	Calculation method.
STOT SE 3	STOT-single exposure	Calculation method.

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL	Occupational Exposure Limit Value
BLV	Biological Limit Value
CAS	Chemical Abstracts Service

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CLP	Classification, Labelling and Packaging
CMR	Carcinogenic, Mutagenic and Reprotoxic
DIN	German Institute for Standardization / German industrial standard
DNEL	Derived No-Effect Level
EAKV	European Waste Catalogue Directive
EC	Effective Concentration
EC	European Community
EN	European Standard
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations
IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Code for Dangerous Goods
ISO	International Organization for Standardization
LC	Lethal Concentration
LD	Lethal Dose
MARPOL	Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	very persistent and very bioaccumulative

Further information

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in section 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

* Data changed compared with the previous version

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

VOC DATA SHEET

Manufacturer: Henkel Corporation

Product Identification: DAREX® WBC 2311D-63.5-1

Properties of the coating as supplied* to the customer:

A. Coating Density (D_c)_s: 11.2 lb/gal 1.33 kg/l
(ASTM D1475)

B. Total Volatiles (W_v)_s: 37.0 Weight Percent

C. Water Content: 1. (W_w)_s 36.5 Weight Percent
(Calculated)

2. (V_w)_s 48.5 Volume Percent

D. Organic Volatiles (W_o)_s: 0.5 Weight Percent

E. Nonvolatiles Content (V_n)_s: 50.5 Volume Percent

F. VOC Content (VOC)_s: 0.0 lb/gal less water 0.00 kg/l less water

and

0.0 lb/gal solids 0.00 kg/l solids

Remarks: All values have been calculated based on formulation and processing information.

*The subscript "s" denotes each value is for the "as supplied" product.

Signed:



Date:

20-Oct-2025



SAFETY DATA SHEET

1. Identification

Other means of identification None known.
Product identifier **DIBASIC ESTER**
Recommended use ALL PROPER AND LEGAL PURPOSES
Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Brenntag Mid-South, Inc.
Address 1405 Highway 136, West
Henderson, KY 42420
Telephone 270-830-1222
E-mail Not available.
Emergency phone number 800-424-9300 CHEMTREC

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.
OSHA defined hazards Not classified.

Label elements

Hazard symbol None.
Signal word None.
Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.
Response Wash hands after handling.
Storage Store away from incompatible materials.
Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information 100% of the mixture consists of component(s) of unknown acute oral toxicity. 100% of the mixture consists of component(s) of unknown acute dermal toxicity. 100% of the mixture consists of component(s) of unknown acute inhalation toxicity.

3. Composition/information on ingredients

Mixtures

The manufacturer lists no ingredients as hazardous to health according to OSHA 29 CFR 1910.1200.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact Rinse with water. Get medical attention if irritation develops and persists.
Ingestion Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed Treat symptomatically.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).
Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions Move containers from fire area if you can do so without risk.
Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up
 Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.
 Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
 Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits No exposure limits noted for ingredient(s).
Biological limit values No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form	Liquid.
Color	COLORLESS
Odor	MILD, FRUITY, MUSTY
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	40 °F (4.44 °C)
Initial boiling point and boiling range	383.54 °F (195.3 °C) estimated
Flash point	212.0 °F (100.0 °C)
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	8.86 lbs/gal 1.06 g/ml
Explosive properties	Not explosive.
Flammability class	Combustible IIIB estimated
Oxidizing properties	Not oxidizing.
Specific gravity	1.06

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological Information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not known.
Skin corrosion/irritation Due to partial or complete lack of data the classification is not possible.
Serious eye damage/eye irritation Due to partial or complete lack of data the classification is not possible.
Respiratory or skin sensitization
Respiratory sensitization Due to partial or complete lack of data the classification is not possible.
Skin sensitization Due to partial or complete lack of data the classification is not possible.
Germ cell mutagenicity Due to partial or complete lack of data the classification is not possible.
Carcinogenicity Due to partial or complete lack of data the classification is not possible.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - single exposure Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - repeated exposure Due to partial or complete lack of data the classification is not possible.
Aspiration hazard Due to partial or complete lack of data the classification is not possible.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability No data is available on the degradability of this product.
Bioaccumulative potential
Mobility in soil No data available.
Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations Dispose in accordance with all applicable regulations.
Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

Transport information on packaging may be different from that listed. Transportation information on packaging may be different from that listed.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information**US federal regulations**

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous chemical

No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations**California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 04-06-2015

Revision date 01-06-2022

Material name: DIBASIC ESTER

SDS US

447777 Version #: 14 Revision date: 01-06-2022 Issue date: 04-06-2015

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Version #	14
HMIS® ratings	Health: 0 Flammability: 0 Physical hazard: 0
NFPA ratings	Health: 1 Flammability: 1 Instability: 0
Disclaimer	While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.
Revision information	This document has undergone significant changes and should be reviewed in its entirety.

1. Identification

Product identifier	Glycol Ether EB
Other means of identification	
Product code	0150009
Recommended use	Solvent
Recommended restrictions	None known.
Manufacturer information	Superior Industrial Solutions, Inc. 1402 North Capitol Avenue, Suite #100 Indianapolis, IN 46202 US General Information: (317) 781-4400 Chemical Emergency: (317) 781-4470 Website: www.relyonsuperior.com SDS Request: SDSInfo@relyonsuperior.com

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 4
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, dermal	Category 4
	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Warning
Hazard statement	
H227	Combustible liquid.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

Precautionary statement

Prevention

P262	Do not get in eyes, on skin, or on clothing.
P261	Avoid breathing vapors or mist.
P210	Keep away from flames and hot surfaces. - No smoking.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection/face protection.

Response

P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P311	Call a POISON CENTER or doctor/physician.
P302 + P350	If on skin: Wash with plenty of water.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P304 + P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P312	Call a poison center/doctor if you feel unwell.
P305 + P351 + P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use appropriate media to extinguish.

Storage

P235	Keep cool.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2-Butoxy Ethanol		111-76-2	>99

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a poison center or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing. Wash with plenty of soap and water. Get medical advice/attention if you feel unwell. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.
Most important symptoms/effects, acute and delayed	May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Combustible liquid.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Use water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Keep away from open flames, hot surfaces and sources of ignition. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid breathing mist/vapors. Avoid prolonged exposure. When using, do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value
Glycol Ether EB (CAS 111-76-2)	PEL	240 mg/m ³ 50 ppm

Components	Type	Value
2-Butoxy Ethanol (CAS111-76-2)	PEL	240 mg/m ³ 50 ppm

US. ACGIH Threshold Limit Values

Material	Type	Value
Glycol Ether EB (CAS 111-76-2)	TWA	20 ppm

Components	Type	Value
2-Butoxy Ethanol (CAS 111-76-2)	TWA	20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value
Glycol Ether EB (CAS 111-76-2)	TWA	24 mg/m ³ 5 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2-Butoxy Ethanol (CAS 111-76-2)	TWA	24 mg/m ³ 5 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Material	Value	Determinant	Specimen	Sampling Time
Glycol Ether EB (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxy Ethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines**US - California OELs: Skin designation**

2-Butoxy Ethanol (CAS 111-76-2) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2-Butoxy Ethanol (CAS 111-76-2) Skin designation applies.

US - Tennessee OELs: Skin designation

2-Butoxy Ethanol (CAS 111-76-2) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2-Butoxy Ethanol (CAS 111-76-2) Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

2-Butoxy Ethanol (CAS 111-76-2) Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Chemical respirator with organic vapor cartridge.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Clear.
Physical state	Liquid.
Color	Colorless.
Odor	Mild Butyl-like Ether.
pH	Not available.
Melting point/freezing point	Not determined

Initial boiling point and boiling range	339.8 °F (171 °C) estimated
Flash point	154.4 °F (68.0 °C) Tag Closed Cup
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1.1 % estimated
Flammability limit - upper (%)	10.6 % estimated
Vapor pressure	0.75 mmHg @ 20 °C
Vapor density	> 1 (Air = 1)
Solubility(ies)	
Solubility (water)	Complete.
Auto-ignition temperature	Not determined
Other information	
Pounds per gallon	7.533 lb/gal
Specific gravity	0.904

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport
Chemical stability	Material is stable under normal conditions. Stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Suitable precautions should be utilized if using this product at temperatures above the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Harmful if inhaled. May cause drowsiness or dizziness. Headache. Nausea, vomiting
Skin contact	Harmful in contact with skin. Causes skin irritation. 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.
Eye contact	Causes serious eye irritation.
Ingestion	Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics	May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity	In high concentrations, vapors are anesthetic and may cause headache, fatigue, dizziness and central nervous system effects. Harmful if inhaled. Harmful in contact with skin. Harmful if swallowed.

Components	Species	Test Results
2-Butoxy Ethanol (CAS 111-76-2)		
<u>Acute</u>		
Oral		
LD50	Rat	560 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

2-Butoxy Ethanol (CAS 111-76-2) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects

Specific target organ toxicity - single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful. May be harmful if absorbed through skin.
2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
2-Butoxy Ethanol (CAS 111-76-2)		
Aquatic		
Fish	LC50 Inland silverside (Menidia beryllina)	1250 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

2-Butoxy Ethanol 0.83

Mobility in soil No data available.

Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT BULK

UN number NA1993

Proper shipping name Combustible Liquid, N.O.S., (Ethylene Glycol Monobutyl Ether)

Hazard class Combustible Liquid
Packing group III
ERG code 128

DOT NON-BULK

Not regulated in a container less than 119 gallons.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA) Restrictions of Use

None known

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

2-Butoxy Ethanol (CAS 111-76-2) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Yes
Hazardous chemical

Classified hazard categories Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
2-Butoxy Ethanol	111-76-2	>99

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.

US state regulations

California Proposition 65



WARNING: This product can expose you to Ethylene Glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Developmental toxin

Ethylene Glycol (CAS 107-21-1) Listed: June 19, 2015

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

2-Butoxy Ethanol (CAS 111-76-2)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 02-22-2019

Revision date 10-28-2021

Version # 03

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Revision information Section 1, Manufacture information.

SAFETY DATA SHEET

Revision date 18-Jun-2025

Version 20

Supersedes Date: 10-May-2025

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code K510K055

Product Name LO 7505 K510K055

Other means of identification

No information available

Recommended use of the chemical and restrictions on use

Paint, Coatings

Details of the supplier of the safety data sheet

See section 16 for more information

The Sherwin-Williams Company
101 W. Prospect Avenue
Cleveland, OH 44115

E-mail address msds@valspar.com

Emergency telephone number

United States of America 1-888-345-5732

Section 2: HAZARDS IDENTIFICATION

Classification

Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1
Flammable liquids	Category 4

Label elements



Signal word

DANGER

HAZARD STATEMENTS

Combustible liquid
Suspected of causing cancer
Causes damage to organs through prolonged or repeated exposure

PREVENTION

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. P210 - Keep away from heat/sparks/open flames/hot

surfaces. - No smoking.

RESPONSE

IF exposed or concerned: Get medical advice/attention.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin

Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Inhalation

IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

Ingestion

Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Fire

In case of fire: Use CO2, dry chemical, or foam for extinction.

STORAGE

Store locked up. Store in a well-ventilated place. Keep cool.

DISPOSAL

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)

No information available.

OTHER HAZARDS

Not applicable.

UNKNOWN ACUTE TOXICITY

0% of the mixture consists of ingredient(s) of unknown toxicity

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Titanium dioxide	13463-67-7	10 - 25
Proprietary Inert	Proprietary	3 - 5
Kaolin	1332-58-7	1 - 3

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

Description of first aid measures

General advice

IF exposed or concerned: Get medical advice/attention.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact

Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Inhalation

IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

Ingestion

Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, CO₂, water spray or alcohol-resistant foam.

Not to be used for safety reasons:

Strong water jet

Specific hazards arising from the chemical

Burning produces heavy smoke. Fire may produce irritating and/or toxic gases. In the event of fire and/or explosion do not breathe fumes.

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid breathing vapors or mists. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes or clothing. Remove all sources of ignition.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Dispose of waste product or used containers according to local regulations. Clean with detergents. Avoid solvent cleaners. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Operators should wear anti-static footwear and clothing and floors should be of the conducting type. Use personal protection recommended in Section 8. Never use pressure to empty container. Comply with the health and safety at work laws. Prevent product from entering drains. Do not breathe dust/fume/gas/mist/vapors/spray. Use only in well-ventilated areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges.

General Hygiene Considerations

Avoid contact with skin, eyes or clothing. When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep/store only in original container. Store in accordance with local regulations. Keep unauthorized personnel away. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep tightly closed in a dry and cool place.

Incompatible materials

Strong oxidizing agents.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

If S* appears in the OEL table, it indicates this chemical contains a skin notation.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH – Pocket Guide & IDLH
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust	IDLH: 5000 mg/m ³
Proprietary Inert	TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 20 mppcf if 1% Quartz or more; use Quartz limit	IDLH: 1000 mg/m ³ TWA: 2 mg/m ³ containing no Asbestos and <1% Quartz respirable dust
Kaolin 1332-58-7	TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust

Appropriate engineering controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin and body protection

Wear suitable protective clothing.

Hand Protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical / chemical damage and poor maintenance. Wear protective gloves.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal Protection

No information available

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available
Odor	Slight
Color	grey
Odor Threshold	No information available

pH - VALUE 1	No information available
Melting point/freezing point	No information available
Boiling point / boiling range	No information available °C / °F
flash point	62 °C / 143.6 °F
evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Relative vapor density	No information available
Density (lbs per US gallon)	10.7
specific gravity	1.28
Solubility(ies)	Soluble in water
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	465 mm ² per second
Dynamic viscosity	No information available

Other information

Section 10: STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents.
Hazardous Decomposition Products	Carbon monoxide. Carbon dioxide (CO ₂). Nitrogen oxides (NO _x).

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
 Not applicable
Skin Contact
 Not applicable
Ingestion
 Not applicable
Inhalation
 Not applicable

Numerical measures of toxicity - Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Proprietary Inert	-	-	-
Kaolin 1332-58-7	-	-	-

Numerical measures of toxicity - Product Information

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity

According to IARC, Volume 93, no significant exposure to primary particles of titanium dioxide is thought to occur from use in paints since the pigment is bound to other materials.

Chemical name	ACGIH	IARC	NTP	OSHA
Titanium dioxide 13463-67-7		Group 2B		X

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans.

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present.

Skin corrosion/irritation Not applicable

Serious eye damage/eye irritation Not applicable

Skin sensitization Not applicable

Respiratory sensitization Not applicable

Germ cell mutagenicity Not applicable

Carcinogenicity Suspected of causing cancer

Reproductive Toxicity Not applicable

Specific target organ toxicity (single exposure) Not applicable

Specific target organ toxicity (repeated exposure) Causes damage to organs through prolonged or repeated exposure

Aspiration hazard Not applicable

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Environmental precautions Prevent product from entering drains.

Persistence and degradability

No information available

Bioaccumulation

No information available

Mobility

No information available

Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Improper disposal or reuse of this container may be dangerous and illegal. Empty containers must be scrapped or reconditioned.

Section 14: TRANSPORT INFORMATION

14.1 UN number or ID number	<u>DOT</u> UN1263	<u>IMDG</u> Not regulated	<u>IATA</u> Not regulated
14.2 Proper shipping name	Paint		

14.3 Hazard Class COMBUSTIBLE LIQUID

14.4 Packing Group

III

14.5 Environmental hazards

14.6 Special Provisions

14.7 Maritime transport in bulk according to IMO instruments

No information available

The supplier may apply one of the following exceptions: Combustible Liquid (49 CFR 173.150(f)); Consumer Commodity (49 CFR 173.150(c), ICAO/IATA SP A112); Limited Quantity (49 CFR 173.150(b), ICAO Part 3 Chapter 4, IATA 2.7, IMDG Chapter 3.4); Viscous Liquid (49 CFR 173.121(b), IMDG 2.3.2.2, IATA 3.3.3.1.1, ICAO 3.2.2, ADR 2.2.3.1.5); Does Not Sustain Combustion (49 CFR 173.120(a), IATA 3.3.1.3, ICAO 3.1.3, IMDG 2.3.1.3, ADR 2.2.3.1.1 Note 1); or others as allowed under hazardous materials/dangerous goods regulations.

Section 15: REGULATORY INFORMATION

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

All components are listed or exempt from listing. (Active List).

DSL - Canadian Domestic Substances List

All components are listed or exempt from listing

US Federal Regulations

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED and rely on information provided to us by our raw material suppliers. Our suppliers often provide an estimated value or range less than a certain upper limit. We calculate MAXIMUM THEORETICAL VALUES using defined values, if provided, or the upper limit reported by our supplier. Additionally, the suppliers' information may include amounts present in the product as unintentional byproducts or impurities. Variations may occur in individual batches due to adjustments made during production.

A component in this material is subject to the following SNUR under TSCA 5(a)(2):

62 FR 34421, Jun 26, 1997 (proposed rule PMN P-95-0117); 62 FR 34421, Jun 26, 1997 (proposed rule PMN P-96-1251)

A component in this material is subject to the following SNUR under TSCA 5(a)(2):

62 FR 34421, Jun 26, 1997 (Proposed rule PMN P-95-0116); 62 FR 34421, Jun 26, 1997 (Proposed rule PMN P-96-1250)

Lead (ppm) SARA 313 - Threshold Value - 0%
1.3637

Mercury (ppm) SARA 313 - Threshold Value - 0%
.0136

US State Regulations

Rule 66 status of product

Not photochemically reactive.

California Proposition 65

WARNING: This product contains chemicals known to the State of California to cause cancer.

U.S. EPA Label information

EPA Pesticide registration number Not applicable

U.S. State Right-to-Know Regulations

Chemical name
Water
7732-18-5
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Titanium dioxide
13463-67-7
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Proprietary Inert

Kaolin 1332-58-7

Section 16: OTHER INFORMATION

HMIS

Health hazards 3*

* = Chronic Health Hazard

Flammability 2

Physical hazards 0

Personal Protection X

Supplier Address

The Sherwin-Williams
Company
2000 Georgetown Drive
Waterfront Office Park,
Building III
Sewickley, PA 15143
724-940-3800

The Sherwin-Williams
Company
2001 Tracy St .
Pittsburgh, PA, 15233
412-766-9300

The Sherwin-Williams
Company
372 Cleveland St.
Rochester, PA 15074
724-774-8550

The Sherwin-Williams
Company
90 Carson Rd.
Birmingham, AL 35215
205-854-5454

The Sherwin-Williams
Company
701 Shiloh Rd.
Garland, TX 75042
972-276-5181

The Valspar (France) Corporation, S.A.S.
Boite Postale 51
14 Rue Chanay
F-71700 Tournus, France
+33 (0) 3 85270200

Prepared By Product Stewardship

Revision date 18-Jun-2025

Revision Note No information available

Disclaimer

The information on this Safety Data Sheet (SDS) is based on the present state of our knowledge, current national legislation and guidelines. As the specific conditions of use of the product are outside the supplier's knowledge and control the user is responsible for ensuring that the requirements of relevant legislation are complied with. This SDS should not be construed as any guarantee of the technical performance or suitability for particular applications. UNLESS SUPPLIER AGREES OTHERWISE IN WRITING, SUPPLIER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. SUPPLIER WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

End of Safety Data Sheet

DATA BASED ON FORMULATION

VOLATILE COMPOSITION REPORT

Product Code: 6375100055

CAS Number	Component	Weight Percent	Weight/ Gallon	HAP
7732-18-5	WATER	44.6	8.33	
71-36-3	BUTANOL	0.2	6.75	
107-98-2	PROPYLENE GLYCOL MONO METHYL ETHER	0.1	7.65	
34590-94-8	DIPROPYLENE GLYCOL METHYL ETHER	0.1	7.92	

SUM: 45.0

Lbs HAP per gallon of solids: 0.00

HAP Total Weight%: 0.0

9/10/2025

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
COATING SUPPLIER ENVIRONMENTAL DATA SHEET

Coating Manufacturer: Sherwin-Williams
Coating Code Number: 6375100055

1.	Coating Density Standard Wt/Gal Cup	<u>10.80</u> lb/gal	<u>1.30</u> kg/l
2.	Solvent System (Volatiles) Calculated Density:	<u>8.31</u> lb/gal	<u>1.00</u> kg/l
3.	Organic Solvent Density:	<u>7.17</u> lb/gal	<u>0.86</u> kg/l
4.	Coating Solids (Non Volatiles):	a. <u>55.0</u> b. <u>41.5</u>	Weight Percent Volume Percent
5.	Total Volatiles (H2O Included):	a. <u>45.0</u> b. <u>58.5</u>	Weight Percent Volume Percent
6.	Total Exempt Solvent:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
7.	Total Organic Volatiles: (Less H2O)	a. <u>0.4</u> b. <u>0.6</u>	Weight Percent Volume Percent
8.	Coating Water Content:		
	a. Water content as Charged:	a. <u>44.6</u>	Weight Percent
	b. Calculated:	b. <u>57.9</u>	Volume Percent
9.	VOC Content: *		
	(Coating Less Water & Exempt Solvent)	<u>0.1</u> lb/gal	<u>0.01</u> kg/l
	(Solids)	<u>0.1</u> lb/gal	<u>0.01</u> kg/l

*Note : The VOC reported is theoretical. It has been calculated from the product formulation. Diluting the coating with organic solvents at the point of application will alter the VOC level. Consult your Valspar Sales Representative for additional information in such cases.

SAFETY DATA SHEET

Revision date 17-Jun-2025

Version 23

Supersedes Date: 07-May-2025

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code K510K058

Product Name LO7505 K510K058

Other means of identification

No information available

Recommended use of the chemical and restrictions on use

Paint, Coatings

Details of the supplier of the safety data sheet

See section 16 for more information

The Sherwin-Williams Company
101 W. Prospect Avenue
Cleveland, OH 44115

E-mail address msds@valspar.com

Emergency telephone number

United States of America 1-888-345-5732

Section 2: HAZARDS IDENTIFICATION

Classification

Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1
Flammable liquids	Category 4

Label elements



Signal word

DANGER

HAZARD STATEMENTS

Combustible liquid
Suspected of causing cancer
Causes damage to organs through prolonged or repeated exposure

PREVENTION

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. P210 - Keep away from heat/sparks/open flames/hot

surfaces. - No smoking.

RESPONSE

IF exposed or concerned: Get medical advice/attention.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin

Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Inhalation

IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

Ingestion

Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Fire

In case of fire: Use CO2, dry chemical, or foam for extinction.

STORAGE

Store locked up. Store in a well-ventilated place. Keep cool.

DISPOSAL

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)

No information available.

OTHER HAZARDS

Not applicable.

UNKNOWN ACUTE TOXICITY

0% of the mixture consists of ingredient(s) of unknown toxicity

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Titanium dioxide	13463-67-7	5 - 10
Ethyl alcohol	64-17-5	3 - 5
Proprietary Inert	Proprietary	1 - 3
Kaolin	1332-58-7	1 - 3

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

Description of first aid measures

General advice

IF exposed or concerned: Get medical advice/attention.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact

Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Inhalation

IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

Ingestion

Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, CO₂, water spray or alcohol-resistant foam.

Not to be used for safety reasons:

Strong water jet

Specific hazards arising from the chemical

Burning produces heavy smoke. Fire may produce irritating and/or toxic gases. In the event of fire and/or explosion do not breathe fumes.

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes or clothing.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Dispose of waste product or used containers according to local regulations. Clean with detergents. Avoid solvent cleaners. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Operators should wear anti-static footwear and clothing and floors should be of the conducting type. Use personal protection recommended in Section 8. Never use pressure to empty container. Comply with the health and safety at work laws. Prevent product from entering drains. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Do not breathe dust/fume/gas/mist/vapors/spray. Use only in well-ventilated areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges.

General Hygiene Considerations

Avoid contact with skin, eyes or clothing. When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep/store only in original container. Store in accordance with local regulations. Keep unauthorized personnel away. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep tightly closed in a dry and cool place.

Incompatible materials

Strong oxidizing agents.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

If S* appears in the OEL table, it indicates this chemical contains a skin notation.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH – Pocket Guide & IDLH
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust	IDLH: 5000 mg/m ³
Ethyl alcohol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Proprietary Inert	TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 20 mppcf if 1% Quartz or more; use Quartz limit	IDLH: 1000 mg/m ³ TWA: 2 mg/m ³ containing no Asbestos and <1% Quartz respirable dust
Kaolin 1332-58-7	TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust

Appropriate engineering controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin and body protection

Wear suitable protective clothing. Personnel should wear anti-static clothing made of natural fiber or of high temperature resistant synthetic fiber.

Hand Protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical / chemical damage and poor maintenance. Wear protective gloves.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal Protection

No information available

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available
Odor	Water
Color	grey
Odor Threshold	No information available
pH - VALUE 1	No information available
Melting point/freezing point	No information available
Boiling point / boiling range	No information available °C / °F
flash point	63 °C / 145.4 °F
evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	57.3
Relative vapor density	No information available
Density (lbs per US gallon)	9.7
specific gravity	1.16
Solubility(ies)	Soluble in water
Partition coefficient	No information available
Autoignition temperature	363 °C / 685 °F
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available

Other information

Sustain Combustion	No

Section 10: STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents.

Hazardous Decomposition Products Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx).

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Not applicable
Skin Contact
Not applicable
Ingestion
Not applicable
Inhalation
Not applicable

Numerical measures of toxicity - Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide	> 10000 mg/kg (Rat)	-	-

13463-67-7			
Ethyl alcohol 64-17-5	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat) 4 h
Proprietary Inert	-	-	-
Kaolin 1332-58-7	-	-	-

Numerical measures of toxicity - Product Information

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity

According to IARC, Volume 93, no significant exposure to primary particles of titanium dioxide is thought to occur from use in paints since the pigment is bound to other materials.

Chemical name	ACGIH	IARC	NTP	OSHA
Titanium dioxide 13463-67-7		Group 2B		X

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans.

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present.

Skin corrosion/irritation Not applicable

Serious eye damage/eye irritation Not applicable

Skin sensitization Not applicable

Respiratory sensitization Not applicable

Germ cell mutagenicity Not applicable

Carcinogenicity Suspected of causing cancer

Reproductive Toxicity Not applicable

Specific target organ toxicity (single exposure) Not applicable

Specific target organ toxicity (repeated exposure) Causes damage to organs through prolonged or repeated exposure

Aspiration hazard Not applicable

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Environmental precautions Prevent product from entering drains.

Persistence and degradability

No information available

Bioaccumulation

No information available

Mobility

No information available

Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Improper disposal or reuse of this container may be dangerous and illegal. Empty containers must be scrapped or reconditioned.

Section 14: TRANSPORT INFORMATION

	<u>DOT</u>	<u>IMDG</u>	<u>IATA</u>
14.1 UN number or ID number	Not regulated	Not regulated	Not regulated
14.2 Proper shipping name			

14.3 Hazard Class

14.4 Packing Group

14.5 Environmental hazards

14.6 Special Provisions

14.7 Maritime transport in bulk according to IMO instruments

No information available

The supplier may apply one of the following exceptions: Combustible Liquid (49 CFR 173.150(f)); Consumer Commodity (49 CFR 173.150(c), ICAO/IATA SP A112); Limited Quantity (49 CFR 173.150(b), ICAO Part 3 Chapter 4, IATA 2.7, IMDG Chapter 3.4); Viscous Liquid (49 CFR 173.121(b), IMDG 2.3.2.2, IATA 3.3.3.1.1, ICAO 3.2.2, ADR 2.2.3.1.5); Does Not Sustain Combustion (49 CFR 173.120(a), IATA 3.3.1.3, ICAO 3.1.3, IMDG 2.3.1.3, ADR 2.2.3.1.1 Note 1); or others as allowed under hazardous materials/dangerous goods regulations.

Section 15: REGULATORY INFORMATION

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

All components are listed or exempt from listing. (Active List).

DSL - Canadian Domestic Substances List

All components are listed or exempt from listing

US Federal Regulations

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED and rely on information provided to us by our raw material suppliers. Our suppliers often provide an estimated value or range less than a certain upper limit. We calculate MAXIMUM THEORETICAL VALUES using defined values, if provided, or the upper limit reported by our supplier. Additionally, the suppliers' information may include amounts present in the product as unintentional byproducts or impurities. Variations may occur in individual batches due to adjustments made during production.

A component in this material is subject to the following SNUR under TSCA 5(a)(2):

62 FR 34421, Jun 26, 1997 (proposed rule PMN P-95-0117); 62 FR 34421, Jun 26, 1997 (proposed rule PMN P-96-1251)

A component in this material is subject to the following SNUR under TSCA 5(a)(2):

62 FR 34421, Jun 26, 1997 (Proposed rule PMN P-95-0116); 62 FR 34421, Jun 26, 1997 (Proposed rule PMN P-96-1250)

Lead (ppm) SARA 313 - Threshold Value - 0%
.7804

Mercury (ppm) SARA 313 - Threshold Value - 0%
.0078

US State Regulations

Rule 66 status of product

Not photochemically reactive.

