SHIELD
ENVIRONMENTAL ASSOCIATES, INC.

December 16, 2024

Mr. Zachary Bittner
KY Dept. for Environmental Protection
Division for Air Quality
Permit Review Branch
300 Sower Blvd. 2nd Floor
Frankfort, KY 40601

Subject: Initial Conditional Major Application
SRC of Lexington - Mercer Road
Agency Interest No. 1091

Project No. 117-2020

Dear Mr. Bittner:

SRC of Lexington - Mercer Road (SRC) is submitting an initial conditional major application for their new location at 1953 Mercer Road, Lexington, (Fayette County) Kentucky. On July 16, 2024, SRC submitted a registration application which is currently being reviewed by the DAQ. However, since that time SRC has planned to add equipment to the Mercer Road location, which has increased the potential emissions such that the facility no longer qualifies for coverage as a registered source.

SRC is planning to move an existing dyno (EU 4) from their current location at 1105 Eastland Drive to Mercer Road. In addition, SRC will be installing a new Large Dyno (EU 5) along with two new paint booths (EU 6 & 7) at this new location. This application also includes updated emission factors and throughput for the Small Dyno (EU 3) and the addition of insignificant activities 49 through 52.

Due to the above changes, the source-wide potential to emit is over 100 tons per year for volatile organic compounds (VOCs), over 25 tons per year for total hazardous air pollutants (HAPs), and over 9 tons per year for the individual HAPs (ethylbenzene, and xylene). Included in the application are the required DEP 7007 forms and the source-wide potential to emit calculations.

Should there be any questions, please do not hesitate to contact Nicole Galavotti at (859) 294-5155 or Hannah Cobb at (859) 244-8803. Thank you.

Sincerely,

SHIELD ENVIRONMENTAL ASSOCIATES, INC.

Nicole Galavotti, P.E.
Principal, Sr. Environmental Engineer
email: Nicole_Galavotti@shieldmw.com

Daniel Porter, PhD, P.E.
Environmental Engineer
email: Daniel_Porter@shieldmw.com

cc: Hannah Cobb – SRC of Lexington

Attachments
Appendix A – DEP7007 Forms
Appendix B – Emissions Calculations
Appendix C – Safety Data Sheets (SDSs) and Environmental Data Sheets (EDS)
Appendix D – Engine Data
Appendix E – Filter Specifications

Lexington

948 Floyd Drive
Lexington, KY 40505
Telephone 859.294.5155
Fax 859.294.5255
www.shieldenv.com

Louisville, KY

APPENDIX 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: **SRC of Lexington, Inc. - Mercer Road**

KY EIS (AFS) #: **21- 067-00302**

Permit #: **Applied for a registration on July 16, 2024**

Agency Interest (AI) ID: **1091**

Date: **12/16/2024**

Section AI.1: Source Information

Physical Location Address:	**Street:**	1953 Mercer Road				
	City:	Lexington	**County:**	Fayette	**Zip Code:**	40511
Mailing Address:	**Street or P.O. Box:**	1105 Eastland Drive				
	City:	Lexington	**State:**	Kentucky	**Zip Code:**	40505

Standard Coordinates for Source Physical Location

Longitude: -84.533889 (decimal degrees) **Latitude:** 38.079722 (decimal degrees)

Primary (NAICS) Category: Construction Machinery Manufacturing **Primary NAICS #:** 33312

Classification (SIC) Category: Construction Machinery and Equipment **Primary SIC #:** 3531

Briefly discuss the type of business conducted at this site: Custom remanufacturing of products, including engines, for various industries.

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: ~50

Property Area: 27.9

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: SRC of Lexington, Inc.

Title: (if individual)

Mailing Address: **Street or P.O. Box:** 1105 Eastland Drive
City: Lexington **State:** Kentucky **Zip Code:** 40505

Email: (if individual)

Phone: 859-254-0211

Technical Contact

Name: Hannah Cobb

Title: HR Safety Generalist

Mailing Address: **Street or P.O. Box:** 1105 Eastland Drive
City: Lexington **State:** Kentucky **Zip Code:** 40505

Email: HCobb@srclexington.com

Phone: 859-244-8803

Air Permit Contact for Source

Name: Nicole Galavotti, P.E.

Title: Principal/Sr. Environmental Engineer, Shield Environmental Assoc., Inc.

Mailing Address: **Street or P.O. Box:** 948 Floyd Dr.
City: Lexington **State:** Kentucky **Zip Code:** 40505

Email: Nicole_Galavotti@shieldmw.com

Phone: (859) 294-5155

Section AI.3: Owner Information

☐ **Owner same as applicant**

Name: SRC Holdings Corporation

Title:

Mailing Address:
Street or P.O. Box: 531 S. Union Ave
City: Springfield **State:** Missouri **Zip Code:** 65802

Email:

Phone: (417) 862-2337

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 - Applied for a registration on July 16,2024.

Requested Action: *(check all that apply)*

☐ Name Change	☐ Initial Registration	☐ Significant Revision	☐ Administrative Permit Amendment
☐ 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: Registration

Is the source requesting a limitation of potential emissions? ☐ Yes ☑ No

Pollutant:	Requested Limit:	Pollutant:	Requested Limit:
☑ Particulate Matter	90 TPY	☑ Single HAP	9 TPY (ethylbenzene & xylene)
☑ Volatile Organic Compounds (VOC)	90 TPY	☑ Combined HAPs	25.0 TPY
☐ 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)* 04/2025

Proposed Operation Start-Up Date: *(MM/YYYY)* 04/2025

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

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.

Robert D. Shear	12/16/24
Authorized Signature	**Date**
Robert D. Shear	President
Type or Printed Name of Signatory	**Title of Signatory**

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

Division for Air Quality
300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007DD

Insignificant Activities

_✓__ Section DD.1: Table of Insignificant Activities
_✓__ Section DD.2: Signature Block
____ Section DD.3: Notes, Comments, and Explanations

Source Name: SRC of Lexington, Inc. - Mercer Road
KY EIS (AFS) #: 21- 067-00302
Permit #: Applied for a registration on July 16, 2024
Agency Interest (AI) ID: 1091
Date: 12/16/2024

Section DD.1: Table of Insignificant Activities

*Identify each activity with a unique Insignificant Activity number (IA #); for example: 1, 2, 3… etc.

Insignificant Activity #	Description of Activity including Rated Capacity				Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
	Description	Capacity	Units	# of Units			
49	Cooling Tower Dyno	9.60E-02	Mgal/hr	1	Marley NC	401 KAR 59:010	See Appendix B
50	Paint Gun Cleaner	4.57E-03	Gallon/hr	1	Paint Gun Cleaner	N/A	
51	Paint Gun Reducer	4.57E-04	Gallon/hr	1	Paint Gun Reducer	401 KAR 63:020	
52	Spray Paint	3.85E-04	Gallon/hr	1	Spray Paint	401 KAR 63:020	

Section DD.2: 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.

By:

Robert D. Shear — Authorized Signature
12/16/24 — Date

Robert D. Shear — Type/Print Name of Signatory
President — Title of Signatory

DEP7007K

Surface Coating or Printing Operations

Division for Air Quality

300 Sower Boulevard

Frankfort, KY 40601

(502) 564-3999

_✓_ Section K.1: Process Information

_✓_ Section K.2: Coating Operations

_✓_ Section K.3: Other Operations

_✓_ Section K.4: Coatings/Printing Materials as Applied

_✓_ Section K.5: HAP-containing Coatings/Printing Materials

__ Section K.6: Notes, Comments, and Explanations

Additional Documentation

_✓__ Complete DEP7007AI, DEP7007N, DEP7007V, and DEP7007GG.

_✓__ Attach SDS or Technical Sheets for all Coating/Printing Materials

____ Attach a flow diagram

Source Name: **SRC of Lexington, Inc. - Mercer Road**

KY EIS (AFS) #: **21- 067-00302**

Permit #: **Applied for a registration on July 16, 2024**

Agency Interest (AI) ID: **1091**

Date: **12/16/2024**

Section K.1: Process Information

Emission Unit #: EU 06

Emission Unit Name: Paint Booth 06 (Head Booth)

Coating/Printing Line Name: Paint Booth 06 (Head Booth)

Proposed/Actual Date of Construction: *(MM/YYYY)* 04/2025

List Applicable Regulations:
401 KAR 59:010, New Process Operation
401 KAR 63:020, Potentially hazardous matter or toxic substances

Describe Overall Process: Rebuilt Engines

Describe Coatings/Printing Materials: Coating used - New Yellow, Black Gray, 3.5 Gray Primer H/C R/I L/F, High Gloss Metal Finishing Enamel, Equipment Yellow and All Surface Enamel - Oil Base Gloss, Deep Base

Identify the Material that is Coated/Printed: ☑ Metal ☐ Vinyl ☐ Plastics ☐ Wood ☐ Foil ☐ Paper ☐ Other Substrate

Provide detailed description of material coated/printed: Engine heads

Provide approximate dimensions and range of sizes of parts being coated or printed: From small engines to engines a size of a car

Identify the Type of Operation: ☑ Continuous ☐ Batch ☐ Other:

Describe Surface Preparation/Pretreatment Steps: No pretreatment

For Coating Operations: ☑ Spray ☐ Flow ☐ Dip tank ☐ Electrodeposition ☐ Brush ☐ Powder ☐ Roller Coat ☐ Other:

For Printing Operations: *(Select all that apply)* ☐ Web ☐ Rotogravure ☐ Heatset ☐ Lithographic ☐ Other: ☐ Sheetfed ☐ Letterpress ☐ Non-heatset ☐ Flexographic

Describe Final Product: Rebuilt Engines

Check the category that most closely describes this unit:

☐ Large Appliance Coating	☐ Auto or Light-Duty Truck Coating	☐ Metal Furniture Coating	☐ Metal Coil Coating
☐ Beverage Can Coating	☑ Miscellaneious Metal Parts Coating	☐ Magnet Wire Insulation Coating	☐ Flat Wood Panel Coating
☐ Fabric, Vinyl, or Paper Coating	☐ Boat Manufacturing/ Ship Repair	☐ Pressure Sensitive Tape and Label Coating	☐ Magnet Tape Coating
☐ Publication Rotogravure Printing	☐ Coating of Plastic Parts for Business Machines	☐ Flexible Vinyl and Urethane Coating and Printing	
☐ Graphic Arts using Rotogravure and Flexographic Printing			☐ Other: _____

Section K.2: Coating Operations

K.2A: For Spray Coating

Gun/Booth ID	Describe Function	Type	Mode	Maximum Design Application Rate *(gal/hr or lb/hr)*		Describe how maximum rate was determined
Gun 06	Paint gun	☐ Conventional Air Gun ☐ Airless ☑ HVLP ☐ Electrostatic ☐ LVLP ☐ Aerosol Spray Can ☐ Other	☑ Manual ☐ Automatic	11.63	gal/hr	☑ Testing ☐ Equipment Specification Sheet ☐ Estimation
		☐ Conventional Air Gun ☐ Airless ☐ HVLP ☐ Electrostatic ☐ LVLP ☐ Aerosol Spray Can ☐ Other	☐ Manual ☐ Automatic			☐ Testing ☐ Equipment Specification Sheet ☐ Estimation
		☐ Conventional Air Gun ☐ Airless ☐ HVLP ☐ Electrostatic ☐ LVLP ☐ Aerosol Spray Can ☐ Other	☐ Manual ☐ Automatic			☐ Testing ☐ Equipment Specification Sheet ☐ Estimation

If spray guns are used simultaneously, describe:

Section K.3: Other Operations

K.3A: For Finishing

Describe Finishing Processes: *Complete Form DEP7007B as applicable*	

K.3B: For Curing/Drying

Describe Curing/Drying Processes:	Description	Rated Capacity *(MMBtu/hr)*	Fuel	Control Device/Stack ID

K.3C: For Purge

Type: _____

Daily Usage: _____ gal/day

K.3D: For Clean-up

Type: ☑ Manual ☐ Automatic

Daily Usage: 0.05 gal/day

Operating Hours: 24 hrs/day

K.3E: For Other Equipment

Describe Processes:	

Section K.4: Coatings/Printing Materials As Applied

Include SDS or Technical Sheets for all coating/printing materials used.

Trade Name of Material	Description *(Identify as coating, ink, fountain solution, blanket wash, cleaning solvent, thinning solvent, auto wash, manual wash, etc.)*	Emission Unit/Coating ID where material is used	SCC Code	SCC Code Units	Density *(lb/gal)*	Solid Content *(lb/gal)*	VOC Content *(lb/gal)*	Emission Factor for PM* *(lb/SCC)*	Transfer Efficiency *(%)*	Emission Factor for VOC *(lb/SCC)*	Capture Efficiency *(%)*	Control Device/ Stack ID
New Yellow	Coating	EU 06	40200610	Gallons	9.01	5.02	3.97	5.02	65	3.97	100	6
Black Gray	Coating	EU 06	40200610	Gallons	7.96	3.54	4.42	3.54	65	4.42	100	6
3.5 Gray Primer H/C R/I L/F	Coating	EU 06	40200610	Gallons	8.98	4.20	4.78	4.20	65	4.78	100	6
High Gloss Metal Finishing Enamel, Equipment Yellow	Gloss	EU 06	40200610	Gallons	9.04	4.95	4.08	4.95	65	4.08	100	6
All Surface Enamel - Oil Base Gloss, Deep Base	Gloss	EU 06	40200610	Gallons	8.86	5.17	3.69	5.17	65	3.69	100	6

**Emission factor for particulate matter (PM) should not include transfer efficiency.*

Section K.5: Hazardous Air Pollutant-containing Coatings/Printing Materials

List each individual hazardous air pollutant (HAP) contained in each material.

Trade Name of Material	HAP Name	HAP CAS #	Identify Solid (*S*) or Volatile (*V*)	HAP % by weight	HAP Emission Factor *(lb/SCC)*	Control Device/ Stack ID
New Yellow	Toluene	108-88-3	V	1.00%	0.09	6
	Xylene	1330-20-7	V	3.00%	0.27	6
	Ethylbenzene	100-41-4	V	0.70%	0.06	6
	Cumene	98-82-8	V	0.10%	0.01	6
	Methyl Isobutyl Ketone	108-10-1	V	0.00%	0.00	6
	Naphthlene	91-20-3	V	0.00%	0.00	6
Black Gray	Toluene	108-88-3	V	1.31%	0.10	6
	Xylene	1330-20-7	V	5.90%	0.47	6
	Ethylbenzene	100-41-4	V	1.30%	0.10	6
	Cumene	98-82-8	V	0.18%	0.01	6
	Methyl Isobutyl Ketone	108-10-1	V	0.00%	0.00	6
	Naphthlene	91-20-3	V	0.00%	0.00	6
3.5 Gray Primer H/C R/I L/F	Toluene	108-88-3	V	1.00%	0.09	6
	Xylene	1330-20-7	V	24.53%	2.20	6
	Ethylbenzene	100-41-4	V	7.80%	0.70	6
	Cumene	98-82-8	V	0.00%	0.00	6
	Methyl Isobutyl Ketone	108-10-1	V	0.00%	0.00	6
	Naphthlene	91-20-3	V	1.00%	0.09	6
High Gloss Metal Finishing Enamel, Equipment Yellow	Toluene	108-88-3	V	1.00%	0.09	6
	Xylene	1330-20-7	V	1.00%	0.09	6
	Ethylbenzene	100-41-4	V	0.30%	0.03	6
	Cumene	98-82-8	V	0.30%	0.03	6
	Methyl Isobutyl Ketone	108-10-1	V	0.00%	0.00	6
	Naphthlene	91-20-3	V	0.00%	0.00	6
All Surface Enamel - Oil Base Gloss, Deep Base	Toluene	108-88-3	V	0.00%	0.00	6
	Xylene	1330-20-7	V	0.00%	0.00	6
	Ethylbenzene	100-41-4	V	0.10%	0.01	6
	Cumene	98-82-8	V	0.00%	0.00	6
	Methyl Isobutyl Ketone	108-10-1	V	0.10%	0.01	6
	Naphthlene	91-20-3	V	0.00%	0.00	6

DEP7007K

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_✓_ Section K.1: Process Information

_✓_ Section K.2: Coating Operations

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_✓_ Section K.4: Coatings/Printing Materials as Applied

_✓_ Section K.5: HAP-containing Coatings/Printing Materials

__ Section K.6: Notes, Comments, and Explanations

Additional Documentation

_✓__ Complete DEP7007AI, DEP7007N, DEP7007V, and DEP7007GG.

_✓__ Attach SDS or Technical Sheets for all Coating/Printing Materials

____ Attach a flow diagram

Source Name: **SRC of Lexington, Inc. - Mercer Road**

KY EIS (AFS) #: **21- 067-00302**

Permit #: **Applied for a registration on July 16, 2024**

Agency Interest (AI) ID: **1091**

Date: **12/16/2024**

Section K.1: Process Information

Emission Unit #: EU 07

Emission Unit Name: Paint Booth 07 (Large Booth)

Coating/Printing Line Name: Paint Booth 07 (Large Booth)

Proposed/Actual Date of Construction: *(MM/YYYY)* 04/2025

List Applicable Regulations:
401 KAR 59:010, New Process Operation
401 KAR 63:020, Potentially hazardous matter or toxic substances

Describe Overall Process:
Rebuilt Engines

Describe Coatings/Printing Materials:
Coating used - New Yellow, Black Gray, 3.5 Gray Primer H/C R/I L/F, High Gloss Metal Finishing Enamel, Equipment Yellow and All Surface Enamel - Oil Base Gloss, Deep Base

Identify the Material that is Coated/Printed: ☑ Metal ☐ Vinyl ☐ Plastics ☐ Wood ☐ Foil ☐ Paper ☐ Other Substrate

Provide detailed description of material coated/printed: Engine heads

Provide approximate dimensions and range of sizes of parts being coated or printed: From small engines to engines a size of a car

Identify the Type of Operation: ☑ Continuous ☐ Batch ☐ Other:

Describe Surface Preparation/Pretreatment Steps: No pretreatment

For Coating Operations: ☑ Spray ☐ Flow ☐ Dip tank ☐ Electrodeposition ☐ Brush ☐ Powder ☐ Roller Coat ☐ Other:

For Printing Operations: *(Select all that apply)* ☐ Web ☐ Rotogravure ☐ Heatset ☐ Lithographic ☐ Sheetfed ☐ Letterpress ☐ Non-heatset ☐ Flexographic ☐ Other:

Describe Final Product: Rebuilt Engines

Check the category that most closely describes this unit:

☐ Large Appliance Coating
☐ Auto or Light-Duty Truck Coating
☐ Metal Furniture Coating
☐ Metal Coil Coating
☐ Beverage Can Coating
☑ Miscellaneious Metal Parts Coating
☐ Magnet Wire Insulation Coating
☐ Flat Wood Panel Coating
☐ Fabric, Vinyl, or Paper Coating
☐ Boat Manufacturing/ Ship Repair
☐ Pressure Sensitive Tape and Label Coating
☐ Magnet Tape Coating
☐ Publication Rotogravure Printing
☐ Coating of Plastic Parts for Business Machines
☐ Flexible Vinyl and Urethane Coating and Printing
☐ Graphic Arts using Rotogravure and Flexographic Printing
☐ Other: _____

Section K.2: Coating Operations

K.2A: For Spray Coating

Gun/Booth ID	Describe Function	Type	Mode	Maximum Design Application Rate *(gal/hr or lb/hr)*		Describe how maximum rate was determined
Gun 07	Paint gun	☐ Conventional Air Gun ☐ Airless ☑ HVLP ☐ Electrostatic ☐ LVLP ☐ Aerosol Spray Can ☐ Other	☑ Manual ☐ Automatic	11.63	gal/hr	☑ Testing ☐ Equipment Specification Sheet ☐ Estimation
		☐ Conventional Air Gun ☐ Airless ☐ HVLP ☐ Electrostatic ☐ LVLP ☐ Aerosol Spray Can ☐ Other	☐ Manual ☐ Automatic			☐ Testing ☐ Equipment Specification Sheet ☐ Estimation
		☐ Conventional Air Gun ☐ Airless ☐ HVLP ☐ Electrostatic ☐ LVLP ☐ Aerosol Spray Can ☐ Other	☐ Manual ☐ Automatic			☐ Testing ☐ Equipment Specification Sheet ☐ Estimation

If spray guns are used simultaneously, describe:

Section K.3: Other Operations

K.3A: For Finishing

Describe Finishing Processes: *Complete Form DEP7007B as applicable*	

K.3B: For Curing/Drying

Describe Curing/Drying Processes:	Description	Rated Capacity *(MMBtu/hr)*	Fuel	Control Device/Stack ID

K.3C: For Purge

Type: _____

Daily Usage: _____ gal/day

K.3D: For Clean-up

Type: ☑ Manual ☐ Automatic

Daily Usage: 0.05 gal/day

Operating Hours: 24 hrs/day

K.3E: For Other Equipment

Describe Processes:	

Section K.4: Coatings/Printing Materials As Applied

Include SDS or Technical Sheets for all coating/printing materials used.