California Proposition 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

U.S. EPA Label information

EPA Pesticide registration number Not applicable

U.S. State Right-to-Know Regulations

Chemical name

Water 7732-18-5
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Titanium dioxide 13463-67-7
Ethyl alcohol 64-17-5
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Proprietary Inert
Kaolin 1332-58-7

Section 16: OTHER INFORMATION

HMIS

Health hazards 3*

* = Chronic Health Hazard

Flammability 2

Physical hazards 0

Personal Protection X

Supplier Address

The Sherwin-Williams
Company
2000 Georgetown Drive
Waterfront Office Park,
Building III
Sewickley, PA 15143
724-940-3800

The Sherwin-Williams
Company
2001 Tracy St.
Pittsburgh, PA, 15233
412-766-9300

The Sherwin-Williams
Company
372 Cleveland St.
Rochester, PA 15074
724-774-8550

The Sherwin-Williams
Company
90 Carson Rd.
Birmingham, AL 35215
205-854-5454

The Sherwin-Williams
Company
701 Shiloh Rd.
Garland, TX 75042
972-276-5181

The Valspar (France) Corporation, S.A.S.
Boite Postale 51
14 Rue Chanay
F-71700 Tournus, France
+33 (0) 3 85270200

Prepared By Product Stewardship

Revision date 17-Jun-2025

Revision Note No information available

Disclaimer

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End of Safety Data Sheet

DATA BASED ON FORMULATION

VOLATILE COMPOSITION REPORT

Product Code: 6375100058

CAS Number	Component	Weight Percent	Weight/ Gallon	HAP
7732-18-5	WATER	51.2	8.33	
64-17-5	ETHANOL	3.7	6.58	
34590-94-8	DIPROPYLENE GLYCOL METHYL ETHER	0.2	7.92	
71-36-3	BUTANOL	0.2	6.75	
107-98-2	PROPYLENE GLYCOL MONO METHYL ETHER	0.2	7.65	
		SUM:	55.5	

Lbs HAP per gallon of solids: 0.00

HAP Total Weight%: 0.0

9/10/2025

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
COATING SUPPLIER ENVIRONMENTAL DATA SHEET

Coating Manufacturer: Sherwin-Williams
Coating Code Number: 6375100058

1.	Coating Density Standard Wt/Gal Cup	<u>10.30</u> lb/gal	<u>1.24</u> kg/l
2.	Solvent System (Volatiles) Calculated Density:	<u>8.17</u> lb/gal	<u>0.98</u> kg/l
3.	Organic Solvent Density:	<u>6.70</u> lb/gal	<u>0.80</u> kg/l
4.	Coating Solids (Non Volatiles): ASTM 2369 (EPA Method 24)	a. <u>44.5</u> b. <u>30.0</u>	Weight Percent Volume Percent
5.	Total Volatiles (H2O Included): ASTM 2369 (EPA Method 24)	a. <u>55.5</u> b. <u>70.0</u>	Weight Percent Volume Percent
6.	Total Exempt Solvent:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
7.	Total Organic Volatiles: (Less H2O)	a. <u>4.3</u> b. <u>6.7</u>	Weight Percent Volume Percent
8.	Coating Water Content:		
	a. Water content as Charged:	a. <u>51.2</u>	Weight Percent
	b. Calculated:	b. <u>63.3</u>	Volume Percent
9.	VOC Content: *		
	(Coating Less Water & Exempt Solvent)	<u>1.2</u> lb/gal	<u>0.14</u> kg/l
	(Solids)	<u>1.5</u> lb/gal	<u>0.18</u> kg/l

*Note : The VOC reported is based on laboratory or small production quantities. Diluting the coating with organic solvents at the point of application will alter the VOC level. Consult your Valspar Sales Representative for additional information in such cases.



SAFETY DATA SHEET

1. Identification

Product identifier **L-1615 BMS**
 Other means of identification None.
 Recommended use ALL PROPER AND LEGAL PURPOSES
 Recommended restrictions None known.
 Manufacturer/Importer/Supplier/Distributor information
 Manufacturer
 Company name Brenntag Mid-South, Inc.
 Address 1405 Highway 136, West
 Henderson, KY 42420
 Telephone 270-830-1222
 E-mail Not available.
 Emergency phone number 800-424-9300 CHEMTREC

2. Hazard(s) identification

Physical hazards Flammable liquids Category 3
 Health hazards Skin corrosion/irritation Category 2
 Serious eye damage/eye irritation Category 2A
 Carcinogenicity Category 2
 Reproductive toxicity Category 2
 Specific target organ toxicity, single exposure Category 3 respiratory tract irritation
 Specific target organ toxicity, repeated exposure Category 1
 Environmental hazards Not classified.
 OSHA defined hazards Not classified.
 Label elements



Signal word **Danger**

Hazard statement **Flammable liquid and vapor. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.**

Precautionary statement
 Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

Storage

Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

Disposal	Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2-PROPANOL, 1-METHOXY-, 2-ACETATE		108-65-6	32.901
2-PENTANONE, 4-METHYL-		108-10-1	32
BENZENE, DIMETHYL-		1330-20-7	27.65
BENZENE, ETHYL-		100-41-4	7
BENZENE, METHYL-		108-88-3	0.35
Other components below reportable levels			0.099

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Rinse mouth. Get medical attention if symptoms occur.
Ingestion	Headache. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
Most important symptoms/effects, acute and delayed	
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. All equipment used when handling the product must be grounded. Take precautionary measures against static discharges. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Avoid prolonged exposure. Wear appropriate personal protective equipment. Should be handled in closed systems, if possible. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Store in a cool, dry place out of direct sunlight. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
2-PENTANONE, 4-METHYL- (CAS 108-10-1)	PEL	410 mg/m3
BENZENE, DIMETHYL- (CAS 1330-20-7)	PEL	100 ppm 435 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
BENZENE, ETHYL- (CAS 100-41-4)	PEL	100 ppm
		435 mg/m ³
		100 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
BENZENE, METHYL- (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
2-PENTANONE, 4-METHYL- (CAS 108-10-1)	STEL	75 ppm
	TWA	20 ppm
BENZENE, DIMETHYL- (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm
BENZENE, ETHYL- (CAS 100-41-4)	TWA	20 ppm
	TWA	20 ppm
BENZENE, METHYL- (CAS 108-88-3)	TWA	20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2-PENTANONE, 4-METHYL- (CAS 108-10-1)	STEL	300 mg/m ³
		75 ppm
	TWA	205 mg/m ³ 50 ppm
BENZENE, ETHYL- (CAS 100-41-4)	STEL	545 mg/m ³
	TWA	125 ppm 435 mg/m ³ 100 ppm
BENZENE, METHYL- (CAS 108-88-3)	STEL	560 mg/m ³
	TWA	150 ppm 375 mg/m ³ 100 ppm

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
2-PROPANOL, 1-METHOXY-, 2-ACETATE (CAS 108-65-6)	TWA	50 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
2-PENTANONE, 4-METHYL- (CAS 108-10-1)	1 mg/l	Methyl isobutyl ketone	Urine	*
BENZENE, DIMETHYL- (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*
BENZENE, ETHYL- (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*

ACGIH Biological Exposure Indices Components

Value	Determinant	Specimen	Sampling Time
BENZENE, METHYL- (CAS 0.3 mg/g 108-88-3)	o-Cresol, with hydrolysis	Creatinine in urine	*
0.03 mg/l	Toluene	Urine	*
0.02 mg/l	Toluene	Blood	*

* - For sampling details, please see the source document.

Exposure guidelines**US - California OELs: Skin designation**

2-PROPANOL, 1-METHOXY-, 2-ACETATE (CAS 108-65-6) Can be absorbed through the skin.

BENZENE, METHYL- (CAS 108-88-3) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

BENZENE, METHYL- (CAS 108-88-3) Skin designation applies.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

Eye/face protection Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance**

Physical state	Liquid.
Form	Liquid.
Color	TRANSPARENT COLORLESS

Odor Aromatic Hydrocarbon

Odor threshold Not available.

pH Not available.

Melting point/freezing point -122.86 °F (-86.04 °C) estimated

Initial boiling point and boiling range 247.83 °F (119.9 °C) estimated

Flash point 75.0 °F (23.9 °C)

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 6.7 % estimated

Flammability limit - upper (%) 11 % estimated

Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	835.16 °F (446.2 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	7.30 lbs/gal
Explosive properties	Not explosive.
Flammability class	Flammable IC estimated
Oxidizing properties	Not oxidizing.
Percent volatile	67.06 % estimated
Specific gravity	0.87
VOC	67 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents. Halogens.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause irritation to the respiratory system.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Headache. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity	May cause respiratory irritation.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

2-PENTANONE, 4-METHYL- (CAS 108-10-1)	2B Possibly carcinogenic to humans.
BENZENE, DIMETHYL- (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.
BENZENE, ETHYL- (CAS 100-41-4)	2B Possibly carcinogenic to humans.
BENZENE, METHYL- (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
2-PENTANONE, 4-METHYL- (CAS 108-10-1)			
Aquatic			
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>)	492 - 593 mg/l, 96 hours
BENZENE, DIMETHYL- (CAS 1330-20-7)			
Aquatic			
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>)	7.711 - 9.591 mg/l, 96 hours
BENZENE, ETHYL- (CAS 100-41-4)			
Aquatic			
Crustacea	EC50	Water flea (<i>Daphnia magna</i>)	1.37 - 4.4 mg/l, 48 hours
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>)	7.5 - 11 mg/l, 96 hours
BENZENE, METHYL- (CAS 108-88-3)			
Aquatic			
Crustacea	EC50	Water flea (<i>Daphnia magna</i>)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon, silver salmon (<i>Oncorhynchus kisutch</i>)	8.11 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

2-PENTANONE, 4-METHYL-	1.31
BENZENE, DIMETHYL-	3.12 - 3.2
BENZENE, ETHYL-	3.15
BENZENE, METHYL-	2.73

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1263
UN proper shipping name	PAINT RELATED MATERIAL
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ERG number	128
DOT information on packaging may be different from that listed.	

DOT



General information	IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

2-PENTANONE, 4-METHYL- (CAS 108-10-1)	Listed.
BENZENE, DIMETHYL- (CAS 1330-20-7)	Listed.
BENZENE, ETHYL- (CAS 100-41-4)	Listed.
BENZENE, METHYL- (CAS 108-88-3)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical	Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
2-PENTANONE, 4-METHYL-	108-10-1	32
BENZENE, DIMETHYL-	1330-20-7	27.65
BENZENE, ETHYL-	100-41-4	7

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

2-PENTANONE, 4-METHYL- (CAS 108-10-1)
 BENZENE, DIMETHYL- (CAS 1330-20-7)
 BENZENE, ETHYL- (CAS 100-41-4)
 BENZENE, METHYL- (CAS 108-88-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

2-PENTANONE, 4-METHYL- (CAS 108-10-1) 6715
 BENZENE, METHYL- (CAS 108-88-3) 6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

2-PENTANONE, 4-METHYL- (CAS 108-10-1) 35 %WV
 BENZENE, METHYL- (CAS 108-88-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

2-PENTANONE, 4-METHYL- (CAS 108-10-1) 6715
 BENZENE, METHYL- (CAS 108-88-3) 594

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

2-PENTANONE, 4-METHYL- (CAS 108-10-1) Low priority

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

2-PENTANONE, 4-METHYL- (CAS 108-10-1)
 BENZENE, DIMETHYL- (CAS 1330-20-7)
 BENZENE, ETHYL- (CAS 100-41-4)
 BENZENE, METHYL- (CAS 108-88-3)

US. Massachusetts RTK - Substance List

2-PENTANONE, 4-METHYL- (CAS 108-10-1)
 BENZENE, DIMETHYL- (CAS 1330-20-7)
 BENZENE, ETHYL- (CAS 100-41-4)
 BENZENE, METHYL- (CAS 108-88-3)

US. New Jersey Worker and Community Right-to-Know Act

2-PENTANONE, 4-METHYL- (CAS 108-10-1)
 BENZENE, DIMETHYL- (CAS 1330-20-7)
 BENZENE, ETHYL- (CAS 100-41-4)
 BENZENE, METHYL- (CAS 108-88-3)

US. Pennsylvania Worker and Community Right-to-Know Law

2-PENTANONE, 4-METHYL- (CAS 108-10-1)
 BENZENE, DIMETHYL- (CAS 1330-20-7)
 BENZENE, ETHYL- (CAS 100-41-4)
 BENZENE, METHYL- (CAS 108-88-3)

US. Rhode Island RTK

2-PENTANONE, 4-METHYL- (CAS 108-10-1)
 BENZENE, DIMETHYL- (CAS 1330-20-7)
 BENZENE, ETHYL- (CAS 100-41-4)
 BENZENE, METHYL- (CAS 108-88-3)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

ETHYLBENZENE (CAS 100-41-4)	Listed: June 11, 2004
METHYL ISOBUTYL KETONE (MIBK) (CAS 108-10-1)	Listed: November 4, 2011

US - California Proposition 65 - CRT: Listed date/Developmental toxin

2-PENTANONE, 4-METHYL- (CAS 108-10-1)	Listed: March 28, 2014
BENZENE, METHYL- (CAS 108-88-3)	Listed: January 1, 1991

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	04-08-2015
Revision date	12-17-2016
Version #	03
HMIS® ratings	Health: 3* Flammability: 3 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 3 Instability: 0
Disclaimer	While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.
Revision information	This document has undergone significant changes and should be reviewed in its entirety.

1. Identification

Product identifier	L-1956 Solvent Blend
Other means of identification	
Product code	0302956
Manufacturer information	Superior Oil Company, Inc. 1402 North Capitol Avenue, Suite #100 Indianapolis, IN 46202 US General Information: (317) 781-4400 Chemical Emergency: (317) 781-4470
Recommended use	Solvent
Recommended restrictions	None known.

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 3
Health hazards	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Carcinogenicity	Category 2
	Reproductive toxicity	Category 1B
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2
	Aspiration hazard	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word Danger

Hazard statement

H226	Flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure

Precautionary statement

Prevention

P262	Do not get in eyes, on skin, or on clothing.
P261	Avoid breathing vapors or mist.
P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233	Keep container tightly closed.

P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P310	If swallowed: Immediately call a poison center/doctor.
P331	Do NOT induce vomiting.
P303 + P361 + P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P304 + P340	If inhaled: Remove person to fresh air and keep comfortable for breathing
P308 + P313	If exposed or concerned: Get medical advice/attention.
P305 + P351 + P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use appropriate media to extinguish.

Storage

P235	Keep cool.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
N-Methyl-2-Pyrrolidinone		872-50-4	70-90
Xylene (Mixed Isomers)		1330-20-7	20-40
Ethyl Benzene		100-41-4	1-10

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a poison center or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. If exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Use water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Ethyl Benzene (CAS 100-41-4)	PEL	435 mg/m ³ 100 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Xylene (Mixed Isomers) (CAS 1330-20-7)	PEL	435 mg/m3
		100 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Ethyl Benzene (CAS 100-41-4)	TWA	20 ppm
Xylene (Mixed Isomers) (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Ethyl Benzene (CAS 100-41-4)	STEL	545 mg/m3
		125 ppm
	TWA	435 mg/m3
		100 ppm
Xylene (Mixed Isomers) (CAS 1330-20-7)	STEL	655 mg/m3
		150 ppm
	TWA	435 mg/m3
		100 ppm

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
N-Methyl-2-Pyrrolidinone (CAS 872-50-4)	TWA	40 mg/m3
		10 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Ethyl Benzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
N-Methyl-2-Pyrrolidinone (CAS 872-50-4)	100 mg/l	5-Hydroxy-N-methyl-2-pyrrolidinone	Urine	*
Xylene (Mixed Isomers) (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines**US - California OELs: Skin designation**

N-Methyl-2-Pyrrolidinone (CAS 872-50-4)
Toluene (CAS 108-88-3)

Can be absorbed through the skin.
Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Toluene (CAS 108-88-3)

Skin designation applies.

US WEEL Guides: Skin designation

N-Methyl-2-Pyrrolidinone (CAS 872-50-4)

Can be absorbed through the skin.

Appropriate engineering controls	Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Safety glasses with side shields or chemical goggles and full facepiece is recommended if splashing is expected. An eyewash station and safety shower should be made available.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	Chemical respirator with organic vapor cartridge and full facepiece must be worn, if ventilation or other mechanical means cannot maintain airborne concentrations below recommended exposure limits.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Clear.
Physical state	Liquid.
Color	Colorless.
Odor	Typical Solvent.
pH	Not Available.
Melting point/freezing point	Not Determined
Initial boiling point and boiling range	280.4 °F (138 °C) Estimated
Flash point	80.6 °F (27.0 °C) Lowest Flashing Component
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1 % Estimated
Flammability limit - upper (%)	9.5 % Estimated
Vapor pressure	2.95 hPa @ 20C (1 hPa = 0.75006 mmHg)
Vapor density	> 1 (Air = 1)
Solubility(ies)	
Solubility (water)	Appreciable
Auto-ignition temperature	Not Determined
Other information	
Pounds per gallon	8.133 lb/gal
Specific gravity	0.976

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport
Chemical stability	Material is stable under normal conditions. Stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Suitable precautions should be utilized if using this product at temperatures above the flash point. Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Harmful if inhaled. May cause drowsiness or dizziness. Headache. Nausea, vomiting
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways. Harmful if inhaled

Components	Species	Test Results
Ethyl Benzene (CAS 100-41-4)		
Acute		
Dermal		
LD50	Rabbit	17800 mg/kg
Oral		
LD50	Rat	3500 mg/kg
N-Methyl-2-Pyrrolidinone (CAS 872-50-4)		
Acute		
Dermal		
LD50	Rabbit	8000 mg/kg
Xylene (Mixed Isomers) (CAS 1330-20-7)		
Acute		
Dermal		
LD50	Rabbit	> 43 g/kg
Inhalation		
LC50	Rat	6350 mg/l, 4 Hours
Oral		
LD50	Rat	3523 - 8600 mg/kg

Skin corrosion/irritation	Causes skin irritation.

Serious eye damage/eye irritation	Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization	Not a respiratory sensitizer.

Skin sensitization	This product is not expected to cause skin sensitization.

Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity	Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

Ethyl Benzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.
Xylene (Mixed Isomers) (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	Possible reproductive hazard. Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. May damage fertility or the unborn child.

Specific target organ toxicity - single exposure	May cause respiratory irritation. May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	May be fatal if swallowed and enters airways.
Chronic effects	Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Ethyl Benzene (CAS 100-41-4)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.37 - 4.4 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	7.5 - 11 mg/l, 96 hours
Xylene (Mixed Isomers) (CAS 1330-20-7)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	7.711 - 9.591 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Ethyl Benzene	3.15
N-Methyl-2-Pyrrolidinone	-0.46 Estimated
Xylene (Mixed Isomers)	3.12
	3.12 - 3.2

Mobility in soil No data available.

Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	D001: Waste Flammable material with a flash point <140 F D018: Waste Benzene The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT BULK/NON-BULK

UN number	1263
Proper shipping name	Paint Related Material
Hazard class	3
Packing group	II
ERG code	128

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA) Restrictions of Use

None known

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

N-Methyl-2-Pyrrolidinone (CAS 872-50-4)

1.0 % Annual Export Notification required.

CERCLA Hazardous Substance List (40 CFR 302.4)

Ethyl Benzene (CAS 100-41-4)

Listed.

Xylene (Mixed Isomers) (CAS 1330-20-7)

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation
Carcinogenicity
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)
Aspiration hazard

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Ethyl Benzene	100-41-4	1-10
N-Methyl-2-Pyrrolidinone	872-50-4	70-90
Xylene (Mixed Isomers)	1330-20-7	20-40

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Ethyl Benzene (CAS 100-41-4)

Xylene (Mixed Isomers) (CAS 1330-20-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Contains component(s) regulated under the Safe Drinking Water Act.

US state regulations

California Proposition 65



WARNING: This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2)

Listed: February 27, 1987

Cumene (CAS 98-82-8)

Listed: April 6, 2010

Ethyl Benzene (CAS 100-41-4)

Listed: June 11, 2004

Naphthalene (CAS 91-20-3)

Listed: April 19, 2002

California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2)

Listed: December 26, 1997

N-Methyl-2-Pyrrolidinone (CAS 872-50-4)

Listed: June 15, 2001

Toluene (CAS 108-88-3)

Listed: January 1, 1991

California Proposition 65 - CRT: Listed date/Male reproductive toxin

Benzene (CAS 71-43-2)

Listed: December 26, 1997

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Ethyl Benzene (CAS 100-41-4)

N-Methyl-2-Pyrrolidinone (CAS 872-50-4)

Toluene (CAS 108-88-3)

Xylene (Mixed Isomers) (CAS 1330-20-7)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 10-01-2014

Revision date 01-05-2021

Version # 03

Disclaimer Superior Oil Company, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. This information is based on data available to us and is accurate and reliable to the best of our knowledge at the time of printing. However, no warranty is expressed or implied regarding the accuracy or completeness of the information contained herein. Final determination of the suitability of this material for the use contemplated is the sole responsibility of the user. Buyer assumes all risk and liabilities. Buyer accepts and uses this material on these conditions.

Revision information This document has undergone significant changes and should be reviewed in its entirety

SAFETY DATA SHEET

MDO BLACK #6C MM1710A (WHITE)

Section 1. Identification

Product no. : 1515417
Product name : MDO BLACK #6C MM1710A (WHITE)

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Printing inks, coatings, toners, and related materials
Uses advised against : Not available
Manufacturer : Not available.
24 Hour Emergency Phone :
SDS Email Information : Not available.
MSDS@inxintl.com

Section 2. Hazards identification

Classification of the substance or mixture : SKIN SENSITIZATION - Category 1A
TOXIC TO REPRODUCTION (Unborn child) - Category 2

GHS label elements

Hazard pictograms :



Signal word : Warning
Hazard statements : May cause an allergic skin reaction.
Suspected of damaging the unborn child.

Precautionary statements

General : Read label before use.
Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Avoid breathing vapor. Contaminated work clothing should not be allowed out of the workplace.
Response : IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.
Storage :

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : None known.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
White mineral oil	7 - 10	8042-47-5
1-Tridecanol	3 - 5	112-70-9
Fatty acids, tall-oil, manganese salts	2 - 3	8030-70-4
Synthetic Paraffin and Hydrocarbon waxes	1 - 2	8002-74-2
2-tert-butylhydroquinone	0.2 - 1	1948-33-0
Ethylhexanoic, 2- Acid	0.1 - 0.2	149-57-5
2-Ethylhexanoic Acid	0.1 - 0.2	149-57-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. \20 Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. \20 Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. . Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Synthetic Paraffin and Hydrocarbon waxes	OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 2 mg/m3 NIOSH REL (1994-06-01) Time Weighted Average (TWA) 2 mg/m3 Form: Fume ACGIH TLV (1994-09-01) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 2 mg/m3 Form: Fume
2-Ethylhexanoic Acid	ACGIH TLV (2002-01-01) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 5 mg/m3 Form: Inhalable fraction and vapor

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. \20 In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

- Physical state** : liquid
- Color** : Black.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Not Measured. Material is not expected to flash.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.

Lower and upper explosive (flammable) limits	:	Lower: Not available. Upper: Not available.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Density	:	1.1 g/cm3
Relative density	:	1.1
Solubility	:	Not available.
Partition coefficient: n-octanol/water	:	Not available.
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	Not available.
Viscosity	:	Dynamic: Not available. Kinematic: Not available.
Volatile.	:	12.04 %(m) Weight % 15.98 %(V) Volume %
VOC %	:	12.04 %(m) Weight % 15.98 %(V) Volume %
Coating VOC	:	1.1 lb/gal 132 g/l

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	No specific data.
Incompatible materials	:	No specific data.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
White mineral oil				
	LD50 Oral	Rat	5,000 mg/kg	-
1-Tridecanol				
	LD50 Oral	Rat	17,200 mg/kg	-
	LD50 Dermal	Rabbit	5,600 mg/kg	-
2-tert-butylhydroquinone				
	LD50 Oral	Rat	700 mg/kg	-
Ethylhexanoic, 2- Acid				

	LD50 Oral	Rat	1,600 mg/kg	-
2-Ethylhexanoic Acid				
	LD50 Oral	Rat	1,600 mg/kg	-

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1-Tridecanol	Skin - Mild irritant	Rabbit	-		-
Synthetic Paraffin and Hydrocarbon waxes	Skin - Moderate irritant	Rabbit	-		-
	Eyes - Mild irritant	Rabbit	-		-
	Skin - Mild irritant	Rabbit	-	24 hrs	-
	Eyes - Mild irritant	Rabbit	-	24 hrs	-
Ethylhexanoic, 2- Acid	Eyes - Severe irritant	Rabbit	-		-
	Skin - Mild irritant	Rabbit	-		-
2-Ethylhexanoic Acid	Eyes - Severe irritant	Rabbit	-		-
	Skin - Mild irritant	Rabbit	-		-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
White mineral oil			
Synthetic Paraffin and Hydrocarbon waxes			
Ethylhexanoic, 2- Acid			

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)**Aspiration hazard**

Product/ingredient name	Result
White mineral oil	ASPIRATION HAZARD - Category 1
Fatty acids, tall-oil, manganese salts	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
 Inhalation : Exposure to decomposition products may cause a health hazard.
 Serious effects may be delayed following exposure.
 Skin contact : May cause an allergic skin reaction.
 Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
 Inhalation : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
 Skin contact : Adverse symptoms may include the following:
 irritation
 redness
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
 Ingestion : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure**Short term exposure**

Potential immediate effects : Not available.
 Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity**Acute toxicity estimates**

Not available.

Section 12. Ecological information**Toxicity**

Conclusion/Summary : Not available.

Persistence and degradability

Conclusion/Summary : Not available.

Mobility in soil

Soil/water partition coefficient : Not available.
(KOC)

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Regulatory information	Proper shipping name	UN - Number	Hazard classification	Packing group	Additional information
IATA	Not classified.			-	
IMDG	Not classified.			-	
DOT Classification	Not classified.			-	
Mexico Classification	Not classified.			-	
TDG Class	Not classified.			-	

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b):**
All components are listed or exempted.

Clean Air Act Section 112(b) : **Listed**
Hazardous Air Pollutants (HAPs)

SARA 302/304
Not applicable.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : **Immediate (acute) health hazard**
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Classification
White mineral oil	7 - 10	312 IMMED HLTH-

1-Tridecanol	3 - 5	312 IMMED HLTHAH
Fatty acids, tall-oil, manganese salts	2 - 3	312 DELAY HLTH312 IMMED HLTH-
Synthetic Paraffin and Hydrocarbon waxes	1 - 2	AH
2-tert-butylhydroquinone	0.2 - 1	312 IMMED HLTHAH
Ethylhexanoic, 2- Acid	0.1 - 0.2	312 FIRE312 IMMED HLTHAH, CH
2-Ethylhexanoic Acid	0.1 - 0.2	312 FIRE312 IMMED HLTHAH, CH

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Fatty acids, tall-oil, manganese salts	8030-70-4	2 - 3
Supplier notification	Fatty acids, tall-oil, manganese salts	8030-70-4	2 - 3

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

International regulations**International lists**

: Australia inventory (AICS): Not determined. Canada inventory (DSL/NDL): Not determined.
 Europe inventory: Not determined.
 Japan inventory: Not determined.
 China inventory (IECSC): Not determined.
 Korea inventory: Not determined.
 New Zealand Inventory of Chemicals (NZIoC): Not determined.
 Philippines inventory (PICCS): Not determined.

Section 16. Other information**History**

Date of printing : 01/06/2017
 Date of issue/Date of revision : 01/06/2017
 Date of previous issue : 00/00/0000
 Version : 1.0
 Prepared by : MSDS@inxintl.com
 References : Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

MDO DENSE LINE BLACK WAX FREE

Section 1. Identification

Product identifier : MDO DENSE LINE BLACK WAX FREE
Product code : 1605555-1413, 1605555-1310
Chemical name : MDO DENSE LINE BLACK WAX FREE
Other means of identification : MDO DENSE LINE BLACK WAX FREE
Product type : liquid

Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Supplier's details : INX International Ink Co.
 MSDS@inxintl.com
 150 N Martingale Rd, Suite 700
 Schaumburg
 USA
 60173
 800.347.4657

Emergency telephone number (with hours of operation) : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN SENSITIZATION - Category 1
 TOXIC TO REPRODUCTION (Unborn child) - Category 2

GHS label elements

Hazard pictograms



Signal word : Warning
Hazard statements : H317:May cause an allergic skin reaction.
 H361:Suspected of damaging the unborn child.

Precautionary statements

- General** : P103:Read label before use.
P102:Keep out of reach of children.
P101:If medical advice is needed, have product container or label at hand.
- Prevention** : P201:Obtain special instructions before use.
P202:Do not handle until all safety precautions have been read and understood.
P280:Wear protective gloves.
P280:Wear eye or face protection.
P280:Wear protective clothing.
P261:Avoid breathing vapor.
P272 (OSHA):Contaminated work clothing must not be allowed out of the workplace.
- Response** : P308:IF exposed or concerned:
P313:Get medical attention.
P302:IF ON SKIN:
P352:Wash with plenty of soap and water.
P363:Wash contaminated clothing before reuse.
P333:If skin irritation or rash occurs:
P313:Get medical attention.
- Storage** : P405:Keep Locked up.
- Disposal** : P501:Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
Chemical name : MDO DENSE LINE BLACK WAX FREE
Other means of identification : MDO DENSE LINE BLACK WAX FREE

Ingredient name	%	CAS number
2-tert-butylhydroquinone	> 0 - < 1	1948-33-0
Ethylhexanoic, 2- Acid	> 0 - <= 0.3	149-57-5
2-Ethylhexanoic Acid	> 0 - <= 0.3	149-57-5

- indicates the ingredient name and/or exact percentage is being withheld as a trade secret. Any concentration shown as a range is withheld to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed**Potential acute health effects**

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness

- reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep

- unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders :** If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions :** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill :** Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill :** Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures :** Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene :** Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and

smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** :
- Store in accordance with local regulations.\20 Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep Locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Ethylhexanoic, 2- Acid	ACGIH TLV (2002-01-01) TWA 5 mg/m3 Form: Inhalable fraction and vapor
2-tert-butylhydroquinone	None.
2-Ethylhexanoic Acid	ACGIH TLV (2002-01-01) TWA 5 mg/m3 Form: Inhalable fraction and vapor

- Appropriate engineering controls** :
- If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** :
- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.\20 In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** :
- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** :
- Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection:

safety glasses with side-shields.

Skin protection

Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.'20 Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification.'20 Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state	:	liquid
Color	:	Black.
Odor	:	Not available.
Odor threshold	:	Not available.
pH	:	Not available.
Melting point	:	Not available.
Boiling point	:	Not available.
Flash point	:	Not Measured. Material is not expected to flash.
Fire point	:	Not available.
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Lower and upper explosive (flammable) limits	:	Lower: Not available. Upper: Not available.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Relative density	:	1.11
Solubility	:	Not available.
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not available.
Auto-ignition temperature	:	Not available.

Decomposition temperature	: Not available.
Viscosity	: Dynamic: Not available. Kinematic: Not available.
Flow time (ISO 2431)	: Not available.
VOC %	: 10.29 %(m) Weight %

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	No specific data.
Incompatible materials	:	No specific data.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-tert-butylhydroquinone				
	LD50 Oral	Rat	700 mg/kg	-
Ethylhexanoic, 2- Acid				
	LD50 Oral	Rat	1,600 mg/kg	-
2-Ethylhexanoic Acid				
	LD50 Oral	Rat	1,600 mg/kg	-

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Ethylhexanoic, 2- Acid	Eyes - Severe irritant	Rabbit	-		-
	Skin - Mild irritant	Rabbit	-		-
2-Ethylhexanoic Acid	Eyes - Severe irritant	Rabbit	-		-
	Skin - Mild irritant	Rabbit	-		-

Conclusion/Summary	
Skin	: Not available.
Eyes	: Not available.
Respiratory	: Not available.

Sensitization**Conclusion/Summary**

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	21,812.8 mg/kg

Section 12. Ecological information

Toxicity

Conclusion/Summary : Not available.

Persistence and degradability

Conclusion/Summary : Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Ethylhexanoic, 2- Acid	2.7	-	low
2-Ethylhexanoic Acid	2.7	-	low

Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classificati on	TDG Classificati on	Mexico Classificati on	ADR/RID	IMDG	IATA
UN number	-	-	-	-	-	-
UN proper shipping name	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
Transport hazard class(es)	-	-	-	-	-	-
Packing group	-	-	-	-	-	-
Environme ntal hazards	No.	No.	No.	No.	-	-

Additional information

TDG Classification : Not applicable.

ADR/RID : **Tunnel code:** -

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Not available.

Section 15. Regulatory information

U.S. Federal regulations : **United States - TSCA 4(a) - Final Test Rules:**
Benzenesulfonic acid, [[4-[[4-(phenylamino)phenyl][4-(phenylimino)-2,5-cyclohexadien-1-ylidene]methyl]phenyl]amino]-;
TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Listed
Clean Air Act Section 602 Class I Substances : Not listed
Clean Air Act Section 602 Class II Substances : Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : SKIN SENSITIZATION
Category 1 TOXIC TO REPRODUCTION
Unborn child
Category 2

Composition/information on ingredients

Name	%	Classification
2-tert-butylhydroquinone	> 0 - < 1	312 IMMEDIATE HLTH Acute Tox.,, 4Skin Irrit., 2Eye Irrit., 2ASkin Sens., 1A
Ethylhexanoic, 2- Acid	> 0 - <= 0.3	312 FIRE 312 IMMEDIATE HLTH Repr., D, 2
2-Ethylhexanoic Acid	> 0 - <= 0.3	312 FIRE 312 IMMEDIATE HLTH Repr., D, 2

SARA 313**Form R - Reporting requirements**

Product name	CAS number	%
Fatty acids, tall-oil, manganese salts	8030-70-4	> 0 - <= 3
Amine salt of sulfonayed heterocyclic compound	-	> 0 - <= 5

Supplier notification

Product name	CAS number	%
Fatty acids, tall-oil, manganese salts	8030-70-4	> 0 - <= 3
Amine salt of sulfonayed heterocyclic compound	-	> 0 - <= 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

- Massachusetts** : None of the components are listed.
- New York** : None of the components are listed.
- New Jersey** : The following components are listed:
Carbon Black
- Pennsylvania** : The following components are listed:
Carbon Black

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations**Inventory list**

- Australia** : Not determined.
- Canada** : Not determined.
- China** : Not determined.
- Europe** : Not determined.
- Japan** : **Japan inventory (ENCS)**: Not determined.
Japan inventory (ISHL): Not determined.
- Malaysia** : Not determined.
- New Zealand** : Not determined.
- Philippines** : Not determined.
- Republic of Korea** : Not determined.
- Taiwan** : Not determined.
- Turkey** : Not determined.
- United States** : All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
SKIN SENSITIZATION - Category 1	Calculation method
TOXIC TO REPRODUCTION (Unborn child) - Category 2	Calculation method

History

Date of printing	:	04/20/2020
Date of issue/Date of revision	:	04/20/2020
Date of previous issue	:	04/15/2020
Version	:	2.1
Prepared by	:	MULLENM
Key to abbreviations	:	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	:	Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



SAFETY DATA SHEET

1. Identification

Other means of identification None known.
 Product identifier **N-METHYL PYRROLIDONE**
 Recommended use ALL PROPER AND LEGAL PURPOSES
 Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Brenntag Mid-South, Inc.
 Address 1405 Highway 136, West
 Henderson, KY 42420
 Telephone 270-830-1222
 E-mail Not available.
 Emergency phone number 800-424-9300 CHEMTREC

2. Hazard(s) identification

Physical hazards Flammable liquids Category 4
 Health hazards Skin corrosion/irritation Category 2
 Serious eye damage/eye irritation Category 2A
 Reproductive toxicity Category 1
 Specific target organ toxicity, single exposure Category 3 respiratory tract irritation
 Environmental hazards Not classified.
 OSHA defined hazards Not classified.
 Label elements



Signal word Danger

Hazard statement Combustible liquid. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May damage fertility or the unborn child.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from flames and hot surfaces-No smoking. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response

If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.

Storage

Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information 99.8% of the mixture consists of component(s) of unknown acute inhalation toxicity.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2-PYRROLIDINONE, 1-METHYL-		872-50-4	99.8
Other components below reportable levels			0.2

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Combustible liquid.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Use water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
2-PYRROLIDINONE, 1-METHYL- (CAS 872-50-4)	TWA	40 mg/m ³
		10 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
2-PYRROLIDINONE, 1-METHYL- (CAS 872-50-4)	100 mg/l	5-Hydroxy-N-methyl-2-pyrrolidone	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

2-PYRROLIDINONE, 1-METHYL- (CAS 872-50-4) Can be absorbed through the skin.

US WEEL Guides: Skin designation

2-PYRROLIDINONE, 1-METHYL- (CAS 872-50-4) Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

Eye/face protection Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Color CLEAR

Odor NOT AVAILABLE

Information on toxicological effects**Acute toxicity** Not known.

Product	Species	Test Results

N-METHYL PYRROLIDONE

Acute**Oral**

ATEmix

2505 mg/kg

Components	Species	Test Results

2-PYRROLIDINONE, 1-METHYL- (CAS 872-50-4)

Acute**Dermal**

LD50

Rabbit

8000 mg/kg

Oral

LD50

Rat

3914 mg/kg

Skin corrosion/irritation Causes skin irritation.**Serious eye damage/eye irritation** Causes serious eye irritation.**Respiratory or skin sensitization****Respiratory sensitization** Due to partial or complete lack of data the classification is not possible.**Skin sensitization** Due to partial or complete lack of data the classification is not possible.**Germ cell mutagenicity** Due to partial or complete lack of data the classification is not possible.**Carcinogenicity** Due to partial or complete lack of data the classification is not possible.**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1063)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity May damage fertility or the unborn child.**Specific target organ toxicity - single exposure** May cause respiratory irritation.**Specific target organ toxicity - repeated exposure** Due to partial or complete lack of data the classification is not possible.**Aspiration hazard** Due to partial or complete lack of data the classification is not possible.**Chronic effects** Prolonged inhalation may be harmful.**12. Ecological information****Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.**Persistence and degradability** No data is available on the degradability of this product.**Bioaccumulative potential****Partition coefficient n-octanol / water (log Kow)**

2-PYRROLIDINONE, 1-METHYL-

-0.54

Mobility in soil No data available.**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.**13. Disposal considerations****Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.**Local disposal regulations** Dispose in accordance with all applicable regulations.**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number NA1993
UN proper shipping name COMBUSTIBLE LIQUID, N.O.S. (N-METHYL 2-PYRROLIDONE)
Transport hazard class(es)
Class COMBUSTIBLE LIQUID
Subsidiary risk -
Packing group III
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
ERG number 128
 Transport information on packaging may be different from that listed. Transportation information on packaging may be different from that listed.

DOT

**COMBUSTIBLE
LIQUID**

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

2-PYRROLIDINONE, 1-METHYL- (CAS 872-50-4) 1.0 % Annual Export Notification required.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

Classified hazard categories Flammable (gases, aerosols, liquids, or solids)
 Skin corrosion or irritation
 Serious eye damage or eye irritation
 Reproductive toxicity
 Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
2-PYRROLIDINONE, 1-METHYL-	872-50-4	99.8

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Contains component(s) regulated under the Safe Drinking Water Act.

US state regulations**California Proposition 65**

WARNING: This product can expose you to 2-PYRROLIDINONE, 1-METHYL-, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Developmental toxin

2-PYRROLIDINONE, 1-METHYL- (CAS 872-50-4) Listed: June 15, 2001

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

2-PYRROLIDINONE, 1-METHYL- (CAS 872-50-4)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 09-02-2015

Revision date 02-17-2022

Version # 22

HMIS® ratings
 Health: 2*
 Flammability: 2
 Physical hazard: 0

NFPA ratings
 Health: 2
 Flammability: 2
 Instability: 0

Disclaimer
 While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.

SAFETY DATA SHEET



The information in this Safety Data Sheet is required pursuant to Hazardous Product Regulations 2015.

Date of issue/Date of revision 16 August 2023

Version 1

Section 1. Identification

Product name : SEMI-MATTE OVERVARNISH
Product code : PPG5230-831A
Other means of identification : Not available.
Product type : Liquid.

OV2542
New Version #2

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/ mixture : Coating. Paints. Painting-related materials.
Uses advised against : Not applicable.

Supplier : PPG Canada Inc.
5676 Timberlea Blvd
Mississauga ON L4W 4M6
Canada
+1 905-629-7999

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)

Technical Phone Number : (513) 576-3145 (PACKAGING COATINGS) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazard identification

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
Physical Hazards Not Otherwise Classified - Category 1
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 1
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
Health Hazards Not Otherwise Classified - Category 1

GHS label elements

Section 2. Hazard identification

Hazard pictograms

:



Signal word

: Danger

Hazard statements

: Flammable liquid and vapor.
Causes skin irritation.
Causes serious eye irritation.
May cause cancer.
Causes damage to organs through prolonged or repeated exposure. (lungs)
May form explosive peroxides.
Prolonged or repeated contact may dry skin and cause irritation.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Response

: IF exposed or concerned: Get medical advice or attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage

: Store locked up.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Hazardous reactions or instability may occur under certain conditions of storage or use. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 36.6% (oral), 59.2% (dermal), 46.8% (inhalation)

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Product name

: SEMI-MATTE OVERVARNSIH

Other means of identification

: Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	Synonyms	% (w/w)	CAS number
Solvent naphtha (petroleum), heavy arom.	Kerosine - unspecified; Solvent naphtha, petroleum, heavy aromatic; (Polyethyl) benzenes; Heavy aromatic solvent naphtha; Solvent naphtha; Solvent naphtha (petroleum), heavy aromatic; Heavy solvent naphtha; Solvent naphtha (petroleum), heavy arom; AROMATIC PETROLEUM DISTILLATE; Solvent Naphtha (petroleum); OILS, NAPHTHA HEAVY AROMATIC HYDROCARBON	7 - 13*	64742-94-5
2-(2-butoxyethoxy)ethyl acetate	Ethanol, 2-(2-butoxyethoxy)-, 1-acetate; DIETHYLENE GLYCOL BUTYL ETHER ACETATE; Ethanol, 2-(2-butoxyethoxy)-, acetate; Butyl diethylene glycol, acetate; Diethylene glycol, butyl ether acetate; butyldigol acetate; 2-(2-Butoxyethoxy) ethanol 1-acetate; DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE; DEGBEA; Diglycol monobutyl ether acetate; Butyl carbitol acetate	5 - 10*	124-17-4
dimethyl glutarate	Pentanedioic acid, 1,5-dimethyl ester; Pentanedioic acid, dimethyl ester; glutaric acid dimethyl ester; Dimethyl pentanedioate; Glutaric acid, dimethyl ester; Pentanedioic acid dimethyl ester; GLUTARATE, DIMETHYL; DIMETHYLL GLUTARATE; Methyl glutarate	5 - 10*	1119-40-0
Solvent naphtha (petroleum), light aromatic	Low boiling point naphtha - unspecified; Solvent naphtha (petroleum), light arom; Solvent naphtha, petroleum, light aromatic; Light aromatic solvent naphtha; Solvent naphtha, light aromatic; Solvent naphtha (petroleum), light aromatic; Light aromatic solvent naphtha (petroleum) (C8 to C10); Aromatic hydrocarbon solvents - medium flashpoint; Solvent naphtha, petroleum, light arom.; AROMATIC PETROLUUM DISTILLATE; SOLVENT, AROMATIC PETROLEUM	5 - 10*	64742-95-6
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers, reaction products with 2-butanone oxime	Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-, homopolymer, Me Et ketone oxime-blocked; Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-, homopolymer, methylethyl ketone, oxime blocked; 5-Isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane homopolymer, methyl ethyl ketone oxime-blocked; Isophoronediiisocyanate, MEKoxime-blocked	3 - 7*	103170-26-9
1,2,4-trimethylbenzene	Benzene, 1,2,4-trimethyl-; .pseudo.-Cumene; Pseudocumene; psi-Cumene; Asymmetrical trimethylbenzene; hemimellitene; Trimethylbenzene; unsym-Trimethylbenzene; Trialkyl(C1-4)benzene;	3 - 7*	95-63-6

Section 3. Composition/information on ingredients

trimethylbenzene	Tri-or tetramethylbenzene; 1,3,4-Trimethylbenzene Benzene, trimethyl-; Methylxylene; Benzene, trimethyl (isomers); Trimethylbenzenes; Trialkyl(C1-4)benzene; Tri-or tetramethylbenzene;	1 - 5*	25551-13-7
dimethyl succinate	Trimethylbenzene (all isomers); C9 aromatic hydrocarbon fraction; Benzene, trimethyl- (mixed isomers); Benzene Butanedioic acid, 1,4-dimethyl ester; Butanedioic acid, dimethyl ester; Succinic acid, dimethyl ester; Methyl butanedioate; Methyl succinate; Dimethyl butanedioate; Dialkyl(C1-18) succinate; Butanedioic acid dimethyl ester; SUCCINATE, DIMETHYL	1 - 5*	106-65-0
Silica, amorphous, precipitated and gel	Silica gel, precipitated, crystalline-free; Silica gel, precipitated, crystalline free; Amorphous synthetic silica gel; Synthetic amorphous silica, precipitated; Synthetic, crystalline free, silica gel; Silica, amorphous, precipitated and gel.; Silica - Amorphous, gel; Silica, Amorphous - Precipitated and gel; Precipitated Silica; Silica gel; silica-amorphous: precipitated silica	1 - 5*	112926-00-8
1-methoxy-2-propanol	monopropylene glycol methyl ether; 1-methoxypropan-2-ol; 2-Propanol, 1-methoxy-; Propylene glycol monomethyl ether; Dowtherm 209; Propylene glycol methyl ether; 1-Methoxy-2-hydroxypropane; 2-Methoxy-1-methylethanol; PGME; mixture containing by weight: — 69 % or more but not more than 71 % of 1-methoxypropan-2-ol (CAS RN 107-98-2), — 29 % or more but not more than 31 % of 2-methoxy-1-methylethyl acetate (CAS RN 108-65-6); methoxyisopropanol	1 - 5*	107-98-2
dimethyl adipate	Hexanedioic acid, 1,6-dimethyl ester; Hexanedioic acid, dimethyl ester; Adipic acid, dimethyl ester; 1,6-dimethyl hexanedioate; Dimethyl hexanedioate; Dialkyl(C1-8) aliphatic dicarboxylate (C6-13); Alkyl(C1-13) adipate; Hexanedioic acid dimethyl ester; Methyl adipate; ADIPATE, DIMETHYL; Ethers Solvent	1 - 5*	627-93-0
cumene	Benzene, (1-methylethyl)-; Isopropylbenzene; 2-Phenyl propane; Cumol; 1-methylethylbenzene; Cumene (I); Benzene, (1-methylethyl)- (I); Benzene, 1-methylethyl-; isopropylbenzol; (1-methyl/ ethyl)benzene; (1-Methylethyl)benzene	0.1 - 1*	98-82-8
naphthalene	White tar; Tar camphor; Naphthalin; naphthalene, pure; naphthalene, crude; MOTH FLAKES; Naphthalene (8CA & 9CA); naphthalene [PAH, POM]; NAPHTHALENE, REFINED; NAPHTHALENE, MOLTEN; naphtalene	0.1 - 1*	91-20-3

Section 3. Composition/information on ingredients

*Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

SUB codes represent substances without registered CAS Numbers.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact	: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
Inhalation	: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion	: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Causes serious eye irritation.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Causes skin irritation. Defatting to the skin.
Ingestion	: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: No specific treatment.

Section 4. First-aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.

- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
metal oxide/oxides
Formaldehyde.

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. May form explosive peroxides. Keep away from combustible materials. Avoid shock and friction. Avoid all possible sources of ignition (spark or flame). If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Solvent naphtha (petroleum), heavy arom. 2-(2-butoxyethoxy)ethyl acetate dimethyl glutarate	None. None. IPEL (-). TWA: 1.5 ppm
Solvent naphtha (petroleum), light aromatic 3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers, reaction products with 2-butanone oxime 1,2,4-trimethylbenzene	None. None. CA Alberta Provincial (Canada, 6/2018). [Trimethyl benzene (mixed isomers)] 8 hrs OEL: 123 mg/m ³ 8 hours. 8 hrs OEL: 25 ppm 8 hours. CA British Columbia Provincial (Canada, 6/2022). [Trimethyl benzene (mixed isomers)] TWA: 25 ppm 8 hours. CA Quebec Provincial (Canada, 6/2022). [Trimethyl benzene (mixture of isomers)] Skin sensitizer. Inhalation sensitizer. TWA _{EV} : 25 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). [Trimethyl benzene (mixed isomers)] TWA: 25 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). [Trimethyl benzene mixed isomer] STEL: 30 ppm 15 minutes. TWA: 25 ppm 8 hours.
trimethylbenzene	CA Alberta Provincial (Canada, 6/2018). [Trimethyl benzene (mixed isomers)] 8 hrs OEL: 123 mg/m ³ 8 hours. 8 hrs OEL: 25 ppm 8 hours. CA British Columbia Provincial (Canada, 6/2022). [Trimethyl benzene (mixed isomers)] TWA: 25 ppm 8 hours. CA Quebec Provincial (Canada, 6/2022). [Trimethyl benzene (mixture of isomers)] Skin sensitizer. Inhalation sensitizer. TWA _{EV} : 25 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). [Trimethyl benzene (mixed isomers)] TWA: 25 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). [Trimethyl benzene mixed isomer] STEL: 30 ppm 15 minutes. TWA: 25 ppm 8 hours.
dimethyl succinate	IPEL (-). TWA: 1.5 ppm
Silica, amorphous, precipitated and gel	CA British Columbia Provincial (Canada, 6/2022). TWA: 1.5 mg/m ³ 8 hours. Form: Respirable

Section 8. Exposure controls/personal protection

1-methoxy-2-propanol

CA Quebec Provincial (Canada, 6/2022).TWA_{EV}: 6 mg/m³ 8 hours. Form:
Respirable dust.**CA Saskatchewan Provincial (Canada, 7/2013).**STEL: 20 mg/m³ 15 minutes.TWA: 10 mg/m³ 8 hours.**CA Alberta Provincial (Canada, 6/2018).**15 min OEL: 553 mg/m³ 15 minutes.

15 min OEL: 150 ppm 15 minutes.

8 hrs OEL: 369 mg/m³ 8 hours.

8 hrs OEL: 100 ppm 8 hours.

CA British Columbia Provincial (Canada, 6/2022).

STEL: 100 ppm 15 minutes.

TWA: 50 ppm 8 hours.

CA Ontario Provincial (Canada, 6/2019).

STEL: 100 ppm 15 minutes.

TWA: 50 ppm 8 hours.

CA Quebec Provincial (Canada, 6/2022).STEV: 553 mg/m³ 15 minutes.

STEV: 150 ppm 15 minutes.

TWA_{EV}: 369 mg/m³ 8 hours.TWA_{EV}: 100 ppm 8 hours.**CA Saskatchewan Provincial (Canada, 7/2013).**

STEL: 150 ppm 15 minutes.

TWA: 100 ppm 8 hours.

IPEL (-).

TWA: 1.5 ppm

CA Alberta Provincial (Canada, 6/2018).8 hrs OEL: 246 mg/m³ 8 hours.

8 hrs OEL: 50 ppm 8 hours.

CA British Columbia Provincial (Canada, 6/2022).

STEL: 75 ppm 15 minutes.

TWA: 25 ppm 8 hours.

CA Ontario Provincial (Canada, 6/2019).**Absorbed through skin.**

TWA: 50 ppm 8 hours.

CA Quebec Provincial (Canada, 6/2022).TWA_{EV}: 246 mg/m³ 8 hours.TWA_{EV}: 50 ppm 8 hours.**CA Saskatchewan Provincial (Canada, 7/2013).**

STEL: 74 ppm 15 minutes.

TWA: 50 ppm 8 hours.

CA Alberta Provincial (Canada, 6/2018).**Absorbed through skin.**15 min OEL: 79 mg/m³ 15 minutes.

15 min OEL: 15 ppm 15 minutes.

8 hrs OEL: 52 mg/m³ 8 hours.

8 hrs OEL: 10 ppm 8 hours.

CA British Columbia Provincial (Canada, 6/2022). Absorbed through skin.

dimethyl adipate

cumene

naphthalene

Section 8. Exposure controls/personal protection

TWA: 10 ppm 8 hours.
**CA Ontario Provincial (Canada, 6/2019).
 Absorbed through skin.**
 TWA: 10 ppm 8 hours.
**CA Quebec Provincial (Canada, 6/2022).
 Absorbed through skin.**
 TWAEV: 10 ppm 8 hours.
**CA Saskatchewan Provincial (Canada,
 7/2013). Absorbed through skin.**
 STEL: 15 ppm 15 minutes.
 TWA: 10 ppm 8 hours.

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Gloves** : For prolonged or repeated handling, use the following type of gloves:
 Recommended: polyvinyl alcohol (PVA), Viton®, butyl rubber, nitrile rubber
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Section 8. Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point** : Not available.
- Boiling point** : >37.78°C (>100°F)
- Flash point** : Closed cup: 54.44°C (130°F)
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Flammability** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Evaporation rate** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 1.04
- Density (lbs / gal)** : 8.68
- Partition coefficient: n-octanol/water** : Not applicable.
- Viscosity** : Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)
- Volatility** : 59% (v/v), 53.74% (w/w)
- % Solid. (w/w)** : 46.26

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products.
Refer to protective measures listed in sections 7 and 8.

Section 10. Stability and reactivity

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition products : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides Formaldehyde. metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), heavy arom.	LC50 Inhalation Dusts and mists	Rat	>5.2 mg/l	4 hours
2-(2-butoxyethoxy)ethyl acetate	LD50 Oral	Rat	>5 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	72500 mg/m ³	4 hours
	LD50 Dermal	Rabbit	5.75 g/kg	-
dimethyl glutarate	LD50 Oral	Rat	6500 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
Solvent naphtha (petroleum), light aromatic	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit	3.48 g/kg	-
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers, reaction products with 2-butanone oxime	LD50 Oral	Rat	8400 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	5142 mg/m ³	4 hours
1,2,4-trimethylbenzene	LD50 Oral	Rat	>2000 mg/kg	-
	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
	LD50 Oral	Rat	5 g/kg	-
trimethylbenzene	LD50 Oral	Rat	8970 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>5900 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
dimethyl succinate	LD50 Oral	Rat	>5 g/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
Silica, amorphous, precipitated and gel	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Vapor	Rat	>7000 ppm	6 hours
	LD50 Dermal	Rabbit	13 g/kg	-
1-methoxy-2-propanol	LD50 Oral	Rat	5.2 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
dimethyl adipate	LD50 Oral	Rat	11300 mg/kg	-
	LC50 Inhalation Vapor	Rat	39000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	12.3 g/kg	-
cumene	LD50 Oral	Rat	2260 mg/kg	-
	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	490 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Section 11. Toxicological information

Skin : There are no data available on the mixture itself.
 Eyes : There are no data available on the mixture itself.
 Respiratory : There are no data available on the mixture itself.

Sensitization

Skin : There are no data available on the mixture itself.
 Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
Silica, amorphous, precipitated and gel	-	3	-
cumene	-	2B	Reasonably anticipated to be a human carcinogen.
naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), heavy arom.	Category 3	-	Narcotic effects
Solvent naphtha (petroleum), light aromatic	Category 3	-	Narcotic effects
1,2,4-trimethylbenzene	Category 3	-	Respiratory tract irritation
1-methoxy-2-propanol	Category 3	-	Narcotic effects
cumene	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers, reaction products with 2-butanone oxime	Category 1	inhalation	lungs
cumene	Category 2	-	-
naphthalene	Category 2	-	-

Target organs

: Contains material which causes damage to the following organs: brain, central nervous system (CNS).
 Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, heart, upper respiratory tract, skin, eye, lens or cornea.

Section 11. Toxicological information

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1
cumene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact	: Causes serious eye irritation.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Causes skin irritation. Defatting to the skin.
Ingestion	: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary	: There are no data available on the mixture itself. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects	: There are no data available on the mixture itself.
Potential delayed effects	: There are no data available on the mixture itself.

Long term exposure

Section 11. Toxicological information

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
SEMI-MATTE OVERVARNISH	6356.5	8350.7	N/A	180.0	15.0
2-(2-butoxyethoxy)ethyl acetate	6500	5750	N/A	N/A	72.5
Solvent naphtha (petroleum), light aromatic	8400	3480	N/A	N/A	N/A
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers, reaction products with 2-butanone oxime	2500	N/A	N/A	N/A	5.142
1,2,4-trimethylbenzene	5000	N/A	N/A	18	1.5
trimethylbenzene	500	1100	N/A	N/A	N/A
1-methoxy-2-propanol	5200	13000	N/A	N/A	N/A
dimethyl adipate	11300	N/A	N/A	N/A	N/A
cumene	2260	12300	N/A	39	N/A
naphthalene	490	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Solvent naphtha (petroleum), heavy arom.	NOEL 0.48 mg/l Fresh water	Daphnia	21 days
Solvent naphtha (petroleum), light aromatic	Acute LC50 8.2 mg/l	Fish	96 hours
Silica, amorphous, precipitated and gel	NOEC >1000 ppm	Daphnia - <i>Daphnia magna</i>	24 hours
	Acute NOEC >10000 ppm Fresh water	Fish	96 hours
	Acute NOEC >10000 ppm	Fish - <i>Brachydanio rerio</i>	Static 4 days
1-methoxy-2-propanol	Acute LC50 23300 mg/l	Daphnia	Static 48 hours
	Acute LC50 >4500 mg/l Fresh water	Fish	96 hours

Persistence and degradability

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Silica, amorphous, precipitated and gel	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Solvent naphtha (petroleum), heavy arom.	2.8 to 6.5	-	High
2-(2-butoxyethoxy)ethyl acetate	1.7	-	Low
dimethyl glutarate	0.49	-	Low
1,2,4-trimethylbenzene	3.63	120.23	Low
trimethylbenzene	3.4 to 3.8	-	Low
dimethyl succinate	0.33	-	Low
Silica, amorphous, precipitated and gel	-	0	Low
1-methoxy-2-propanol	<1	-	Low
dimethyl adipate	1.03	-	Low
cumene	3.55	35.48	Low
naphthalene	3.4	85.11	Low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

Product code PPG5230-831A	Date of issue 16 August 2023	Version 1
Product name SEMI-MATTE OVERVARNSIH		

Section 14. Transport information

	TDG	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	(Solvent naphtha (petroleum), heavy aromatic, Solvent naphtha (petroleum), light aromatic)	(Solvent naphtha (petroleum), heavy aromatic, Solvent naphtha (petroleum), light aromatic)	Not applicable.

Additional information

- TDG** : The marine pollutant mark is not required when transported by road or rail.
IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not applicable.

Proof of classification statement : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark).