Trade Name of Material	Description *(Identify as coating, ink, fountain solution, blanket wash, cleaning solvent, thinning solvent, auto wash, manual wash, etc.)*	Emission Unit/Coating ID where material is used	SCC Code	SCC Code Units	Density *(lb/gal)*	Solid Content *(lb/gal)*	VOC Content *(lb/gal)*	Emission Factor for PM* *(lb/SCC)*	Transfer Efficiency *(%)*	Emission Factor for VOC *(lb/SCC)*	Capture Efficiency *(%)*	Control Device/ Stack ID
New Yellow	Coating	EU 07	40200610	Gallons	9.01	5.02	3.97	5.02	65	3.97	100	7
Black Gray	Coating	EU 07	40200610	Gallons	7.96	3.54	4.42	3.54	65	4.42	100	7
3.5 Gray Primer H/C R/I L/F	Coating	EU 07	40200610	Gallons	8.98	4.20	4.78	4.20	65	4.78	100	7
High Gloss Metal Finishing Enamel, Equipment Yellow	Gloss	EU 07	40200610	Gallons	9.04	4.95	4.08	4.95	65	4.08	100	7
All Surface Enamel - Oil Base Gloss, Deep Base	Gloss	EU 07	40200610	Gallons	8.86	5.17	3.69	5.17	65	3.69	100	7

**Emission factor for particulate matter (PM) should not include transfer efficiency.*

Section K.5: Hazardous Air Pollutant-containing Coatings/Printing Materials

List each individual hazardous air pollutant (HAP) contained in each material.

Trade Name of Material	HAP Name	HAP CAS #	Identify Solid (*S*) or Volatile (*V*)	HAP % by weight	HAP Emission Factor *(lb/SCC)*	Control Device/ Stack ID
New Yellow	Toluene	108-88-3	V	1.00%	0.09	7
	Xylene	1330-20-7	V	3.00%	0.27	7
	Ethylbenzene	100-41-4	V	0.70%	0.06	7
	Cumene	98-82-8	V	0.10%	0.01	7
	Methyl Isobutyl Ketone	108-10-1	V	0.00%	0.00	7
	Naphthlene	91-20-3	V	0.00%	0.00	7
Black Gray	Toluene	108-88-3	V	1.31%	0.10	7
	Xylene	1330-20-7	V	5.90%	0.47	7
	Ethylbenzene	100-41-4	V	1.30%	0.10	7
	Cumene	98-82-8	V	0.18%	0.01	7
	Methyl Isobutyl Ketone	108-10-1	V	0.00%	0.00	7
	Naphthlene	91-20-3	V	0.00%	0.00	7
3.5 Gray Primer H/C R/I L/F	Toluene	108-88-3	V	1.00%	0.09	7
	Xylene	1330-20-7	V	24.53%	2.20	7
	Ethylbenzene	100-41-4	V	7.80%	0.70	7
	Cumene	98-82-8	V	0.00%	0.00	7
	Methyl Isobutyl Ketone	108-10-1	V	0.00%	0.00	7
	Naphthlene	91-20-3	V	1.00%	0.09	7
High Gloss Metal Finishing Enamel, Equipment Yellow	Toluene	108-88-3	V	1.00%	0.09	7
	Xylene	1330-20-7	V	1.00%	0.09	7
	Ethylbenzene	100-41-4	V	0.30%	0.03	7
	Cumene	98-82-8	V	0.30%	0.03	7
	Methyl Isobutyl Ketone	108-10-1	V	0.00%	0.00	7
	Naphthlene	91-20-3	V	0.00%	0.00	7
All Surface Enamel - Oil Base Gloss, Deep Base	Toluene	108-88-3	V	0.00%	0.00	7
	Xylene	1330-20-7	V	0.00%	0.00	7
	Ethylbenzene	100-41-4	V	0.10%	0.01	7
	Cumene	98-82-8	V	0.00%	0.00	7
	Methyl Isobutyl Ketone	108-10-1	V	0.10%	0.01	7
	Naphthlene	91-20-3	V	0.00%	0.00	7

Division for Air Quality

300 Sower Boulevard

Frankfort, KY 40601

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DEP7007GG

Control Equipment

Additional Documentation

_✓__ Complete Sections GG.1 through GG.12, as applicable

_✓__ Attach manufacturer's specifications for each control device

_✓__ Complete DEP7007AI

Source Name: SRC of Lexington, Inc. - Mercer Road

KY EIS (AFS) #: 21- 067-00302

Permit #: Applied for a registration on July 16, 2024

Agency Interest (AI) ID: 1091

Date: 12/16/2024

Section GG.1: General Information - Control Equipment

Control Device ID #	Control Device Name	Cost	Manufacturer	Model Name/ Serial #	Date Installed	Inlet Gas Stream Data For All Control Devices					Inlet Gas Stream Data For Condensers, Adsorbers, Afterburners, Incinerators, Oxidizers Only			Equipment Operational Data For All Control Devices		
						Temperature (°F)	Flowrate (scfm @ 68°F)	Average Particle Diameter (μm)	Particle Density (lb/ft^3) or Specific Gravity	Gas Density (lb/ft^3)	Gas Moisture Content (%)	Gas Composition	Fan Type	Pressure Drop Range ($in.\ H_2O$)	Pollutants Collected/ Controlled	Pollutant Removal (%)
06	Filter	unknown	Global Finishing Solutions	GFS Wave	Apr-25	70	16,300	unknown	unknown	unknown				0.12		99.9
07	Filter	unknown	Global Finishing Solutions	GFS Wave	Apr-25	70	20,000	unknown	unknown	unknown				0.12		99.9

Section GG.6: Filter

Control Device ID #	Identify all Emission Units and Control Devices that Feed to Filter	Identify Type of Filter Unit: Baghouse, Cartridge Collector, or Other (specify)	Identify Type of Filtering Material: Fabric, Paper, Synthetic, or Other (specify)	Total Filter Area (ft^2)	Effective Air-to-Filter Ratio ($acfm/ft^2$)	Continuous Monitoring Instrumentation (e.g. COMS, BLDS, none)	Additional Materials Introduced into the Control System (e.g. lime, carbon)		Identify Cleaning Method: Shaker, Pulse Air, Reverse Air, Pulse Jet, or Other (specify)	Identify Gas Cooling Method: Ductwork, Heat Exchanger, Bleed-in Air, Water Spray, or Other (specify)	For Ductwork:		For Bleed-in Air:	For Water Spray:
							Material	Injection Rate (lb/hr)			Length (ft)	Diameter (ft)	Flowrate (scfm @ 68°F)	Flowrate (gal/min)
06	EU 06 Paint Booth	Filter	Polyester	97.22	167.7	None			disposable					
07	EU 07 Paint Booth	Filter	Polyester	155.56	128.6	None			disposable					

Division for Air Quality

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DEP7007EE

Internal Combustion Engines

_✓__ Section EE.1: General Information
_✓__ Section EE.2: Operating Information
_✓__ Section EE.3: Design Information
_✓__ Section EE.4: Fuel Information
_✓__ Section EE.5: Emission Factor Information
_✓__ Section EE.6: Notes, Comments, and Explanations

Additional Documentation

_✓__ Complete DEP7007AI, DEP7007N, DEP7007V, and DEP7007GG

___ Attach EPA certification of the engine

Source Name: SRC of Lexington, Inc. - Mercer Road
KY EIS (AFS) #: 21- 067-00302
Permit #: Applied for a registration on July 16, 2024
Agency Interest (AI) ID: 1091
Date: 12/16/2024

Section EE.1: General Information

Emission Unit #	Emission Unit Name	Control Device ID	Stack ID	Manufacturer	Model Number	Model Year	Date of Manufacture	Proposed/Actual Date of Construction Commencement *(MM/YYYY)*	Date Reconstructed/ Modified	List Applicable Regulations
EU 04	Dyno Medium Engine Testing between 600 hp and 1500 hp	N/A	N/A	Varies	Varies	Varies	Varies	04/2025	N/A	401 KAR 63:020
EU 05	Dyno Large Engine Testing > 1500 hp	N/A	N/A	Varies	Varies	Varies	Varies	04/2025	N/A	401 KAR 63:020

Section EE.2: Operating Information

Emission Unit #	Engine Purpose (Identify if Non-Emergency, Emergency,Fire/Water Pump, Black-start engine for combustion turbine, Engine Testing)	Hours Operated	Is this engine a rental? *(Yes/No)*	Rental Time Period *(hrs)*	Alternate Operating Scenarios (Describe any operating scenarios in which the engine may be used in a different configuration)
EU 04	Engine Testing	8760	N/A	N/A	
EU 05	Engine Testing	8760	N/A	N/A	

Section EE.3: Design Information

Emission Unit #	Engine Type (Identify all that apply: Commercial, Institutional, Stationary, Non-Road)	Ignition Type (Identify if either Compression or Spark Ignition)	Engine Family (Identify all that apply: 2-stroke, 4-stroke, Rich Burn, Lean Burn)	Maximum Engine Power *(bhp)*	Maximum Engine Speed *(rpm)*	Total Displacement *(L)*	Number of Cylinders
EU 04	Varies	Compression	Varies	Up to 1500 HP Varies	Varies	Varies	Varies
EU 05	Varies	Compression	Varies	Up to 4000 HP Varies	Varies	Varies	Varies

Section EE.4: Fuel Information

Emission Unit #	Identify if Primary, Secondary, or Tertiary Fuel	Fuel Type (Identify if Diesel, Gasoline, Natural Gas, Liquefied Petroleum Gas (LPG), Landfill/Digester Gas, or Other)	Fuel Grade	Percent Time Used *(%)*	Maximum Fuel Consumption	Heat Content	Sulfur Content *(%)*	SCC Code	SCC Units
EU 04	Primary	Diesel	#2	100	Varies	137,000 Btu	0.0015%	2-02-001-02	1,000 gallons
EU 05	Primary	Diesel	#2	100	Varies	137,000 Btu	0.0015%	2-02-001-02	1,000 gallons

Section EE.5: Emission Factor Information

Emission factors expressed here are based on the potential to emit.

Emission Unit #	Fuel	Pollutant	Emission Factor	Emission Factor Units	Source of Emission Factor
EU 04	Diesel	See Appendix B			
EU 05	Diesel	See Appendix B			

Section EE.6: Notes, Comments, and Explanations

These emission units are Dyno Engine units used to test rebuilt engines. Engines tested on the small and medium dynos are test for 1.5 hours while the engines tested on the large dyno are tested for 3 hours. It take aboout 4.5 hours to change out the engines for testing. Thus the small and medium engines can tested for 2,190 hours per year (2,190 = 1.5/6*8760), while the medium engines can be test for 3,504 hours per year (3.504 = 3.0/7.5*8760). This is noted in the N-form.

Division for Air Quality

300 Sower Boulevard
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DEP7007N

Source Emissions Profile

_✓_ Section N.1: Emission Summary
_✓__ Section N.2: Stack Information
___ Section N.3: Fugitive Information
_✓___ Section N.4: Notes, Comments, and Explanations

Additional Documentation
_✓__ Complete DEP7007AI

Source Name: SRC of Lexington, Inc. - Mercer Road
KY EIS (AFS) #: 21- 067-00302
Permit #: Applied for a registration on July 16, 2024
Agency Interest (AI) ID: 1091
Date: 12/16/2024

N.1: Emission Summary

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity *(SCC Units/hour)**	Pollutant	Uncontrolled Emission Factor *(lb/SCC Units)*	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency *(%)*	Control Efficiency *(%)*	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential *(lb/hr)*	Controlled Potential *(lb/hr)*	Uncontrolled Potential *(tons/yr)*	Controlled Potential *(tons/yr)*
EU 03	Small Engine Testing < 600 hp	1	Engine Testing < 600 hp	N/A	N/A	E3	0.0304	NOx	298.29	EPA Tier 1 Engine			9.08	9.08	9.94	9.94
* Engines can only be tested for 2,190 hours per year.								N_2O	0.1813	40 CFR Part 98 Table C-1 & 2			0.01	0.01	0.01	0.01
								CO_2	22770	AP-42 3.3			693.00	693.00	758.84	758.84
								CO	131.1	AP-42 3.3			3.99	3.99	4.37	4.37
								PM	42.78	AP-42 3.3			1.30	1.30	1.43	1.43
								PM_{10}	42.78	AP-42 3.3			1.30	1.30	1.43	1.43
								SO_2	0.207	AP-42 3.3			0.01	0.01	0.01	0.01
								CH_4	0.906	40 CFR Part 98 Table C-1 & 2			0.03	0.03	0.03	0.03
								VOC	49.68	AP-42 3.3			1.51	1.51	1.66	1.66
								Benzene	0.129	AP-42 3.3			0.00	0.00	0.00	0.00
								Toluene	0.056	AP-42 3.3			0.00	0.00	0.00	0.00
								Xylene	0.036	AP-42 3.3			0.00	0.00	0.00	0.00
								Total HAPs	0.221	AP-42 3.3			0.01	0.01	0.01	0.01

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity *(SCC Units/hour)**	Pollutant	Uncontrolled Emission Factor *(lb/SCC Units)*	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency *(%)*	Control Efficiency *(%)*	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential *(lb/hr)*	Controlled Potential *(lb/hr)*	Uncontrolled Potential *(tons/yr)*	Controlled Potential *(tons/yr)*
EU 04	Medium Engine Testing Between 600 hp and 1500 hp	1	Engine Testing Between 600 hpand 1500 hp	N/A	N/A	E4	0.0761	NOx	298.29	EPA Tier 1 Engine			22.70	22.70	24.85	24.85
* Engines can only be tested for 2,190 hours per year.								N_2O	0.1813	40 CFR Part 98 Table C-1 & 2			0.01	0.01	0.02	0.02
								CO_2	22501.45	AP-42 3.4			1712.07	1712.07	1874.71	1874.71
								CO	117.3	AP-42 3.4			8.93	8.93	9.77	9.77
								PM	13.80	AP-42 3.4			1.05	1.05	1.15	1.15
								PM_{10}	7.91	AP-42 3.4			0.60	0.60	0.66	0.66
								SO_2	0.207	AP-42 3.4			0.02	0.02	0.02	0.02
								CH_4	0.906	40 CFR Part 98 Table C-1 & 2			0.07	0.07	0.08	0.08
								VOC	12.42	AP-42 3.4			0.95	0.95	1.03	1.03
								Benzene	0.107	AP-42 3.4			0.01	0.01	0.01	0.01
								Toluene	0.039	AP-42 3.4			0.00	0.00	0.00	0.00
								Xylene	0.027	AP-42 3.4			0.00	0.00	0.00	0.00
								Total HAPs	0.173	AP-42 3.4			0.01	0.01	0.01	0.01
EU 05	Large Engine Testing > 1500 hp	1	Engine Testing > 1500 hp	N/A	N/A	E5	0.2029	NOx	113.48	EPA Tier 4 Engine			23.03	23.03	40.34	40.34
* Engines can only be tested for 3,504 hours per year.								N_2O	0.1813	40 CFR Part 98 Table C-1 & 2			0.04	0.04	0.06	0.06
								CO_2	22501.45	AP-42 3.4			4565.51	4565.51	7998.78	7998.78
								CO	117.3	AP-42 3.4			23.80	23.80	41.70	41.70
								PM	13.80	AP-42 3.4			2.80	2.80	4.91	4.91
								PM_{10}	7.91	AP-42 3.4			1.60	1.60	2.81	2.81
								SO_2	0.207	AP-42 3.4			0.04	0.04	0.07	0.07
								CH_4	0.906	40 CFR Part 98 Table C-1 & 2			0.18	0.18	0.32	0.32
								VOC	12.42	AP-42 3.4			2.52	2.52	4.42	4.42
								Benzene	0.107	AP-42 3.4			0.02	0.02	0.04	0.04
								Toluene	0.039	AP-42 3.4			0.01	0.01	0.01	0.01
								Xylene	0.027	AP-42 3.4			0.01	0.01	0.01	0.01
								Total HAPs	0.173	AP-42 3.4			0.04	0.04	0.06	0.06

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity *(SCC Units/hour)**	Pollutant	Uncontrolled Emission Factor *(lb/SCC Units)*	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency *(%)*	Control Efficiency *(%)*	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential *(lb/hr)*	Controlled Potential *(lb/hr)*	Uncontrolled Potential *(tons/yr)*	Controlled Potential *(tons/yr)*
EU 06	Paint Booth 06 (Head booth)	1	Paint Booth 06	N/A	N/A	6	11.63	PM	1.47	SDS	100.00%	99.90%	17.10	0.02	74.88	0.07
PM/PM10 Transfer Efficiency = 65%								PM_{10}	1.47	SDS	100.00%	99.90%	17.10	0.02	74.88	0.07
								VOC	4.78	SDS			55.59	55.59	243.49	243.49
								Toluene	0.090	SDS			1.05	1.05	4.58	4.58
								Xylene	2.203	SDS			25.62	25.62	112.22	112.22
								Ethylbenzene	0.700	SDS			8.14	8.14	35.66	35.66
								Naphthlene	0.090	SDS			1.05	1.05	4.58	4.58
								Total HAPs	3.083	SDS			35.86	35.86	157.05	157.05
EU 07	Paint Booth 07 (Large Booth)	1	Paint Booth 07	N/A	N/A	7	11.63	PM	1.47	SDS	100.00%	99.90%	17.10	0.02	74.88	0.07
PM/PM10 Transfer Efficiency = 65%								PM_{10}	1.47	SDS	100.00%	99.90%	17.10	0.02	74.88	0.07
								VOC	4.78	SDS			55.59	55.59	243.49	243.49
								Toluene	0.090	SDS			1.05	1.05	4.58	4.58
								Xylene	2.203	SDS			25.62	25.62	112.22	112.22
								Ethylbenzene	0.700	SDS			8.14	8.14	35.66	35.66
								Naphthlene	0.090	SDS			1.05	1.05	4.58	4.58
								Total HAPs	3.083	SDS			35.86	35.86	157.05	157.05

Section N.2: Stack Information

UTM Zone:

Stack ID	Identify all Emission Units (with Process ID) and Control Devices that Feed to Stack	Stack Physical Data			Stack UTM Coordinates		Stack Gas Stream Data		
		Equivalent Diameter *(ft)*	Height *(ft)*	Base Elevation *(ft)*	Northing *(m)*	Easting *(m)*	Flowrate *(acfm)*	Temperature *(° F)*	Exit Velocity *(ft/sec)*
E3	EU 03	0.25	26	~975			Varies	Varies	Varies
E4	EU 04	0.25	26	~975			Varies	Varies	Varies
E5	EU 05	0.25	26	~975			Varies	Varies	Varies
6	EU 06	3	30.5	~975			16300	ambient	194.57
7	EU 07	3	30.5	~975			20000	ambient	238.73

Section N.4: Notes, Comments, and Explanations

There is flash-off tunnel after booth 06 (Head Booth). All emissions from the flash off tunnel are accounted for in paint booth 06.