Section 15. Regulatory information

National Inventory List

Canada inventory (DSL) : At least one component is not listed.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2 * **Flammability** : 2 **Physical hazards** : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Section 16. Other information

Health : 2 Flammability : 2 Instability : 0

Date of issue/Date of revision **16 August 2023**

Organization that prepared the SDS : EHS

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

☑ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

Material Safety Data Sheet



Date of issue 11 February 2014

Version 8

1. Product and company identification

Product name : PPG8460-303/A Gold PAM 2C Internal Liner 8460 N
Code : PPG8460-303/A-DEHA
Supplier : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272
Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
Technical Phone Number : (513) 576-3179 (PACKAGING COATINGS) 8:00 a.m. - 5:00 p.m. EST

2. Hazards identification

Emergency overview : DANGER!
FLAMMABLE LIQUID AND VAPOR. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY BE HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED. ASPIRATION HAZARD. CAN ENTER LUNGS AND CAUSE DAMAGE. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.
Keep away from flames, such as a pilot light, and any object that sparks, such as an electric motor. Keep away from heat. Do not smoke. Do not swallow. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Potential acute health effects

Inhalation : May be harmful if inhaled. Irritating to respiratory system. Can irritate eyes, nose, mouth and throat. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion : May be harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.
Skin : Harmful in contact with skin. Irritating to skin.
Eyes : Irritating to eyes.

Over-exposure signs/symptoms

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone.

Medical conditions aggravated by over-exposure : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See toxicological information (Section 11)

3 . Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
N-methyl-2-pyrrolidone	872-50-4	30 - 60
xylene	1330-20-7	10 - 30
propylene carbonate	108-32-7	5 - 10
ethylbenzene	100-41-4	1 - 5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4 . First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

5 . Fire-fighting measures

- Flammability of the product** : Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Extinguishing media

- Suitable** : Use dry chemical, CO₂, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

6 . Accidental release measures

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Use spark-proof tools and explosion-proof equipment. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Do not swallow. Do not get in eyes or on skin or clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. Vapors are heavier than air and may spread along floors. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Storage** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Do not store above the following temperature: 120F / 49C.

8 . Exposure controls/personal protection

Name	Result	ACGIH	OSHA	Ontario	Mexico	PPG
N-methyl-2-pyrrolidone	TWA	Not established	Not established	400 mg/m ³	Not established	10 ppm S
xylene	TWA	100 ppm	100 ppm	100 ppm	100 ppm	Not established Not established
	STEL	150 ppm	Not established	150 ppm	150 ppm	
ethylbenzene	TWA	20 ppm	100 ppm	20 ppm	100 ppm	Not established Not
	STEL	Not	Not	Not	125 ppm	

8 . Exposure controls/personal protection

		established	established	established		established

Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration.	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Eyes : Safety glasses with side shields.

Hands : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Respiratory : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state	: Liquid.
Flash point	: Closed cup: 35°C (95°F)
Explosion limits	: Lower: 1% Upper: 10%
Material supports combustion.	: Yes.
Color	: Brown.
Odor	: Characteristic.
pH	: Not available.
Boiling/condensation point	: >37.78°C (>100°F)
Melting/freezing point	: Not available.
Specific gravity	: 1.07
Density (lbs / gal)	: 8.93
Bulk Density (g/cm³)	: 0
Vapor pressure	: Not available.
Vapor density	: Not available.
Volatility	: 79% (v/v), 72.568% (w/w)
Evaporation rate	: Not available.
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water	: Not available.
% Solid. (w/w)	: 27.432

10 . Stability and reactivity

Stability	: The product may not be stable under certain conditions of storage or use.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Avoid increased storage temperature. Pressure hazard
Materials to avoid	: Reactive or incompatible with the following materials:,oxidizing materials,strong acids, strong alkalis
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerization	: Under normal conditions of storage and use, hazardous polymerization will not occur.

11 . Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
N-methyl-2-pyrrolidone	LD50 Oral	Rat	3.914 g/kg	-
	LD50 Dermal	Rabbit	8 g/kg	-
	LC50 Inhalation	Rat	>5100 mg/m³	4 hours
xylene	Dusts and mists			
	LD50 Oral	Rat	4.3 g/kg	-
	LD50 Dermal	Rabbit	>1.7 g/kg	-
propylene carbonate	LC50 Inhalation	Rat	5000 ppm	4 hours
	Vapor			
	LD50 Oral	Rat	>5000 mg/kg	-
ethylbenzene	LD50 Oral	Rat	3.5 g/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LC50 Inhalation	Rat	4000 ppm	4 hours
	Vapor			

11 . Toxicological information

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Defatting irritant : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Target organs : Contains material which causes damage to the following organs: brain, upper respiratory tract, skin.
Contains material which may cause damage to the following organs: kidneys, lungs, the nervous system, the reproductive system, liver, heart, gastrointestinal tract, central nervous system (CNS), ears, eye, lens or cornea.

Carcinogenicity

Carcinogenicity : Contains material which may cause cancer, based on animal data. Risk of cancer depends on duration and level of exposure.

Classification

Product/ingredient name	ACGIH	IARC	NTP	OSHA
xylene	A4	3	-	-
ethylbenzene	A3	2B	-	-

Carcinogen Classification code:
 ACGIH: A1, A2, A3, A4, A5
 IARC: 1, 2A, 2B, 3, 4
 NTP: Proven, Possible
 OSHA: +
 Not listed or regulated as a carcinogen: -

Teratogenicity

Developmental effects : Contains material which may cause developmental abnormalities, based on animal data.

Fertility effects : Contains material which may impair male fertility, based on animal data. Contains material which may impair female fertility, based on animal data.

12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
xylene	Acute LC50 3300 to 4093 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
ethylbenzene	Acute LC50 4200 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
	Acute LC50 5100 to 5700 ug/L Marine water	Fish - Atlantic silverside - Menidia menidia	96 hours
	Acute EC50 2930 to 4400 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Chronic NOEC 3300 ug/L Marine water	Fish - Atlantic silverside - Menidia menidia	96 hours
	Chronic NOEC 6800 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	TDG	Mexico	IMDG
UN number	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3	3
Packing group	III	III	III	III
Environmental hazards	No.	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.	Not applicable.
Product RQ (lbs)	499.5	Not applicable.	Not applicable.	Not applicable.
RQ substances	(xylene, ethylbenzene)	Not applicable.	Not applicable.	Not applicable.

Additional information

DOT : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

TDG : None identified.

Mexico : None identified.

IMDG : None identified.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

15 . Regulatory information

- United States inventory (TSCA 8b)** : All components are listed or exempted.
- Australia inventory (AICS)** : All components are listed or exempted.
- Canada inventory (DSL)** : All components are listed or exempted.
- China inventory (IECSC)** : All components are listed or exempted.
- Europe inventory (REACH)** : Please contact your supplier for information on the inventory status of this material.
- Japan inventory (ENCS)** : All components are listed or exempted.
- Korea inventory (KECI)** : All components are listed or exempted.
- New Zealand (NZIoC)** : Substance Use Restricted
- Philippines inventory (PICCS)** : All components are listed or exempted.

United States

SARA 302/304: propylene oxide

CERCLA: Hazardous substances.: ethylbenzene: 1000 lbs. (454 kg); xylene: 100 lbs. (45.4 kg);

SARA 311/312 SDS Distribution - Chemical Inventory - Hazard Identification:

<u>Chemical name</u>	<u>CAS #</u>	<u>Acute</u>	<u>Chronic</u>	<u>Fire</u>	<u>Reactive</u>	<u>Pressure</u>
☒ N-methyl-2-pyrrolidone	872-50-4	Y	Y	N	Y	N
xylene	1330-20-7	Y	N	Y	N	N
propylene carbonate	108-32-7	Y	N	N	N	N
ethylbenzene	100-41-4	Y	Y	Y	N	N
Product as-supplied :		Y	Y	Y	Y	N

SARA 313

Supplier notification

Chemical name

CAS number

Concentration

☒ N-methyl-2-pyrrolidone
xylene
ethylbenzene

872-50-4 30 - 60
1330-20-7 10 - 30
100-41-4 1 - 5

Additional environmental information is contained on the **Environmental Data Sheet** for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Canada

WHMIS (Canada)

: Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).

Mexico

Classification

Flammability : 3 **Health** : 2 **Reactivity** : 1

16 . Other information

Hazardous Material Information System (U.S.A.)

Health : 2 * **Flammability** : 3 **Physical hazards** : 1

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

Product code PPG8460-303/A-DEHA

Date of issue 11 February 2014 Version 8

Product name PPG8460-303/A Gold PAM 2C Internal Liner 8460 N

16 . Other information

National Fire Protection Association (U.S.A.)

Health : 2 Flammability : 3 Instability : 1

Date of previous issue : 12/31/2013.

Organization that prepared : EHS

the MSDS

Indicates information that has changed from previously issued version.

Disclaimer

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SAFETY DATA SHEET



Date of issue/Date of revision 16 June 2020

Version 13

Section 1. Identification

Product name : HOBA™ PPG3938302 Monobloc interior spray

Product code : PPG3938302

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.

**Use of the substance/
mixture** : Resins.

Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

**Emergency telephone
number** : 412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)

Technical Phone Number : (513) 576-3145 (PACKAGING COATINGS) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the
substance or mixture** : **FLAMMABLE LIQUIDS** - Category 3
ACUTE TOXICITY (inhalation) - Category 4
SKIN IRRITATION - Category 2
SERIOUS EYE DAMAGE - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract
irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 32.1%
(Oral), 32.1% (Dermal), 42.9% (Inhalation)

GHS label elements

Section 2. Hazards identification

Hazard pictograms

:

**Signal word**

: Danger

Hazard statements

: Flammable liquid and vapor.
Causes skin irritation.
Causes serious eye damage.
Harmful if inhaled.
May cause respiratory irritation.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure. (hearing organs)

Precautionary statements**Prevention**

: Obtain special instructions before use. Wear protective gloves. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Do not breathe vapor. Wash thoroughly after handling.

Response

: Immediately call a POISON CENTER or doctor. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

: Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Product name

: HOBA™ PPG3938302 Monobloc interior spray

Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
2-butoxyethanol	≥10 - ≤15	111-76-2
xylene	≥10 - ≤14	1330-20-7
4-hydroxy-4-methylpentan-2-one	≥10 - ≤14	123-42-2
2-(2-butoxyethoxy)ethanol	≥10 - ≤13	112-34-5
butan-1-ol	≥5.0 - ≤8.9	71-36-3
dimethyl glutarate	≥5.0 - ≤10	1119-40-0
ethylbenzene	≥0.10 - ≤2.5	100-41-4
dimethyl succinate	≥1.0 - ≤5.0	106-65-0
dimethyl adipate	≥1.0 - ≤5.0	627-93-0
toluene	<1.0	108-88-3

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Harmful if inhaled. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. Defatting to the skin.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness

Section 4. First aid measures

- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
Formaldehyde.

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and

Section 7. Handling and storage

- material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2-butoxyethanol	ACGIH TLV (United States, 3/2019).
	TWA: 20 ppm 8 hours.
	OSHA PEL (United States, 5/2018).
	Absorbed through skin.
	TWA: 240 mg/m ³ 8 hours.
	TWA: 50 ppm 8 hours.
xylene	ACGIH TLV (United States, 3/2019).
	STEL: 651 mg/m ³ 15 minutes.
	STEL: 150 ppm 15 minutes.
	TWA: 434 mg/m ³ 8 hours.
	TWA: 100 ppm 8 hours.
	OSHA PEL (United States, 5/2018).
	TWA: 435 mg/m ³ 8 hours.
	TWA: 100 ppm 8 hours.
4-hydroxy-4-methylpentan-2-one	ACGIH TLV (United States, 3/2019).
	TWA: 238 mg/m ³ 8 hours.
	TWA: 50 ppm 8 hours.
	OSHA PEL (United States, 5/2018).
	TWA: 240 mg/m ³ 8 hours.
	TWA: 50 ppm 8 hours.
2-(2-butoxyethoxy)ethanol	ACGIH TLV (United States, 3/2019).
	TWA: 10 ppm 8 hours. Form: Inhalable fraction and vapor

Section 8. Exposure controls/personal protection

butan-1-ol	ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 300 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. IPEL (PPG). TWA: 1.5 ppm
dimethyl glutarate	ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. IPEL (PPG). TWA: 1.5 ppm
ethylbenzene	ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. IPEL (PPG). TWA: 1.5 ppm
dimethyl succinate	ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. IPEL (PPG). TWA: 1.5 ppm
dimethyl adipate	ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. IPEL (PPG). TWA: 1.5 ppm
toluene	ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. OSHA PEL Z2 (United States, 2/2013). AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours.

Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration.	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Chemical splash goggles and face shield.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Gloves** : For prolonged or repeated handling, use the following type of gloves:
- Not recommended: nitrile rubber
Recommended: polyvinyl alcohol (PVA), Viton®, butyl rubber
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : 92.78°C (199°F)
- Flash point** : Closed cup: 36.11°C (97°F)
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Flammability (solid, gas)** : Not available.

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	: Lower: 1.1%
Evaporation rate	: 0.24 (butyl acetate = 1)
Vapor pressure	: 0.41 kPa (3.1 mm Hg) [room temperature]
Vapor density	: Not available.
Relative density	: 1
Density (lbs / gal)	: 8.35
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water	: Not available.
Viscosity	: Kinematic (40°C (104°F)): >0.21 cm ² /s (>21 cSt)
Volatility	: 73% (v/v), 66.76% (w/w)
% Solid. (w/w)	: 33.24

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-butoxyethanol	LD50 Dermal	Rabbit	1060 mg/kg	-
	LD50 Oral	Rat - Male	1480 mg/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
4-hydroxy-4-methylpentan-2-one	LD50 Dermal	Rabbit	13500 mg/kg	-
	LD50 Oral	Rat	3002 mg/kg	-
2-(2-butoxyethoxy)ethanol	LD50 Dermal	Rabbit	2700 mg/kg	-
	LD50 Oral	Rat	4500 mg/kg	-

Section 11. Toxicological information

butan-1-ol	LC50 Inhalation Vapor	Rat	24000 mg/m ³	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
dimethyl glutarate	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
dimethyl succinate	LC50 Inhalation Dusts and mists	Rat	>5900 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5 g/kg	-
dimethyl adipate	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	11300 mg/kg	-
toluene	LC50 Inhalation Vapor	Rat	49 g/m ³	4 hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LD50 Oral	Rat	5580 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-butoxyethanol	Skin - Moderate irritant	Rabbit	-	4 hours	28 days
xylene	Eyes - Irritant	Rabbit	-	24 hours	21 days
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization**Conclusion/Summary**

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity**Conclusion/Summary**

: There are no data available on the mixture itself.

Carcinogenicity**Conclusion/Summary**

: There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
2-butoxyethanol	-	3	-
xylene	-	3	-
ethylbenzene	-	2B	-
toluene	-	3	-

Carcinogen Classification code:

Section 11. Toxicological information

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
xylene	Category 3	-	Respiratory tract irritation
4-hydroxy-4-methylpentan-2-one	Category 3	-	Respiratory tract irritation
butan-1-ol	Category 3	-	Respiratory tract irritation
toluene	Category 3 Category 3	-	Narcotic effects Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs
toluene	Category 2	-	-

Target organs : Contains material which causes damage to the following organs: brain.
Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, liver, spleen, lymphatic system, upper respiratory tract, skin, bone marrow, central nervous system (CNS), ears, eye, lens or cornea.

Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
toluene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : Harmful if inhaled. May cause respiratory irritation.
Skin contact : Causes skin irritation. Defatting to the skin.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
 pain
 watering
 redness

Section 11. Toxicological information

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:

pain or irritation
redness
dryness
cracking
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:

stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary : There are no data available on the mixture itself. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Section 11. Toxicological information

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
HOBA™ PPG3938302 Monobloc interior spray	2420	2620.7	N/A	23.3	3.1
2-butoxyethanol	1480	1060	N/A	11	1.5
xylene	4300	1700	N/A	11	1.5
4-hydroxy-4-methylpentan-2-one	3002	13500	N/A	N/A	N/A
2-(2-butoxyethoxy)ethanol	4500	2700	N/A	N/A	N/A
butan-1-ol	790	3400	N/A	24	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5
dimethyl adipate	11300	N/A	N/A	N/A	N/A
toluene	5580	8390	N/A	49	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2-butoxyethanol	Acute LC50 1474 mg/l Chronic NOEC >100 mg/l	Fish Fish Fish	96 hours 21 days 96 hours
4-hydroxy-4-methylpentan-2-one	Acute LC50 >100 mg/l	Fish	96 hours
butan-1-ol	Acute LC50 1376 mg/l	Fish	96 hours
ethylbenzene	Acute LC50 150 to 200 mg/l Fresh water	Fish	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
4-hydroxy-4-methylpentan-2-one	OECD 301A	98.5 % - Readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-butoxyethanol	-	-	Readily
xylene	-	-	Readily
4-hydroxy-4-methylpentan-2-one	-	-	Readily
ethylbenzene	-	-	Readily
toluene	-	-	Readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
2-butoxyethanol	0.81	-	low
xylene	3.16	7.4 to 18.5	low
4-hydroxy-4-methylpentan-2-one	-0.14 to 1.03	-	low
2-(2-butoxyethoxy)ethanol	0.56	-	low
butan-1-ol	0.88	-	low
dimethyl glutarate	0.62	-	low
ethylbenzene	3.15	79.43	low
dimethyl succinate	0.35	-	low
dimethyl adipate	1.03	-	low
toluene	2.73	8.32	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1866	UN1866	UN1866
UN proper shipping name	RESIN SOLUTION	RESIN SOLUTION	RESIN SOLUTION
Transport hazard class(es)	3	3	3
Packing group	III	III	III

14. Transport information

Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.
Product RQ (lbs)	800.94	Not applicable.	Not applicable.
RQ substances	(xylene, mix-cresol)	Not applicable.	Not applicable.

Additional information

DOT : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

IMDG : None identified.

IATA : None identified.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : ☒ All components are active or exempted.

United States - TSCA 12(b) - Chemical export notification:

Alkyl phenolic resin

One time notification

United States - TSCA 5(a)2 - Final significant new use rules:

☒ Alkyl phenolic resin

Listed

40 CFR Section
721.5905

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification

: ☒ FLAMMABLE LIQUIDS - Category 3
 ACUTE TOXICITY (inhalation) - Category 4
 SKIN IRRITATION - Category 2
 SERIOUS EYE DAMAGE - Category 1
 CARCINOGENICITY - Category 2
 TOXIC TO REPRODUCTION - Category 2
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
 HNOC - Defatting irritant

Composition/information on ingredients

Section 15. Regulatory information

Name	%	Classification
2-butoxyethanol	≥10 - ≤15	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A
xylene	≥10 - ≤14	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1
4-hydroxy-4-methylpentan-2-one	≥10 - ≤14	FLAMMABLE LIQUIDS - Category 3 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
2-(2-butoxyethoxy)ethanol	≥10 - ≤13	FLAMMABLE LIQUIDS - Category 4 EYE IRRITATION - Category 2A
butan-1-ol	≥5.0 - ≤8.9	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
ethylbenzene	≥0.10 - ≤2.5	HNOC - Defatting irritant FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1
dimethyl adipate toluene	≥1.0 - ≤5.0 <1.0	HNOC - Defatting irritant EYE IRRITATION - Category 2B FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant

SARA 313

Chemical nameCAS numberConcentration

Section 15. Regulatory information

Supplier notification	: 2-butoxyethanol	111-76-2	10 - 30
	xylene	1330-20-7	7 - 13
	2-(2-butoxyethoxy)ethanol	112-34-5	7 - 13
	butan-1-ol	71-36-3	5 - 10
	ethylbenzene	100-41-4	1 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

 **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * **Flammability :** 3 **Physical hazards :** 1

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 3 **Flammability :** 3 **Instability :** 1

Date of previous issue : 6/18/2019

Organization that prepared the MSDS : EHS

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 SGG = Segregation Group
 UN = United Nations

 Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET



Date of issue/Date of revision 9 November 2021

Version 14

Section 1. Identification

Product name : HOBA® MONOBLOC BEVERAGE VARNISH

Product code : PPG4655801

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.

Use of the substance/mixture : Coating. Paints. Painting-related materials.

Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)

Technical Phone Number : (513) 576-3145 (PACKAGING COATINGS) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (inhalation) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 40.8% (oral), 58.4% (dermal), 65.8% (inhalation)

GHS label elements

Section 2. Hazards identification

Hazard pictograms

:

**Signal word**

: Danger

Hazard statements

: Flammable liquid and vapor.
Causes skin irritation.
Causes serious eye irritation.
Harmful if inhaled.
May cause respiratory irritation.
May cause cancer.

Precautionary statements**Prevention**

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash thoroughly after handling.

Response

: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage

: Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Product name

: HOBA® MONOBLOC BEVERAGE VARNISH

Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
Solvent naphtha (petroleum), light aromatic	≥10 - ≤19	64742-95-6
dimethyl glutarate	≥10 - ≤20	1119-40-0
1,2,4-trimethylbenzene	≥5.0 - ≤10	95-63-6
2-butoxyethanol	≥1.0 - ≤6.7	111-76-2
dimethyl succinate	≥1.0 - ≤5.0	106-65-0
dimethyl adipate	≥1.0 - ≤5.0	627-93-0
cumene	<1.0	98-82-8

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. Defatting to the skin.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Section 4. First aid measures

- Skin contact** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
Formaldehyde.

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Section 7. Handling and storage

- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store below the following temperature: 5°C (41°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Solvent naphtha (petroleum), light aromatic dimethyl glutarate	None. IPEL (-).
1,2,4-trimethylbenzene	TWA: 1.5 ppm ACGIH TLV (United States, 1/2021).
2-butoxyethanol	TWA: 123 mg/m ³ 8 hours. TWA: 25 ppm 8 hours. ACGIH TLV (United States, 1/2021).
	TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018).
dimethyl succinate	Absorbed through skin. TWA: 240 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
dimethyl adipate	IPEL (-). TWA: 1.5 ppm
cumene	IPEL (-). TWA: 1.5 ppm
	ACGIH TLV (United States, 1/2021). TWA: 5 ppm 8 hours.
	OSHA PEL (United States, 5/2018). Absorbed through skin.
	TWA: 245 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.

Key to abbreviations

A = Acceptable Maximum Peak ACGIH = American Conference of Governmental Industrial Hygienists.	S = Potential skin absorption SR = Respiratory sensitization
C = Ceiling Limit F = Fume	SS = Skin sensitization STEL = Short term Exposure limit values
IPEL = Internal Permissible Exposure Limit OSHA = Occupational Safety and Health Administration.	TD = Total dust TLV = Threshold Limit Value
R = Respirable	TWA = Time Weighted Average
Z = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances	

Section 8. Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves : For prolonged or repeated handling, use the following type of gloves:

Recommended: nitrile rubber, butyl rubber

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 8. Exposure controls/personal protection

The respiratory protection shall be in accordance to 29 CFR 1910.134.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid.
Color	: Colorless.
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not applicable.
Melting point	: Not available.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 45.56°C (114°F)
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Evaporation rate	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1.05
Density (lbs / gal)	: 8.76
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water	: Not applicable.
Viscosity	: Kinematic (40°C (104°F)): >21 mm ² /s (>21 cSt)
Volatility	: 54% (v/v), 50.811% (w/w)
% Solid. (w/w)	: 49.189

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

Section 10. Stability and reactivity

Hazardous decomposition products : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides Formaldehyde.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), light aromatic	LD50 Dermal	Rabbit	3.48 g/kg	-
dimethyl glutarate	LD50 Oral	Rat	8400 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
1,2,4-trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
	LD50 Oral	Rat	5 g/kg	-
2-butoxyethanol	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-
dimethyl succinate	LC50 Inhalation Dusts and mists	Rat	>5900 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5 g/kg	-
dimethyl adipate	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	11300 mg/kg	-
cumene	LC50 Inhalation Vapor	Rat	39000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	12.3 g/kg	-
	LD50 Oral	Rat	1400 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-butoxyethanol	Skin - Moderate irritant	Rabbit	-	4 hours	28 days
	Eyes - Irritant	Rabbit	-	24 hours	21 days

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
2-butoxyethanol cumene	- -	3 2B	- Reasonably anticipated to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), light aromatic	Category 3	-	Respiratory tract irritation
1,2,4-trimethylbenzene	Category 3	-	Narcotic effects
cumene	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
cumene	Category 2	-	-

Target organs : Contains material which causes damage to the following organs: brain, central nervous system (CNS).
Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, spleen, lymphatic system, upper respiratory tract, skin, bone marrow, eye, lens or cornea.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1
cumene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : Harmful if inhaled. May cause respiratory irritation.
Skin contact : Causes skin irritation. Defatting to the skin.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Section 11. Toxicological information

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary : There are no data available on the mixture itself. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
HOBA® MONOBLOC BEVERAGE VARNISH	10226.3	6551.8	N/A	38.6	4
Solvent naphtha (petroleum), light aromatic	8400	3480	N/A	N/A	N/A
1,2,4-trimethylbenzene	5000	N/A	N/A	18	1.5
2-butoxyethanol	1200	2500	N/A	11	1.5
dimethyl adipate	11300	N/A	N/A	N/A	N/A
cumene	1400	12300	N/A	39	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Solvent naphtha (petroleum), light aromatic	Acute LC50 8.2 mg/l	Fish	96 hours
2-butoxyethanol	Acute LC50 1474 mg/l Chronic NOEC >100 mg/l	Fish Fish	96 hours 21 days

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-butoxyethanol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
dimethyl glutarate	0.49	-	low
1,2,4-trimethylbenzene	3.63	120.23	low
2-butoxyethanol	0.81	-	low
dimethyl succinate	0.33	-	low
dimethyl adipate	1.03	-	low
cumene	3.55	35.48	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.
Product RQ (lbs)	11609.4	Not applicable.	Not applicable.
RQ substances	(xylene)	Not applicable.	Not applicable.

Additional information

DOT : This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.

IMDG : None identified.

IATA : None identified.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14. Transport information

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are active or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 3
 ACUTE TOXICITY (inhalation) - Category 4
 SKIN IRRITATION - Category 2
 EYE IRRITATION - Category 2A
 CARCINOGENICITY - Category 1B
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
 HNOC - Defatting irritant

Composition/information on ingredients

Name	%	Classification
Solvent naphtha (petroleum), light aromatic	≥10 - ≤19	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
1,2,4-trimethylbenzene	≥5.0 - ≤10	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 HNOC - Defatting irritant
2-butoxyethanol	≥1.0 - ≤6.7	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A
dimethyl adipate	≥1.0 - ≤5.0	EYE IRRITATION - Category 2B
cumene	<1.0	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 CARCINOGENICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED

Section 15. Regulatory information

		EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant

SARA 313

Supplier notification	Chemical name	CAS number	Concentration
	1,2,4-trimethylbenzene	95-63-6	5 - 10
	2-butoxyethanol	111-76-2	3 - 7
	cumene	98-82-8	0.1 - 1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

 **WARNING:** Cancer - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2 * **Flammability :** 2 **Physical hazards :** 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 2 **Flammability :** 2 **Instability :** 0

Date of previous issue : 6/15/2021

Organization that prepared the SDS : EHS

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

 Indicates information that has changed from previously issued version.

Disclaimer

Section 16. Other information

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET



Date of issue/Date of revision 27 May 2020

Version 13

Section 1. Identification

Product name : HOBA® MONOBLOC SG GOLD BASECOAT

Product code : PPG4662307

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.

Use of the substance/ mixture : Coating.

Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 or + 52 55 5559 1588 (Mexico)

Technical Phone Number : (513) 576-3145 (PACKAGING COATINGS) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : ☒ FLAMMABLE LIQUIDS - Category 3
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1B
TOXIC TO REPRODUCTION - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
☒ Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 42.9% (Oral), 66.1% (Dermal), 53.8% (Inhalation)

GHS label elements

Hazard pictograms :



Section 2. Hazards identification

Signal word : Danger

Hazard statements :  Flammable liquid and vapor.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause drowsiness or dizziness.
May cause cancer.
May damage fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention :  Obtain special instructions before use. Wear protective gloves. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Do not breathe vapor.

Response :  Call a POISON CENTER or doctor if you feel unwell. IF exposed or concerned: Get medical advice or attention. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage :  Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified : Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product name : HOBA® MONOBLOC SG GOLD BASECOAT

Ingredient name	%	CAS number
 Solvent naphtha (petroleum), heavy arom.	≥10 - ≤20	64742-94-5
dimethyl glutarate	≥10 - ≤20	1119-40-0
2-methoxy-1-methylethyl acetate	≥1.0 - ≤5.0	108-65-6
trimethylbenzene	≥1.0 - ≤5.0	25551-13-7
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	≥1.0 - ≤4.1	85940-94-9
dimethyl succinate	≥1.0 - ≤5.0	106-65-0
1,2,4-trimethylbenzene	≥1.0 - ≤3.5	95-63-6
dimethyl adipate	≥1.0 - ≤5.0	627-93-0
Solvent naphtha (petroleum), light aromatic	≤2.0	64742-95-6
2-butoxyethanol	≤1.2	111-76-2

Section 3. Composition/information on ingredients

butan-1-ol	≤1.0	71-36-3
naphthalene	<1.0	91-20-3
dibutyltin dilaurate	<1.0	77-58-7
2-butanone oxime	<1.0	96-29-7

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths

Section 4. First aid measures

- Skin contact** : skeletal malformations
: Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** :  Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
Cyanate and isocyanate.
hydrogen cyanide
Formaldehyde.