Division for Air Quality

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DEP7007V

Applicable Requirements and Compliance Activities

_✓__ Section V.1: Emission and Operating Limitation(s)
_✓__ Section V.2: Monitoring Requirements
_✓__ Section V.3: Recordkeeping Requirements
_✓__ Section V.4: Reporting Requirements
_✓__ Section V.5: Testing Requirements
___ Section V.6: Notes, Comments, and Explanations

Additional Documentation

_✓__ Complete DEP7007AI

Source Name: **SRC of Lexington, Inc. - Mercer Road**
KY EIS (AFS) #: **21-** **067-00302**
Permit #: **Applied for a registration on July 16, 2024**
Agency Interest (AI) ID: **1091**
Date: **12/16/2024**

Section V.1: Emission and Operating Limitation(s)

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)
EU 03, 04 & 05	Small, Medium and Large Dynos for Various Engines	N/A	N/A	N/A	N/A	N/A	N/A
EU 06 & 07	Paint booth 06 Paint booth 07	401 KAR 52:030	VOC		Facility emissions < 90 tons/yr		Recordkeeping
		401 KAR 52:030	Total HAPS		Facility emissions < 22.5 tons/yr		Recordkeeping
		401 KAR 52:030	Individual HAPS		Facility emissions < 9.0 tons/yr		Recordkeeping
		401 KAR 52:030				The filters shall be operated and maintained in accordance with the manufacturer's specification and shall be in place at all times when the affected facilities are in operation.	Daily filter inspections when in operation and change filter when it fails to meet manufacturer's specifications.
		401 KAR 59:010	PM	Opacity < 20% 2.34 lb/hr			Weekly visual inspection of emissions and daily filter inspections
		401 KAR 63:020	Toxics	The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.			Source in compliance based on the rates of emissions of airborne toxics provided in the application submitted by the source for air pollutants except for ethylbenzene.

Section V.2: Monitoring Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Monitored	Description of Monitoring
EU 03, 04 & 05	Small, Medium and Large Dynos for Various Engines		401 KAR 52:030	Diesel usage	Monitor the gallons of diesel fuel used monthly
EU 06 & 07	Paint booth 06 Paint booth 07	VOC	401 KAR 52:030	Raw material usage	Keep calendar month records of the usage of each paint, gloss, and clean-up solvent or any other VOC-containing material. At the end of each month, monthly emissions and 12-month rolling totals for VOCs are calculated and recorded.
		Total HAPS	401 KAR 52:030	Raw material usage	Keep calendar month records of the usage of each paint, gloss, and clean-up solvent or any other HAP-containing material. At the end of each month, monthly emissions and 12-month rolling totals for HAPs are calculated and recorded.
		Individual HAPS	401 KAR 52:030	Raw material usage	Keep calendar month records of the usage each paint, gloss, and clean-up solvent or any other HAP-containing material. At the end of each month, monthly emissions and 12-month rolling totals for individual HAPs are calculated and recorded.
		PM	401 KAR 59:010	Opacity	Weekly opacity observations of emissions and inspect the filters each day of operation.

Section V.3: Recordkeeping Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Recorded	Description of Recordkeeping
EU 03, 04 & 05	Small, Medium and Large Dynos for Various Engines		401 KAR 52:030	Diesel usage	Record the gallons of diesel fuel used monthly
EU 06 & 07	Paint booth 06 Paint booth 07	VOC	401 KAR 52:030	Raw material usage	Keep calendar month records of the usage of each paint, gloss, and clean-up solvent or any other VOC-containing material. At the end of each month, monthly emissions and 12-month rolling totals for VOCs.
		Total HAPS	401 KAR 52:030	Raw material usage	Keep calendar month records of the usage of each paint, gloss, and clean-up solvent or any other HAP-containing material. At the end of each month, monthly emissions and 12-month rolling totals for total HAPs.
		Individual HAPS	401 KAR 52:030	Raw material usage	Keep calendar month records of the usage of each paint, gloss, and clean-up solvent or any other HAP-containing material. At the end of each month, monthly emissions and 12-month rolling totals for individuals HAPs.
		PM	401 KAR 59:010	Opacity	Record the weekly opacity observations noting date, time and initials of observers and any corrective actions taken. Also record the daily filter inspections, including the date and when the filter replacement.

Section V.4: Reporting Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Reported	Description of Reporting
EU 03, 04 & 05	Small, Medium and Large Dynos for Various Engines	N/A	N/A	N/A	N/A
EU 06 & 07	Paint booth 06 Paint booth 07	VOC, Total HAPS and Individual HAPS	401 KAR 52:030	Emissions	Report the number of gallons of each coating applied, the VOC and HAP monthly and 12 month rolling total emissions as part of the semiannual reporting.
			401 KAR 52:030	Control device inspection and repair log	Report any control device inspection and repair log for those times when corrective actions are required due to an opacity exceedance as part of the semiannual reporting.

Section V.5: Testing Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Tested	Description of Testing
EU 03, 04 & 05	Small, Medium and Large Dynos for Various Engines	VOCs, HAPs (Total and Individual)	401 KAR 50:045 Section 4	VOCs, HAPs (Total and Individual)	Testing shall be conducted at such times as may be required by the Cabinet in accordance with the Regulation KAR 50:045 Section 4.
EU 06 & 07	Paint booth 06 Paint booth 07	VOC	401 KAR 50:045 Section 1	VOC	Testing shall be conducted at such times as may be required by the Cabinet in accordance with the Regulation KAR 50:045 Section 1.
		Total HAPS	401 KAR 50:045 Section 1	Total HAPS	Testing shall be conducted at such times as may be required by the Cabinet in accordance with the Regulation KAR 50:045 Section 1.
		Individual HAPS	401 KAR 50:045 Section 1	Individual HAPS	Testing shall be conducted at such times as may be required by the Cabinet in accordance with the Regulation KAR 50:045 Section 1.

APPENDIX B

Emission Calculations

Table 1: Annual Emissions (Tons)
SRC of Lexington - Mercer Road, Lexington, Kentucky

				Uncontolled																			Contolled					
IA#	EU#	Process Description	Model	Nitrous Oxide	Methane	Carbon Dioxide	Nitrogen Dioxides	Carbon Monoxide	Sulfur Dioxide	VOC	Nickel	Chromium	Manganese	Benzene	Toluene	Xylene	Ethylbenzene	Cumene	Methyl Isobutyl Ketone	Naphthlene	TOTAL HAPS	PM	PM10	Nickel	Chromium	Manganese	TOTAL HAPS	PM	PM10
	1	Boiler #1 HVAC (2.228 MMBtu/hr)	Boiler #1 HVAC	0.021	0.022	1148.075	0.478	0.804	0.006	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.073	0.073	0.000	0.000	0.000	0.000	0.073	0.073
	2	Boiler #2 HVAC (2.228 MMBtu/hr)	Boiler #2 HVAC	0.021	0.022	1148.075	0.478	0.804	0.006	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.073	0.073	0.000	0.000	0.000	0.000	0.073	0.073
	3	Dyno Small Engine Testing < 600 hp	Dyno Small Engine Testing < 600 hp	0.006	0.030	758.835	9.941	4.369	0.007	1.656	0.000	0.000	0.000	0.004	0.002	0.001	0.000	0.000	0.000	0.000	0.007	1.426	1.426	0.000	0.000	0.000	0.007	1.426	1.426
	4	Dyno Medium Engine Testing 600 < to < 1500 hp	Dyno Medium Engine Testing 600 < to < 1500 hp	0.015	0.076	1874.713	24.852	9.773	0.017	1.035	0.000	0.000	0.000	0.009	0.003	0.002	0.000	0.000	0.000	0.000	0.014	1.150	0.659	0.000	0.000	0.000	0.014	1.150	0.659
	5	Dyno Large Engine Testing > 1500 hp	Dyno Large Engine Testing > 1500 hp	0.064	0.322	7998.776	40.340	41.698	0.074	4.415	0.000	0.000	0.000	0.038	0.014	0.009	0.000	0.000	0.000	0.000	0.061	4.906	2.811	0.000	0.000	0.000	0.061	4.906	2.811
	6	Paint Booth 06 (Head Booth)	Paint Booth 06 (Head Booth)	0.000	0.000	0.000	0.000	0.000	0.000	243.269	0.000	0.000	0.000	0.000	4.573	112.169	35.667	0.000	0.000	4.573	156.981	74.901	74.901	0.000	0.000	0.000	156.981	0.075	0.075
	7	Paint Booth 07 (Large Booth)	Paint Booth 07 (Large Booth)	0.000	0.000	0.000	0.000	0.000	0.000	243.269	0.000	0.000	0.000	0.000	4.573	112.169	35.667	0.000	0.000	4.573	156.981	74.901	74.901	0.000	0.000	0.000	156.981	0.075	0.075
1		Natural gas usage (0.8 MMBtu/hr)	Wayne Parts Washer	0.008	0.008	412.235	0.344	0.289	0.002	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.026	0.000	0.000	0.000	0.000	0.026	0.026
2		Washer Stream Pressure (0.8 MMBtu/hr)	Washer Stream Pressure	0.008	0.008	412.235	0.344	0.289	0.002	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.026	0.000	0.000	0.000	0.000	0.026	0.026
3		Natural gas usage (0.6 MMBtu/hr)	Proceco Parts Washer	0.006	0.006	309.176	0.258	0.216	0.002	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.020	0.000	0.000	0.000	0.000	0.020	0.020
3		Parts Washer	Proceco Parts Washer	0.000	0.000	0.000	0.000	0.000	0.000	3.685	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4		Dry Cylinder Block Mill	F105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.744	0.744	0.000	0.000	0.000	0.000	0.744	0.744
5		Dry Cylinder Block Mill	EM105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.489	1.489	0.000	0.000	0.000	0.000	1.489	1.489
6		Dry Horizontal Mill Devlige	Devlige	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.067	0.067	0.000	0.000	0.000	0.000	0.067	0.067
7		Dry Knee Mill	Bridgeport X26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.222	0.222	0.000	0.000	0.000	0.000	0.222	0.222
8		Dry Knee Mill	Kent	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.222	0.222	0.000	0.000	0.000	0.000	0.222	0.222
9		Dry Lathe	Birmingham	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.222	0.222	0.000	0.000	0.000	0.000	0.222	0.222
10		Dry Knee Mill	Bridgeport EZ Path II	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.222	0.222	0.000	0.000	0.000	0.000	0.222	0.222
11		Dry Lathe CNC	CNC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.222	0.222	0.000	0.000	0.000	0.000	0.222	0.222
12		Dry Mill	Prototrac	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.222	0.222	0.000	0.000	0.000	0.000	0.222	0.222
13		Dry Mill	CNC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.889	0.889	0.000	0.000	0.000	0.000	0.889	0.889
14		Drt Valve Seat Grinder	SG80	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.061	0.061	0.000	0.000	0.000	0.000	0.061	0.061
15		Drt Valve Seat Grinder	Berco Conn Rod SG100XY	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.061	0.061	0.000	0.000	0.000	0.000	0.061	0.061
16		Wet Boring Machine	Berco Conn Rod ARB651	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17		Plasma Cutter	Spectrum 875	0.000	0.000	0.000	0.000	0.000	0.000	0.053	0.000	0.266	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.320	3.997	3.997	0.053	0.000	0.266	0.320	3.997	3.997
18		Blaster	Peterson	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19		Blaster	Winnona	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20		Dry Plastic Media Blaster	Dry Plastic Media Blaster	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.002	0.002
21		Spray Welder	Thermac AT-400	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.000
22		Mig Welder	DeltaWeld	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
23		Mig Welder	Miller Matic 251	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.005	0.000	0.000	0.000	0.000	0.002	0.002
24		Mig Welder	Miller Matic 252	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
25		Cooling Tower HVAC	Cooling Tower HVAC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.318	0.318	0.000	0.000	0.000	0.000	0.318	0.318
26		Cooling Tower Dyno	Cooling Tower Dyno	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.352	1.352	0.000	0.000	0.000	0.000	1.352	1.352
27		Ultrasonic cleaner	Omegasonic OMG5022	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28		Ultrasonic cleaner	Omegasonic OMG5028	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29		Ultrasonic cleaner	Omegasonic OMG5060	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30		Ultrasonic cleaner	Ultrasonic LLC 3222F	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31		Ultrasonic cleaner	Ultrasonic LLC 3222R	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32		Ultrasonic cleaner	Ultrasonic LLC 3800FLT	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
33		Mineral spirit washer	SK 257	0.000	0.000	0.000	0.000	0.000	0.000	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34		Mineral spirit washer	SK 250	0.000	0.000	0.000	0.000	0.000	0.000	6.275	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35		Mineral spirit washer	SK 81	0.000	0.000	0.000	0.000	0.000	0.000	2.789	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36		Mineral spirit washer	SK 270	0.000	0.000	0.000	0.000	0.000	0.000	0.174	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37		Mineral spirit washer	System one 260	0.000	0.000	0.000	0.000	0.000	0.000	1.569	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
38		Dip Washer	SRC	0.000	0.000	0.000	0.000	0.000	0.000	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39		Washer Jet	Better Engineering	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40		Washer Jet	Mart Hurricane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41		Wet Grinder	Berco Crankshaft Grinder RTM 270	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42		Wet Brinder	Blanchard Series 26	0.000	0.000	0.000	0.000	0.000	0.000	0.085	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43		Wet Grinder Surface	Brown Sharp 824	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
44		Wet Grinder Surface	Chevalier FSG1224AD	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
45		Wet Hone	Rottler HP7A	0.000	0.000	0.000	0.000	0.000	0.000	0.054	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46		Wet Hone Conn Rod	Sunnen LBB1660	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
47		Wet Mill	Makino PS95	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48		Wet Mill	Makino PS105	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
49		Cooling Tower Dyno	Cooling Tower Dyno	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.080	0.080	0.000	0.000	0.000	0.000	0.080	0.080
50		Cleaner	Cleaner	0.000	0.000	0.000	0.000	0.000	0.000	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
51		Reducer	Reducer	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.007	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.010	0.000
52		Spray Paint	Spray Paint	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.002	0.002
			Small Channal Updated (Tons)	**0.148**	**0.494**	**14062.122**	**77.034**	**58.240**	**0.115**	**508.770**	**0.066**	**0.000**	**0.267**	**0.051**	**9.164**	**224.354**	**71.335**	**0.000**	**0.007**	**9.145**	**314.389**	**167.949**	**165.364**	**0.054**	**0.000**	**0.267**	**314.377**	**18.246**	**15.660**
			June 2024 Registration (Tons)	**0.069**	**0.096**	**4177.792**	**21.893**	**6.707**	**1.332**	**15.277**	**0.066**	**0.000**	**0.267**	**0.004**	**0.001**	**0.001**	**0.000**	**0.000**	**0.000**	**0.000**	**0.338**	**11.989**	**11.989**	**0.054**	**0.000**	**0.267**	**0.326**	**11.939**	**11.939**
			Difference in Tons	0.080	0.398	9884.330	55.141	51.533	-1.217	493.493	0.000	0.000	0.000	0.048	9.163	224.353	71.335	0.000	0.007	9.145	314.051	155.960	153.374	0.000	0.000	0.000	314.051	6.308	3.722

Table 2: Hourly Emissions
SRC of Lexington - Mercer Road, Lexington, Kentucky

				Uncontolled																		Contolled					
IA#	EU#	Process Description	Model	Nitrous Oxide	Methane	Carbon Dioxide	Nitrogen Dioxides	Carbon Monoxide	Sulfur Dioxide	VOC	Nickel	Chromium	Manganese	Benzene	Toluene	Xylene	Ethylbenzene	Cumene	Methyl Isobutyl Ketone	Naphthlene	TOTAL HAPS	PM	PM10	Nickel	Chromium	Manganese	TOTAL HAPS	PM	PM10
	1	Boiler #1 HVAC (2.228 MMBtu/hr)	Boiler #1 HVAC	0.005	0.005	262.118	0.109	0.183	0.001	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.017	0.000	0.000	0.000	0.000	0.017	0.017
	2	Boiler #2 HVAC (2.228 MMBtu/hr)	Boiler #2 HVAC	0.005	0.005	262.118	0.109	0.183	0.001	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.017	0.000	0.000	0.000	0.000	0.017	0.017
	3	Dyno Small Engine Testing < 600 hp	Dyno Small Engine Testing < 600 hp	0.006	0.028	693.000	9.078	3.990	0.006	1.512	0.000	0.000	0.000	0.004	0.002	0.001	0.000	0.000	0.000	0.000	0.007	1.302	1.302	0.000	0.000	0.000	0.007	1.302	1.302
	4	Dyno Medium Engine Testing 600 < to < 1500 hp	Dyno Medium Engine Testing 600 < to < 1500 hp	0.014	0.069	1712.067	22.696	8.925	0.016	0.945	0.000	0.000	0.000	0.008	0.003	0.002	0.000	0.000	0.000	0.000	0.013	1.050	0.602	0.000	0.000	0.000	0.013	1.050	0.602
	5	Dyno Large Engine Testing > 1500 hp	Dyno Large Engine Testing > 1500 hp	0.037	0.184	4565.512	23.025	23.800	0.042	2.520	0.000	0.000	0.000	0.022	0.008	0.005	0.000	0.000	0.000	0.000	0.035	2.800	1.604	0.000	0.000	0.000	0.035	2.800	1.604
	6	Paint Booth 06 (Head Booth)	Paint Booth 06 (Head Booth)	0.000	0.000	0.000	0.000	0.000	0.000	55.541	0.000	0.000	0.000	0.000	1.044	25.609	8.143	0.000	0.000	1.044	35.841	17.101	17.101	0.000	0.000	0.000	35.841	0.017	0.017
	7	Paint Booth 07 (Large Booth)	Paint Booth 07 (Large Booth)	0.000	0.000	0.000	0.000	0.000	0.000	55.541	0.000	0.000	0.000	0.000	1.044	25.609	8.143	0.000	0.000	1.044	35.841	17.101	17.101	0.000	0.000	0.000	35.841	0.017	0.017
1		Natural gas usage (0.8 MMBtu/hr)	Wayne Parts Washer	0.002	0.002	94.118	0.078	0.066	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.006	0.000	0.000	0.000	0.000	0.006	0.006
2		Washer Stream Pressure (0.8 MMBtu/hr)	Washer Stream Pressure	0.002	0.002	94.118	0.078	0.066	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.006	0.000	0.000	0.000	0.000	0.006	0.006
3		Natural gas usage (0.6 MMBtu/hr)	Proceco Parts Washer	0.001	0.001	70.588	0.059	0.049	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.004	0.000	0.000	0.000	0.000	0.004	0.004
3		Parts Washer	Proceco Parts Washer	0.000	0.000	0.000	0.000	0.000	0.000	0.841	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4		Dry Cylinder Block Mill	F105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.170	0.170	0.000	0.000	0.000	0.000	0.170	0.170
5		Dry Cylinder Block Mill	EM105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.340	0.340	0.000	0.000	0.000	0.000	0.340	0.340
6		Dry Horizontal Mill Devlige	Devlige	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.015	0.000	0.000	0.000	0.000	0.015	0.015
7		Dry Knee Mill	Bridgeport X26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.051	0.051	0.000	0.000	0.000	0.000	0.051	0.051
8		Dry Knee Mill	Kent	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.051	0.051	0.000	0.000	0.000	0.000	0.051	0.051
9		Dry Lathe	Birmingham	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.051	0.051	0.000	0.000	0.000	0.000	0.051	0.051
10		Dry Knee Mill	Bridgeport EZ Path II	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.051	0.051	0.000	0.000	0.000	0.000	0.051	0.051
11		Dry Lathe CNC	CNC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.051	0.051	0.000	0.000	0.000	0.000	0.051	0.051
12		Dry Mill	Prototrac	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.051	0.051	0.000	0.000	0.000	0.000	0.051	0.051
13		Dry Mill	CNC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.203	0.203	0.000	0.000	0.000	0.000	0.203	0.203
14		Drt Valve Seat Grinder	SG80	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.014	0.000	0.000	0.000	0.000	0.014	0.014
15		Drt Valve Seat Grinder	Berco Conn Rod SG100XY	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.014	0.000	0.000	0.000	0.000	0.014	0.014
16		Wet Boring Machine	Berco Conn Rod ARB651	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17		Plasma Cutter	Spectrum 875	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.061	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.073	0.913	0.913	0.012	0.000	0.061	0.073	0.913	0.913
18		Blaster	Peterson	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19		Blaster	Winnona	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20		Dry Plastic Media Blaster	Dry Plastic Media Blaster	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21		Spray Welder	Thermac AT-400	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.010	0.010	0.000	0.000	0.000	0.000	0.000	0.000
22		Mig Welder	DeltaWeld	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23		Mig Welder	Miller Matic 251	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
24		Mig Welder	Miller Matic 252	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25		Cooling Tower HVAC	Cooling Tower HVAC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.073	0.073	0.000	0.000	0.000	0.000	0.073	0.073
26		Cooling Tower Dyno	Cooling Tower Dyno	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.309	0.309	0.000	0.000	0.000	0.000	0.309	0.309
27		Ultrasonic cleaner	Omegasonic OMG5022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28		Ultrasonic cleaner	Omegasonic OMG5028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29		Ultrasonic cleaner	Omegasonic OMG5060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30		Ultrasonic cleaner	Ultrasonic LLC 3222F	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31		Ultrasonic cleaner	Ultrasonic LLC 3222R	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32		Ultrasonic cleaner	Ultrasonic LLC 3800FLT	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
33		Mineral spirit washer	SK 257	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34		Mineral spirit washer	SK 250	0.000	0.000	0.000	0.000	0.000	0.000	1.433	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35		Mineral spirit washer	SK 81	0.000	0.000	0.000	0.000	0.000	0.000	0.637	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36		Mineral spirit washer	SK 270	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37		Mineral spirit washer	System one 260	0.000	0.000	0.000	0.000	0.000	0.000	0.358	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
38		Dip Washer	SRC	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39		Washer Jet	Better Engineering	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40		Washer Jet	Mart Hurricane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41		Wet Grinder	Berco Crankshaft Grinder RTM 270	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42		Wet Brinder	Blanchard Series 26	0.000	0.000	0.000	0.000	0.000	0.000	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43		Wet Grinder Surface	Brown Sharp 824	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
44		Wet Grinder Surface	Chevalier FSG1224AD	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
45		Wet Hone	Rottler HP7A	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46		Wet Hone Conn Rod	Sunnen LBB1660	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
47		Wet Mill	Makino PS95	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48		Wet Mill	Makino PS105	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
49		Cooling Tower Dyno	Cooling Tower Dyno	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.018	0.000	0.000	0.000	0.000	0.018	0.018
50		Cleaner	Cleaner	0.000	0.000	0.000	0.000	0.000	0.000	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
51		Reducer	Reducer	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000
52		Spray Paint	Spray Paint	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 3: Emission Data
SRC of Lexington - Mercer Road, Lexington, Kentucky

IA#	EU#	Process Description	Model	Throughput	Throughput Units	# of Units	Emission Factor Units	Nitrous Oxide	Methane	Carbon Dioxide	Nitrogen Dioxides	Carbon Monoxide	Sulfur Dioxide	VOC	Nickel	Chromium	Manganese	Benzene	Toluene	Xylene	Ethylbenzene	Cumene	Methyl Isobutyl Ketone	Naphthlene	TOTAL HAPS	PM	PM10	Control Equipment	Control Efficiency	EF Ref	Notes
	1	Boiler #1 HVAC (2.228 MMBtu/hr)	Boiler #1 HVAC	2.18E-03	MMscf/hr	1	lb/MMcf	2.20	2.30	120000.00	50.00	84.00	0.60	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.6	7.6			AP42 1.4	Already Installed at the Mercer Road Building in 2011 from Aventics Corporation (AI 1091), and NOx EF from manufactuer spec
	2	Boiler #2 HVAC (2.228 MMBtu/hr)	Boiler #2 HVAC	2.18E-03	MMscf/hr	1	lb/MMcf	2.20	2.30	120000.00	50.00	84.00	0.60	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.6	7.6			AP42 1.4	Already Installed at the Mercer Road Building in 2011 from Aventics Corporation (AI 1091), and NOx EF from manufactuer spec
	3	Dyno Small Engine Testing < 600 hp	Dyno Small Engine Testing < 600 hp	0.0304	1,000 gal/hr	1	lb/1000 gal	0.1813	0.91	22770.00	298.292	131.100	0.207	49.68	0.00	0.00	0.00	0.129	0.056	0.039	0.00	0.00	0.00	0.00	0.22	42.78	42.78			AP42 3.3 & 40 CFR Part 98 Table C-1 & 2	NOx emission factor is Nonroad EPA tier 1. Small dyno has operation time of 1.5 hours per 6 hour cycle
	4	Dyno Medium Engine Testing 600 < to < 1500 hp	Dyno Medium Engine Testing 600 < to < 1500 hp	0.0761	1,000 gal/hr	1	lb/1000 gal	0.1813	0.91	22501.45	298.292	117.300	0.207	12.42	0.00	0.00	0.00	0.107	0.039	0.027	0.00	0.00	0.00	0.00	0.17	13.80	7.91			AP42 3.4 & 40 CFR Part 98 Table C-1 & 2	NOx emission factor is Nonroad EPA tier 1. Medium dyno has operation time of 1.5 hours per 6 hour cycle
	5	Dyno Large Engine Testing > 1500 hp	Dyno Large Engine Testing > 1500 hp	0.2029	1,000 gal/hr	1	lb/1000 gal	0.1813	0.91	22501.45	113.481	117.300	0.207	12.42	0.00	0.00	0.00	0.107	0.039	0.027	0.00	0.00	0.00	0.00	0.17	13.80	7.91			AP42 3.4 & 40 CFR Part 98 Table C-1 & 2	NOx emission factor is Nonroad EPA tier 4. Medium dyno has operation time of 3 hours per 7.5 hour cycle
	6	Paint Booth 06 (Head Booth)	Paint Booth 06 (Head Booth)	11.63	Gallon/hr	1	lb/Gallion	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.78	0.00	0.00	0.00	0.00	0.09	2.20	0.70	0.00	0.00	0.09	3.08	1.47	1.47	Filter	99.9%	SDS/EDS	HVLP paint gun, transfer efficiency of 65%
	7	Paint Booth 07 (Large Booth)	Paint Booth 07 (Large Booth)	11.63	Gallon/hr	1	lb/Gallion	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.78	0.00	0.00	0.00	0.00	0.09	2.20	0.70	0.00	0.00	0.09	3.08	1.47	1.47	Filter	99.9%	SDS/EDS	HVLP paint gun, transfer efficiency of 65%
1		Natural gas usage (0.8 MMBtu/hr)	Wayne Parts Washer	7.84E-04	MMscf/hr	1	lb/MMcf	2.20	2.30	120000.00	100.00	84.00	0.60	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.6	7.6			AP42 1.4	See January 2022 application negligible VOC emissions
2		Washer Stream Pressure (0.8 MMBtu/hr)	Washer Stream Pressure	7.84E-04	MMscf/hr	1	lb/MMcf	2.20	2.30	120000.00	100.00	84.00	0.60	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.6	7.6			AP42 1.4	
3		Natural gas usage (0.6 MMBtu/hr)	Proceco Parts Washer	5.88E-04	MMscf/hr	1	lb/MMcf	2.20	2.30	120000.00	100.00	84.00	0.60	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.6	7.6			AP42 1.4	
3		Parts Washer	Proceco Parts Washer	4.11	Gallon/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	0.20	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			March 2022 application	* Part washer cleaning solution is diluted (30% cleaner to 70% water). VOC content is 0.685 lb/gal. (See March 2022 application) Power Clean N-400 used.
4		Dry Cylinder Block Mill	F105	0.08	Pieces/hr	1	lb/piece	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	2.266	2.266			Testing	PM/PM10 Emission Factor from knowing how much is removed per piece
5		Dry Cylinder Block Mill	EM105	0.08	Pieces/hr	2	lb/piece	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	2.266	2.266			Testing	PM/PM10 Emission Factor from knowing how much is removed per piece
6		Dry Horizontal Mill Devlige	Devlige	0.08	Pieces/hr	1	lb/piece	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	0.203	0.203			Testing	PM/PM10 Emission Factor from knowing how much is removed per piece
7		Dry Knee Mill	Bridgeport X26	0.25	Pieces/hr	1	lb/piece	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	0.203	0.203			Testing	PM/PM10 Emission Factor from knowing how much is removed per piece
8		Dry Knee Mill	Kent	0.25	Pieces/hr	1	lb/piece	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	0.203	0.203			Testing	PM/PM10 Emission Factor from knowing how much is removed per piece
9		Dry Lathe	Birmingham	0.25	Pieces/hr	1	lb/piece	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	0.203	0.203			Testing	PM/PM10 Emission Factor from knowing how much is removed per piece
10		Dry Knee Mill	Bridgeport EZ Path II	0.25	Pieces/hr	1	lb/piece	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	0.203	0.203			Testing	PM/PM10 Emission Factor from knowing how much is removed per piece
11		Dry Lathe CNC	CNC	0.25	Pieces/hr	1	lb/piece	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	0.203	0.203			Testing	PM/PM10 Emission Factor from knowing how much is removed per piece
12		Dry Mill	Prototrac	0.25	Pieces/hr	1	lb/piece	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	0.203	0.203			Testing	PM/PM10 Emission Factor from knowing how much is removed per piece
13		Dry Mill	CNC	1.00	Pieces/hr	1	lb/piece	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	0.203	0.203			Testing	PM/PM10 Emission Factor from knowing how much is removed per piece
14		Drt Valve Seat Grinder	SG80	0.92	Pieces/hr	1	lb/piece	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	0.015	0.015			Testing	PM/PM10 Emission Factor from knowing how much is removed per piece
15		Drt Valve Seat Grinder	Berco Conn Rod SG100XY	0.92	Pieces/hr	1	lb/piece	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	0.015	0.015			Testing	PM/PM10 Emission Factor from knowing how much is removed per piece
16		Wet Boring Machine	Berco Conn Rod ARB651	2.00	Pieces/hr	1	lb/piece	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	0.000	0.000			Testing	No VOC or PM emissions from this unit
17		Plasma Cutter	Spectrum 875	0.002	Ton/hr	1	lb/Ton	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.08	0.00	30.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.50	456.3	456.3	Filter - Integral		EIS	Emission Factor from Facility General Survey and 2011 application (Filter with 70% control is integral)
18		Blaster	Peterson	3.42E-05	1000 lb/hr	1	lb/1000 lb	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	0.69	0.69	Filter - Integral		AP42	Filter is factored into the emission factor
19		Blaster	Winnona	3.42E-05	1000 lb/hr	1	lb/1000 lb	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	0.69	0.69	Filter - Integral		AP42	Filter is factored into the emission factor
20		Dry Plastic Media Blaster	Dry Plastic Media Blaster	2.85E-04	1000 lb/hr	2	lb/1000 lb	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	0.69	0.69	Filter - Integral		AP42	Filter is factored into the emission factor
21		Spray Welder	Thermac AT-400	0.23	lbs/hr	1	lb/lb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.05	Filter	99%	Throughput/SDS	Transfer Efficiency of 80% is assumed for PM and SDS (SW 215-T) for HAPs
22		Mig Welder	DeltaWeld	5.71E-05	1000 lb/hr	1	lb/1000 lb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.05	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	5.2	5.2	Filter	70%	AP42 12-19	Use PM/HAP emission factors from E70S
23		Mig Welder	Miller Matic 251	1.14E-04	1000 lb/hr	2	lb/1000 lb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.05	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	5.2	5.2	Filter	70%	AP42 12-19	Use PM/HAP emission factors from E70S
24		Mig Welder	Miller Matic 252	5.71E-05	1000 lb/hr	1	lb/1000 lb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.05	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	5.2	5.2	Filter	70%	AP42 12-19	Use PM/HAP emission factors from E70S
25		Cooling Tower HVAC	Cooling Tower HVAC	0.38	Mgal/hr	1	lb.Mgal	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	0.19	0.19			AP 42 13.4	Already Installed at the Mercer Road Building in 2011 from Aventics Corporation (AI 1091)
26		Cooling Tower Dyno	Cooling Tower Dyno	1.63	Mgal/hr	1	lb.Mgal	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	0.19	0.19			AP 42 13.4	
27		Ultrasonic cleaner	Omegasonic OMG5022	0.017	Gallon/hr	2	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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			SDS	SDS (Atlantic Kleen IL-08M) /Mass Blance
28		Ultrasonic cleaner	Omegasonic OMG5028	0.022	Gallon/hr	2	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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			SDS	SDS (Atlantic Kleen IL-08M) /Mass Blance
29		Ultrasonic cleaner	Omegasonic OMG5060	0.037	Gallon/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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			SDS	SDS (Atlantic Kleen IL-08M) /Mass Blance
30		Ultrasonic cleaner	Ultrasonic LLC 3222F	0.017	Gallon/hr	2	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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			SDS	SDS (Atlantic Kleen IL-08M) /Mass Blance
31		Ultrasonic cleaner	Ultrasonic LLC 3222R	0.017	Gallon/hr	2	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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			SDS	SDS (Atlantic Kleen IL-08M) /Mass Blance
32		Ultrasonic cleaner	Ultrasonic LLC 3800FLT	0.078	Gallon/hr	2	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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			SDS	SDS (Atlantic Kleen IL-08M) /Mass Blance
33		Mineral spirit washer	SK 257	0.001	Gallon/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	6.67	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			SDS	SDS (Safety-Kleen Premium Solvent (Virgin and Recycled) /Mass Blance
34		Mineral spirit washer	SK 250	0.018	Gallon/hr	12	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	6.67	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			SDS	SDS (Safety-Kleen Premium Solvent (Virgin and Recycled) /Mass Blance
35		Mineral spirit washer	SK 81	0.012	Gallon/hr	8	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	6.67	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			SDS	SDS (Safety-Kleen Premium Solvent (Virgin and Recycled) /Mass Blance
36		Mineral spirit washer	SK 270	0.003	Gallon/hr	2	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	6.67	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			SDS	SDS (Safety-Kleen Premium Solvent (Virgin and Recycled) /Mass Blance
37		Mineral spirit washer	System one 260	0.009	Gallon/hr	6	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	6.67	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			SDS	SDS (Safety-Kleen Premium Solvent (Virgin and Recycled) /Mass Blance
38		Dip Washer	SRC	0.001	Gallon/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	6.67	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			SDS	SDS (Safety-Kleen Premium Solvent (Virgin and Recycled) /Mass Blance
39		Washer Jet	Better Engineering	0.301	Gallon/hr	1	lb/Gallion	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			SDS	SDS (GF Clean 167) /Mass Blance
40		Washer Jet	Mart Hurricane	0.301	Gallon/hr	1	lb/Gallion	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			SDS	SDS (GF Clean 167) /Mass Blance
41		Wet Grinder	Berco Crankshaft Grinder RTM 270	0.003	Gallons/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	1.82	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			SDS	SDS (CoolPAK C2640) /No PM emissions assoicated with wet grinding, honing or milling
42		Wet Brinder	Blanchard Series 26	0.011	Gallons/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	1.82	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			SDS	SDS (CoolPAK C2640) /No PM emissions assoicated with wet grinding, honing or milling
43		Wet Grinder Surface	Brown Sharp 824	0.001	Gallons/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	1.82	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			SDS	SDS (CoolPAK C2640) /No PM emissions assoicated with wet grinding, honing or milling
44		Wet Grinder Surface	Chevalier FSG1224AD	0.003	Gallons/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	1.82	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			SDS	SDS (CoolPAK C2640) /No PM emissions assoicated with wet grinding, honing or milling
45		Wet Hone	Rottler HP7A	0.007	Gallons/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	1.82	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			SDS	SDS (CoolPAK C2640) /No PM emissions assoicated with wet grinding, honing or milling
46		Wet Hone Conn Rod	Sunnen LBB1660	0.001	Gallons/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	1.82	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			SDS	SDS (CoolPAK C2640) /No PM emissions assoicated with wet grinding, honing or milling
47		Wet Mill	Makino PS95	0.005	Gallons/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	0.34	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			SDS	SDS (Trim Microsol 692XT) /No PM emissions assoicated with wet grinding, honing or milling
48		Wet Mill	Makino PS105	0.008	Gallons/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	0.34	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			SDS	SDS (Trim Microsol 692XT) /No PM emissions assoicated with wet grinding, honing or milling
49		Cooling Tower Dyno	Cooling Tower Dyno	0.096	Mgal/hr	1	lb.Mgal	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	0.19	0.19			AP 42 13.4	
50		Cleaner	Cleaner	4.57E-03	Gallon/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	6.90	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			SDS/EDS	
51		Reducer	Reducer	4.57E-04	Gallon/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	6.75	0.00	0.00	0.00	0.00	0.00	1.49	0.27	0.00	3.44	0.00	5.20	0.00	0.00			SDS/EDS	
52		Spray Paint	Spray Paint	3.85E-04	Gallon/hr	1	lb/Gallion	0.00	0.00	0.00	0.00	0.00	0.00	2.84	0.00	0.00	0.00	0.00	0.00	0.13	0.03	0.00	0.00	0.00	0.15	1.30	1.30			SDS/EDS	

Table 4: Emission Sources
SRC of Lexington - Mercer Road, Lexington, Kentucky

Product Number	Company	Product Name	Usage	Coating Density	VOC	Toluene	Xylene	Ethylbenzene	Cumene	Methyl Isobutyl Ketone	Naphthlene	Total HAPS	PM/PM10
				(lb/gal)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
1400025H1	Komatsu America	New Yellow	Paint	9.01	44.10%	1.00%	3.00%	0.70%	0.10%	0.00%	0.00%	4.80%	55.70%
1400936H1	Komatsu America	Black Gray	Paint	7.96	55.47%	1.31%	5.90%	1.30%	0.18%	0.00%	0.00%	8.69%	44.53%
PN-0543	**Diamond Vogel**	**3.5 Gray Primer H/C R/I L/F**	**Paint**	**8.98**	**53.20%**	**1.00%**	**24.53%**	**7.80%**	**0.00%**	**0.00%**	**1.00%**	**34.33%**	**46.80%**
F75YC19	SHERWIN-WILLIAMS	High Gloss Metal Finishing Enamel, Equipment Yellow	Gloss	9.04	45.10%	1.00%	1.00%	0.30%	0.30%	0.00%	0.00%	2.60%	54.80%
A11W253	SHERWIN-WILLIAMS	All Surface Enamel - Oil Base Gloss, Deep Base	Gloss	8.86	41.70%	0.00%	0.00%	0.10%	0.00%	0.10%	0.00%	0.20%	58.30%
5850	Safety-Kleen	Heavy Duty Lacquer Thinner	Cleaner	6.90	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Reducer #54	SHERWIN-WILLIAMS	Reducer #54	Reducer	6.75	100.00%	0.00%	22.00%	4.00%	0.00%	51.00%	0.00%	77.00%	0.00%
1400935H1	Komatsu America	Black Gray	Areosol	6.39	44.50%	0.00%	2.00%	0.40%	0.00%	0.00%	0.00%	2.40%	20.30%

APPENDIX C

Safety Data Sheets (SDSs) and Environmental Data Sheets (EDS)

SAFETY DATA SHEET

1400025H1

Section 1. Identification

Product name : 1400025H1 NEW YELLOW

Product code : 1400025H1

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 : Manufactured for
Komatsu America
8770 W. Bryn Mawr. Ave. Suite 100
Chicago, IL 60631

Emergency telephone number of the company : (216) 566-2917

Product Information Telephone Number : Not available.