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 5. Fire-fighting measures

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

- Special precautions** : If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store below the following temperature: 5°C (41°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Solvent naphtha (petroleum), heavy arom. dimethyl glutarate	None. IPEL (PPG). TWA: 1.5 ppm
2-methoxy-1-methylethyl acetate	IPEL (PPG, 10/2017). Absorbed through skin. TWA: 30 ppm STEL: 90 ppm
trimethylbenzene	ACGIH TLV (United States, 3/2019). TWA: 123 mg/m ³ 8 hours. TWA: 25 ppm 8 hours.
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked dimethyl succinate	None. IPEL (PPG). TWA: 1.5 ppm
1,2,4-trimethylbenzene	ACGIH TLV (United States, 3/2019). TWA: 123 mg/m ³ 8 hours. TWA: 25 ppm 8 hours.
dimethyl adipate	IPEL (PPG). TWA: 1.5 ppm
Solvent naphtha (petroleum), light aromatic 2-butoxyethanol	None. ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
butan-1-ol	ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018).

Section 8. Exposure controls/personal protection

naphthalene	TWA: 300 mg/m³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2019). Absorbed through skin. TWA: 52 mg/m³ 8 hours. TWA: 10 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 50 mg/m³ 8 hours. TWA: 10 ppm 8 hours.
dibutyltin dilaurate	ACGIH TLV (United States, 3/2019). Absorbed through skin. STEL: 0.2 mg/m³, (as Sn) 15 minutes. TWA: 0.1 mg/m³, (as Sn) 8 hours. OSHA PEL (United States, 5/2018). TWA: 0.1 mg/m³, (as Sn) 8 hours. OSHA PEL (United States). TWA: 0.1 mg/m³, (as Sn)
2-butanone oxime	IPEL (PPG). TWA: 3 ppm STEL: 9 ppm

Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration.	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Chemical splash goggles.
Skin protection	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Gloves	: butyl rubber
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
Restrictions on use	: Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid.
Color	: Not available.
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not available.
Melting point	: Not available.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 45.56°C (114°F)
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.

Section 9. Physical and chemical properties

Evaporation rate	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1.07
Density (lbs / gal)	: 8.93
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water	: Not available.
Viscosity	: Kinematic (40°C (104°F)): >0.21 cm ² /s (>21 cSt)
Volatility	: 63% (v/v), 56.036% (w/w)
% Solid. (w/w)	: 43.964

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), heavy arom.	LC50 Inhalation Dusts and mists	Rat	>5.2 mg/l	4 hours
dimethyl glutarate	LD50 Oral	Rat	>5 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
2-methoxy-1-methylethyl acetate	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit	>5 g/kg	-
trimethylbenzene	LD50 Oral	Rat	8532 mg/kg	-
dimethyl succinate	LD50 Oral	Rat	8970 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>5900 mg/m ³	4 hours

Section 11. Toxicological information

1,2,4-trimethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5 g/kg	-
	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
dimethyl adipate	LD50 Oral	Rat	5 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
Solvent naphtha (petroleum), light aromatic	LD50 Oral	Rat	11300 mg/kg	-
	LD50 Dermal	Rabbit	3.48 g/kg	-
2-butoxyethanol	LD50 Oral	Rat	8400 mg/kg	-
	LD50 Dermal	Rabbit	1060 mg/kg	-
	LD50 Oral	Rat - Male	1480 mg/kg	-
butan-1-ol	LC50 Inhalation Vapor	Rat	24000 mg/m ³	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
naphthalene	LD50 Oral	Rat	790 mg/kg	-
	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	490 mg/kg	-
dibutyltin dilaurate	LD50 Oral	Rat	2071 mg/kg	-
2-butanone oxime	LD50 Oral	Rat	930 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-butoxyethanol	Skin - Moderate irritant	Rabbit	-	4 hours	28 days
	Eyes - Irritant	Rabbit	-	24 hours	21 days

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	skin	Guinea pig	Sensitizing

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
2-butoxyethanol	-	3	-
naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), heavy arom. 1,2,4-trimethylbenzene	Category 3 Category 3	- -	Narcotic effects Respiratory tract irritation
Solvent naphtha (petroleum), light aromatic	Category 3	-	Respiratory tract irritation
butan-1-ol	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
dibutyltin dilaurate	Category 3 Category 1	-	Narcotic effects thymus

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Category 2	inhalation	-
naphthalene	Category 2	-	-
dibutyltin dilaurate	Category 1	oral	immune system

Target organs : Contains material which causes damage to the following organs: brain, central nervous system (CNS).
Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, spleen, lymphatic system, upper respiratory tract, skin, bone marrow, ears, eye, lens or cornea.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Section 11. Toxicological information

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

- Conclusion/Summary** : There are no data available on the mixture itself. Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitization of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Repeated exposure may lead to permanent respiratory disability. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of

Section 11. Toxicological information

exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Sub-chronic NOAEL Inhalation Dusts and mists	Rat	5 mg/m ³	90 days

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : May damage the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : May damage fertility.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
HOBA® MONOBLOC SG GOLD BASECOAT	4860.4	5623.9	N/A	157.4	15.2
2-methoxy-1-methylethyl acetate	8532	N/A	N/A	N/A	N/A
trimethylbenzene	500	1100	N/A	N/A	N/A
1,2,4-trimethylbenzene	5000	N/A	N/A	18	1.5
dimethyl adipate	11300	N/A	N/A	N/A	N/A
Solvent naphtha (petroleum), light aromatic	8400	3480	N/A	N/A	N/A
2-butoxyethanol	1480	1060	N/A	11	1.5
butan-1-ol	790	3400	N/A	24	N/A
naphthalene	490	N/A	N/A	N/A	N/A
dibutyltin dilaurate	2071	N/A	N/A	N/A	N/A
2-butanone oxime	930	1100	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Solvent naphtha (petroleum), heavy arom.	NOEL 0.48 mg/l Fresh water	Daphnia	21 days
2-methoxy-1-methylethyl acetate	Acute LC50 161 mg/l Fresh water	Fish	96 hours
Solvent naphtha (petroleum), light aromatic	Acute LC50 8.2 mg/l	Fish	96 hours
2-butoxyethanol	Acute LC50 1474 mg/l	Fish	96 hours
	Chronic NOEC >100 mg/l	Fish	21 days
butan-1-ol	Acute LC50 1376 mg/l	Fish	96 hours
dibutyltin dilaurate	EC50 0.463 mg/l	Daphnia	48 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-butoxyethanol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
dimethyl glutarate	0.62	-	low
2-methoxy-1-methylethyl acetate	0.56	-	low
trimethylbenzene	3.4 to 3.8	-	low
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	-3.6	-	low
dimethyl succinate	0.35	-	low
1,2,4-trimethylbenzene	3.63	120.23	low
dimethyl adipate	1.03	-	low
2-butoxyethanol	0.81	-	low
butan-1-ol	0.88	-	low
naphthalene	3.3	85.11	low
dibutyltin dilaurate	3.12	-	low
2-butanone oxime	0.63	5.01	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	☒ Solvent naphtha (petroleum), heavy aromatic, 1,2,4-trimethylbenzene)	Not applicable.
Product RQ (lbs)	☒ 3950.6	Not applicable.	Not applicable.
RQ substances	(naphthalene, xylene)	Not applicable.	Not applicable.

Additional information

- DOT** : This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

14. Transport information

Special precautions for user : **Transport within user's premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : ☒ Not determined.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : ☒ FLAMMABLE LIQUIDS - Category 3
☒ EYE IRRITATION - Category 2A
☒ SKIN SENSITIZATION - Category 1
☒ CARCINOGENICITY - Category 1B
☒ TOXIC TO REPRODUCTION - Category 1B
☒ SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
☒ SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
☒ HNOC - Defatting irritant

Composition/information on ingredients

Name	%	Classification
☒ Solvent naphtha (petroleum), heavy arom.	≥10 - ≤20	FLAMMABLE LIQUIDS - Category 4 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
trimethylbenzene	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 EYE IRRITATION - Category 2A HNOC - Defatting irritant
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	≥1.0 - ≤4.1	COMBUSTIBLE DUSTS SKIN IRRITATION - Category 2 SKIN SENSITIZATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
1,2,4-trimethylbenzene	≥1.0 - ≤3.5	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Section 15. Regulatory information

dimethyl adipate Solvent naphtha (petroleum), light aromatic	≥1.0 - ≤5.0 ≤2.0	HNOC - Defatting irritant EYE IRRITATION - Category 2B FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
2-butoxyethanol	≤1.2	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2
butan-1-ol	≤1.0	EYE IRRITATION - Category 2A FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
naphthalene	<1.0	HNOC - Defatting irritant FLAMMABLE SOLIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 CARCINOGENICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
dibutyltin dilaurate	<1.0	SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 GERM CELL MUTAGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
2-butanone oxime	<1.0	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B CARCINOGENICITY - Category 2

SARA 313

Supplier notification	Chemical name	CAS number	Concentration
	1,2,4-trimethylbenzene	95-63-6	1 - 5
	2-butoxyethanol	111-76-2	0.5 - 1.5
	butan-1-ol	71-36-3	0.5 - 1.5
	naphthalene	91-20-3	0.1 - 1

Section 15. Regulatory information

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

 **WARNING:** Cancer - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * **Flammability** : 2 **Physical hazards** : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 3 **Flammability** : 2 **Instability** : 0

Date of previous issue : 4/26/2019

Organization that prepared the MSDS : EHS

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

 Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET



Date of issue/Date of revision 12 August 2022

Version 26

Section 1. Identification

Product name : HOBA® MONOBLOC WHITE BASECOAT

Product code : PPG4670003

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.

Use of the substance/mixture : Coating. Paints. Painting-related materials.

Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)

Technical Phone Number : (513) 576-3145 (PACKAGING COATINGS) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : ☒ FLAMMABLE LIQUIDS - Category 3
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1B
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
☒ Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 23.2% (oral), 35.4% (dermal), 25.8% (inhalation)

Section 2. Hazards identification

This product contains TiO₂ which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many products, TiO₂ is utilized as a raw material in a liquid coating formulation. In this case, the TiO₂ particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO₂ when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8).

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: Flammable liquid and vapor.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause cancer.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure. (lungs)

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Keep container tightly closed. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

: IF exposed or concerned: Get medical advice or attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage

: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product name : HOBA® MONOBLOC WHITE BASECOAT

Ingredient name	%	CAS number
Titanium dioxide	≥20 - ≤50	13463-67-7
dimethyl glutarate	≥5.0 - ≤10	1119-40-0
Solvent naphtha (petroleum), heavy arom.	≥5.0 - ≤10	64742-94-5
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	≥1.0 - ≤5.0	85940-94-9
dimethyl succinate	≥1.0 - ≤5.0	106-65-0
trimethylbenzene	≥1.0 - ≤5.0	25551-13-7
dimethyl adipate	≥1.0 - ≤5.0	627-93-0
aluminium hydroxide	≥1.0 - ≤5.0	21645-51-2
1,2,4-trimethylbenzene	≥0.10 - ≤2.3	95-63-6
2-methylpropan-1-ol	≤1.5	78-83-1
propylidynetrimethanol	≤1.0	77-99-6
naphthalene	<1.0	91-20-3

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : ☒ Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : ☒ Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : ☒ Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
metal oxide/oxides
Cyanate and isocyanate.
hydrogen cyanide
Formaldehyde.
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store below the following temperature: 5°C (41°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
titanium dioxide	OSHA PEL (United States, 5/2018). TWA: 15 mg/m ³ 8 hours. Form: Total dust
dimethyl glutarate	ACGIH TLV (United States, 1/2021). TWA: 10 mg/m ³ 8 hours.
Solvent naphtha (petroleum), heavy arom.	IPEL (-). TWA: 1.5 ppm
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	None.
dimethyl succinate	IPEL (-). TWA: 1.5 ppm
trimethylbenzene	ACGIH TLV (United States, 1/2021). [Trimethyl benzene (mixed isomers)] TWA: 123 mg/m ³ 8 hours.

Section 8. Exposure controls/personal protection

dimethyl adipate	TWA: 25 ppm 8 hours. IPEL (-).
aluminium hydroxide	TWA: 1.5 ppm ACGIH TLV (United States, 1/2021). [Aluminum, metal and insoluble compounds] TWA: 1 mg/m ³ 8 hours. Form: Respirable fraction ACGIH TLV (United States). TWA: 1 mg/m ³
1,2,4-trimethylbenzene	ACGIH TLV (United States, 1/2021). [Trimethyl benzene (mixed isomers)] TWA: 123 mg/m ³ 8 hours. TWA: 25 ppm 8 hours.
2-methylpropan-1-ol	ACGIH TLV (United States, 1/2021). TWA: 152 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 300 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
propylidynetrimethanol	None.
naphthalene	ACGIH TLV (United States, 1/2021). Absorbed through skin. TWA: 52 mg/m ³ 8 hours. TWA: 10 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 50 mg/m ³ 8 hours. TWA: 10 ppm 8 hours.

Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration.	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Section 8. Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves : butyl rubber

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. The respiratory protection shall be in accordance to 29 CFR 1910.134.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : White.

Odor : Not available.

Odor threshold : Not available.

pH : Not applicable.

Melting point : Not available.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 52.22°C (126°F)

Auto-ignition temperature : Not available.

Section 9. Physical and chemical properties

Decomposition temperature	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Evaporation rate	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1.54
Density (lbs / gal)	: 12.85
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water	: Not applicable.
Viscosity	: Kinematic (40°C (104°F)): >21 mm ² /s (>21 cSt)
Volatility	: 51% (v/v), 32.068% (w/w)
% Solid. (w/w)	: 67.932

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materials: Cyanate and isocyanate. carbon oxides nitrogen oxides Formaldehyde. hydrogen cyanide metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
titanium dioxide	LC50 Inhalation Dusts and mists	Rat	>6.82 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
dimethyl glutarate	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Solvent naphtha (petroleum), heavy arom.	LC50 Inhalation Dusts and mists	Rat	>5.2 mg/l	4 hours
	LD50 Oral	Rat	>5 g/kg	-
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	LC50 Inhalation Vapor	Rat	>2757 mg/l	4 hours
	LD50 Dermal	Rat	>2667 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
dimethyl succinate	LC50 Inhalation Dusts and mists	Rat	>5900 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5 g/kg	-
trimethylbenzene	LD50 Oral	Rat	8970 mg/kg	-
dimethyl adipate	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	11300 mg/kg	-
aluminium hydroxide	LC50 Inhalation Dusts and mists	Rat	>5.09 mg/l	4 hours
	LD50 Oral	Rat	>5000 mg/kg	-
1,2,4-trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
	LD50 Oral	Rat	5 g/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	24.6 mg/l	4 hours
	LD50 Dermal	Rabbit	2460 mg/kg	-
	LD50 Oral	Rat	2830 mg/kg	-
propylidynetrimethanol	LD50 Dermal	Rabbit	10 g/kg	-
	LD50 Oral	Rat	14000 mg/kg	-
naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	490 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion**Conclusion/Summary**

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	skin	Guinea pig	Sensitizing

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Section 11. Toxicological information

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
Titanium dioxide	-	2B	-
naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), heavy arom. 1,2,4-trimethylbenzene	Category 3 Category 3	- -	Narcotic effects Respiratory tract irritation
2-methylpropan-1-ol	Category 3 Category 3	-	Respiratory tract irritation Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Category 2	inhalation	lungs
naphthalene	Category 2	-	-

Target organs

: Contains material which causes damage to the following organs: brain.
Contains material which may cause damage to the following organs: blood, lungs, the nervous system, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.

Section 11. Toxicological information

Inhalation : No known significant effects or critical hazards.

Skin contact : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary : There are no data available on the mixture itself. Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitization of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Repeated exposure may lead to permanent respiratory disability. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. This product contains TiO₂ which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many products, TiO₂ is utilized as a raw material in a liquid coating formulation. In this case, the TiO₂ particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO₂ when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8). Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and

Section 11. Toxicological information

dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Sub-chronic NOAEL Inhalation Dusts and mists	Rat	5 mg/m ³	90 days

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
HOBA® MONOBLOC WHITE BASECOAT	10155.8	14504.7	N/A	830.5	69.2
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	2500	2500	N/A	N/A	N/A
trimethylbenzene	500	1100	N/A	N/A	N/A
dimethyl adipate	11300	N/A	N/A	N/A	N/A
1,2,4-trimethylbenzene	5000	N/A	N/A	18	1.5
2-methylpropan-1-ol	2830	2460	N/A	24.6	N/A
propylidynetrimethanol	14000	10000	N/A	N/A	N/A
naphthalene	490	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
Titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
Solvent naphtha (petroleum), heavy arom.	NOEL 0.48 mg/l Fresh water	Daphnia	21 days
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Acute LC50 141.4 mg/l	Fish	96 hours
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
propylidynetrimethanol	Acute LC50 >1000 mg/l	Fish	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Dimethyl glutarate	0.49	-	low
Solvent naphtha (petroleum), heavy arom.	2.8 to 6.5	-	high
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	-3.6	-	low
dimethyl succinate	0.33	-	low
trimethylbenzene	3.4 to 3.8	-	low
dimethyl adipate	1.03	-	low
1,2,4-trimethylbenzene	3.63	120.23	low
2-methylpropan-1-ol	1	-	low
propylidynetrimethanol	-0.47	-	low
naphthalene	3.4	85.11	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been

Section 13. Disposal considerations

cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.
Product RQ (lbs)	46563.1	Not applicable.	Not applicable.
RQ substances	(xylene)	Not applicable.	Not applicable.

Additional information

DOT : This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.

IMDG : None identified.

IATA : None identified.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are active or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

Section 15. Regulatory information

SARA 311/312

Classification

: **FLAMMABLE LIQUIDS** - Category 3
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1B
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
HNOC - Defatting irritant

Composition/information on ingredients

Name	%	Classification
Titanium dioxide	≥20 - ≤50	CARCINOGENICITY - Category 2
Solvent naphtha (petroleum), heavy arom.	≥5.0 - ≤10	FLAMMABLE LIQUIDS - Category 4 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	≥1.0 - ≤5.0	COMBUSTIBLE DUSTS SKIN IRRITATION - Category 2 SKIN SENSITIZATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
trimethylbenzene	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 EYE IRRITATION - Category 2A HNOC - Defatting irritant
dimethyl adipate	≥1.0 - ≤5.0	EYE IRRITATION - Category 2B
1,2,4-trimethylbenzene	≥0.10 - ≤2.3	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 HNOC - Defatting irritant
2-methylpropan-1-ol	≤1.5	FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 HNOC - Defatting irritant
propylidynetrimethanol	≤1.0	TOXIC TO REPRODUCTION - Category 2
naphthalene	<1.0	FLAMMABLE SOLIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 CARCINOGENICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

SARA 313

Chemical name

CAS number

Concentration

Section 15. Regulatory information

Supplier notification :  2,4-trimethylbenzene 95-63-6 1 - 5
naphthalene 91-20-3 0.1 - 1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

 **WARNING:** Cancer - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * **Flammability** : 2 **Physical hazards** : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 3 **Flammability** : 2 **Instability** : 0

Date of previous issue : 3/22/2022

Organization that prepared the SDS : EHS

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

 Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET



Date of issue/Date of revision 4 August 2021

Version 25

Section 1. Identification

Product name : HOBA® MONOBLOC CLEAR BASECOAT

Product code : PPG4681801

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.

Use of the substance/mixture : Coating. Paints. Painting-related materials.

Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)

Technical Phone Number : (513) 576-3145 (PACKAGING COATINGS) 8:00 a.m. - 5:00 p.m. EST

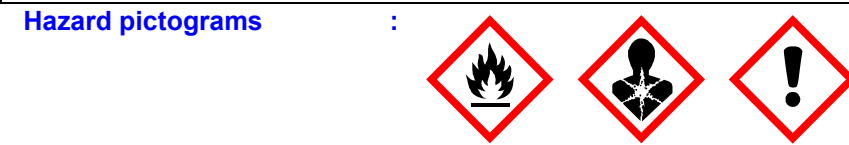
Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1B
TOXIC TO REPRODUCTION - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 39.8% (oral), 63.3% (dermal), 46.1% (inhalation)

GHS label elements

Section 2. Hazards identification



Signal word : Danger

Hazard statements : Flammable liquid and vapor.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause drowsiness or dizziness.
May cause cancer.
May damage fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure. (lungs)

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified : Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product name : HOBA® MONOBLOC CLEAR BASECOAT

Ingredient name	%	CAS number
Solvent naphtha (petroleum), heavy arom.	≥20 - ≤50	64742-94-5
dimethyl glutarate	≥10 - ≤20	1119-40-0
trimethylbenzene	≥1.0 - ≤4.8	25551-13-7
2-methoxy-1-methylethyl acetate	≥1.0 - ≤5.0	108-65-6
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	≥1.0 - ≤4.2	85940-94-9
dimethyl succinate	≥1.0 - ≤5.0	106-65-0
1,2,4-trimethylbenzene	≥1.0 - ≤3.6	95-63-6
dimethyl adipate	≥1.0 - ≤5.0	627-93-0
Solvent naphtha (petroleum), light aromatic	≥0.10 - ≤2.1	64742-95-6
naphthalene	<1.0	91-20-3
dibutyltin dilaurate	<1.0	77-58-7
2-butanone oxime	<1.0	96-29-7

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression.

Section 4. First aid measures

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.
- Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
Cyanate and isocyanate.
hydrogen cyanide
Formaldehyde.
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store below the following temperature: 5°C (41°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Solvent naphtha (petroleum), heavy arom. dimethyl glutarate	None. IPEL (-).
trimethylbenzene	TWA: 1.5 ppm ACGIH TLV (United States, 3/2020).
2-methoxy-1-methylethyl acetate	TWA: 123 mg/m ³ 8 hours. TWA: 25 ppm 8 hours. IPEL (-, 10/2017). Absorbed through skin.
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked dimethyl succinate	TWA: 30 ppm STEL: 90 ppm
1,2,4-trimethylbenzene	None. IPEL (-). TWA: 1.5 ppm ACGIH TLV (United States, 3/2020).

Section 8. Exposure controls/personal protection

dimethyl adipate

Solvent naphtha (petroleum), light aromatic
naphthalene

dibutyltin dilaurate

2-butanone oxime

TWA: 123 mg/m³ 8 hours.

TWA: 25 ppm 8 hours.

IPEL (-).

TWA: 1.5 ppm

None.

ACGIH TLV (United States, 3/2020).**Absorbed through skin.**TWA: 52 mg/m³ 8 hours.

TWA: 10 ppm 8 hours.

OSHA PEL (United States, 5/2018).TWA: 50 mg/m³ 8 hours.

TWA: 10 ppm 8 hours.

ACGIH TLV (United States, 3/2020).**Absorbed through skin.**STEL: 0.2 mg/m³, (as Sn) 15 minutes.TWA: 0.1 mg/m³, (as Sn) 8 hours.**OSHA PEL (United States, 5/2018).**TWA: 0.1 mg/m³, (as Sn) 8 hours.**OSHA PEL (United States).**TWA: 0.1 mg/m³, (as Sn)**IPEL (-).**

TWA: 3 ppm

STEL: 9 ppm

Key to abbreviations

A	= Acceptable Maximum Peak
ACGIH	= American Conference of Governmental Industrial Hygienists.
C	= Ceiling Limit
F	= Fume
IPEL	= Internal Permissible Exposure Limit
OSHA	= Occupational Safety and Health Administration.
R	= Respirable
Z	= OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

S	= Potential skin absorption
SR	= Respiratory sensitization
SS	= Skin sensitization
STEL	= Short term Exposure limit values
TD	= Total dust
TLV	= Threshold Limit Value
TWA	= Time Weighted Average

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Chemical splash goggles.
Skin protection	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Gloves	: butyl rubber
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. The respiratory protection shall be in accordance to 29 CFR 1910.134.
Restrictions on use	: Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid.
Color	: Colorless.
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not applicable.
Melting point	: Not available.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 45.56°C (114°F)
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Flammability (solid, gas)	: Not available.

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	: Not available.
Evaporation rate	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1.07
Density (lbs / gal)	: 8.93
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water	: Not applicable.
Viscosity	: Kinematic (40°C (104°F)): >21 mm ² /s (>21 cSt)
Volatility	: 63% (v/v), 55.776% (w/w)
% Solid. (w/w)	: 44.224

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materials: Cyanate and isocyanate. carbon oxides nitrogen oxides Formaldehyde. hydrogen cyanide

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), heavy arom.	LC50 Inhalation Dusts and mists	Rat	>5.2 mg/l	4 hours
dimethyl glutarate	LD50 Oral	Rat	>5 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
trimethylbenzene	LD50 Oral	Rat	>5000 mg/kg	-
2-methoxy-1-methylethyl	LD50 Oral	Rat	8970 mg/kg	-
	LC50 Inhalation Vapor	Rat	30 mg/l	4 hours

Section 11. Toxicological information

acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	6190 mg/kg	-
	LC50 Inhalation Vapor	Rat	>2757 mg/l	4 hours
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	LD50 Dermal	Rat	>2667 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>5900 mg/m ³	4 hours
dimethyl succinate	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5 g/kg	-
	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
1,2,4-trimethylbenzene	LD50 Oral	Rat	5 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
dimethyl adipate	LD50 Oral	Rat	11300 mg/kg	-
	LD50 Dermal	Rabbit	3.48 g/kg	-
	LD50 Oral	Rat	8400 mg/kg	-
Solvent naphtha (petroleum), light aromatic	LD50 Oral	Rat	>20 g/kg	-
	LD50 Dermal	Rat	490 mg/kg	-
	LD50 Oral	Rat	2071 mg/kg	-
naphthalene	LD50 Oral	Rat	930 mg/kg	-
	LD50 Oral	Rat		
	LD50 Oral	Rat		
dibutyltin dilaurate	LD50 Oral	Rat		
	LD50 Oral	Rat		
	LD50 Oral	Rat		
2-butanone oxime	LD50 Oral	Rat		
	LD50 Oral	Rat		
	LD50 Oral	Rat		

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion**Conclusion/Summary**

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	skin	Guinea pig	Sensitizing

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.

Carcinogen Classification code:

Section 11. Toxicological information

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), heavy arom.	Category 3	-	Narcotic effects
2-methoxy-1-methylethyl acetate	Category 3	-	Narcotic effects
1,2,4-trimethylbenzene	Category 3	-	Respiratory tract irritation
Solvent naphtha (petroleum), light aromatic	Category 3	-	Respiratory tract irritation
dibutyltin dilaurate	Category 3 Category 1	-	Narcotic effects thymus

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Category 2	inhalation	lungs
naphthalene	Category 2	-	-
dibutyltin dilaurate	Category 1	oral	immune system

Target organs : Contains material which causes damage to the following organs: brain, eyes, central nervous system (CNS).
Contains material which may cause damage to the following organs: blood, kidneys, lungs, upper respiratory tract, skin.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Section 11. Toxicological information

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary : There are no data available on the mixture itself. Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitization of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Repeated exposure may lead to permanent respiratory disability. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Section 11. Toxicological information

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Sub-chronic NOAEL Inhalation Dusts and mists	Rat	5 mg/m ³	90 days

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : May damage fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
HOBA® MONOBLOC CLEAR BASECOAT	5311.8	5879.4	N/A	285.8	23.8
trimethylbenzene	500	1100	N/A	N/A	N/A
2-methoxy-1-methylethyl acetate	6190	N/A	N/A	30	N/A
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	2500	2500	N/A	N/A	N/A
1,2,4-trimethylbenzene	5000	N/A	N/A	18	1.5
dimethyl adipate	11300	N/A	N/A	N/A	N/A
Solvent naphtha (petroleum), light aromatic	8400	3480	N/A	N/A	N/A
naphthalene	490	N/A	N/A	N/A	N/A
dibutyltin dilaurate	2071	N/A	N/A	N/A	N/A
2-butanone oxime	930	1100	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Solvent naphtha (petroleum), heavy arom.	NOEL 0.48 mg/l Fresh water	Daphnia	21 days
2-methoxy-1-methylethyl acetate	Acute LC50 134 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Acute LC50 141.4 mg/l	Fish	96 hours
Solvent naphtha (petroleum), light aromatic	Acute LC50 8.2 mg/l	Fish	96 hours

Section 12. Ecological information

dibutyltin dilaurate	EC50 0.463 mg/l	Daphnia	48 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2-methoxy-1-methylethyl acetate	-	83 % - Readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-methoxy-1-methylethyl acetate	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Solvent naphtha (petroleum), heavy arom.	2.8 to 6.5	-	high
dimethyl glutarate	0.49	-	low
trimethylbenzene	3.4 to 3.8	-	low
2-methoxy-1-methylethyl acetate	1.2	-	low
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	-3.6	-	low
dimethyl succinate	0.33	-	low
1,2,4-trimethylbenzene	3.63	120.23	low
dimethyl adipate	1.03	-	low
naphthalene	3.4	85.11	low
dibutyltin dilaurate	4.44	-	high
2-butanone oxime	0.63	5.01	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been

Section 13. Disposal considerations

cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	(Solvent naphtha (petroleum), heavy aromatic, 1,2,4-trimethylbenzene)	Not applicable.
Product RQ (lbs)	3703.4	Not applicable.	Not applicable.
RQ substances	(naphthalene, xylene)	Not applicable.	Not applicable.