Transportation Emergency Telephone Number : Not available.

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
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
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 1
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 6.2% (oral), 9.9% (dermal), 7.8% (inhalation)

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
May damage fertility or the unborn child.
Causes 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 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. Do not eat, drink or smoke when using this product. 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 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. 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

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 PROFESSIONAL USE ONLY.

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 : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
n-Butyl Acetate	≥10 - ≤25	123-86-4
Titanium Dioxide	≤10	13463-67-7
Hydrotreated Heavy Petroleum Naphtha	≤10	64742-48-9
Med. Aliphatic Hydrocarbon Solvent	≤10	64742-88-7
Stoddard Solvent	≤10	8052-41-3
Xylene, mixed isomers	≤3	1330-20-7
Light Aromatic Hydrocarbons	≤3	64742-95-6
Ethyl 3-Ethoxypropionate	≤3	763-69-9
2-methoxy-1-methylethyl acetate	≤3	108-65-6
trimethylbenzene	≤3	25551-13-7
Toluene	≤3	108-88-3
Ethylbenzene	<1	100-41-4
1,3,5-Trimethylbenzene	<1	108-67-8
1,2,4-Trimethylbenzene	<1	95-63-6
Bis(pentamethyl-4-piperidyl)sebacate	≤1	41556-26-7
Zirconium 2-Ethylhexanoate	≤0.3	22464-99-9
Methyl Ethyl Ketoxime	≤0.3	96-29-7
Cumene	≤0.3	98-82-8
1,2,3-Trimethylbenzene	≤0.3	526-73-8
Methyl pentamethylpiperidyl sebacate	≤0.3	82919-37-7

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 : 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. 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 : 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. 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 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
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 : 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, CO_2, 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
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. 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. 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.

Section 6. Accidental release measures

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 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
n-Butyl Acetate	123-86-4	**NIOSH REL (United States, 10/2020).** TWA: 150 ppm 10 hours. TWA: 710 mg/m³ 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 150 ppm 8 hours. TWA: 710 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2024). [Butyl acetates]** STEL: 150 ppm 15 minutes.

Section 8. Exposure controls/personal protection

		TWA: 50 ppm 8 hours.
Titanium Dioxide	13463-67-7	**OSHA PEL (United States, 5/2018).** TWA: 15 mg/m³ 8 hours. Form: Total dust **ACGIH TLV (United States, 1/2024).** TWA: 2.5 mg/m³ 8 hours. Form: respirable fraction, finescale particles
Hydrotreated Heavy Petroleum Naphtha	64742-48-9	None.
Med. Aliphatic Hydrocarbon Solvent	64742-88-7	**OSHA PEL (United States, 5/2018). [Naphtha (Coal tar)]** TWA: 100 ppm 8 hours. TWA: 400 mg/m³ 8 hours.
Stoddard Solvent	8052-41-3	**ACGIH TLV (United States, 1/2024).** TWA: 100 ppm 8 hours. TWA: 525 mg/m³ 8 hours. **NIOSH REL (United States, 10/2020).** TWA: 350 mg/m³ 10 hours. CEIL: 1800 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 500 ppm 8 hours. TWA: 2900 mg/m³ 8 hours.
Xylene, mixed isomers	1330-20-7	**OSHA PEL (United States, 5/2018). [Xylenes]** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2024). [p-xylene and mixtures containing p-xylene] Ototoxicant.** TWA: 20 ppm 8 hours.
Light Aromatic Hydrocarbons	64742-95-6	None.
Ethyl 3-Ethoxypropionate	763-69-9	None.
2-methoxy-1-methylethyl acetate	108-65-6	**OARS WEEL (United States, 4/2022).** TWA: 50 ppm 8 hours.
trimethylbenzene	25551-13-7	**ACGIH TLV (United States, 1/2024). [trimethyl benzene, isomers]** TWA: 10 ppm 8 hours.
Toluene	108-88-3	**OSHA PEL Z2 (United States, 2/2013).** TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. **NIOSH REL (United States, 10/2020).** TWA: 100 ppm 10 hours. TWA: 375 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes. **ACGIH TLV (United States, 1/2024). Ototoxicant.** TWA: 20 ppm 8 hours.
Ethylbenzene	100-41-4	**ACGIH TLV (United States, 1/2024). Ototoxicant.** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 10/2020).** TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours.

Section 8. Exposure controls/personal protection

		TWA: 435 mg/m³ 8 hours.
1,3,5-Trimethylbenzene	108-67-8	**ACGIH TLV (United States, 1/2024). [trimethyl benzene, isomers]** TWA: 10 ppm 8 hours. **NIOSH REL (United States, 10/2020).** TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.
1,2,4-Trimethylbenzene	95-63-6	**NIOSH REL (United States, 10/2020).** TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours. **ACGIH TLV (United States, 1/2024).** TWA: 10 ppm 8 hours.
Bis(pentamethyl-4-piperidyl)sebacate	41556-26-7	None.
Zirconium 2-Ethylhexanoate	22464-99-9	**ACGIH TLV (United States, 1/2024). [Zirconium and compounds]** TWA: 5 mg/m³, (as Zr) 8 hours. STEL: 10 mg/m³, (as Zr) 15 minutes. **NIOSH REL (United States, 10/2020). [zirconium compounds]** TWA: 5 mg/m³, (as Zr) 10 hours. STEL: 10 mg/m³, (as Zr) 15 minutes. **OSHA PEL (United States, 5/2018). [Zirconium compounds]** TWA: 5 mg/m³, (as Zr) 8 hours.
Methyl Ethyl Ketoxime	96-29-7	**OARS WEEL (United States, 4/2022). Skin sensitizer.** TWA: 10 ppm 8 hours.
Cumene	98-82-8	**ACGIH TLV (United States, 1/2024).** TWA: 5 ppm 8 hours. **NIOSH REL (United States, 10/2020). Absorbed through skin.** TWA: 50 ppm 10 hours. TWA: 245 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018). Absorbed through skin.** TWA: 50 ppm 8 hours. TWA: 245 mg/m³ 8 hours.
1,2,3-Trimethylbenzene	526-73-8	**ACGIH TLV (United States, 1/2024). [trimethyl benzene, isomers]** TWA: 10 ppm 8 hours. **NIOSH REL (United States, 10/2020).** TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.
Methyl pentamethylpiperidyl sebacate	82919-37-7	None.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
n-butyl acetate	123-86-4	**CA Alberta Provincial (Canada, 3/2023).** OEL: 200 ppm 15 minutes. OEL: 950 mg/m³ 15 minutes. OEL: 150 ppm 8 hours. OEL: 713 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours.

		CA Ontario Provincial (Canada, 6/2019). [butyl acetates, all isomers] STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. **CA British Columbia Provincial (Canada, 8/2023). [butyl acetate, all isomers]** STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024). [butyl acetates]** STEV: 150 ppm 15 minutes. TWAEV: 50 ppm 8 hours.
Medium aliphatic solvent naphtha (petroleum) C9-C12	64742-88-7	**CA Ontario Provincial (Canada, 6/2019). [Mineral Spirits]** TWA: 525 mg/m³ 8 hours.
Stoddard solvent	8052-41-3	**CA Alberta Provincial (Canada, 3/2023).** OEL: 572 mg/m³ 8 hours. OEL: 100 ppm 8 hours. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 290 mg/m³ 8 hours. STEL: 580 mg/m³ 15 minutes. **CA Ontario Provincial (Canada, 6/2019).** TWA: 100 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 100 ppm 8 hours. TWAEV: 525 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.
Xylene	1330-20-7	**CA Alberta Provincial (Canada, 3/2023). [Dimethylbenzene]** OEL: 100 ppm 8 hours. OEL: 651 mg/m³ 15 minutes. OEL: 150 ppm 15 minutes. OEL: 434 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 8/2023). [Xylene (o, m & p isomers)]** TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. **CA Quebec Provincial (Canada, 2/2024). [Xylene]** TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes. **CA Ontario Provincial (Canada, 6/2019). [Xylene (o-, m-, p-isomers)]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021). [Xylene]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Trimethylbenzene	25551-13-7	**CA Alberta Provincial (Canada, 3/2023). [Trimethyl benzene]**

Section 8. Exposure controls/personal protection

		OEL: 123 mg/m³ 8 hours. OEL: 25 ppm 8 hours. **CA British Columbia Provincial (Canada, 8/2023). [Trimethyl benzene (mixed isomers)]** TWA: 25 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024). [Trimethyl benzene] Skin sensitizer. Inhalation sensitizer.** TWAEV: 25 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019). [Trimethyl benzene (mixed isomers)]** TWA: 25 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021). [Trimethyl benzene]** STEL: 30 ppm 15 minutes. TWA: 25 ppm 8 hours.
toluene	108-88-3	**CA Alberta Provincial (Canada, 3/2023). Absorbed through skin.** OEL: 50 ppm 8 hours. OEL: 188 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024). Ototoxicant.** TWAEV: 20 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021). Absorbed through skin.** STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.
Ethylbenzene	100-41-4	**CA Alberta Provincial (Canada, 3/2023).** OEL: 100 ppm 8 hours. OEL: 434 mg/m³ 8 hours. OEL: 543 mg/m³ 15 minutes. OEL: 125 ppm 15 minutes. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 20 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.
Zirconium 2-Ethylhexanoate	22464-99-9	**CA Alberta Provincial (Canada, 3/2023). [Zirconium and compounds]** OEL: 5 mg/m³, (as Zr) 8 hours. OEL: 10 mg/m³, (as Zr) 15 minutes. **CA British Columbia Provincial (Canada, 8/2023). [Zirconium and compounds]** TWA: 5 mg/m³, (as Zr) 8 hours. STEL: 10 mg/m³, (as Zr) 15 minutes.

		CA Quebec Provincial (Canada, 2/2024). [Zirconium and compounds] TWAEV: 5 mg/m³, (as Zr) 8 hours. STEV: 10 mg/m³, (as Zr) 15 minutes. **CA Ontario Provincial (Canada, 6/2019). [Zirconium and compounds]** STEL: 10 mg/m³, (as Zr) 15 minutes. TWA: 5 mg/m³, (as Zr) 8 hours.
Methyl Ethyl Ketoxime	96-29-7	**OARS WEEL (United States, 4/2022). Skin sensitizer.** TWA: 10 ppm 8 hours.
Cumene	98-82-8	**CA Alberta Provincial (Canada, 3/2023).** OEL: 50 ppm 8 hours. OEL: 246 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 25 ppm 8 hours. STEL: 75 ppm 15 minutes. **CA Ontario Provincial (Canada, 6/2019).** TWA: 50 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 5 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 74 ppm 15 minutes. TWA: 50 ppm 8 hours.

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
n-Butyl Acetate	123-86-4	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes.
Stoddard Solvent	8052-41-3	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 100 ppm 8 hours.
Xylene, mixed isomers	1330-20-7	**NOM-010-STPS-2014 (Mexico, 4/2016). [Xileno, mezcla]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
trimethylbenzene	25551-13-7	**NOM-010-STPS-2014 (Mexico, 4/2016). [Trimetil benceno, mezcla de Isómeros]** TWA: 25 ppm 8 hours.
Toluene	108-88-3	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 20 ppm 8 hours.
Zirconium 2-Ethylhexanoate	22464-99-9	**NOM-010-STPS-2014 (Mexico, 4/2016). [Circonio y compuestos]** TWA: 5 mg/m³, (as Zr) 8 hours. STEL: 10 mg/m³, (as Zr) 15 minutes.
Cumene	98-82-8	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 50 ppm 8 hours.

Biological exposure indices (United States)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure indices
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.
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.
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)

Ingredient name	Exposure indices
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) [xylenes (technical or commercial grade)]** BEI: 1.5 g/g creatinine, methyl hippuric acids [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

Section 8. Exposure controls/personal protection

	results. These background levels are included in the valu], o-cresol [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.

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 : Yellow.

Odor : Not available.

Odor threshold : Not available.

Section 9. Physical and chemical properties

pH : Not applicable.

Melting point/freezing point : Not available.

Boiling point, initial boiling point, and boiling range : 105°C (221°F)

Flash point : Closed cup: 33°C (91.4°F) [Pensky-Martens Closed Cup]

Evaporation rate : 2 (butyl acetate = 1)

Flammability : Flammable liquid.

Lower and upper explosion limit/flammability limit : Lower: 0.7%
Upper: 13.1%

Vapor pressure : 2.9 kPa (22 mm Hg)

Relative vapor density : 3.1 [Air = 1]

Relative density : 1.08

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 : Kinematic (40°C (104°F)): <20.5 mm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Heat of combustion : 15.889 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	Species	Dose	Exposure
n-Butyl Acetate	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
Hydrotreated Heavy Petroleum Naphtha	LC50 Inhalation Vapor	Rat	8500 mg/m³	4 hours
	LD50 Oral	Rat	>6 g/kg	-
Xylene, mixed isomers	LC50 Inhalation Gas.	Rat	6700 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
Light Aromatic Hydrocarbons	LD50 Oral	Rat	8400 mg/kg	-
Ethyl 3-Ethoxypropionate	LD50 Oral	Rat	3200 mg/kg	-
2-methoxy-1-methylethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	8532 mg/kg	-
trimethylbenzene	LD50 Oral	Rat	8970 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
1,3,5-Trimethylbenzene	LC50 Inhalation Vapor	Rat	24000 mg/m³	4 hours
	LD50 Oral	Rat	5000 mg/kg	-
1,2,4-Trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m³	4 hours
	LD50 Oral	Rat	5 g/kg	-
Zirconium 2-Ethylhexanoate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	>5 g/kg	-
Methyl Ethyl Ketoxime	LD50 Oral	Rat	930 mg/kg	-
Cumene	LC50 Inhalation Vapor	Rat	39000 mg/m³	4 hours
	LD50 Oral	Rat	1400 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
n-Butyl Acetate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 ug I	-
Stoddard Solvent	Eyes - Mild irritant	Human	-	100 ppm	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Xylene, mixed isomers	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Light Aromatic Hydrocarbons	Eyes - Mild irritant	Rabbit	-	24 hours 100 uL	-
Ethyl 3-Ethoxypropionate	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
trimethylbenzene	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-

Section 11. Toxicological information

	Eyes - Mild irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	0.1 Ml	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-
1,3,5-Trimethylbenzene	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
Methyl Ethyl Ketoxime	Eyes - Severe irritant	Rabbit	-	100 uL	-
Cumene	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	86 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 10 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

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

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
n-Butyl Acetate	Category 3	-	Narcotic effects
Stoddard Solvent	Category 3	-	Narcotic effects
Xylene, mixed isomers	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Light Aromatic Hydrocarbons	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
2-methoxy-1-methylethyl acetate	Category 3	-	Narcotic effects
Toluene	Category 3	-	Narcotic effects
Ethylbenzene	Category 3	-	Narcotic effects
1,3,5-Trimethylbenzene	Category 3	-	Respiratory tract irritation
1,2,4-Trimethylbenzene	Category 3	-	Respiratory tract irritation
Methyl Ethyl Ketoxime	Category 1	-	upper respiratory tract
	Category 3		Narcotic effects
Cumene	Category 3	-	Narcotic effects
1,2,3-Trimethylbenzene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Med. Aliphatic Hydrocarbon Solvent	Category 1	-	-
Xylene, mixed isomers	Category 2	-	-
Toluene	Category 2	-	-
Ethylbenzene	Category 2	-	-
Methyl Ethyl Ketoxime	Category 2	-	blood system

Aspiration hazard

Name	Result
Hydrotreated Heavy Petroleum Naphtha	ASPIRATION HAZARD - Category 1
Med. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Stoddard Solvent	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1
Light Aromatic Hydrocarbons	ASPIRATION HAZARD - Category 1
trimethylbenzene	ASPIRATION HAZARD - Category 1
Toluene	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
1,3,5-Trimethylbenzene	ASPIRATION HAZARD - Category 1
1,2,4-Trimethylbenzene	ASPIRATION HAZARD - Category 1
Cumene	ASPIRATION HAZARD - Category 1
1,2,3-Trimethylbenzene	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.

Section 11. Toxicological information

Skin contact : Causes skin irritation. 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 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
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.

General : Causes 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.

Teratogenicity : May damage the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

Numerical measures of toxicity

Section 11. Toxicological information

Acute toxicity estimates

Route	ATE value
Oral	30180.57 mg/kg
Dermal	88993.67 mg/kg
Inhalation (vapors)	1019.07 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
n-Butyl Acetate	Acute LC50 32 mg/l Marine water	Crustaceans - *Artemia salina*	48 hours
	Acute LC50 18000 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - *Fundulus heteroclitus*	96 hours
Xylene, mixed isomers	Acute LC50 8500 µg/l Marine water	Crustaceans - *Palaemonetes pugio*	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
trimethylbenzene	Acute LC50 5600 µg/l Marine water	Crustaceans - *Palaemonetes pugio*	48 hours
Toluene	Acute EC50 12500 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - *Gammarus pseudolimnaeus* - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - *Daphnia magna* - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - *Oncorhynchus kisutch* - Fry	96 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - *Daphnia magna*	21 days
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	96 hours
	Acute EC50 6.53 mg/l Marine water	Crustaceans - *Artemia sp.* - Nauplii	48 hours
	Acute EC50 2.93 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - *Oncorhynchus mykiss*	96 hours
1,3,5-Trimethylbenzene	Acute LC50 13000 µg/l Marine water	Crustaceans - *Cancer magister* - Zoea	48 hours
	Acute LC50 12520 µg/l Fresh water	Fish - *Carassius auratus*	96 hours
	Chronic NOEC 0.4 mg/l Fresh water	Daphnia - *Daphnia magna*	21 days
1,2,4-Trimethylbenzene	Acute LC50 4910 µg/l Marine water	Crustaceans - *Elasmopus pectenicrus* - Adult	48 hours
	Acute LC50 7720 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
Methyl Ethyl Ketoxime	Acute LC50 843000 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
Cumene	Acute EC50 2600 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	72 hours
	Acute EC50 7.4 mg/l Marine water	Crustaceans - *Artemia sp.* - Nauplii	48 hours
	Acute EC50 10.6 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 2700 µg/l Fresh water	Fish - *Oncorhynchus mykiss*	96 hours

Persistence and degradability

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
n-Butyl Acetate	-	-	Readily
Xylene, mixed isomers	-	-	Readily
Light Aromatic Hydrocarbons	-	-	Readily
Toluene	-	-	Readily
Ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Hydrotreated Heavy Petroleum Naphtha	-	10 to 2500	High
Xylene, mixed isomers	-	8.1 to 25.9	Low
Light Aromatic Hydrocarbons	-	10 to 2500	High
Toluene	-	90	Low
1,3,5-Trimethylbenzene	-	161	Low
1,2,4-Trimethylbenzene	-	243	Low
Zirconium 2-Ethylhexanoate	-	2.96	Low
Methyl Ethyl Ketoxime	-	2.5 to 5.8	Low
Cumene	-	35.48	Low
1,2,3-Trimethylbenzene	-	194.98	Low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : 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

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	- **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

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet, where applicable.

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

Section 15. Regulatory information

Montreal Protocol

Not listed.

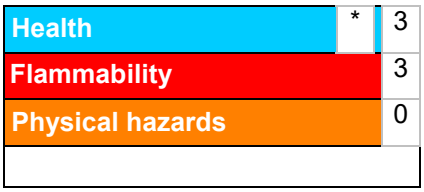
Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists : **Australia inventory (AIIC)**: 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.)



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
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION - Category 1B	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing : 9/24/2024

Date of issue/Date of revision : 9/24/2024

Date of previous issue : 5/17/2024

Version : 19

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.

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.

ENVIRONMENTAL DATA SHEET

(Certified Product Data Sheet)

Date of Preparation
Nov 1, 2024

19 00 [2614]

PRODUCT NUMBER

1400025H1

PRODUCT NAME

1400025H1 NEW YELLOW, New Yellow

MANUFACTURER'S NAME

MANUFACTURED FOR
Komatsu America
8770 W. Bryn Mawr. Ave. Suite 100
Chicago, IL 60631

This document includes all data required by 40 CFR 63.801(a) for a Certified Product Data Sheet under criteria specified in 40 CFR 63.805(a). 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.

Hazard Category (for SARA 311.312)

1400025H1 = | Acute | Chronic | Fire |

Product Weight	**Specific Gravity**	**FLASH POINT**
9.01 lb/gal	1.08	91 °F PMCC

Volatile Ingredients

Chemical / Compound	SARA 302 EHS	CERCLA	SARA 313 TC	HAPS 112	% by Weight	% by Volume
Med. Aliphatic Hydrocarbon Solvent 64742-88-7	N	N	N	N	6	9
Stoddard Solvent 8052-41-3	N	N	N	N	6	8
Hydrotreated Heavy Petroleum Naphtha 64742-48-9	N	N	N	N	6	9
Toluene 108-88-3	N	Y	Y	Y	1	1
Ethylbenzene 100-41-4	N	Y	Y	Y	0.7	0.8
Xylene 1330-20-7	N	Y	Y	Y	3	3
Light Aromatic Hydrocarbons 64742-95-6	N	N	N	N	2	3
Cumene 98-82-8	N	Y	Y	Y	0.1	0.2
Trimethylbenzene 25551-13-7	N	N	N	N	1	1
Ethyl 3-Ethoxypropionate 763-69-9	N	N	N	N	2	2
n-Butyl Acetate 123-86-4	N	Y	N	N	13	16
1-Methoxy-2-Propanol Acetate 108-65-6	N	N	N	N	1	2

Volatile Organic Compounds - U.S. EPA / Canada

	1400025H1	
	LB/Gal	**g/L**
Coating Density	9.01	1079
	By wt	**By vol**
Total Volatiles	44.3%	56.8%
Federally exempt solvents		
Water	0.1%	0.1%
Organic Volatiles	44.1%	56.6%
Percent Non-Volatile	55.7%	43.2%
VOC Content	**LB/Gal**	**g/L**
Total	3.97	476
Less exempt solvents	3.97	476
Of solids	9.19	1101
Of solids	0.79 lb/lb	0.79 kg/kg
	By wt	
By wt LVP-VOC	44.1%	

Maximum Incremental Reactivity (MIR) (per US EPA Aerosol Ctg Rule, MIR Values 2009) **0.99**

Volatile Organic Compounds - California

	1400025H1	
	LB/Gal	**g/L**
Coating Density	9.01	1079
	By wt	**By vol**
Total Volatiles	44.3%	56.8%
Exempt solvents		
Water	0.1%	0.1%
Organic Volatiles	44.1%	56.6%
Percent Non-Volatile	55.7%	43.2%
VOC Content	**LB/Gal**	**g/L**
Total	3.97	476
Less exempt solvents	3.97	476
Of solids	9.19	1101
Of solids	0.79 lb/lb	0.79 kg/kg
	By wt	
By wt LVP-VOC	44.1%	

Maximum Incremental Reactivity (MIR) (per California Air Resources Board Aerosol Products Regulation, MIR Values 2010) **0.95**

Volatile Organic Compounds - South Coast Air Quality Management District, California, US

	1400025H1	
	LB/Gal	g/L
Coating Density	9.01	1079
	By wt	By vol
Total Volatiles	44.3%	56.8%
Exempt solvents		
Water	0.1%	0.1%
Organic Volatiles	44.1%	56.6%
Percent Non-Volatile	55.7%	43.2%
VOC Content	LB/Gal	g/L
Total	3.97	476
Less exempt solvents	3.97	476
Of solids	9.19	1101
Of solids	0.79 lb/lb	0.79 kg/kg

Volatile Organic Compounds - EU Directive 2004/42/EC

	1400025H1	
	By wt	By vol
Total Volatiles	44.3%	56.8%
VOC Content	LB/Gal	g/L
Total	3.97	476

Volatile Organic Compounds - EU Directive 2010/75/EU

	1400025H1	
	By wt	By vol
Total Volatiles	44.2%	56.7%
VOC Content	LB/Gal	g/L
Total	3.97	476

Volatile Organic Compounds - Mexico

	1400025H1	
	LB/Gal	g/L
Coating Density	9.01	1079
	By wt	By vol
Total Volatiles	44.3%	56.8%
Exempt solvents		
Water	0.1%	0.1%
Organic Volatiles	44.1%	56.6%
Percent Non-Volatile	55.7%	43.2%
VOC Content	LB/Gal	g/L
Total	3.97	476
Less exempt solvents	3.97	476
Of solids	9.19	1101
Of solids	0.79 lb/lb	0.79 kg/kg

Hazardous Air Pollutants (Clean Air Act, Section 112(b))

	1400025H1	
	LB/Gal	kg/L
Volatile HAPS	0.41	0.050
Of solids	0.96	0.115
Of solids	0.08 lb/lb	0.08 kg/kg

Air Quality Data

Density of Organic Solvent Blend

7.02 lb/gal

Photochemically Reactive

Yes

Waste Disposal

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

SAFETY DATA SHEET

1400935H1

Section 1. Identification

Product name : 1400935H1 Black Gray

Product code : 1400935H1

Other means of identification : Not available.

Product type : Aerosol.

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

Paint or paint related material.

Manufacturer : Manufactured for
Komatsu America
8770 W. Bryn Mawr. Ave. Suite 100
Chicago, IL 60631

Emergency telephone number of the company : (216) 566-2917

Product Information Telephone Number : Not available.

Transportation Emergency Telephone Number : Not available.

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 AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
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 1
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 25.4% (oral), 25.4% (dermal), 17.3% (inhalation)

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
May be fatal if swallowed and enters airways.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
May damage fertility or the unborn child.
Causes 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 and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Pressurized container: Do not pierce or burn, even after use.

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. 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. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. 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.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Acetone	≥25 - ≤50	67-64-1
Propane	≥10 - ≤25	74-98-6
2-Methylpropane	≤10	75-28-5
n-Butyl Acetate	≤5	123-86-4
Hydrotreated Heavy Petroleum Naphtha	≤5	64742-48-9
Med. Aliphatic Hydrocarbon Solvent	≤5	64742-88-7
Stoddard Solvent	≤5	8052-41-3
Xylene, mixed isomers	≤3	1330-20-7
Light Aromatic Hydrocarbons	≤3	64742-95-6
Titanium Dioxide	≤1	13463-67-7
trimethylbenzene	<1	25551-13-7
Toluene	<1	108-88-3
Ethylbenzene	<1	100-41-4
1,3,5-Trimethylbenzene	≤0.3	108-67-8
1,2,4-Trimethylbenzene	≤0.3	95-63-6
Bis(pentamethyl-4-piperidyl)sebacate	≤0.3	41556-26-7
Carbon Black	≤0.3	1333-86-4
Zirconium 2-Ethylhexanoate	≤0.3	22464-99-9
Methyl Ethyl Ketoxime	≤0.3	96-29-7

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 : 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 : 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 : 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

Section 4. First aid measures

Potential acute health effects

Eye contact : Causes serious eye irritation.

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

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 or irritation
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:
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 an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. 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. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

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 aerosol.

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. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. 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.

Section 6. Accidental release measures

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. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. 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. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Empty containers retain product residue and can be hazardous.

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 away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. 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
Acetone	67-64-1	**ACGIH TLV (United States, 1/2024).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **NIOSH REL (United States, 10/2020).** TWA: 250 ppm 10 hours. TWA: 590 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 2400 mg/m³ 8 hours.
Propane	74-98-6	**NIOSH REL (United States, 10/2020).** TWA: 1000 ppm 10 hours. TWA: 1800 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 1800 mg/m³ 8 hours.

Section 8. Exposure controls/personal protection

		ACGIH TLV (United States, 1/2024). Oxygen Depletion [Asphyxiant]. Explosive potential.
2-Methylpropane	75-28-5	**NIOSH REL (United States, 10/2020).** TWA: 800 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. **ACGIH TLV (United States, 1/2024). [Butane] Explosive potential.** STEL: 1000 ppm 15 minutes.
n-Butyl Acetate	123-86-4	**NIOSH REL (United States, 10/2020).** TWA: 150 ppm 10 hours. TWA: 710 mg/m³ 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 150 ppm 8 hours. TWA: 710 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2024). [Butyl acetates]** STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.
Hydrotreated Heavy Petroleum Naphtha	64742-48-9	None.
Med. Aliphatic Hydrocarbon Solvent	64742-88-7	**OSHA PEL (United States, 5/2018). [Naphtha (Coal tar)]** TWA: 100 ppm 8 hours. TWA: 400 mg/m³ 8 hours.
Stoddard Solvent	8052-41-3	**ACGIH TLV (United States, 1/2024).** TWA: 100 ppm 8 hours. TWA: 525 mg/m³ 8 hours. **NIOSH REL (United States, 10/2020).** TWA: 350 mg/m³ 10 hours. CEIL: 1800 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 500 ppm 8 hours. TWA: 2900 mg/m³ 8 hours.
Xylene, mixed isomers	1330-20-7	**OSHA PEL (United States, 5/2018). [Xylenes]** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2024). [p-xylene and mixtures containing p-xylene] Ototoxicant.** TWA: 20 ppm 8 hours.
Light Aromatic Hydrocarbons	64742-95-6	None.
Titanium Dioxide	13463-67-7	**OSHA PEL (United States, 5/2018).** TWA: 15 mg/m³ 8 hours. Form: Total dust **ACGIH TLV (United States, 1/2024).** TWA: 2.5 mg/m³ 8 hours. Form: respirable fraction, finescale particles
trimethylbenzene	25551-13-7	**ACGIH TLV (United States, 1/2024). [trimethyl benzene, isomers]** TWA: 10 ppm 8 hours.
Toluene	108-88-3	**OSHA PEL Z2 (United States, 2/2013).** TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. **NIOSH REL (United States, 10/2020).** TWA: 100 ppm 10 hours.

Section 8. Exposure controls/personal protection

		TWA: 375 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes. **ACGIH TLV (United States, 1/2024). Ototoxicant.** TWA: 20 ppm 8 hours.
Ethylbenzene	100-41-4	**ACGIH TLV (United States, 1/2024). Ototoxicant.** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 10/2020).** TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
1,3,5-Trimethylbenzene	108-67-8	**ACGIH TLV (United States, 1/2024). [trimethyl benzene, isomers]** TWA: 10 ppm 8 hours. **NIOSH REL (United States, 10/2020).** TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.
1,2,4-Trimethylbenzene	95-63-6	**NIOSH REL (United States, 10/2020).** TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours. **ACGIH TLV (United States, 1/2024).** TWA: 10 ppm 8 hours.
Bis(pentamethyl-4-piperidyl)sebacate	41556-26-7	None.
Carbon Black	1333-86-4	**ACGIH TLV (United States, 1/2024).** TWA: 3 mg/m³ 8 hours. Form: Inhalable fraction **NIOSH REL (United States, 10/2020).** TWA: 3.5 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 3.5 mg/m³ 8 hours.
Zirconium 2-Ethylhexanoate	22464-99-9	**ACGIH TLV (United States, 1/2024). [Zirconium and compounds]** TWA: 5 mg/m³, (as Zr) 8 hours. STEL: 10 mg/m³, (as Zr) 15 minutes. **NIOSH REL (United States, 10/2020). [zirconium compounds]** TWA: 5 mg/m³, (as Zr) 10 hours. STEL: 10 mg/m³, (as Zr) 15 minutes. **OSHA PEL (United States, 5/2018). [Zirconium compounds]** TWA: 5 mg/m³, (as Zr) 8 hours.
Methyl Ethyl Ketoxime	96-29-7	**OARS WEEL (United States, 4/2022). Skin sensitizer.** TWA: 10 ppm 8 hours.

Occupational exposure limits (Canada)

Section 8. Exposure controls/personal protection

Ingredient name	CAS #	Exposure limits
acetone	67-64-1	**CA Alberta Provincial (Canada, 3/2023).** OEL: 1200 mg/m³ 8 hours. OEL: 1800 mg/m³ 15 minutes. OEL: 500 ppm 8 hours. OEL: 750 ppm 15 minutes. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **CA Ontario Provincial (Canada, 6/2019).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 250 ppm 8 hours. STEV: 500 ppm 15 minutes. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours.
Normal propane	74-98-6	**CA Alberta Provincial (Canada, 3/2023).** OEL: 1000 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA British Columbia Provincial (Canada, 8/2023). Oxygen Depletion [Asphyxiant]. Explosive potential.** **CA Ontario Provincial (Canada, 6/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.** **CA Quebec Provincial (Canada, 2/2024). Oxygen Depletion [Asphyxiant]. Explosive potential.**
Methyl-2 propane	75-28-5	**CA Alberta Provincial (Canada, 3/2023). [Aliphatic Hydrocarbon gases, Alkane (C2-C4)]** OEL: 1000 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021). [Butane]** STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA British Columbia Provincial (Canada, 8/2023). [butane, all isomers] Explosive potential.** STEL: 1000 ppm 15 minutes. **CA Ontario Provincial (Canada, 6/2019). [Butane, All isomers] Explosive potential.** STEL: 1000 ppm 15 minutes. **CA Quebec Provincial (Canada, 2/2024).** STEV: 1000 ppm 15 minutes.
n-butyl acetate	123-86-4	**CA Alberta Provincial (Canada, 3/2023).** OEL: 200 ppm 15 minutes.

		OEL: 950 mg/m³ 15 minutes. OEL: 150 ppm 8 hours. OEL: 713 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019). [butyl acetates, all isomers]** STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. **CA British Columbia Provincial (Canada, 8/2023). [butyl acetate, all isomers]** STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024). [butyl acetates]** STEV: 150 ppm 15 minutes. TWAEV: 50 ppm 8 hours.
Medium aliphatic solvent naphtha (petroleum) C9-C12	64742-88-7	**CA Ontario Provincial (Canada, 6/2019). [Mineral Spirits]** TWA: 525 mg/m³ 8 hours.
Stoddard solvent	8052-41-3	**CA Alberta Provincial (Canada, 3/2023).** OEL: 572 mg/m³ 8 hours. OEL: 100 ppm 8 hours. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 290 mg/m³ 8 hours. STEL: 580 mg/m³ 15 minutes. **CA Ontario Provincial (Canada, 6/2019).** TWA: 100 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 100 ppm 8 hours. TWAEV: 525 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.
Xylene	1330-20-7	**CA Alberta Provincial (Canada, 3/2023). [Dimethylbenzene]** OEL: 100 ppm 8 hours. OEL: 651 mg/m³ 15 minutes. OEL: 150 ppm 15 minutes. OEL: 434 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 8/2023). [Xylene (o, m & p isomers)]** TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. **CA Quebec Provincial (Canada, 2/2024). [Xylene]** TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes. **CA Ontario Provincial (Canada, 6/2019). [Xylene (o-, m-, p-isomers)]** STEL: 150 ppm 15 minutes.

Section 8. Exposure controls/personal protection

		TWA: 100 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021). [Xylene]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
toluene	108-88-3	**CA Alberta Provincial (Canada, 3/2023). Absorbed through skin.** OEL: 50 ppm 8 hours. OEL: 188 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024). Ototoxicant.** TWAEV: 20 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021). Absorbed through skin.** STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.
Ethylbenzene	100-41-4	**CA Alberta Provincial (Canada, 3/2023).** OEL: 100 ppm 8 hours. OEL: 434 mg/m³ 8 hours. OEL: 543 mg/m³ 15 minutes. OEL: 125 ppm 15 minutes. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 20 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.
Carbon black	1333-86-4	**CA British Columbia Provincial (Canada, 8/2023).** TWA: 3 mg/m³ 8 hours. Form: Inhalable **CA Ontario Provincial (Canada, 6/2019).** TWA: 3 mg/m³ 8 hours. Form: Inhalable particulate matter. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 3 mg/m³ 8 hours. Form: inhalable aerosol fraction **CA Alberta Provincial (Canada, 3/2023).** OEL: 3.5 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 7 mg/m³ 15 minutes. TWA: 3.5 mg/m³ 8 hours.
Zirconium 2-Ethylhexanoate	22464-99-9	**CA Alberta Provincial (Canada, 3/2023). [Zirconium and compounds]** OEL: 5 mg/m³, (as Zr) 8 hours. OEL: 10 mg/m³, (as Zr) 15 minutes. **CA British Columbia Provincial (Canada,**

		8/2023). [Zirconium and compounds] TWA: 5 mg/m³, (as Zr) 8 hours. STEL: 10 mg/m³, (as Zr) 15 minutes. **CA Quebec Provincial (Canada, 2/2024). [Zirconium and compounds]** TWAEV: 5 mg/m³, (as Zr) 8 hours. STEV: 10 mg/m³, (as Zr) 15 minutes. **CA Ontario Provincial (Canada, 6/2019). [Zirconium and compounds]** STEL: 10 mg/m³, (as Zr) 15 minutes. TWA: 5 mg/m³, (as Zr) 8 hours.
Methyl Ethyl Ketoxime	96-29-7	**OARS WEEL (United States, 4/2022). Skin sensitizer.** TWA: 10 ppm 8 hours.