Additional information

- DOT** : This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are active or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 3
 EYE IRRITATION - Category 2A
 SKIN SENSITIZATION - Category 1
 CARCINOGENICITY - Category 1B
 TOXIC TO REPRODUCTION - Category 1B
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
 HNOC - Defatting irritant

Composition/information on ingredients

Name	%	Classification
Solvent naphtha (petroleum), heavy arom.	≥20 - ≤50	FLAMMABLE LIQUIDS - Category 4 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
trimethylbenzene	≥1.0 - ≤4.8	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 EYE IRRITATION - Category 2A HNOC - Defatting irritant
2-methoxy-1-methylethyl acetate	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	≥1.0 - ≤4.2	COMBUSTIBLE DUSTS SKIN IRRITATION - Category 2 SKIN SENSITIZATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
1,2,4-trimethylbenzene	≥1.0 - ≤3.6	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 HNOC - Defatting irritant
dimethyl adipate	≥1.0 - ≤5.0	EYE IRRITATION - Category 2B
Solvent naphtha (petroleum), light aromatic	≥0.10 - ≤2.1	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

Section 15. Regulatory information

naphthalene	<1.0	(Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant FLAMMABLE SOLIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 CARCINOGENICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
dibutyltin dilaurate	<1.0	SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 GERM CELL MUTAGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
2-butanone oxime	<1.0	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B CARCINOGENICITY - Category 2

SARA 313

Supplier notification	Chemical name	CAS number	Concentration
	1,2,4-trimethylbenzene	95-63-6	1 - 5
	naphthalene	91-20-3	0.1 - 1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

 **WARNING:** Cancer - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2 * **Flammability** : 2 **Physical hazards** : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 2 **Flammability** : 2 **Instability** : 0

Date of previous issue : 6/15/2021

Section 16. Other information

Organization that prepared the SDS : EHS

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

✔ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET



Date of issue/Date of revision 6 March 2022

Version 23

Section 1. Identification

Product name : HOBA® MONOBLOC FULL MATTE VARNISH

Product code : PPG4695808

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.

Use of the substance/mixture : Coating. Paints. Painting-related materials.

Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)

Technical Phone Number : (513) 576-3145 (PACKAGING COATINGS) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (inhalation) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 1B
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 33.1% (oral), 53.6% (dermal), 59.3% (inhalation)

GHS label elements

Hazard pictograms :



Signal word : Danger

Section 2. Hazards identification

Hazard statements	: Flammable liquid and vapor. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. May cause cancer.
<u>Precautionary statements</u>	
Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash thoroughly after handling.
Response	: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.
Storage	: Store locked up. Store in a well-ventilated place. Keep cool.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.
Hazards not otherwise classified	: Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Product name	: HOBA® MONOBLOC FULL MATTE VARNISH

Ingredient name	%	CAS number
2-butoxyethanol	≥10 - ≤12	111-76-2
Solvent naphtha (petroleum), light aromatic	≥10 - ≤12	64742-95-6
dimethyl glutarate	≥5.0 - ≤10	1119-40-0
1,2,4-trimethylbenzene	≥1.0 - ≤6.6	95-63-6
2-methoxy-1-methylethyl acetate	≥1.0 - ≤3.6	108-65-6
dimethyl succinate	≥1.0 - ≤5.0	106-65-0
proprietary polypropylene hydrocarbon mixture	≥1.0 - ≤5.0	Not available.
2-methylpropan-1-ol	≤1.6	78-83-1
dimethyl adipate	≥1.0 - ≤5.0	627-93-0
cumene	<1.0	98-82-8

Section 3. Composition/information on ingredients

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact	: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
Inhalation	: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion	: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Causes serious eye irritation.
Inhalation	: Harmful if inhaled.
Skin contact	: Causes skin irritation. Defatting to the skin.
Ingestion	: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: No specific treatment.

Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
metal oxide/oxides
Formaldehyde.

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store below the following temperature: 5°C (41°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2-butoxyethanol	ACGIH TLV (United States, 1/2021). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
Solvent naphtha (petroleum), light aromatic dimethyl glutarate	None.
1,2,4-trimethylbenzene	IPEL (-). TWA: 1.5 ppm ACGIH TLV (United States, 1/2021). TWA: 123 mg/m ³ 8 hours. TWA: 25 ppm 8 hours.
2-methoxy-1-methylethyl acetate	IPEL (-, 10/2017). Absorbed through skin. TWA: 30 ppm STEL: 90 ppm
dimethyl succinate	IPEL (-). TWA: 1.5 ppm
proprietary polypropylene hydrocarbon mixture	ACGIH TLV (United States). TWA: 10 mg/m ³ TWA: 5 mg/m ³ Form: Respirable
2-methylpropan-1-ol	OSHA PEL (United States). TWA: 5 mg/m ³ ACGIH TLV (United States, 1/2021). TWA: 152 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
dimethyl adipate	OSHA PEL (United States, 5/2018). TWA: 300 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
cumene	IPEL (-). TWA: 1.5 ppm ACGIH TLV (United States, 1/2021). TWA: 5 ppm 8 hours.
	OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 245 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.

Key to abbreviations

A	= Acceptable Maximum Peak
ACGIH	= American Conference of Governmental Industrial Hygienists.
C	= Ceiling Limit
F	= Fume
IPEL	= Internal Permissible Exposure Limit
OSHA	= Occupational Safety and Health Administration.
R	= Respirable
Z	= OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

S	= Potential skin absorption
SR	= Respiratory sensitization
SS	= Skin sensitization
STEL	= Short term Exposure limit values
TD	= Total dust
TLV	= Threshold Limit Value
TWA	= Time Weighted Average

Consult local authorities for acceptable exposure limits.

Section 8. Exposure controls/personal protection

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Gloves** : butyl rubber
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. The respiratory protection shall be in accordance to 29 CFR 1910.134.
- Restrictions on use** : Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid.
Color	: Colorless.
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not applicable.
Melting point	: Not available.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 41.11°C (106°F)
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Evaporation rate	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1.07
Density (lbs / gal)	: 8.93
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water	: Not applicable.
Viscosity	: Kinematic (40°C (104°F)): >21 mm ² /s (>21 cSt)
Volatility	: 53% (v/v), 47.774% (w/w)
% Solid. (w/w)	: 52.226

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides Formaldehyde. metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-butoxyethanol	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-
Solvent naphtha (petroleum), light aromatic	LD50 Dermal	Rabbit	3.48 g/kg	-
dimethyl glutarate	LD50 Oral	Rat	8400 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
1,2,4-trimethylbenzene	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
2-methoxy-1-methylethyl acetate	LD50 Oral	Rat	5 g/kg	-
	LC50 Inhalation Vapor	Rat	30 mg/l	4 hours
	LD50 Dermal	Rabbit	>5 g/kg	-
dimethyl succinate	LD50 Oral	Rat	6190 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>5900 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
2-methylpropan-1-ol	LD50 Oral	Rat	>5 g/kg	-
	LC50 Inhalation Vapor	Rat	24.6 mg/l	4 hours
	LD50 Dermal	Rabbit	2460 mg/kg	-
dimethyl adipate	LD50 Oral	Rat	2830 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
cumene	LD50 Oral	Rat	11300 mg/kg	-
	LC50 Inhalation Vapor	Rat	39000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	12.3 g/kg	-
	LD50 Oral	Rat	1400 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-butoxyethanol	Skin - Moderate irritant	Rabbit	-	4 hours	28 days
	Eyes - Irritant	Rabbit	-	24 hours	21 days

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Section 11. Toxicological information

Classification

Product/ingredient name	OSHA	IARC	NTP
2-butoxyethanol cumene	- -	3 2B	- Reasonably anticipated to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), light aromatic 1,2,4-trimethylbenzene	Category 3 Category 3	- -	Narcotic effects Respiratory tract irritation
2-methoxy-1-methylethyl acetate 2-methylpropan-1-ol	Category 3 Category 3	- -	Narcotic effects Respiratory tract irritation
cumene	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
cumene	Category 2	-	-

Target organs

: Contains material which causes damage to the following organs: brain, central nervous system (CNS).
Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, spleen, lymphatic system, upper respiratory tract, skin, bone marrow, eye, lens or cornea.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), light aromatic cumene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : Harmful if inhaled.
Skin contact : Causes skin irritation. Defatting to the skin.

Section 11. Toxicological information

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary : There are no data available on the mixture itself. Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitization of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Repeated exposure may lead to permanent respiratory disability. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Section 11. Toxicological information

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
HOBA® MONOBLOC FULL MATTE VARNISH	5733.7	5334.4	N/A	28.9	3.4
2-butoxyethanol	1200	2500	N/A	11	1.5
Solvent naphtha (petroleum), light aromatic	8400	3480	N/A	N/A	N/A
1,2,4-trimethylbenzene	5000	N/A	N/A	18	1.5
2-methoxy-1-methylethyl acetate	6190	N/A	N/A	30	N/A
2-methylpropan-1-ol	2830	2460	N/A	24.6	N/A
dimethyl adipate	11300	N/A	N/A	N/A	N/A
cumene	1400	12300	N/A	39	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2-butoxyethanol	Acute LC50 1474 mg/l Chronic NOEC >100 mg/l	Fish Fish Fish	96 hours 21 days 96 hours
Solvent naphtha (petroleum), light aromatic	Acute LC50 8.2 mg/l		
2-methoxy-1-methylethyl acetate	Acute LC50 134 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2-methoxy-1-methylethyl acetate	-	83 % - Readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-butoxyethanol	-	-	Readily
2-methoxy-1-methylethyl acetate	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2-butoxyethanol	0.81	-	low
dimethyl glutarate	0.49	-	low
1,2,4-trimethylbenzene	3.63	120.23	low
2-methoxy-1-methylethyl acetate	1.2	-	low
dimethyl succinate	0.33	-	low
2-methylpropan-1-ol	1	-	low
dimethyl adipate	1.03	-	low

Product code PPG4695808**Date of issue** 6 March 2022**Version** 23**Product name** HOBA® MONOBLOC FULL MATTE VARNISH

Section 12. Ecological information

cumene	3.55	35.48	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.
Product RQ (lbs)	14573.5	Not applicable.	Not applicable.
RQ substances	(xylene)	Not applicable.	Not applicable.

Additional information

DOT : This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.

14. Transport information

IMDG : None identified.

IATA : None identified.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are active or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (inhalation) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 1B
HNOC - Defatting irritant

Composition/information on ingredients

Name	%	Classification
2-butoxyethanol	≥10 - ≤12	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A
Solvent naphtha (petroleum), light aromatic	≥10 - ≤12	FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
1,2,4-trimethylbenzene	≥1.0 - ≤6.6	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 HNOC - Defatting irritant
2-methoxy-1-methylethyl acetate	≥1.0 - ≤3.6	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

Section 15. Regulatory information

2-methylpropan-1-ol	≤1.6	(Narcotic effects) - Category 3 FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 HNOC - Defatting irritant
dimethyl adipate cumene	≥1.0 - ≤5.0 <1.0	EYE IRRITATION - Category 2B FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 CARCINOGENICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant

SARA 313

Supplier notification	Chemical name	CAS number	Concentration
	2-butoxyethanol	111-76-2	7 - 13
	1,2,4-trimethylbenzene	95-63-6	3 - 7
	cumene	98-82-8	0.1 - 1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

 **WARNING:** Cancer - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * **Flammability :** 2 **Physical hazards :** 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 3 **Flammability :** 2 **Instability :** 0

Date of previous issue : 6/15/2021

Organization that prepared the SDS : EHS

Section 16. Other information

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973
as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.



SAFETY DATA SHEET

1. Identification

Other means of identification None known.
 Product identifier **TOLUENE**
 Other means of identification
 CAS number 108-88-3
 Recommended use ALL PROPER AND LEGAL PURPOSES
 Recommended restrictions None known.
 Manufacturer/Importer/Supplier/Distributor information
 Manufacturer
 Company name Brenntag Mid-South, Inc.
 Address 1405 Highway 136, West
 Henderson, KY 42420
 Telephone 270-830-1222
 E-mail Not available.
 Emergency phone number 800-424-9300 CHEMTREC

2. Hazard(s) identification

Physical hazards Flammable liquids Category 2
 Health hazards Skin corrosion/irritation Category 2
 Reproductive toxicity Category 1A
 Specific target organ toxicity, single exposure Category 3 narcotic effects
 Specific target organ toxicity, repeated exposure Category 2
 Aspiration hazard Category 1
 Environmental hazards Not classified.
 OSHA defined hazards Not classified.
 Label elements



Signal word Danger

Hazard statement Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist/vapors. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response

If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.

Storage

Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

Supplemental information 100% of the substance consists of component(s) of unknown acute inhalation toxicity.

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonyms	CAS number	%
TOLUENE		108-88-3	100

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Skin contact Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.

Ingestion Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Direct contact with eyes may cause temporary irritation. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Carbon dioxide (CO₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

Environmental precautions

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist/vapors. Avoid contact with eyes, skin, and clothing. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-2 (29 CFR 1910.1000)

Material	Type	Value
TOLUENE (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

US. ACGIH Threshold Limit Values

Material	Type	Value
TOLUENE (CAS 108-88-3)	TWA	20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value
TOLUENE (CAS 108-88-3)	STEL	560 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Material	Value	Determinant	Specimen	Sampling Time
TOLUENE (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

* - For sampling details, please see the source document.

Exposure guidelines**US - California OELs: Skin designation**

TOLUENE (CAS 108-88-3)

Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

TOLUENE (CAS 108-88-3)

Skin designation applies.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

Eye/face protection Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance**

Physical state Liquid.

Form Liquid.

Color CLEAR

Odor CHARACTERISTIC, TOLUENE

Odor threshold Not available.

pH Not available.

Melting point/freezing point -140 °F (-95.56 °C)

Initial boiling point and boiling range 231.08 °F (110.6 °C)

Flash point 40.0 °F (4.4 °C)

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density 3.1

Material name: TOLUENE

267987 Version #: 20 Revision date: 10-14-2020 Issue date: 06-27-2016

SDS US

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Relative density	Not available.
Solubility(ies)	
Solubility (water)	0.7 g/l at 74 °F
Partition coefficient (n-octanol/water)	2.73
Auto-ignition temperature	896 °F (480 °C)
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	7.26 lbs/gal 0.87 g/ml
Dynamic viscosity	0.27 mPa.s (212 °F (100 °C))
Explosive properties	Not explosive.
Flammability class	Flammable IB estimated
Heat of combustion (NFPA 30B)	28.4 kJ/g
Molecular formula	C7-H8
Molecular weight	92.14 g/mol
Oxidizing properties	Not oxidizing.
Percent volatile	100 %
Specific gravity	0.87
Surface tension	28.93 mN/m (68 °F (20 °C))
VOC	100 % 100 % EPA estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact	Causes skin irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics
Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways.

Product	Species	Test Results
TOLUENE (CAS 108-88-3)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	12120 mg/kg

Product	Species	Test Results
Oral LD50	Rat	2.6 g/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Due to partial or complete lack of data the classification is not possible.	
Skin sensitization	Due to partial or complete lack of data the classification is not possible.	
Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.	
Carcinogenicity	Due to partial or complete lack of data the classification is not possible.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
TOLUENE (CAS 108-88-3)		3 Not classifiable as to carcinogenicity to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Not listed.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Not listed.		
Reproductive toxicity	May damage fertility or the unborn child.	
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.	
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure.	
Aspiration hazard	May be fatal if swallowed and enters airways.	
Chronic effects	May cause damage to organs through prolonged or repeated exposure.	

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species		Test Results
TOLUENE (CAS 108-88-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon,silver salmon (Oncorhynchus kisutch)	8.11 mg/l, 96 hours
Persistence and degradability	No data is available on the degradability of this product.		
Bioaccumulative potential			
Partition coefficient n-octanol / water (log Kow)			
2.73			
Mobility in soil	No data available.		
Other adverse effects	The product contains volatile organic compounds which have a photochemical ozone creation potential.		

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

US RCRA Hazardous Waste U List: Reference

TOLUENE (CAS 108-88-3) U220

Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number UN1294
UN proper shipping name TOLUENE
Transport hazard class(es)

Class 3

Subsidiary risk -

Packing group II

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

ERG number 130

Transport information on packaging may be different from that listed. Transportation information on packaging may be different from that listed.

DOT



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

TOLUENE (CAS 108-88-3) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

Classified hazard categories Flammable (gases, aerosols, liquids, or solids)
 Skin corrosion or irritation
 Reproductive toxicity
 Specific target organ toxicity (single or repeated exposure)
 Aspiration hazard
 Hazard not otherwise classified (HNOC)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
TOLUENE	108-88-3	100

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

TOLUENE (CAS 108-88-3)

Material name: TOLUENE

267987 Version #: 20 Revision date: 10-14-2020 Issue date: 06-27-2016

SDS US

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Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Clean Water Act (CWA)
Section 112(r) (40 CFR
68.130)**Hazardous substance
Priority pollutant
Toxic pollutant**Safe Drinking Water Act
(SDWA)**

Contains component(s) regulated under the Safe Drinking Water Act.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and
Chemical Code Number**

TOLUENE (CAS 108-88-3) 6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

TOLUENE (CAS 108-88-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

TOLUENE (CAS 108-88-3) 594

US state regulations**California Proposition 65****WARNING:** This product can expose you to TOLUENE, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.**California Proposition 65 - CRT: Listed date/Developmental toxin**

TOLUENE (CAS 108-88-3) Listed: January 1, 1991

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

TOLUENE (CAS 108-88-3)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	06-27-2016
Revision date	10-14-2020
Version #	20
HMIS® ratings	Health: 3* Flammability: 3 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 3 Instability: 0

Disclaimer

While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.

Revision information

Hazard(s) identification: Hazard statement
Hazard(s) identification: Supplemental information
Composition / Information on Ingredients: Ingredients
Accidental release measures: Methods and materials for containment and cleaning up
Toxicological information: Carcinogenicity
Toxicological information: Chronic effects
Toxicological information: Mutagenicity
Toxicological information: Inhalation
Disposal considerations: Hazardous waste code
Transport information: General information
Regulatory information: California Proposition 65
Regulatory information: US state regulations

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. product identifiers

Article No. (manufacturer/supplier)	2701.0002
Trade name/designation	Internal lacquer V-5266 (21" DIN 4) Ford-Cup 4 27 sec. LQ 0935

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses:

Coating material to protect surfaces

1.3. Details of the supplier of the safety data sheet

supplier (manufacturer/importer/downstream user/distributor)

Eclatin AG

Lack- und Farbenfabrik

Bürenstrasse 131

CH-4574 Lüsslingen

Telephone: +41 32 622 41 41

Telefax: +41 32 623 91 23

Department responsible for information:

Labor

E-mail

info@eclatin.ch

1.4. Emergency telephone number

Emergency telephone number +41 32 622 41 41

Toxikologisches Zentrum +41 44 251 51 51

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Flam. Liq. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
STOT SE 3 / H335	STOT-single exposure	May cause respiratory irritation.
STOT RE 2 / H373	STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



Danger

Hazard statements

H225	Highly flammable liquid and vapour.
H302 + H332	Harmful if swallowed or if inhaled.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe vapour.
P280	Wear protective gloves and eye/face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/ physician.

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P370 + P378 In case of fire: Use extinguishing powder or sand to extinguish.
 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P403 + P235 Store in a well-ventilated place. Keep cool.

Hazard components for labelling

o-cresol
 Phenol
 butan-1-ol
 reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700
 Xylene

Supplemental hazard information

EUH205 Contains epoxy constituents. May produce an allergic reaction.

2.3. Other hazards

No information available.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Description Epoxid-Phenolharz-Kombination

Classification according to Regulation (EC) No 1272/2008 [CLP]

EC No. CAS No. Index No.	REACH No. Designation classification // Remark	weight-%
215-535-7 1330-20-7 601-022-00-9	01-2119488216-32 Xylene Acute Tox. 4 H312 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / STOT SE 3 H335 / STOT RE 2 H373 / Asp. Tox. 1 H304 / Flam. Liq. 3 H226	25 - 50
202-859-9 100-51-6 603-057-00-5	01-2119492630-38 benzyl alcohol Acute Tox. 4 H332 / Acute Tox. 4 H302	12.5 - 20
203-550-1 108-10-1 606-004-00-4	01-2119473980-30 4-methylpentan-2-one Flam. Liq. 2 H225 / Acute Tox. 4 H332 / Eye Irrit. 2 H319 / STOT SE 3 H335	10 - 12.5
202-849-4 100-41-4 601-023-00-4	01-2119489370-35 ethylbenzene Flam. Liq. 2 H225 / Acute Tox. 4 H332 / STOT RE 2 H373 / Asp. Tox. 1 H304	5 - 10
200-751-6 71-36-3 603-004-00-6	01-2119484630-38 butan-1-ol Flam. Liq. 3 H226 / Acute Tox. 4 H302 / STOT SE 3 H335 / Skin Irrit. 2 H315 / Eye Dam. 1 H318 / STOT SE 3 H336	5 - 10
203-539-1 107-98-2 603-064-00-3	01-2119457435-35 1-methoxy-2-propanol Flam. Liq. 3 H226 / STOT SE 3 H336	2.5 - 5
500-033-5 25068-38-6 603-074-00-8	01-2119456619-26 reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700 Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / Skin Sens. 1 H317 / Aquatic Chronic 2 H411 Specific concentration limit (SCL): Eye Irrit. 2 H319 ≥ 5 / Skin Irrit. 2 H315 ≥ 5	1 - 2.5
202-423-8 95-48-7 604-004-00-9	01-2119449552-37 o-cresol Acute Tox. 3 H311 / Acute Tox. 3 H301 / Skin Corr. 1B H314	< 0.5

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203-632-7	01-2119471329-32	
108-95-2	Phenol	< 0.5
604-001-00-2	Muta. 2 H341 / Acute Tox. 3 H331 / Acute Tox. 3 H311 / Acute Tox. 3 H301 / STOT RE 2 H373 / Skin Corr. 1B H314	
	Specific concentration limit (SCL): Skin Corr. 1B H314 >= 3 / Skin Irrit. 2 H315 >= 1 / Eye Irrit. 2 H319 >= 1	

Additional information

Full text of classification: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

In all cases of doubt, or when symptoms persist, seek medical advice.

4.3. Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Unsuitable extinguishing media

strong water jet

5.2. Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

6.4. Reference to other sections

Observe protective provisions (see section 7 and 8).

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Further information

Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values:

Xylene

Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

WEL, TWA: 220 mg/m³; 50 ppm

WEL, STEL: 441 mg/m³; 100 ppm

Remark: (may be absorbed through the skin)

BMGV, TWA: 650 mmol/mol creatinine

Remark: methyl hippuric acid; urine; end of exposure or end of shift

4-methylpentan-2-one

Index No. 606-004-00-4 / EC No. 203-550-1 / CAS No. 108-10-1

WEL, TWA: 208 mg/m³; 50 ppm

WEL, STEL: 416 mg/m³; 100 ppm

Remark: (may be absorbed through the skin)

BMGV, TWA: 20 µmol/L

Remark: 4-methylpentan - 2-one; urine; end of exposure or end of shift

ethylbenzene

Index No. 601-023-00-4 / EC No. 202-849-4 / CAS No. 100-41-4

WEL, TWA: 441 mg/m³; 100 ppm

WEL, STEL: 552 mg/m³; 125 ppm

Remark: (may be absorbed through the skin)

butan-1-ol

Index No. 603-004-00-6 / EC No. 200-751-6 / CAS No. 71-36-3

WEL, STEL: 154 mg/m³; 50 ppm

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Remark: (may be absorbed through the skin)

1-methoxy-2-propanol

Index No. 603-064-00-3 / EC No. 203-539-1 / CAS No. 107-98-2

WEL, TWA: 375 mg/m³; 100 ppm

WEL, STEL: 560 mg/m³; 150 ppm

Remark: (may be absorbed through the skin)

Phenol

Index No. 604-001-00-2 / EC No. 203-632-7 / CAS No. 108-95-2

WEL, TWA: 7.8 mg/m³; 2 ppm

WEL, STEL: 16 mg/m³; 4 ppm

Remark: (may be absorbed through the skin)

Additional information

TWA : Long-term occupational exposure limit value

STEL : short-term occupational exposure limit value

Ceiling : peak limitation

DNEL:

reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700

Index No. 603-074-00-8 / EC No. 500-033-5 / CAS No. 25068-38-6

DNEL acute dermal, short-term (systemic), Workers: 8,33 mg/kg bw/day

DNEL long-term dermal (systemic), Workers: 8,33 mg/kg bw/day

DNEL acute inhalative (systemic), Workers: 12,25 mg/m³

DNEL long-term inhalative (systemic), Workers: 12,25 mg/m³

DNEL long-term oral (repeated), Consumer: 0,75 mg/kg bw/day

DNEL acute dermal, short-term (systemic), Consumer: 3,571 mg/kg bw/day

DNEL long-term dermal (systemic), Consumer: 3,571 mg/kg

DNEL acute inhalative (systemic), Consumer: 0,75 mg/m³

DNEL long-term inhalative (systemic), Consumer: 0,75 mg/m³

DNEL short-term oral (systemic), Consumer: 0,75 mg/kg bw/day

Xylene

Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

DNEL long-term dermal (systemic), Workers: 212 mg/kg bw/day

DNEL acute inhalative (local), Workers: 442 mg/m³

DNEL acute inhalative (systemic), Workers:

DNEL long-term inhalative (local), Workers: 221 mg/m³

DNEL long-term inhalative (systemic), Workers: 221 mg/m³

DNEL long-term oral (repeated), Consumer: 12,5 mg/kg bw/day

DNEL long-term dermal (systemic), Consumer: 125 mg/kg bw/day

DNEL acute inhalative (local), Consumer: 260 mg/m³

DNEL acute inhalative (systemic), Consumer: 260 mg/m³

DNEL long-term inhalative (local), Consumer: 65,3 mg/m³

DNEL long-term inhalative (systemic), Consumer: 65,3 mg/m³

ethylbenzene

Index No. 601-023-00-4 / EC No. 202-849-4 / CAS No. 100-41-4

DNEL long-term dermal (systemic), Workers: 180 mg/kg bw/day

DNEL long-term inhalative (systemic), Workers: 77 mg/m³

DNEL long-term oral (repeated), Consumer: 1,6 mg/kg bw/day

DNEL long-term inhalative (systemic), Consumer: 15 mg/m³

butan-1-ol

Index No. 603-004-00-6 / EC No. 200-751-6 / CAS No. 71-36-3

DNEL long-term oral (repeated), Workers: 3,125 mg/kg

DNEL acute inhalative (local), Workers: 310 mg/m³

DNEL acute inhalative (systemic), Workers: 310 mg/m³

DNEL long-term inhalative (local), Workers: 310 mg/m³

DNEL long-term inhalative (systemic), Workers: 310 mg/m³

DNEL long-term oral (local): 3,125 mg/kg

DNEL long-term inhalative (local), Consumer: 55 mg/m³

DNEL long-term inhalative (systemic), Consumer: 55 mg/m³

benzyl alcohol

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Index No. 603-057-00-5 / EC No. 202-859-9 / CAS No. 100-51-6

DNEL acute dermal, short-term (systemic), Workers: 40 mg/kg
DNEL long-term dermal (systemic), Workers: 8 mg/kg
DNEL acute inhalative (systemic), Workers: 110 mg/m³
DNEL long-term inhalative (systemic), Workers: 22 mg/m³
DNEL acute dermal, short-term (systemic), Consumer: 20 mg/kg
DNEL long-term dermal (systemic), Consumer: 4 mg/kg
DNEL acute inhalative (systemic), Consumer: 27 mg/m³
DNEL long-term inhalative (systemic), Consumer: 5,4 mg/m³

1-methoxy-2-propanol

Index No. 603-064-00-3 / EC No. 203-539-1 / CAS No. 107-98-2

DNEL long-term dermal (systemic), Workers: 183 mg/kg bw/day
DNEL acute inhalative (local), Workers: 553,5 mg/m³
DNEL long-term inhalative (systemic), Workers: 369 mg/m³
DNEL long-term oral (repeated), Consumer: 3,3 mg/kg bw/day
DNEL long-term dermal (systemic), Consumer: 18,1 mg/kg bw/day
DNEL long-term inhalative (systemic), Consumer: 43,9 mg/m³

4-methylpentan-2-one

Index No. 606-004-00-4 / EC No. 203-550-1 / CAS No. 108-10-1

DNEL long-term dermal (systemic), Workers: 11,8 mg/kg bw/day
DNEL acute inhalative (local), Workers: 208 mg/m³
DNEL acute inhalative (systemic), Workers: 208 mg/m³
DNEL long-term inhalative (systemic), Workers: 83 mg/m³
: 83
DNEL long-term oral (repeated), Consumer: 4,2 mg/kg bw/day
DNEL long-term dermal (systemic), Consumer: 4,2 mg/kg bw/day
DNEL acute inhalative (local), Consumer: 155,2 mg/m³
DNEL acute inhalative (systemic), Consumer: 155,2 mg/m³
DNEL long-term inhalative (local), Consumer: 14,7 mg/m³
DNEL long-term inhalative (systemic), Consumer: 14,7 mg/m³

PNEC:

reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700

Index No. 603-074-00-8 / EC No. 500-033-5 / CAS No. 25068-38-6

PNEC aquatic, freshwater: 0,006 mg/L
PNEC aquatic, marine water: 0,0006 mg/L
PNEC aquatic, intermittent release: 0,018 mg/L
PNEC sediment, freshwater: 0,996 mg/kg
PNEC sediment, marine water: 0,0996 mg/kg
PNEC, soil: 0,196 mg/kg
PNEC sewage treatment plant (STP): 10 mg/L
PNEC Secondary Poisoning: 11 mg/kg

Xylene

Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

PNEC aquatic, freshwater: 0,327 mg/L
PNEC aquatic, marine water: 0,327 mg/L
PNEC sediment, freshwater: 12,46 mg/kg
PNEC sediment, marine water: 12,46 mg/kg
PNEC, soil: 2,31 mg/kg
PNEC sewage treatment plant (STP): 6,58 mg/L

ethylbenzene

Index No. 601-023-00-4 / EC No. 202-849-4 / CAS No. 100-41-4

PNEC aquatic, freshwater: 0,1 mg/L
PNEC aquatic, marine water: 0,01 mg/L
PNEC sediment, freshwater: 13,7 mg/kg
PNEC sediment, marine water: 1,37 mg/kg
PNEC, soil: 2,68 mg/kg
PNEC sewage treatment plant (STP):

butan-1-ol

Index No. 603-004-00-6 / EC No. 200-751-6 / CAS No. 71-36-3

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PNEC aquatic, freshwater: 0,082 mg/L
PNEC aquatic, marine water: 0,0082 mg/L
PNEC aquatic, intermittent release: 2,25 mg/L
PNEC sediment, freshwater: 0,178 mg/kg
PNEC sediment, marine water: 0,0178 mg/kg
PNEC, soil: 0,015 mg/kg
PNEC sewage treatment plant (STP): 2476 mg/L

benzyl alcohol

Index No. 603-057-00-5 / EC No. 202-859-9 / CAS No. 100-51-6

PNEC aquatic, freshwater: 1 mg/L
PNEC aquatic, marine water: 0,1 mg/L
PNEC aquatic, intermittent release: 2,3 mg/L
PNEC sediment, freshwater: 5,27 mg/kg
PNEC sediment, marine water: 0,527 mg/kg
PNEC, soil: 0,456 mg/kg
PNEC sewage treatment plant (STP): 39 mg/L

1-methoxy-2-propanol

Index No. 603-064-00-3 / EC No. 203-539-1 / CAS No. 107-98-2

PNEC aquatic, freshwater: 10 mg/L
PNEC aquatic, marine water: 1 mg/L
PNEC aquatic, intermittent release: 100 mg/L
PNEC sediment, freshwater: 52,3 mg/kg
PNEC sediment, marine water: 5,2 mg/kg
PNEC, soil: 4,59 mg/kg
PNEC sewage treatment plant (STP): 100 mg/L

4-methylpentan-2-one

Index No. 606-004-00-4 / EC No. 203-550-1 / CAS No. 108-10-1

PNEC aquatic, freshwater: 0,6 mg/L
PNEC aquatic, marine water: 0,06 mg/L
PNEC aquatic, intermittent release: 1,5 mg/L
PNEC sediment, freshwater: 8,27 mg/kg dw
PNEC sediment, marine water: 0,83 mg/kg dw
PNEC, soil: 1,3 mg/kg dw
PNEC sewage treatment plant (STP): 27,5 mg/L

8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Personal protection equipment

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)

Thickness of the glove material > 0,4 mm ; Breakthrough time: > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Wear closely fitting protective glasses in case of splashes.