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Acetone	67-64-1	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes.
n-Butyl Acetate	123-86-4	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes.
Stoddard Solvent	8052-41-3	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 100 ppm 8 hours.
Xylene, mixed isomers	1330-20-7	**NOM-010-STPS-2014 (Mexico, 4/2016). [Xileno, mezcla]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Toluene	108-88-3	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 20 ppm 8 hours.
Zirconium 2-Ethylhexanoate	22464-99-9	**NOM-010-STPS-2014 (Mexico, 4/2016). [Circonio y compuestos]** TWA: 5 mg/m³, (as Zr) 8 hours. STEL: 10 mg/m³, (as Zr) 15 minutes.

Biological exposure indices (United States)

Ingredient name	Exposure indices
Acetone	**ACGIH BEI (United States, 1/2024)** BEI: 25 mg/l, acetone [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.
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.
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)

Ingredient name	Exposure indices
Acetone	**Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)** BEI: 50 mg/L [non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.], acetone [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) [xylenes (technical or commercial grade)]** BEI: 1.5 g/g creatinine, methyl hippuric acids [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.

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.

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 : Black.

Odor : Not available.

Odor threshold : Not available.

pH : Not applicable.

Melting point/freezing point : Not available.

Section 9. Physical and chemical properties

Boiling point, initial boiling point, and boiling range : Not available.

Flash point : Closed cup: -60°C (-76°F) [Pensky-Martens Closed Cup]

Evaporation rate : 5.6 (butyl acetate = 1)

Flammability : Flammable aerosol.

Lower and upper explosion limit/flammability limit : Lower: 0.7%
Upper: 12.8%

Vapor pressure : 101.3 kPa (760 mm Hg)

Relative vapor density : 1.55 [Air = 1]

Relative density : 0.76

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 : Kinematic (40°C (104°F)): <20.5 mm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Type of aerosol : Spray

Heat of combustion : 27.7 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).

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

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Acetone	LD50 Oral	Rat	5800 mg/kg	-
2-Methylpropane	LC50 Inhalation Vapor	Rat	658000 mg/m³	4 hours
n-Butyl Acetate	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
Hydrotreated Heavy Petroleum Naphtha	LC50 Inhalation Vapor	Rat	8500 mg/m³	4 hours
	LD50 Oral	Rat	>6 g/kg	-
Xylene, mixed isomers	LC50 Inhalation Gas.	Rat	6700 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
Light Aromatic Hydrocarbons	LD50 Oral	Rat	8400 mg/kg	-
trimethylbenzene	LD50 Oral	Rat	8970 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
1,3,5-Trimethylbenzene	LC50 Inhalation Vapor	Rat	24000 mg/m³	4 hours
	LD50 Oral	Rat	5000 mg/kg	-
1,2,4-Trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m³	4 hours
	LD50 Oral	Rat	5 g/kg	-
Carbon Black	LD50 Oral	Rat	>15400 mg/kg	-
Zirconium 2-Ethylhexanoate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	>5 g/kg	-
Methyl Ethyl Ketoxime	LD50 Oral	Rat	930 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Acetone	Eyes - Mild irritant	Human	-	186300 ppm	-
	Eyes - Mild irritant	Rabbit	-	10 uL	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
n-Butyl Acetate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Stoddard Solvent	Eyes - Mild irritant	Human	-	100 ppm	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Xylene, mixed isomers	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Light Aromatic Hydrocarbons	Eyes - Mild irritant	Rabbit	-	24 hours 100 uL	-
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 ug l	-
trimethylbenzene	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-

Section 11. Toxicological information

	Eyes - Mild irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	0.1 Ml	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-
1,3,5-Trimethylbenzene	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
Methyl Ethyl Ketoxime	Eyes - Severe irritant	Rabbit	-	100 uL	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Xylene, mixed isomers	-	3	-
Titanium Dioxide	-	2B	-
Toluene	-	3	-
Ethylbenzene	-	2B	-
Carbon Black	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
n-Butyl Acetate	Category 3	-	Narcotic effects
Stoddard Solvent	Category 3	-	Narcotic effects
Xylene, mixed isomers	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Light Aromatic Hydrocarbons	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Toluene	Category 3	-	Narcotic effects
Ethylbenzene	Category 3	-	Narcotic effects

1,3,5-Trimethylbenzene	Category 3	-	Respiratory tract irritation
1,2,4-Trimethylbenzene	Category 3	-	Respiratory tract irritation
Methyl Ethyl Ketoxime	Category 1	-	upper respiratory tract
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Med. Aliphatic Hydrocarbon Solvent	Category 1	-	-
Xylene, mixed isomers	Category 2	-	-
Toluene	Category 2	-	-
Ethylbenzene	Category 2	-	-
Methyl Ethyl Ketoxime	Category 2	-	blood system

Aspiration hazard

Name	Result
Hydrotreated Heavy Petroleum Naphtha	ASPIRATION HAZARD - Category 1
Med. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Stoddard Solvent	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1
Light Aromatic Hydrocarbons	ASPIRATION HAZARD - Category 1
trimethylbenzene	ASPIRATION HAZARD - Category 1
Toluene	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
1,3,5-Trimethylbenzene	ASPIRATION HAZARD - Category 1
1,2,4-Trimethylbenzene	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. May cause respiratory irritation.

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 or irritation
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

Section 11. Toxicological information

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:
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.

General : Causes 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.

Teratogenicity : May damage the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	192540.4 mg/kg
Dermal	111942.09 mg/kg

Section 12. Ecological information

Toxicity

Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
Acetone	Acute EC50 7200000 µg/l Fresh water	Algae - *Selenastrum sp.*	96 hours
	Acute LC50 4.42589 ml/L Marine water	Crustaceans - *Acartia tonsa* - Copepodid	48 hours
	Acute LC50 7460000 µg/l Fresh water	Daphnia - *Daphnia cucullata*	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - *Poecilia reticulata*	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - *Daphniidae*	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - *Daphnia magna* - Neonate	21 days
	Chronic NOEC 5 µg/l Marine water	Fish - *Gasterosteus aculeatus* - Larvae	42 days
n-Butyl Acetate	Acute LC50 32 mg/l Marine water	Crustaceans - *Artemia salina*	48 hours
	Acute LC50 18000 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
Xylene, mixed isomers	Acute LC50 8500 µg/l Marine water	Crustaceans - *Palaemonetes pugio*	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - *Fundulus heteroclitus*	96 hours
trimethylbenzene	Acute LC50 5600 µg/l Marine water	Crustaceans - *Palaemonetes pugio*	48 hours
Toluene	Acute EC50 12500 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - *Gammarus pseudolimnaeus* - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - *Daphnia magna* - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - *Oncorhynchus kisutch* - Fry	96 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - *Daphnia magna*	21 days
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	96 hours
	Acute EC50 6.53 mg/l Marine water	Crustaceans - *Artemia sp.* - Nauplii	48 hours
	Acute EC50 2.93 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - *Oncorhynchus mykiss*	96 hours
1,3,5-Trimethylbenzene	Acute LC50 13000 µg/l Marine water	Crustaceans - *Cancer magister* - Zoea	48 hours
	Acute LC50 12520 µg/l Fresh water	Fish - *Carassius auratus*	96 hours
	Chronic NOEC 0.4 mg/l Fresh water	Daphnia - *Daphnia magna*	21 days
1,2,4-Trimethylbenzene	Acute LC50 4910 µg/l Marine water	Crustaceans - *Elasmopus pectenicrus* - Adult	48 hours
	Acute LC50 7720 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
Methyl Ethyl Ketoxime	Acute LC50 843000 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetone	-	-	Readily
n-Butyl Acetate	-	-	Readily
Xylene, mixed isomers	-	-	Readily
Light Aromatic Hydrocarbons	-	-	Readily
Toluene	-	-	Readily
Ethylbenzene	-	-	Readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Hydrotreated Heavy Petroleum Naphtha	-	10 to 2500	High
Xylene, mixed isomers	-	8.1 to 25.9	Low
Light Aromatic Hydrocarbons	-	10 to 2500	High
Toluene	-	90	Low
1,3,5-Trimethylbenzene	-	161	Low
1,2,4-Trimethylbenzene	-	243	Low
Zirconium 2-Ethylhexanoate	-	2.96	Low
Methyl Ethyl Ketoxime	-	2.5 to 5.8	Low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : 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. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

Section 14. Transport information

Additional information	-	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).	-	-	**Emergency schedules** F-D, S-U
	ERG No. 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	**ERG No.** 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	**ERG No.** 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.

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

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet, where applicable.

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.

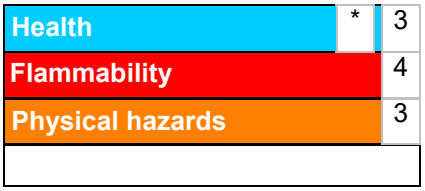
Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists : **Australia inventory (AIIC)**: 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.)



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 AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	On basis of test data
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	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 1	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing : 10/1/2024

Date of issue/Date of revision : 10/1/2024

Date of previous issue : 9/27/2024

Version : 20

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.

ENVIRONMENTAL DATA SHEET

(Certified Product Data Sheet)

Date of Preparation
Nov 1, 2024

23 00 [2754]

PRODUCT NUMBER

1400935H1

PRODUCT NAME

1400935H1 Black Gray

MANUFACTURER'S NAME

MANUFACTURED FOR
Komatsu America
8770 W. Bryn Mawr. Ave. Suite 100
Chicago, IL 60631

This document includes all data required by 40 CFR 63.801(a) for a Certified Product Data Sheet under criteria specified in 40 CFR 63.805(a). 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.

Hazard Category (for SARA 311.312)

1400935H1 = | Acute | Chronic | Fire |

Product Weight	Specific Gravity	FLASH POINT
6.39 lb/gal	0.77	-76 °F PMCC

Volatile Ingredients

Chemical / Compound	SARA 302 EHS	CERCLA	SARA 313 TC	HAPS 112	% by Weight	% by Volume
Propane **74-98-6**	N	N	N	N	14	20
2-Methylpropane **75-28-5**	N	N	N	N	8	11
Med. Aliphatic Hydrocarbon Solvent **64742-88-7**	N	N	N	N	4	4
Stoddard Solvent **8052-41-3**	N	N	N	N	4	4
Hydrotreated Heavy Petroleum Naphtha **64742-48-9**	N	N	N	N	4	4
Ethylbenzene **100-41-4**	N	Y	Y	Y	0.4	0.4
Xylene **1330-20-7**	N	Y	Y	Y	2	1
Light Aromatic Hydrocarbons **64742-95-6**	N	N	N	N	1	1
Acetone **67-64-1**	N	Y	N	N	35	34
n-Butyl Acetate **123-86-4**	N	Y	N	N	4	4

Non-Volatile Ingredients

Chemical / Compound	SARA 302 EHS	CERCLA	SARA 313 TC	HAPS 112	% by Weight	% by Volume
Hexachlorobenzene **118-74-1**	N	Y	Y	Y	0	0

Volatile Organic Compounds - U.S. EPA / Canada

	1400935H1	
	LB/Gal	**g/L**
Coating Density	6.39	765
	By wt	**By vol**
Total Volatiles	79.7%	86.5%
Federally exempt solvents		
Water	0.0%	0.0%
Acetone	35.2%	34.1%
Organic Volatiles	44.5%	52.4%
Percent Non-Volatile	20.3%	13.5%
VOC Content	**LB/Gal**	**g/L**
Total	2.84	340
Less exempt solvents	4.31	517
Of solids	21.13	2532
Of solids	2.19 lb/lb	2.19 kg/kg
	By wt	
By wt LVP-VOC	44.5%	

Maximum Incremental Reactivity (MIR) (per US EPA Aerosol Ctg Rule, MIR Values 2009) **0.88**

Volatile Organic Compounds - California

	1400935H1	
	LB/Gal	**g/L**
Coating Density	6.39	765
	By wt	**By vol**
Total Volatiles	79.7%	86.5%
Exempt solvents		
Water	0.0%	0.0%
Acetone	35.2%	34.1%
Organic Volatiles	44.5%	52.4%
Percent Non-Volatile	20.3%	13.5%
VOC Content	**LB/Gal**	**g/L**
Total	2.84	340
Less exempt solvents	4.31	517
Of solids	21.13	2532
Of solids	2.19 lb/lb	2.19 kg/kg
	By wt	
By wt LVP-VOC	44.5%	

Maximum Incremental Reactivity (MIR) (per California Air Resources Board Aerosol Products Regulation, MIR Values 2010) **0.81**

Volatile Organic Compounds - South Coast Air Quality Management District, California, US

	1400935H1	
	LB/Gal	g/L
Coating Density	6.39	765
	By wt	By vol
Total Volatiles	79.7%	86.5%
Exempt solvents		
Water	0.0%	0.0%
Acetone	35.2%	34.1%
Organic Volatiles	44.5%	52.4%
Percent Non-Volatile	20.3%	13.5%
VOC Content	LB/Gal	g/L
Total	2.84	340
Less exempt solvents	4.31	517
Of solids	21.13	2532
Of solids	2.19 lb/lb	2.19 kg/kg

Volatile Organic Compounds - EU Directive 2004/42/EC

	1400935H1	
	By wt	By vol
Total Volatiles	79.7%	86.5%
VOC Content	LB/Gal	g/L
Total	5.09	610

Volatile Organic Compounds - EU Directive 2010/75/EU

	1400935H1	
	By wt	By vol
Total Volatiles	79.7%	86.5%
VOC Content	LB/Gal	g/L
Total	5.09	610

Volatile Organic Compounds - Mexico

	1400935H1	
	LB/Gal	g/L
Coating Density	6.39	765
	By wt	By vol
Total Volatiles	79.7%	86.5%
Exempt solvents		
Water	0.0%	0.0%
Acetone	35.2%	34.1%
Organic Volatiles	44.5%	52.4%
Percent Non-Volatile	20.3%	13.5%
VOC Content	LB/Gal	g/L
Total	2.84	341
Less exempt solvents	4.31	517
Of solids	21.13	2532
Of solids	2.19 lb/lb	2.19 kg/kg

Hazardous Air Pollutants (Clean Air Act, Section 112(b))

	1400935H1	
	LB/Gal	kg/L
Volatile HAPS	0.13	0.015
Of solids	0.98	0.117
Of solids	0.10 lb/lb	0.10 kg/kg

Air Quality Data

Density of Organic Solvent Blend

5.89 lb/gal

Photochemically Reactive

Yes

Waste Disposal

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

SAFETY DATA SHEET

F75YC19

Section 1. Identification

Product name : SHER-KEM® High Gloss Metal Finishing Enamel
Equipment Yellow

Product code : F75YC19

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 : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Product Information Telephone Number : US / Canada: 866-722-9710
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

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
SKIN SENSITIZATION - Category 1
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: 29.1% (oral), 33.7% (dermal), 30.4% (inhalation)

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Flammable liquid and vapor.
May be fatal if swallowed and enters airways.
May cause an allergic skin reaction.
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 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. 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 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. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: 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

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.

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 : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Light Aliphatic Hydrocarbon	≥25 - ≤50	64742-47-8
Light Aromatic Hydrocarbons	≤5	64742-95-6
Titanium Dioxide	≤5	13463-67-7
trimethylbenzene	≤3	25551-13-7
Xylene, mixed isomers	≤2.8	1330-20-7
Ethyl 3-Ethoxypropionate	≤3	763-69-9
Toluene	≤2.2	108-88-3
1,2,4-Trimethylbenzene	<1	95-63-6
1,3,5-Trimethylbenzene	<1	108-67-8
Hydrotreated Heavy Petroleum Naphtha	≤1	64742-48-9

Section 3. Composition/information on ingredients

Med. Aliphatic Hydrocarbon Solvent	<1	64742-88-7
Zirconium 2-Ethylhexanoate	≤1	22464-99-9
Calcium 2-Ethylhexanoate	<1	136-51-6
Cumene	≤0.3	98-82-8
Methyl Ethyl Ketoxime	≤0.3	96-29-7
Bis(pentamethyl-4-piperidyl)sebacate	≤0.3	41556-26-7
1,2,3-Trimethylbenzene	≤0.3	526-73-8
Ethylbenzene	≤0.3	100-41-4
Cobalt 2-Ethylhexanoate	≤0.3	136-52-7
Cobalt Naphthenate	≤0.3	61789-51-3
Heavy Aliphatic Solvent	≤0.3	64742-82-1

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 : 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 : 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 : 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 : No known significant effects or critical hazards.

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

Section 4. First aid measures

Eye contact : No specific data.

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
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, CO_2, 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
metal oxide/oxides

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. 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 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.

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
Light Aliphatic Hydrocarbon	64742-47-8	**ACGIH TLV (United States, 1/2024). [Kerosene] Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
Light Aromatic Hydrocarbons	64742-95-6	None.
Titanium Dioxide	13463-67-7	**OSHA PEL (United States, 5/2018).** TWA: 15 mg/m³ 8 hours. Form: Total dust **ACGIH TLV (United States, 1/2024).** TWA: 2.5 mg/m³ 8 hours. Form: respirable fraction, finescale particles
trimethylbenzene	25551-13-7	**ACGIH TLV (United States, 1/2024). [trimethyl benzene, isomers]** TWA: 10 ppm 8 hours.
Xylene, mixed isomers	1330-20-7	**OSHA PEL (United States, 5/2018). [Xylenes]** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2024). [p-xylene and mixtures containing p-xylene] Ototoxicant.** TWA: 20 ppm 8 hours.
Ethyl 3-Ethoxypropionate	763-69-9	None.
Toluene	108-88-3	**OSHA PEL Z2 (United States, 2/2013).** TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. **NIOSH REL (United States, 10/2020).** TWA: 100 ppm 10 hours. TWA: 375 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes. **ACGIH TLV (United States, 1/2024). Ototoxicant.** TWA: 20 ppm 8 hours.
1,2,4-Trimethylbenzene	95-63-6	**NIOSH REL (United States, 10/2020).** TWA: 25 ppm 10 hours.

Section 8. Exposure controls/personal protection

		TWA: 125 mg/m³ 10 hours. **ACGIH TLV (United States, 1/2024).** TWA: 10 ppm 8 hours.
1,3,5-Trimethylbenzene	108-67-8	**ACGIH TLV (United States, 1/2024). [trimethyl benzene, isomers]** TWA: 10 ppm 8 hours. **NIOSH REL (United States, 10/2020).** TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.
Hydrotreated Heavy Petroleum Naphtha	64742-48-9	None.
Med. Aliphatic Hydrocarbon Solvent	64742-88-7	**OSHA PEL (United States, 5/2018). [Naphtha (Coal tar)]** TWA: 100 ppm 8 hours. TWA: 400 mg/m³ 8 hours.
Zirconium 2-Ethylhexanoate	22464-99-9	**ACGIH TLV (United States, 1/2024). [Zirconium and compounds]** TWA: 5 mg/m³, (as Zr) 8 hours. STEL: 10 mg/m³, (as Zr) 15 minutes. **NIOSH REL (United States, 10/2020). [zirconium compounds]** TWA: 5 mg/m³, (as Zr) 10 hours. STEL: 10 mg/m³, (as Zr) 15 minutes. **OSHA PEL (United States, 5/2018). [Zirconium compounds]** TWA: 5 mg/m³, (as Zr) 8 hours.
Calcium 2-Ethylhexanoate	136-51-6	None.
Cumene	98-82-8	**ACGIH TLV (United States, 1/2024).** TWA: 5 ppm 8 hours. **NIOSH REL (United States, 10/2020). Absorbed through skin.** TWA: 50 ppm 10 hours. TWA: 245 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018). Absorbed through skin.** TWA: 50 ppm 8 hours. TWA: 245 mg/m³ 8 hours.
Methyl Ethyl Ketoxime	96-29-7	**OARS WEEL (United States, 4/2022). Skin sensitizer.** TWA: 10 ppm 8 hours.
Bis(pentamethyl-4-piperidyl)sebacate	41556-26-7	None.
1,2,3-Trimethylbenzene	526-73-8	**ACGIH TLV (United States, 1/2024). [trimethyl benzene, isomers]** TWA: 10 ppm 8 hours. **NIOSH REL (United States, 10/2020).** TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.
Ethylbenzene	100-41-4	**ACGIH TLV (United States, 1/2024). Ototoxicant.** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 10/2020).** TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.