Body protection

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:

Physical state: Liquid

Colour: refer to label

Odour: characteristic

Odour threshold: not applicable

pH at 20 °C: not applicable

Melting point/freezing point: not applicable

Initial boiling point and boiling range: 114 °C
Source: 4-methylpentan-2-one

Flash point: 21 °C
Method: DIN 53213

Evaporation rate: not applicable

flammability

Burning time: not applicable

Upper/lower flammability or explosive limits:

Lower explosion limit: 1.07 Vol-%

Upper explosion limit: 13.7 Vol-%
Source: 1-methoxy-2-propanol

Vapour pressure at 20 °C: 5.71 mbar

Vapour density: not applicable

Relative density:

Density at 20 °C: 0.95 g/cm³

Solubility(ies):

Water solubility at 20 °C: insoluble

Partition coefficient: n-octanol/water: see section 12

Auto-ignition temperature: 287 °C
Source: 1-methoxy-2-propanol

Decomposition temperature: not applicable

Viscosity at 20 °C: 21 s 4 mm
Method: DIN 53211

Explosive properties: not applicable

Oxidising properties: not applicable

9.2. Other information

Solid content: 25 weight-%

solvent content:

Organic solvents: 75 weight-%

Water: 0 weight-%

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. Conditions to avoid

Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. Incompatible materials

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not applicable

10.6. Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

Classification according to Regulation (EC) No 1272/2008 [CLP]

11.1. Information on toxicological effects

Acute toxicity

Harmful if swallowed.

Harmful if inhaled.

reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700

oral, LD50, Rat: 11400 mg/kg

dermal, LD50, Rabbit: 23000 mg/kg

Xylene

oral, LD50, Rat: 4300 mg/kg

dermal, LD50, Rabbit: 2000 mg/kg

oral, LD50, Rat, male: 5,523 mg/kg

Method: EU Test B.1

Algae toxicity, EC50, Pseudokirchneriella subcapitata: 2,2 mg/L (73 h)

Method: OECD 201

inhalative (vapours), LC50, Rat, male: 6700 ppm (4 h)

ethylbenzene

oral, LD50, Rat: 3,5 mg/kg

dermal, LD50, Rabbit: 15,4 mg/kg

butan-1-ol

oral, LD50, Rat: 2292 mg/kg

Method: OECD 401

Harmful if swallowed.

dermal, LD50, Rabbit: 3430 mg/kg

Method: OECD 402

benzyl alcohol

oral, LD50, Rat: 1,23 mg/kg

dermal, LD50, Rat: 1,23 mg/kg

dermal, LD50, Rabbit: 2 mg/kg

oral, NOEL, Rat: 400 mg/kg

oral, NOEL, Mouse: 200

inhalative (vapours), NOAEC, Rat: 1072 mg/m³

Method: OECD 412

1-methoxy-2-propanol

oral, LD50, Rat: 4,016 mg/kg

Method: EU Test B.1

depression of central nervous system

dermal, LD50, Rat: > 2 mg/kg

Method: EU Test B.3

inhalative (vapours), LC50, Rat: 36,67 mg/L (4 h)

Method: OECD 403

4-methylpentan-2-one

oral, LD50, Rat: 2080 mg/kg

dermal, LD50, Rat: > 2000 mg/kg

Method: OECD 402

No mortality was observed at this dosage.

inhalative (vapours), LC50, Rat: 11,6 mg/L (4 h)

Method: OECD 403

headache; dizziness; Unconsciousness

Skin corrosion/irritation; Serious eye damage/eye irritation

Causes skin irritation.

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Causes serious eye damage.

reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700

Skin, Rabbit (4 h)

Irritant

eyes, Rabbit

Irritant

ethylbenzene

Skin, Rabbit (24 h)

Causes mild skin irritation.

eyes, Rabbit

Causes slight eye irritation

butan-1-ol

Skin, Rabbit (4 h)

Method: BASF - Test

eyes

benzyl alcohol

Skin, Rabbit (4 h)

Method: OECD 404

non-irritant.; not corrosive

eyes, Rabbit

Method: OECD 405

Causes serious eye irritation.; not corrosive

1-methoxy-2-propanol

Skin (4 h)

Method: EU Test B.4

Not to be classified as skin etching/irritant.

eyes

Method: EU Test B.5

Not to be classified as severe eye damage or eye irritation.

4-methylpentan-2-one

Skin (4 h)

Method: OECD 404

Degreases the skin and makes it dry and rough. ; No skin irritation

eyes

Method: OECD 405

Respiratory or skin sensitisation

May cause an allergic skin reaction.

reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700

Skin:

No data available

Respiratory system:

No data available

benzyl alcohol

Skin, Guinea pig: ; Evaluation not sensitising.

Method: OECD 406

1-methoxy-2-propanol

Skin, Guinea pig: ; Evaluation Not to be classified as skin sensitising.

Method: Directive 67/548/EEC, Annex V, B.6.

Respiratory system: ; Evaluation not sensitising.

Method: Directive 67/548/EEC, Annex V, B.6.

4-methylpentan-2-one

Skin, Guinea pig: ; Evaluation not sensitising.

Method: OECD 406

Maximization test; No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700

Germ cell mutagenicity; Evaluation positive

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Method: OECD 471 (Ames test)
Carcinogenicity; Evaluation negative
Method: OECD 453
Rat; oral; 2 years; 7 days per week
Reproductive toxicity
Method: OECD 416
Rat; oral; 540 mg/kg NOEL
Germ cell mutagenicity; Evaluation positive
Method: OECD 476
In vitro gene mutation test on mammalian cells
Germ cell mutagenicity; Evaluation negative
Method: OECD 478
Genetic Toxicology: Rodent dominant lethal test
Carcinogenicity; Evaluation negative
Method: OECD 453
Rat; dermal; 2 years; 5 days per week
teratogenicity
Method: OECD 414
Rat, female; >540 mg/kg NOEL
teratogenicity
Method: EPA CFR
Rabbit, female; > 300 mg/kg NOEL
teratogenicity
Method: OECD 414
Rabbit, female; 180 mg/kg NOAEL
ethylbenzene
Germ cell mutagenicity; Evaluation negative
Hamster; Mouse; ovaries
Carcinogenicity; Evaluation Carc. Cat. 2
Method: Group II B (IARC): Possible carcinogenic to humans (ethylbenzene)
human
butan-1-ol
teratogenicity, oral
Method: NOAEL
Rat; 1.454 mg/kg; Toxicological effects in dams
teratogenicity, oral
Method: NOAEL
Rat; 5.654 mg/kg
teratogenicity, inhalative
Method: NOAEL
Rat; 10.8 mg/l; Toxicological effects in dams
teratogenicity, inhalative
Method: NOAEL
Rat; 24.7 mg/l
Reproductive toxicity, inhalative
Method: NOAEL
Rat; 18.5 mg/l; parents
Reproductive toxicity, inhalative
Method: NOAEL
Mouse; 18.5 mg/l; F1
benzyl alcohol
Germ cell mutagenicity; Evaluation negative
Method: OECD 471 (Ames test)
OECD 474
Carcinogenicity
No data available
Reproductive toxicity
No data available
1-methoxy-2-propanol
Germ cell mutagenicity; Evaluation Not to be classified as germ cell mutagen (mutagen).

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Carcinogenicity; Evaluation Does not qualify as a carcinogen.

Method: OECD 453

Reproductive toxicity; Evaluation Not to be classified as toxic to reproduction.

Method: OECD 416

The toxic effect on reproduction was only demonstrated in animal experiments after the administration of very high amounts of substances.

Lactation

No data available

teratogenicity; Evaluation No effect on fertility in animal studies.

4-methylpentan-2-one

Germ cell mutagenicity; Evaluation It's not considered mutagenic.

Carcinogenicity; Evaluation It's not considered carcinogenic.

Rat; 1.84 mg/l; (Target organs: liver)(Inhalation; 2 years; frequency of treatment: 5 days / week) Tumors were observed after inhalation tests in rats over long periods of time.

Reproductive toxicity; Evaluation It is considered non-toxic to reproduction.

Method: NOAEL

parents; 4.1 mg/l

teratogenicity; Evaluation It is not considered teratogenic.

Method: NOAEL

Rat; 4.1 mg/l; (inhalative)(OECD test guideline 414) Shown no fruit-damaging effect in animal experiments.

Genotoxicity in vitro; Evaluation negative

(chromosome aberration test in vitro; mouse lymphoma cells; yes) (OECD test guideline 476) not unambiguous

(chromosome aberration test in vitro; mouse lymphoma cells; no) (OECD test guideline 476) negative (reverse mutation test

on bacteria; Salmonella typhimurium; with and without metabolic activation) (OECD test guideline 471) negative

(chromosome aberration test in vitro; hepatocytes of rats; with and without metabolic activation) (OECD test guideline 473)

Genotoxicity in vivo; Evaluation negative

Method: OECD 474

Mouse; (In vivo microkernel test; mouse, CD1) (intraperitoneal;)

Reproductive toxicity; Evaluation No effect on fertility in animal studies.

Method: NOAEL

Rat; OECD 416; F1

STOT-single exposure; STOT-repeated exposure

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700

Specific target organ toxicity (single exposure)

No data available

Specific target organ toxicity (repeated exposure)

No data available

Xylene

Specific target organ toxicity (repeated exposure)

Liver and kidney damage; central nervous system

Causes damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

Liver and kidney damage; central nervous system; hearing organs

ethylbenzene

Repeated dose toxicity, Rat: 75 mg/kg

Method OECD 407

RTECS-no.: DA0700000

depression of central nervous system

movement disorders; headache; Vomiting

benzyl alcohol

Specific target organ toxicity (single exposure)

Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure)

Based on available data, the classification criteria are not met.

Repeated dose toxicity (subacute, subchronic, chronic)

No data available

1-methoxy-2-propanol

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Specific target organ toxicity (single exposure)

Inhalation; central nervous system; May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure) Evaluation Not to be classified as specific target organ toxic (repeated exposure).

4-methylpentan-2-one

Specific target organ toxicity (single exposure)

Nose, respiratory system; May cause respiratory irritation.; Experiences with human exposure.

Specific target organ toxicity (repeated exposure)

Prolonged/repetitive skin contact may cause skin defatting or dermatitis.

Repeated dose toxicity, Rat: 1,84 mg/L

Method NOAEL

inhalative (vapours); liver; kidneys

Repeated dose toxicity, Rat: 250 mg/kg bw/day

Method NOAEL

oral; 13 weeks; liver, kidneys

Aspiration hazard

reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700

Aspiration hazard

No data available

butan-1-ol

Aspiration hazard

benzyl alcohol

Aspiration hazard

May be harmful if swallowed.; May be harmful if inhaled.; non-irritant.

1-methoxy-2-propanol

Aspiration hazard

Not to be classified as aspirational.

4-methylpentan-2-one

Aspiration hazard; Evaluation Not applicable

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall Assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

SECTION 12: Ecological information

Classification according to Regulation (EC) No 1272/2008 [CLP]

Do not allow to enter into surface water or drains.

12.1. Toxicity

reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700

Fish toxicity, LC50, *Leuciscus idus* (golden orfe): 2 mg/L (96 h)

Daphnia toxicity, EC50, *Daphnia magna* (Big water flea): 1,8 mg/L (48 h)

Fish toxicity, EC50, *Leuciscus idus* (golden orfe): 3,6 mg/L (96 h)

Fish toxicity, EC50, *Selenastrum capricornutum*: 220 mg/L (96 h)

Daphnia toxicity, NOEC, *Daphnia magna* (Big water flea): 0,3 mg/L (21 d)

Algae toxicity, EC50, *Scenedesmus capricornutum* (Süßwasseralge): 9,4 mg/L (72 h)

Fish toxicity, LC50, *Oncorhynchus mykiss* (Rainbow trout): 2 mg/L (96 h)

Xylene

Fish toxicity, LC50, fish: 2,6 mg/L (96 h)

Method: OECD 203

Algae toxicity, ErC50, *Pseudokirchneriella subcapitata*: 4,6 mg/L (72 h)

Method: OECD 201

Algae toxicity, LC50, *Pseudokirchneriella subcapitata*: 4,6 mg/L (72 h)

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Method: OECD 201
Fish toxicity, LC50, *Oncorhynchus mykiss* (Rainbow trout) (96 h)
Method: OECD 203
Daphnia toxicity, IC50, *Daphnia magna*: 1 mg/L (24 h)
Method: OECD 202
Algae toxicity, LC50, *Selenastrum capricornutum*: 2,2 mg/L (73 h)
Method: OECD 201
Bacteria toxicity, NOEC, Activated sludge: 16 mg/L (28 d)
Method: OECD 301 F

ethylbenzene

Fish toxicity, LC50, *Oncorhynchus mykiss* (Rainbow trout): 4,2 mg/L (96 h)
Daphnia toxicity, EC50, *Daphnia magna*: 1,8 - 2,4 mg/L (48 h)
Algae toxicity, EC50, *Skeletonema costatum*: 4,9 mg/L (72 h)
Algae toxicity, EC50, *Pseudokirchneriella subcapitata*: 7,2 mg/L (48 h)
Shellfish Toxicity, LC50, *Mysidopsis bahia*: > 5,2 mg/L (48 h)
Toxicity of Microorganisms, EC50, microorganisms: 96 mg/L (24 h)

butan-1-ol

Fish toxicity, LC50, *Pimephales promelas* (fathead minnow): 1376 mg/L (96 h)
Method: OECD 203
Daphnia toxicity, EC50, *Daphnia magna* (Big water flea): 1328 mg/L (48 h)
Method: OECD 202
Algae, EC50, *Selenastrum capricornutum*: 225 mg/L (96 h)
Method: OECD 201
literature value
Bacteria toxicity, EC10, *Pseudomonas putida*: 2476 mg/L (17 h)
Method: DIN 38412

benzyl alcohol

Fish toxicity, LC50, *Oncorhynchus mykiss* (Rainbow trout): 2,18 mg/L (96 h)
Daphnia toxicity, EC50, *Daphnia pulex* (water flea): 2,94 mg/L (48 h)
Algae toxicity, EC50, *Pseudokirchneriella subcapitata*: 0,11 mg/L (72 h)
Algae, EC50, Algae: 2,6 mg/L (72 h)
Fish toxicity, LC50, *Lepomis macrochirus* (Bluegill): 10 ppm (96 h)
Algae toxicity, NOEC, *Skeletonema costatum*: 0,027 mg/L (72 h)

1-methoxy-2-propanol

Fish toxicity, LC50, *Oncorhynchus mykiss* (Rainbow trout): 1 mg/L (96 h)
Method: OECD 203
Daphnia toxicity, EC50, *Daphnia magna*: 21,1 mg/L 25,9 (48 h)
Method: ESR-ES-15
Algae toxicity, EC50, *Pseudokirchneriella subcapitata*: > 1 mg/L (7 d)
Fish toxicity, LC50, *Leuciscus idus* (golden orfe): 4,6 - 10 mg/L (96 h)
Method: DIN 38412 / part 15
Acute aquatic toxicity Evaluation Based on available data, the classification criteria are not met.
Fish toxicity, LC50, *Pimephales promelas* (fathead minnow): 20,8 mg/L (96 h)
Bacteria toxicity, IC50, Activated sludge: 1 mg/L (3 h)
Method: OECD 209

4-methylpentan-2-one

Fish toxicity, LC50, *Danio rerio* (Zebraabärbling): 537 mg/L 505 - 540 mg/L (96 h)
Method: OECD 203
Static test
Daphnia toxicity, EC50, *Daphnia magna* (Big water flea): > 200 mg/L (48 h)
Method: OECD 202
Static test
Algae toxicity, *Lemna gibba* (Bucklige Wasserlinse): > 146 mg/L (7 d)
End; Rate of growth
Bacteria toxicity, EC50, *Pseudomonas putida*: 275 mg/L (16 h)

Long-term Ecotoxicity

Xylene

Algae toxicity, EC50, *Pseudokirchneriella subcapitata*: 4,36 mg/L (73 h)
Method: OECD 201

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Fish toxicity, NOEC, fish: > 1,3 mg/L (56 d)
Daphnia toxicity, EL50, Daphnia magna: 2,9 mg/L (21 d)
Method: OECD 211
Daphnia toxicity, NOEC, Daphnia pulex: 1,17 mg/L (7 d)
Method: US EPA 600/4-91-003
Daphnia toxicity, LOEC, Daphnia magna (Big water flea): 3,16 mg/L (21 d)
Method: OECD 211
Algae toxicity, growth test (Eb-Cx) 10% , Pseudokirchneriella subcapitata: 0,72 mg/L (73 h)
Method: OECD 201
Daphnia toxicity, growth test (Eb-Cx) 10% , Daphnia magna: 1,91 mg/L (21 d)
Method: OECD 211

ethylbenzene

Daphnia toxicity, NOEC, Ceriodaphnia dubia (Wasserfloh): 0,96 mg/L (7 d)
Algae toxicity, NOEC, Pseudokirchneriella subcapitata: 3,4 mg/L (96 h)
Daphnia toxicity, LC50, Ceriodaphnia dubia (Wasserfloh): 3,6 mg/L (7 d)
Bacteria toxicity, EC50, Nitrosomonas sp: 96 mg/L (24 h)
Daphnia toxicity, LOEC, Ceriodaphnia dubia (Wasserfloh): 1,7 mg/L (7 d)

butan-1-ol

Daphnia toxicity, NOEL, Daphnia magna (Big water flea): 4,1 mg/L (21 d)
Method: OECD 211

1-methoxy-2-propanol

Chronic aquatic toxicity Evaluation Based on available data, the classification criteria are not met.
Algae toxicity, ErC50, Pseudokirchneriella subcapitata: > 1 mg/L (7 d)

4-methylpentan-2-one

Daphnia toxicity, NOEC, Daphnia magna (Big water flea) 30 - 35 mg/L (21 d)
Method: OECD 211
semistatic

12.2. Persistence and degradability

reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700
Biodegradation: 5 percent (28 d); Evaluation Not readily biodegradable (according to OECD criteria)
Method: OECD 301F

Xylene

Persistence and degradability:
Method: Rapid photochemical oxidation in air
Biodegradation: 98 percent (28 d)
Readily biodegradable (according to OECD criteria)

ethylbenzene

Biodegradation, aerobic: 70 - 80 percent (28 d); Evaluation Readily biodegradable (according to OECD criteria).

butan-1-ol

Biodegradation: 92 percent (20 d); Evaluation Readily biodegradable (according to OECD criteria)
aerobic.; Activated sludge; Biochemical oxygen demand

benzyl alcohol

Biodegradation: 92 - 96 percent (14 d)
Method: OECD 301C
Readily biodegradable (according to OECD criteria)

1-methoxy-2-propanol

Persistence and degradability:
No data available
Biodegradation: 96 percent (28 d); Evaluation Readily biodegradable (according to OECD criteria).
Method: OECD 301E

4-methylpentan-2-one

Biodegradation: 83 percent (28 d); Evaluation Readily biodegradable (according to OECD criteria).
Method: OECD 301F

12.3. Bioaccumulative potential

reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700
Distribution coefficient n-octanol/water (log KOW):
No data available

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Xylene

Distribution coefficient n-octanol/water (log KOW): 3,49

ethylbenzene

Distribution coefficient n-octanol/water (log KOW): 3,6

butan-1-ol

Partition coefficient: n-octanol/water:

Bioaccumulation is not to be expected.

Distribution coefficient n-octanol/water (log KOW): 0,88

benzyl alcohol

Distribution coefficient n-octanol/water (log KOW): 1,05

Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

1-methoxy-2-propanol

Distribution coefficient n-octanol/water (log KOW): < 1 ; Evaluation The product has a low bioaccumulation potential

4-methylpentan-2-one

Partition coefficient: n-octanol/water:

Distribution coefficient n-octanol/water (log KOW): 1,9

Method: OECD 117

Bioconcentration factor (BCF)

reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700

Bioconcentration factor (BCF): 31

benzyl alcohol

Bioconcentration factor (BCF), fish: 1,37

1-methoxy-2-propanol

Bioconcentration factor (BCF): 3,16

12.4. Mobility in soil

reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700

soil:

No data available

Xylene

soil: Evaluation Absorbs slowly into the soil

Water: Evaluation Floats on the water

butan-1-ol

Mobility in soil:

The substance does not evaporate from the water surface into the atmosphere.; Does not adsorb to the ground.

benzyl alcohol

soil:

No further relevant information available.

1-methoxy-2-propanol

soil: Evaluation Highly mobile in the ground

Water: Evaluation The product is insoluble in water.

4-methylpentan-2-one

Air: Evaluation Moderately volatile

Water: Evaluation The product is water soluble.

soil: Evaluation Weak adsorption

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal / Product Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

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List of proposed waste codes/waste designations in accordance with EWC

080111* Waste paint and varnish containing organic solvents or other dangerous substances

*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Appropriate disposal / Package

Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1. UN number

UN 1263

14.2. UN proper shipping name

Land transport (ADR/RID): Paint
Sea transport (IMDG): PAINT
Air transport (ICAO-TI / IATA-DGR): Paint

14.3. Transport hazard class(es)

3

14.4. Packing group

Land transport (ADR/RID): III
for packages > 450 litres: II
Sea transport (IMDG): III
Air transport (ICAO-TI / IATA-DGR): III
for packages > 30 litres: II

*

14.5. Environmental hazards

Land transport (ADR/RID) not applicable
Marine pollutant not applicable

14.6. Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

Further information

Land transport (ADR/RID)

tunnel restriction code E
for packages > 450 litres: D/E

Sea transport (IMDG)

EmS-No. F-E, S-E

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

VOC-value (in g/L): 717

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

15.2. Chemical Safety Assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

EC No.	Designation	REACH No.
CAS No.		
215-535-7	Xylene	01-2119488216-32
1330-20-7		

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202-859-9 100-51-6	benzyl alcohol	01-2119492630-38
203-550-1 108-10-1	4-methylpentan-2-one	01-2119473980-30
202-849-4 100-41-4	ethylbenzene	01-2119489370-35
200-751-6 71-36-3	butan-1-ol	01-2119484630-38
203-539-1 107-98-2	1-methoxy-2-propanol	01-2119457435-35
500-033-5 25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) with average molecular weight ≤ 700	01-2119456619-26
202-423-8 95-48-7	o-cresol	01-2119449552-37
203-632-7 108-95-2	Phenol	01-2119471329-32

SECTION 16: Other information

Full text of classification in section 3

Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
STOT SE 3 / H335	STOT-single exposure	May cause respiratory irritation.
STOT RE 2 / H373	STOT-repeated exposure	May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Flam. Liq. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
STOT SE 3 / H336	STOT-single exposure	May cause drowsiness or dizziness.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.
Acute Tox. 3 / H311	Acute toxicity (dermal)	Toxic in contact with skin.
Acute Tox. 3 / H301	Acute toxicity (oral)	Toxic if swallowed.
Skin Corr. 1B / H314	Skin corrosion/irritation	Causes severe skin burns and eye damage.
Muta. 2 / H341	Germ cell mutagenicity	Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Acute Tox. 3 / H331	Acute toxicity (inhalative)	Toxic if inhaled.

Classification procedure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 2	Flammable liquids	On basis of test data.
Acute Tox. 4	Acute toxicity (oral)	Calculation method.
Acute Tox. 4	Acute toxicity (inhalative)	Calculation method.
Skin Irrit. 2	Skin corrosion/irritation	Calculation method.
Eye Dam. 1	Serious eye damage/eye irritation	Calculation method.
Skin Sens. 1	Respiratory or skin sensitisation	Calculation method.
STOT SE 3	STOT-single exposure	Calculation method.
STOT RE 2	STOT-repeated exposure	Calculation method.

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL	Occupational Exposure Limit Value
BLV	Biological Limit Value
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830



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CMR	Carcinogenic, Mutagenic and Reprotoxic
DIN	German Institute for Standardization / German industrial standard
DNEL	Derived No-Effect Level
EAKV	European Waste Catalogue Directive
EC	Effective Concentration
EC	European Community
EN	European Standard
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations
IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Code for Dangerous Goods
ISO	International Organization for Standardization
LC	Lethal Concentration
LD	Lethal Dose
MARPOL	Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	very persistent and very bioaccumulative

Further information

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in section 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

* Data changed compared with the previous version

Annex

At present, data / information on exposure scenarios are not available, so that an evaluation of the preparation cannot yet be made.

Attachment D

Current Air Permit Mark-Up

**Commonwealth of Kentucky
Energy and Environment Cabinet
Department for Environmental Protection
Division for Air Quality
300 Sower Boulevard, 2nd Floor
Frankfort, Kentucky 40601
(502) 564-3999**

Final

**AIR QUALITY PERMIT
Issued under 401 KAR 52:030**

Permittee Name: Montebello Packaging Inc.
Mailing Address: 650 Industrial Drive, Lebanon, KY 40033

Source Name: Montebello Packaging Inc.
Mailing Address: 650 Industrial Drive
Lebanon, KY 40033

Source Location: 650 Industrial Drive

Permit ID: F-21-001
Agency Interest #: 2908
Activity ID: APE20200001
Review Type: Conditional Major, Operating
Source ID: 21-155-00028

Regional Office: Bowling Green Regional Office
2642 Russellville Road
Bowling Green, KY 42101
(270) 746-7475

County: Marion

Application
Complete Date: January 5, 2021
Issuance Date: March 14, 2021
Expiration Date: March 14, 2026

Rick S. Shewekah

For **Melissa Duff, Director**
Division for Air Quality

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	Permit type	Activity#	Complete Date	Issuance Date	Summary of Action
F-21-001	Renewal	APE20200001	1/5/2021	3/14/2021	Renewal Permit

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Energy and Environment Cabinet (Cabinet) hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes (KRS) Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:030, Federally-enforceable permits for non-major sources.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**Emission Point 01 Coating Line 1 (A1, A3, and A5)****Description:**

Line for Coating 7/8" Tubes, consists of Spray Booth A1 for Inner Coating, Roll Coaters A3 and A5 for application of Outer Coating and Decorative Graphics

Construction Commenced: June 30, 1998

Emission Point 02 Coating Line 2 (B1, B3, and B5)**Description:**

Line for Coating 1 1/8" Tubes, consists of Spray Booth B1 for Inner Coating, Roll Coaters B3 and B5 for application of Outer Coating and Decorative Graphics

Construction Commenced: June 30, 1998

Emission Point 03 Coating Line 3 (C1, C3, and C5)**Description:**

Line for Coating 3/4" Tubes, consists of Spray Booth C1 for Inner Coating, Roll Coaters C3 and C5 for application of Outer Coating and Decorative Graphics

Construction Commenced: March 27, 2001

Emission Point 04 Coating Line 4 (D1, D3, and D5)**Description:**

Line for Coating 1 3/8" Tubes, consists of Spray Booth D1 for Inner Coating, Roll Coaters D3 and D5 for application of Outer Coating and Decorative Graphics

Construction Commenced: August 2003

Emission Point 05 Coating Line 5 (E1, E3, and E5)**Description:**

Line for Coating 1 1/2" Tubes, consists of Spray Booth E1 for Inner Coating, Roll Coaters E3 and E5 for application of Outer Coating and Decorative Graphics

Construction Commenced: January 2024

~~**Emission Point 06 Coating Line 6 (F3, and F5)**~~~~**Description:**~~~~Line for Coating Tubes, consists of Roll Coaters F3 and F5 for application of Outer Coating and Decorative Graphics~~~~Construction Commenced: February 2008~~**Emission Point 09: Source Wide NG Max Input Capacity (71.2 MMBtu/hr)**

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Emission Point 07 Coating Line 7 (G1, G2, G3, G4, G5, G6, and G7)****Description:**

Line for Coating Aerosol Cans, consists of Spray Booth G2 for Inner Coating, Roll Coaters G4 and G6 for application of Outer Coatings, Off-set Printer G5 for Decorative Graphics, Curing Ovens G3 and G7, and Washing Machine G1.

Construction Commenced: **December 2024**

Emission Point 08 Coating Line 8 (H1, H2, H3, H4, H5, H6, and H7)**Description:**

Line for Coating 1 1/2" Tubes, consists of Spray Booth E1 for Inner Coating, Roll Coaters E3 and E5 for application of Outer Coating and Decorative Graphics

Construction Commenced: **February 2025**

Emission Point 01 thru

- **Control Equipment**
Destruction Efficiency **06**
Capture Efficiency

- **Control Equipment**
Estimated Control Efficiency

Regenerating Thermal Oxidizer (RTO #1)

97.59% tested on September 11, 2014

98.1% tested on May 25, 2005

Panel Filters

95% for PM/PM₁₀/PM_{2.5}

Emission Point 08 & 09

- **Control Equipment**
Destruction Efficiency
Capture Efficiency

- **Control Equipment**
Estimated Control Efficiency

Regenerating Thermal Oxidizer (RTO #2)

97.87% tested on September 11, 2014

100% tested on September 11, 2014

Dust Collector equipped with Cartridge Filters (DH #1)

95% for PM/PM₁₀/PM_{2.5}

APPLICABLE REGULATIONS:

401 KAR 59:010, New Process Operations

401 KAR 63:020, Potentially Hazardous Matter or Toxic Substances

1. Operating Limitations:

- a. The usage rate of materials used in all affected facilities shall be limited so as not to exceed the emission limitations listed in Section B (2) below.
- b. All control equipment shall be in place and operated at all times of coating operation.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**2. Emission Limitations:**

- a. See Section D for the source-wide VOC and HAPs emission limitations.
- b. For emissions from a control device or stack no person shall cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of 2.34 pounds/hour. [401 KAR 59:010, Section 3(2)]

Compliance Demonstration Method:

The source is considered to be in compliance when the filters and dust collectors are operating and properly maintained in accordance with manufacturer's recommendations. Refer to Subsection 4. **Specific Monitoring Requirements**.

- c. No person shall cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with an affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

Compliance Demonstration Method:

See 4. **Specific Monitoring Requirements** for opacity compliance demonstration.

- d. Based upon the emission rates of toxics and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.

3. Testing Requirements:

- a. Testing shall be conducted at such times as may be required by the Cabinet in accordance with the Regulations 401 KAR 59:005 Section 2(2) and KAR 50:045 Section 3.
- b. See Section E.

4. Specific Monitoring Requirements:

- a. The permittee shall perform a visual inspection of the filters once a day during the operation of the unit to ensure manufacturer's recommendation is followed.
- b. The permittee shall install, maintain, and operate according to manufacturer's specifications a differential pressure gauge to determine the pressure drop across the dust collectors once a day during the operation of the units. A permanent label displaying the operating range established for dust collector shall be posted next to the instrument.
- c. The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than weekly while the affected facility is operating. If visible emissions from the stacks are observed (not including condensed water in the plume), the permittee shall determine the opacity using Reference Method 9. In lieu of determining the opacity using U.S. EPA Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- d. The twelve-month rolling total VOC and HAPs emissions shall be monitored monthly.

5. Specific Record Keeping Requirements:

- a. The permittee shall maintain a log of the daily filter visual inspections, including the date, identity of the personnel making the record, dates of filter replacements and filter type (to include control efficiency rating).
- b. The permittee shall keep records of the daily pressure drop readings across the dust collector and filter replacements.
- c. The permittee shall maintain a log of the visual observations noting date, time and initials of observers, records of corrective actions taken as a result of visible emissions from a stack and records of any Reference Method 9 readings performed.
- d. The permittee shall keep records of all maintenance activities performed on the control equipment.
- e. The permittee shall keep manufacturer's specifications for control equipment on site.
- f. The permittee shall keep calendar month records of the usage of each coating, solvent, thinner diluent, and clean up solvent or any other VOC/HAP containing material.
- g. At the end of each month, VOC and HAPs emissions in tons shall be calculated, and every month, a new 12-month rolling total for VOC and HAPs emissions shall be calculated.
- h. All records, including SDS for each material used shall be maintained by the source for the most recent two (2) year period. These records shall be made available to the cabinet or the U.S. EPA upon request.
- i. The permittee shall monitor and maintain records of the monthly natural gas usage rate in million cubic feet.

6. Specific Reporting Requirements:

- a. The permittee shall submit a copy of the control device inspection and repair log for those times when corrective actions are required due to an opacity exceedance and/or records of any Reference Method 9 opacity observations as noted in Section B (4) c. Copies of these records shall be submitted as a part of the semiannual reporting as required in Section F (5) & (6).
- b. Any deviations from requirements of Section B shall be reported quarterly. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Division semiannually by January 30th and July 30th of each year.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. The following information shall be reported semiannually:
 - 1. The VOC/HAP emissions calculation for each month.
 - 2. The rolling 12-month total of VOC/HAP emissions.
 - 3. The number of gallons of each coating applied and amount of VOCs/HAPs contained in the coatings.

7. Specific Control Equipment Operating Conditions:

See Section E.

~~SECTION C - INSIGNIFICANT ACTIVITIES~~

~~The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:030, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.~~

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. ~~Dip Tank~~	~~401 KAR 63:020~~

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. **Annual HAPs Limitations (401 KAR 52:030):**
Source wide individual hazardous air pollutants (HAP) emissions shall not exceed 9.0 tons per rolling 12-month period and combined HAPs emissions shall not exceed 22.5 tons per rolling 12-month period. The actual HAP/HAPs emissions shall be calculated based on 12-month rolling period.

Compliance Demonstration Method:

The following equation may be used to calculate the individual HAP emissions:

Monthly HAP emissions = $\sum$ [Monthly usage of coatings or any other HAP containing material in pounds or gallons per month] x [HAP fraction] x [1 - (Destruction Efficiency x Capture Efficiency)] x [appropriate conversion factor (if usage is in gallons) for gallons to pounds for resin or any other HAP containing material used].

The following equation may be used to calculate the combined HAPs emissions:

$$\text{Combined HAPs Emissions} = \sum_{j=1}^m \text{HAP}_j$$

Where; j = individual HAP emission (i.e. formaldehyde, toluene, naphthalene, isophorone, xylene, etc.)
 m = total number of single HAP emissions

3. **Annual VOC Limitations (401 KAR 52:030):**
Source wide volatile organic compound (VOC) emissions shall not exceed 90 tons per rolling 12-month period (including VOC emissions from combustion sources). The actual VOC emissions shall be calculated based on 12-month rolling period.

Compliance Demonstration Method:

The following equations may be used to calculate VOC emissions:

- i. Monthly VOC emissions = $\sum$ [Monthly usage of coatings or any other VOC containing material in pounds or gallons per month] x [VOC fraction] x [1 - (Destruction Efficiency x Capture Efficiency)] x [appropriate conversion factor (if usage is in gallons) for gallons to pounds for resin or any other VOC containing material used].
- ii. Monthly VOC emissions = Monthly usage of Natural Gas (million Cubic feet) X 5.5 lb/Million Cubic feet
- iii. Monthly VOC emissions = Monthly throughput of dip tank (gallons) X 6.718 lb/gallon

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

I. Two Regenerating Thermal Oxidizers (RTO #1 and #2)

Regenerating Thermal Oxidizer (RTO #1):

To control emissions (VOC/HAPS) from emission points 01 thru 06

Description:

Destruction Efficiency:	97.59% tested on September 11, 2014
Rated capacity:	3.0 MMBtu/hr
Fuel usage	Natural Gas
Construction Date:	1998

Regenerating Thermal Oxidizers (RTO #2):

To control emission (VOC/HAPS) from emission point 08 and 09

Description:

Destruction Efficiency:	97.87% tested on September 11, 2014
Rated capacity:	4.0 MMBtu/hr
Fuel usage	Natural Gas
Construction Date:	May 2012

a. Operating Limitations:

1. The average combustion chamber temperature in any 3-hour period shall not fall below the combustion temperature limit established during the most recent performance test which demonstrated compliance.
2. The permittee shall use the data collected during the performance test to calculate and record the average combustion temperature. This average combustion temperature is the minimum operating limit of the thermal oxidizer.

Compliance Demonstration Methods:

Compliance shall be demonstrated by continuously recording temperature in the combustion chamber at a location in the combustion zone and calculating the 3-hr average operating temperature at 15-minute intervals.

3. The permittee shall install, calibrate, maintain and operate in accordance with manufacturer's specifications a temperature monitoring device equipped with a continuous recorder in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS
(CONTINUED)**

4. The temperature-monitoring device shall have an accuracy of the greater of 0.75 percent of temperature measure expressed in degrees Celsius or $\pm 2.5^{\circ}\text{C}$.
5. Before using the sensor for the first time or when relocating or replacing the sensor, perform a validation check by comparing the sensor output to a calibrated temperature measurement device or by comparing the sensor output to a simulated temperature.
6. Conduct an accuracy audit every year and after every deviation. Accuracy audit methods include comparisons of sensor output to redundant temperature sensors, to calibrated temperature measurement devices, or to temperature simulation devices.
7. Conduct a visual inspection of each sensor every quarter if redundant temperature sensors are not used.

b. Testing Requirements:

The source shall conduct a performance test on each thermal oxidizer within five years of the most recent performance test, during which a minimum operating temperature of the thermal oxidizer will be determined.

c. Specific Monitoring Requirements:

The permittee shall continuously monitor the combustion chamber temperature during coating operations.

d. Specific Recordkeeping Requirements:

1. The permittee shall maintain records of the following information for each thermal oxidizer:
 - a. The design and/or manufacturer's specifications.
 - b. The operational procedures and preventive maintenance records.
 - c. The average combustion chamber temperature during the most recent performance test which demonstrated compliance.
 - d. The combustion chamber temperature of each thermal oxidizer shall be recorded continuously.
 - e. Record all periods (during coating operations), in which the 3-hour average combustion chamber temperature of the thermal oxidizer is below the temperature limit established during the most recent performance test. Each occurrence shall be considered a deviation from permit requirements.
 - f. During all periods of operation of each thermal oxidizer in which the 3-hour average combustion chamber temperature is below the combustion chamber temperature limit established during the most recent performance test which demonstrated compliance, a daily log of the following information shall be kept:
 1. Whether any air emissions were visible from the facilities associated with each thermal oxidizer.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS (CONTINUED)

2. Whether visible emissions were normal for the process.
 3. The cause of the visible emissions.
 4. Corrective action(s) taken shall be recorded.
 - g. If a 3-hour average temperature falls below the operating temperature limit established during the most recent performance test, then the permittee shall assume a destruction efficiency of zero during the time period of the deviation for the purpose of demonstrating compliance with emission limitations.
2. All records shall be retained at the source for a period of five years.

e. Specific Reporting Requirements:

The permittee shall identify, record, and submit a written report to the Division's Bowling Green Field office for each deviation from the permitted conditions. If no deviations occur during a particular 6-month period, the permittee shall state this in the semi-annual report required by General Condition F (6).

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS (CONTINUED)

II. Emission Capture System:

Capture Efficiency for RTO #1	98.1% tested on May 25, 2005
Capture Efficiency for RTO #2	100% (PTE) tested on September 11, 2014

a. Operating Limitations:

1. For RTO #1, The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period shall not fall below the average volumetric flow rate or duct static pressure limit established for that capture device during the most recent performance test.
2. For RTO #2, The average facial velocity (FV) of air through all NDOs in any 3-hour period shall be at least 200 fpm to establish the permanent total enclosure (PTE).

b. Testing Requirements:

None

c. Specific Monitoring Requirements:

For RTO #1, The permittee shall monitor the average gas volumetric flow rate or duct static pressure in each duct between a capture device and Regenerative Thermal Oxidizer. Calculate and record the 3-hour average volumetric flow rate or duct static pressure.

1. Capture Efficiency Monitoring with Flow Measurements

Each flow measurement device must meet the following requirements:

- a. Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.
- b. Use a flow sensor with an accuracy of +/- 10 percent of the flow.
- c. Perform an initial sensor calibration in accordance with the manufacturer's requirements.
- d. Perform a validation check before initial use or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values with electronic signal simulations or via relative accuracy testing.
- e. Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor values with electronic signal simulations or via relative accuracy testing.
- f. Perform leak checks monthly.
- g. Perform visual inspections of the sensor system quarterly if there is no redundant sensor.

2. Capture Efficiency Monitoring with Pressure Drop Measurements

Each pressure drop measurement device must meet the following requirements:

- a. Locate the pressure sensor(s) in or as close as possible to a position that provides a representative measurement of the pressure drop across each opening monitored.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS
(CONTINUED)**

- b. Use a pressure sensor with an accuracy of at least 0.5 inches of water column or 5 percent of the measured value, whichever is larger.
- c. Perform an initial calibration of the sensor according to the manufacturer's requirements
- d. Conduct a validation check before initial operation or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.
- e. Conduct accuracy audits every quarter and after every deviation. Accuracy audits include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.
- f. Perform monthly leak checks on pressure connections. A pressure of at least 1.0 inches of water column to the connection must yield a stable sensor result for at least 15 seconds.
- g. Perform a visual inspection of the sensor at least monthly if there is no redundant sensor.

For RTO #2, the permittee shall monitor the average facial velocity (FV) of air through all Natural Draft Openings (NDOs) and record the 3-hour average FV.

d. Specific Record Keeping Requirements:

The permittee shall maintain records to show capture efficiencies remain constant, including the following information:

- 1. Maintain records of the initial sensor calibrations, validation checks and accuracy audits.
- 2. Maintain a log of the monthly leak checks.
- 3. Maintain a log of the visual inspections of the sensor systems (monthly for pressure measurements, quarterly for flow measurements).
- 4. Maintain records of all data and documentation used to determine capture efficiency.
- 5. For RTO #1, the capture efficiencies recorded during testing and the values of the average volumetric flow rates or duct static pressures that will be monitored corresponding to those capture efficiencies.
- 6. For RTO #1, continuously record the average gas volumetric flow rate or duct static pressure in each duct between a capture device and the control device. Calculate and record the 3-hour average volumetric flow rate or duct static pressure.
- 7. For RTO #2, continuously record the facial velocity of air through all NDOs. Calculate and record the 3-hour average facial velocity.
- 8. For emissions reporting, treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS
(CONTINUED)**

9. For RTO #1, Record all 3-hour periods (during coating operations) during which the average gas volumetric flow rate or duct static pressure in each duct between a capture device and the control device is less than the volumetric flow rate or duct static pressure limit established for that capture device during the most recent performance test. Each occurrence shall be considered a deviation from permit requirements, See **Specific Reporting Requirements** and Section F(6), F(7) and F(8).
10. For RTO #2, Record all 3-hour periods (during coating operations) during which the average facial velocity of air through all NDOs is less than 200 fpm. During any periods the FV is less than 200 fpm, this shall be considered a deviation from permit requirements, See **Specific Reporting Requirements** and Section F(6), F(7) and F(8).

e. Specific Reporting Requirements:

1. The permittee shall identify, record, and submit a written report to the Division's Bowling Green's Field office for each deviation from the capture system conditions.
 - a. If there is any 3-hour period, during which the average gas volumetric flow rate or duct static pressure in each duct between a capture device and each thermal oxidizer is less than the volumetric flow rate or duct static pressure limit established for that capture device during the most recent performance test.
2. If no deviations occur during a particular 6-month period, the permittee shall state this in the semi-annual report required by Section Condition F(6).
3. All records shall be retained at the source for a period of five years.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place (as defined in this permit), and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:030, Section 3(1)(f)1a, and Section 1a-7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
3. In accordance with the requirements of 401 KAR 52:030, Section 3(1)f, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:030, Section 22. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
8. The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken shall be submitted to the Regional Office listed on the front of this permit. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement does not identify a specific time frame for reporting deviations, prompt reporting, as required by Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26 shall be defined as follows:
 - a. For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
 - b. For emissions of any regulated air pollutant, excluding those listed in F.8.a., that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
 - c. All deviations from permit requirements, including those previously reported, shall be included in the semiannual report required by F.6.
9. Pursuant to 401 KAR 52:030, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit in accordance with the following requirements:
 - a. Identification of each term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
 - f. The certification shall be submitted by January 30th of each year. Annual compliance certifications shall be sent to the Division for Air Quality, Bowling Green Regional Office, 2642 Russellville Road, Bowling Green, KY 42101.
10. In accordance with 401KAR 52:030, Section 3(1)(d), the permittee shall provide the Division with all information necessary to determine its subject emissions within 30 days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee. If a KYEIS emissions survey is not mailed to the permittee, then the permittee shall comply with all other emissions reporting requirements in this permit.
11. The Cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:
- a. The owner or operator shall submit to the Cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007AI to DD that show:
 - (1) The size and location of both the original and replacement units; and
 - (2) Any resulting change in emissions;
 - b. The potential to emit (PTE) of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit;
 - c. The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to a new applicable requirement;
 - d. The replacement unit shall comply with all applicable requirements; and
 - e. The source shall notify Regional office of all shutdowns and start-ups.
 - f. Within six (6) months after installing the replacement unit, the owner or operator shall:
 - (1) Re-install the original unit and remove or dismantle the replacement unit; or
 - (2) Submit an application to permit the replacement unit as a permanent change.

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

- a. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030, Section 3(1)(b), and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit [Section 1a-2 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-5 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030, Section 18. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:030, Section 12;
 - (2) The Cabinet or the United States Environmental Protection Agency (U. S. EPA) determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.
- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 6 and 7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:030, Section 3(1)(c)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

- f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:030, Section 7(1)].
- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-11 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- i. All emission limitations and standards contained in this permit shall be enforceable as a practical matter. All emission limitations and standards contained in this permit are enforceable by the U.S. EPA and citizens except for those specifically identified in this permit as state-origin requirements. [Section 1a-12 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:030, Section 11(3)].
- l. This permit does not convey property rights or exclusive privileges [Section 1a-8 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.
- o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.

SECTION G - GENERAL PROVISIONS (CONTINUED)

- p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.
- q. Pursuant to 401 KAR 52:030, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
 - (1) Applicable requirements that are included and specifically identified in this permit; and
 - (2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six (6) months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:030, Section 12].
- b. The authority to operate granted through this permit shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:030, Section 8(2)].

3. Permit Revisions

- a. Minor permit revision procedures specified in 401 KAR 52:030, Section 14(3), may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:030, Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

No construction authorized by this permit (F-21-001).

SECTION G - GENERAL PROVISIONS (CONTINUED)**5. Testing Requirements**

- a. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.
- b. Pursuant to 401 KAR 50:045, Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

7. Emergency Provisions

- a. Pursuant to 401 KAR 52:030, Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
 - (1) An emergency occurred and the permittee can identify the cause of the emergency;

SECTION G - GENERAL PROVISIONS (CONTINUED)

- (2) The permitted facility was at the time being properly operated;
 - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
 - (4) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.
 - (5) Notification of the Division does not relieve the source of any other local, state or federal notification requirements.
- b. Emergency conditions listed in General Provision G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:030, Section 23(3)].
 - c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:030, Section 23(2)].
8. Ozone depleting substances
- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
 - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
 - b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION G - GENERAL PROVISIONS (CONTINUED)

9. Risk Management Provisions

- a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to U.S. EPA using the RMP* eSubmit software.
- b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H - ALTERNATE OPERATING SCENARIOS

N/A

SECTION I - COMPLIANCE SCHEDULE

N/A

Section A1.5 Other Required Information

Indicate the documents attached as part of this application:

☐ DEP7007A Indirect Heat Exchangers and Turbines	☐ DEP7007CC Compliance Certification
☐ DEP7007B Manufacturing or Processing Operations	☐ DEP7007DD Insignificant Activities
☐ DEP7007C Incinerators and Waste Burners	☐ DEP7007EE Internal Combustion Engines
☐ DEP7007F Episode Standby Plan	☐ DEP7007FF Secondary Aluminum Processing
☐ DEP7007J Volatile Liquid Storage	☐ DEP7007GG Control Equipment
☐ DEP7007K Surface Coating or Printing Operations	☐ DEP7007HH Haul Roads
☐ DEP7007L Mineral Processes	☐ Confidentiality Claim
☐ DEP7007M Metal Cleaning Degreasers	☐ Ownership Change Form
☒ DEP7007N Source Emissions Profile	☐ Secretary of State Certificate
☐ DEP7007P Perchloroethylene Dry Cleaning Systems	☐ Flowcharts or diagrams depicting process
☐ DEP7007R Emission Offset Credit	☐ Digital Line Graphs (DLG) files of buildings, roads, etc.
☐ DEP7007S Service Stations	☐ Site Map
☐ DEP7007T Metal Plating and Surface Treatment Operations	☐ Map or drawing depicting location of facility
☐ DEP7007V Applicable Requirements and Compliance Activities	☐ Safety Data Sheet (SDS)
☐ DEP7007Y Good Engineering Practice and Stack Height Determination	☐ Emergency Response Plan
☐ DEP7007AA Compliance Schedule for Non-complying Emission Units	☐ Other: _____
☐ DEP7007BB Certified Progress Report	

Section A1.6: Signature Block

I, the undersigned, hereby certify under penalty of law, that I am a responsible official*, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.

Authorized Signature

Peter Stathopoulos

Date

FEBRUARY 17, 2026

Type or Printed Name of Signatory

PETER STATHOPOULOS

Title of Signatory

VP OF OPERATIONS & ENGINEERING

*Responsible official as defined by 401 KAR 52:001.

Wang, Qinyi (EEC)

From: Nathan Sheehan <nsheehan@hallenvironmental.net>
Sent: Thursday, March 26, 2026 9:40 AM
To: Wang, Qinyi (EEC)
Cc: jepley@montebellopkg.com
Subject: RE: DEP Division for Air Quality AI 2908 Montebello Question #1

Follow Up Flag: Follow up
Flag Status: Flagged

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Good Morning Qinyi,

The cleaning usages correspond to cleaning on both of the lines and would send emissions to both RTO1 and RTO2 depending on what lines are being cleaned. The 91% control efficiency number should actually be the “destruction efficiency” and the overall control efficiency would be ~76%. The calculations do consider the 76% for controlled emissions. This was established using the previously accepted capture efficiency (84%) based on capture with the hood open. The 91% control efficiency was used as a conservative value due to the different nature of cleaning chemicals and to ensure we were giving values that didn’t overestimate controls for a process that already had very little impact on site emissions. RTO1 and RTO2 would likely have a destruction efficiency similar to what we are seeing during normal operation during the cleaning process so we felt using the 91% destruction efficiency should give more than safe emission calculations.

Thanks!
Nathan Sheehan
Hall Environmental Consultants
859-885-3331

From: Wang, Qinyi (EEC) <qinyi.wang@ky.gov>
Sent: Wednesday, March 25, 2026 11:44 AM
To: Nathan Sheehan <nsheehan@hallenvironmental.net>
Cc: jepley@montebellopkg.com
Subject: DEP Division for Air Quality AI 2908 Montebello Question #1

Good Morning,

I am reviewing your air permit application, and I have some additional information regarding cleaning usage that I would like to ask you about.

1. I would like to know which line the “cleaning usage” on page 23 of the application corresponds to.

2. Additionally, I noticed that the capture efficiency (84%) and control efficiency (91%) for the cleaning usage differ from those listed for RTO1 and RTO2. I am a bit confused – does this correspond to RTO3?

Thank for your help.

Qinyi Wang
DAQ Permit Review, Surface Coating Section
300 Sower Blvd
Frankfort, Kentucky 40601
Office: 502-782-4146
Email: qinyi.wang@ky.gov

Wang, Qinyi (EEC)

From: Nathan Sheehan <nsheehan@hallenvironmental.net>
Sent: Wednesday, July 1, 2026 3:47 PM
To: Wang, Qinyi (EEC)
Cc: jepley@montebellopkg.com
Subject: RE: DEP Division for Air Quality AI 2908 Montebello Question #2

This Message Originated from Outside the Organization

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Hey Qinyi,
I think this should be updated to read:

Emission Point 09 Coating Line 8 (H1, H3, H5)

Description:

Line for Coating 1 1/2" Tubes, consists of Spray Booth H1 for Inner Coating, Roll Coaters H3 and H5 for application of Outer Coating and Decorative Graphics
Construction Commenced: February 2025

I changed this back to EP09 based on your last email where you said it wouldn't be possible to adjust. I hope this helps!

Thanks,
Nathan Sheehan
Hall Environmental Consultants

From: Wang, Qinyi (EEC) <qinyi.wang@ky.gov>
Sent: Wednesday, July 1, 2026 10:43 AM
To: Nathan Sheehan <nsheehan@hallenvironmental.net>
Cc: jepley@montebellopkg.com
Subject: RE: DEP Division for Air Quality AI 2908 Montebello Question #2

Nathan,

Thank you for your reply. I also have a few questions regarding Line#8 of the application, as shown below. I would like you to provide more information and a clearer description of what is being proposed.

Emission Point 08 Coating Line 8 (H1, H2, H3, H4, H5, H6, and H7)

Description:

Line for Coating 1 1/2" Tubes, consists of Spray Booth E1 for Inner Coating, Roll Coaters E3 and E5 for application of Outer Coating and Decorative Graphics
Construction Commenced: February 2025

The current permit includes H1 through H7, so I am not sure how Line 8 related to the existing permitted equipment.

Emission Point 09 Coating Line 8 (H1, H2, H3, H4, H5, H6, and H7)

Description:

Line for Coating Aerosol Cans, consists of Spray Booth H2 for Inner Coating, Roll Coaters H4 and H6 for application of Outer Coatings, Off-set Printer H5 for Decorative Graphics, Curing Ovens H3 and H7, and Washing Machine H1.

Construction Commenced: September 2015

Thanks,
Qinyi

From: Nathan Sheehan <nsheehan@hallenvironmental.net>

Sent: Tuesday, June 30, 2026 1:16 PM

To: Wang, Qinyi (EEC) <qinyi.wang@ky.gov>

Cc: jepley@montebellopkg.com

Subject: RE: DEP Division for Air Quality AI 2908 Montebello Question #2

Good Afternoon,

Sorry for the delay in responding. I spoke with Jim and have answered the questions below in red. Let me know if there is anything additional you are needing.

Thanks!

Nathan Sheehan
Hall Environmental Consultants
859-885-3331

From: Wang, Qinyi (EEC) <qinyi.wang@ky.gov>

Sent: Thursday, June 25, 2026 2:36 PM

To: Nathan Sheehan <nsheehan@hallenvironmental.net>

Cc: jepley@montebellopkg.com

Subject: DEP Division for Air Quality AI 2908 Montebello Question #2

Hi Nathan,

I am reviewing your air permit application, and I have the following additional questions that I would like to confirm with the facility:

1. For emissions from Coating Line 5 (EP-05), the line for coating 1½-inch tubes, can you confirm whether EP-05 is controlled by RTO #1 or RTO #2? Previous permit documents identify RTO #1 as the control device, while the current submitted application (Page 3 and emission calculation) identifies RTO #2. We were unable to locate a prior permit action documenting this significant change. **This is incorrect on the application; Coating Line #5 goes to RTO #1. Sorry about this.**
2. We noticed that the construction dates for Coating Line 7 and Coating Line 8 were revised on Page 497 of the submitted application. How did this change? Whether it involved physical modifications to the process/equipment or only changes to materials? **This was a physical modification, those lines were both previously for Aerosol cans and have been changes to one line being for tube and the other for cans. Equipment is new.**

3. The application also requested to rename the KYEIS designation for coating lines 08 and 09 and the natural gas combustion units which is not feasible as KYEIS designations cannot be reused to another emissions unit. As a result, other than the removal of Coating Line 6 (EP06), the emission unit designations associated with the coating lines will remain unchanged. **This is fine, we were hoping to make the emission units line up with the lines but this isn't the end of the world.**

Thank you!

Qinyi Wang

Environmental Engineer Technologist II

Surface Coating Section

Division for Air Quality

Office: 502-782-4146

Email: qinyi.wang@ky.gov