Cobalt 2-Ethylhexanoate	136-52-7	**ACGIH TLV (United States, 1/2024). [cobalt and inorganic compounds] Skin sensitizer. Inhalation sensitizer.** TWA: 0.02 mg/m³, (as Co) 8 hours.
Cobalt Naphthenate	61789-51-3	**ACGIH TLV (United States, 1/2024). [cobalt and inorganic compounds] Skin sensitizer. Inhalation sensitizer.** TWA: 0.02 mg/m³, (as Co) 8 hours.
Heavy Aliphatic Solvent	64742-82-1	None.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Petroleum refining, hydrotreated light distillate	64742-47-8	**CA British Columbia Provincial (Canada, 8/2023). [Kerosene/Jet fuels] Absorbed through skin. Notes: Application restricted to conditions in which there are negligible aerosol exposures.** TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. **CA Alberta Provincial (Canada, 3/2023). [Kerosene/Jet fuels] Absorbed through skin.** OEL: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. **CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. **CA Quebec Provincial (Canada, 2/2024). [kerosene] Absorbed through skin.** TWAEV: 200 mg/m³ 8 hours.
Trimethylbenzene	25551-13-7	**CA Alberta Provincial (Canada, 3/2023). [Trimethyl benzene]** OEL: 123 mg/m³ 8 hours. OEL: 25 ppm 8 hours. **CA British Columbia Provincial (Canada, 8/2023). [Trimethyl benzene (mixed isomers)]** TWA: 25 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024). [Trimethyl benzene] Skin sensitizer. Inhalation sensitizer.** TWAEV: 25 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019). [Trimethyl benzene (mixed isomers)]** TWA: 25 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021). [Trimethyl benzene]** STEL: 30 ppm 15 minutes. TWA: 25 ppm 8 hours.
Xylene	1330-20-7	**CA Alberta Provincial (Canada, 3/2023). [Dimethylbenzene]** OEL: 100 ppm 8 hours. OEL: 651 mg/m³ 15 minutes. OEL: 150 ppm 15 minutes. OEL: 434 mg/m³ 8 hours.

		CA British Columbia Provincial (Canada, 8/2023). [Xylene (o, m & p isomers)] TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. **CA Quebec Provincial (Canada, 2/2024). [Xylene]** TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes. **CA Ontario Provincial (Canada, 6/2019). [Xylene (o-, m-, p-isomers)]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021). [Xylene]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
toluene	108-88-3	**CA Alberta Provincial (Canada, 3/2023). Absorbed through skin.** OEL: 50 ppm 8 hours. OEL: 188 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024). Ototoxicant.** TWAEV: 20 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021). Absorbed through skin.** STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.
2-Butoxyethanol	111-76-2	**CA Alberta Provincial (Canada, 3/2023).** OEL: 97 mg/m³ 8 hours. OEL: 20 ppm 8 hours. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 20 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 30 ppm 15 minutes. TWA: 20 ppm 8 hours.
Zirconium 2-Ethylhexanoate	22464-99-9	**CA Alberta Provincial (Canada, 3/2023). [Zirconium and compounds]** OEL: 5 mg/m³, (as Zr) 8 hours. OEL: 10 mg/m³, (as Zr) 15 minutes. **CA British Columbia Provincial (Canada, 8/2023). [Zirconium and compounds]** TWA: 5 mg/m³, (as Zr) 8 hours. STEL: 10 mg/m³, (as Zr) 15 minutes. **CA Quebec Provincial (Canada, 2/2024).**

Section 8. Exposure controls/personal protection

		[Zirconium and compounds] TWAEV: 5 mg/m³, (as Zr) 8 hours. STEV: 10 mg/m³, (as Zr) 15 minutes. **CA Ontario Provincial (Canada, 6/2019). [Zirconium and compounds]** STEL: 10 mg/m³, (as Zr) 15 minutes. TWA: 5 mg/m³, (as Zr) 8 hours.
Cumene	98-82-8	**CA Alberta Provincial (Canada, 3/2023).** OEL: 50 ppm 8 hours. OEL: 246 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 25 ppm 8 hours. STEL: 75 ppm 15 minutes. **CA Ontario Provincial (Canada, 6/2019).** TWA: 50 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 5 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 74 ppm 15 minutes. TWA: 50 ppm 8 hours.
Methyl Ethyl Ketoxime	96-29-7	**OARS WEEL (United States, 4/2022). Skin sensitizer.** TWA: 10 ppm 8 hours.
Ethylbenzene	100-41-4	**CA Alberta Provincial (Canada, 3/2023).** OEL: 100 ppm 8 hours. OEL: 434 mg/m³ 8 hours. OEL: 543 mg/m³ 15 minutes. OEL: 125 ppm 15 minutes. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 20 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.
Cobalt 2-Ethylhexanoate	136-52-7	**CA British Columbia Provincial (Canada, 8/2023). [cobalt and inorganic compounds (inhalable)] Skin sensitizer. Inhalation sensitizer. Notes: No British Columbia exposure limit at this time** **CA British Columbia Provincial (Canada, 8/2023). [Cobalt and inorganic compounds] Skin sensitizer. Inhalation sensitizer.** TWA: 0.02 mg/m³, (as Co) 8 hours. Form: Total **CA Ontario Provincial (Canada, 6/2019). [Cobalt and inorganic compounds]** TWA: 0.02 mg/m³, (as Co) 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021). [Cobalt and inorganic compounds]**

		STEL: 0.06 mg/m³, (measured as Co) 15 minutes. TWA: 0.02 mg/m³, (measured as Co) 8 hours. **CA Quebec Provincial (Canada, 2/2024). [Cobalt elemental, and inorganic compounds] Skin sensitizer. Inhalation sensitizer.** TWAEV: 0.02 mg/m³, (as Co) 8 hours. Form: inhalable aerosol fraction
Cobalt naphthenate (powder)	61789-51-3	**CA British Columbia Provincial (Canada, 8/2023). [cobalt and inorganic compounds (inhalable)] Skin sensitizer. Inhalation sensitizer. Notes: No British Columbia exposure limit at this time** **CA British Columbia Provincial (Canada, 8/2023). [Cobalt and inorganic compounds] Skin sensitizer. Inhalation sensitizer.** TWA: 0.02 mg/m³, (as Co) 8 hours. Form: Total **CA Ontario Provincial (Canada, 6/2019). [Cobalt and inorganic compounds]** TWA: 0.02 mg/m³, (as Co) 8 hours. **CA Quebec Provincial (Canada, 2/2024). [Cobalt elemental, and inorganic compounds] Skin sensitizer. Inhalation sensitizer.** TWAEV: 0.02 mg/m³, (as Co) 8 hours. Form: inhalable aerosol fraction **CA Saskatchewan Provincial (Canada, 4/2021). [Cobalt and inorganic compounds]** STEL: 0.06 mg/m³, (measured as Co) 15 minutes. TWA: 0.02 mg/m³, (measured as Co) 8 hours.

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Light Aliphatic Hydrocarbon	64742-47-8	**ACGIH TLV (United States, 1/2024). [Kerosene] Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
trimethylbenzene	25551-13-7	**NOM-010-STPS-2014 (Mexico, 4/2016). [Trimetil benceno, mezcla de Isómeros]** TWA: 25 ppm 8 hours.
Xylene, mixed isomers	1330-20-7	**NOM-010-STPS-2014 (Mexico, 4/2016). [Xileno, mezcla]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Toluene	108-88-3	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 20 ppm 8 hours.
Zirconium 2-Ethylhexanoate	22464-99-9	**NOM-010-STPS-2014 (Mexico, 4/2016). [Circonio y compuestos]** TWA: 5 mg/m³, (as Zr) 8 hours. STEL: 10 mg/m³, (as Zr) 15 minutes.

Cumene	98-82-8	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 50 ppm 8 hours.
Cobalt 2-Ethylhexanoate	136-52-7	**NOM-010-STPS-2014 (Mexico, 4/2016). [Cobalto y compuestos inorgánicos]** TWA: 0.02 mg/m³, (as Co) 8 hours.
Cobalt Naphthenate	61789-51-3	**NOM-010-STPS-2014 (Mexico, 4/2016). [Cobalto y compuestos inorgánicos]** TWA: 0.02 mg/m³, (as Co) 8 hours.

Biological exposure indices (United States)

Ingredient name	Exposure indices
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.
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.
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.
Cobalt 2-Ethylhexanoate	**ACGIH BEI (United States, 1/2024) [cobalt and inorganic compounds including cobalt oxides]** BEI: 15 µg/l, not combined with tungsten carbide - cobalt [in urine]. Sampling time: end of shift at end of workweek. 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., cobalt with tungsten carbide - cobalt [in urine]. Sampling time: end of shift at end of workweek.
Cobalt Naphthenate	**ACGIH BEI (United States, 1/2024) [cobalt and inorganic compounds including cobalt oxides]** BEI: 15 µg/l, not combined with tungsten carbide - cobalt [in urine]. Sampling time: end of shift at end of workweek. 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., cobalt with tungsten carbide - cobalt [in urine]. Sampling time: end of shift at end of workweek.

Section 8. Exposure controls/personal protection

Biological exposure indices (Canada)

No exposure indices known.

Biological exposure indices (Mexico)

Ingredient name	Exposure indices
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) [xylenes (technical or commercial grade)]** BEI: 1.5 g/g creatinine, methyl hippuric acids [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.
Cobalt 2-Ethylhexanoate	**Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) [cobalt and its compounds]** BEI: 1 µg/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; 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.], cobalt [in blood]. Sampling time: at the end of the shift at the end of the work week. BEI: 15 µg/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], cobalt [in urine]. Sampling time: at the end of the shift at the end of the work week.
Cobalt Naphthenate	**Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) [cobalt and its compounds]** BEI: 1 µg/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; 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.], cobalt [in blood]. Sampling time: at the end of the shift at the end of the work week. BEI: 15 µg/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], cobalt [in urine]. Sampling time: at the end of the shift at the end of the work week.

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 : 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. 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 : Yellow.

Odor : Not available.

Odor threshold : Not available.

pH : Not applicable.

Melting point/freezing point : Not available.

Boiling point, initial boiling point, and boiling range : 105°C (221°F)

Flash point : Closed cup: 27°C (80.6°F) [Pensky-Martens Closed Cup]

Evaporation rate : 2 (butyl acetate = 1)

Flammability : Flammable liquid.

Lower and upper explosion limit/flammability limit : Lower: 0.7%
Upper: 12.1%

Vapor pressure : 2.9 kPa (22 mm Hg)

Relative vapor density : 3.1 [Air = 1]

Relative density : 1.08

Section 9. Physical and chemical properties

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 : Kinematic (40°C (104°F)): <20.5 mm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Heat of combustion : 18.931 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	Species	Dose	Exposure
Light Aromatic Hydrocarbons	LD50 Oral	Rat	8400 mg/kg	-
trimethylbenzene	LD50 Oral	Rat	8970 mg/kg	-
Xylene, mixed isomers	LC50 Inhalation Gas.	Rat	6700 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
Ethyl 3-Ethoxypropionate	LD50 Oral	Rat	3200 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m^3	4 hours
	LD50 Oral	Rat	636 mg/kg	-
1,2,4-Trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m^3	4 hours
	LD50 Oral	Rat	5 g/kg	-
1,3,5-Trimethylbenzene	LC50 Inhalation Vapor	Rat	24000 mg/m^3	4 hours
	LD50 Oral	Rat	5000 mg/kg	-
Hydrotreated Heavy Petroleum Naphtha	LC50 Inhalation Vapor	Rat	8500 mg/m^3	4 hours
	LD50 Oral	Rat	>6 g/kg	-
Zirconium 2-Ethylhexanoate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	>5 g/kg	-

Section 11. Toxicological information

Cumene	LC50 Inhalation Vapor	Rat	39000 mg/m³	4 hours
	LD50 Oral	Rat	1400 mg/kg	-
Methyl Ethyl Ketoxime	LD50 Oral	Rat	930 mg/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Cobalt 2-Ethylhexanoate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	1.22 g/kg	-
Cobalt Naphthenate	LD50 Oral	Rat	3900 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Light Aromatic Hydrocarbons	Eyes - Mild irritant	Rabbit	-	24 hours 100 uL	-
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 ug I	-
trimethylbenzene	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Xylene, mixed isomers	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Ethyl 3-Ethoxypropionate	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-
	Eyes - Mild irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	0.1 Ml	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
1,3,5-Trimethylbenzene	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
Cumene	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	86 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 10 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 mg	-
Methyl Ethyl Ketoxime	Eyes - Severe irritant	Rabbit	-	100 uL	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-
Cobalt Naphthenate	Eyes - Mild irritant	Rabbit	-	24 hours 10 mg	-

Sensitization

Section 11. Toxicological information

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Titanium Dioxide	-	2B	-
Xylene, mixed isomers	-	3	-
Toluene	-	3	-
Cumene	-	2B	Reasonably anticipated to be a human carcinogen.
Ethylbenzene	-	2B	-
Cobalt 2-Ethylhexanoate	-	2B	Reasonably anticipated to be a human carcinogen.
Cobalt Naphthenate	-	2B	Reasonably anticipated to be a human carcinogen.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Light Aliphatic Hydrocarbon	Category 3	-	Narcotic effects
Light Aromatic Hydrocarbons	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Xylene, mixed isomers	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Toluene	Category 3	-	Narcotic effects
1,2,4-Trimethylbenzene	Category 3	-	Respiratory tract irritation
1,3,5-Trimethylbenzene	Category 3	-	Respiratory tract irritation
Cumene	Category 3	-	Narcotic effects
Methyl Ethyl Ketoxime	Category 1	-	upper respiratory tract
	Category 3		Narcotic effects
1,2,3-Trimethylbenzene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Ethylbenzene	Category 3	-	Narcotic effects
Heavy Aliphatic Solvent	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Xylene, mixed isomers	Category 2	-	-
Toluene	Category 2	-	-
Med. Aliphatic Hydrocarbon Solvent	Category 1	-	-
Methyl Ethyl Ketoxime	Category 2	-	blood system
Ethylbenzene	Category 2	-	-
Heavy Aliphatic Solvent	Category 1	-	central nervous system (CNS)

Aspiration hazard

Name	Result
Light Aliphatic Hydrocarbon	ASPIRATION HAZARD - Category 1
Light Aromatic Hydrocarbons	ASPIRATION HAZARD - Category 1
trimethylbenzene	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1
Toluene	ASPIRATION HAZARD - Category 1
1,2,4-Trimethylbenzene	ASPIRATION HAZARD - Category 1
1,3,5-Trimethylbenzene	ASPIRATION HAZARD - Category 1
Hydrotreated Heavy Petroleum Naphtha	ASPIRATION HAZARD - Category 1
Med. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Cumene	ASPIRATION HAZARD - Category 1
1,2,3-Trimethylbenzene	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
Heavy Aliphatic Solvent	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 : 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 : No specific data.

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
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 11. Toxicological information

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.

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.

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

Route	ATE value
Oral	13563.55 mg/kg
Dermal	127168.4 mg/kg
Inhalation (vapors)	338.3 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Light Aliphatic Hydrocarbon	Acute LC50 2200 µg/l Fresh water	Fish - *Lepomis macrochirus*	4 days
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - *Fundulus heteroclitus*	96 hours
trimethylbenzene	Acute LC50 5600 µg/l Marine water	Crustaceans - *Palaemonetes pugio*	48 hours
Xylene, mixed isomers	Acute LC50 8500 µg/l Marine water	Crustaceans - *Palaemonetes pugio*	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
Toluene	Acute EC50 12500 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - *Gammarus pseudolimnaeus* - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - *Daphnia magna* -	48 hours

Section 12. Ecological information

		Juvenile (Fledgling, Hatchling, Weanling)	
	Acute LC50 5500 µg/l Fresh water	Fish - *Oncorhynchus kisutch* - Fry	96 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - *Daphnia magna*	21 days
1,2,4-Trimethylbenzene	Acute LC50 4910 µg/l Marine water	Crustaceans - *Elasmopus pectenicrus* - Adult	48 hours
	Acute LC50 7720 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
1,3,5-Trimethylbenzene	Acute LC50 13000 µg/l Marine water	Crustaceans - *Cancer magister* - Zoea	48 hours
	Acute LC50 12520 µg/l Fresh water	Fish - *Carassius auratus*	96 hours
	Chronic NOEC 0.4 mg/l Fresh water	Daphnia - *Daphnia magna*	21 days
Cumene	Acute EC50 2600 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	72 hours
	Acute EC50 7.4 mg/l Marine water	Crustaceans - *Artemia sp.* - Nauplii	48 hours
	Acute EC50 10.6 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 2700 µg/l Fresh water	Fish - *Oncorhynchus mykiss*	96 hours
Methyl Ethyl Ketoxime	Acute LC50 843000 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	96 hours
	Acute EC50 6.53 mg/l Marine water	Crustaceans - *Artemia sp.* - Nauplii	48 hours
	Acute EC50 2.93 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - *Oncorhynchus mykiss*	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Light Aromatic Hydrocarbons	-	-	Readily
Xylene, mixed isomers	-	-	Readily
Toluene	-	-	Readily
Ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Light Aromatic Hydrocarbons	-	10 to 2500	High
Xylene, mixed isomers	-	8.1 to 25.9	Low
Toluene	-	90	Low
1,2,4-Trimethylbenzene	-	243	Low
1,3,5-Trimethylbenzene	-	161	Low
Hydrotreated Heavy Petroleum Naphtha	-	10 to 2500	High
Zirconium 2-Ethylhexanoate	-	2.96	Low
Calcium 2-Ethylhexanoate	-	2.96	Low
Cumene	-	35.48	Low
Methyl Ethyl Ketoxime	-	2.5 to 5.8	Low
1,2,3-Trimethylbenzene	-	194.98	Low
Cobalt 2-Ethylhexanoate	-	15600	High
Cobalt Naphthenate	-	15600	High
Heavy Aliphatic Solvent	-	10 to 2500	High

Mobility in soil

Soil/water partition coefficient (K_{OC}) : 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. Marine pollutant (Light Aliphatic Hydrocarbon, Light Aromatic Hydrocarbons)
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	- **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

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet, where applicable.

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.

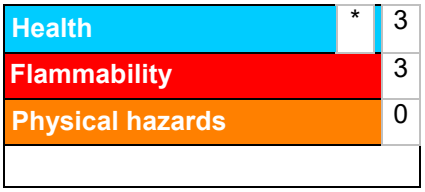
Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists : **Australia inventory (AIIC)**: 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.)



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	On basis of test data
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION - Category 1B	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

Date of printing : 9/25/2024

Date of issue/Date of revision : 9/25/2024

Date of previous issue : 5/19/2024

Version : 27

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.

ENVIRONMENTAL DATA SHEET

(Certified Product Data Sheet)

Date of Preparation
Sep 14, 2024

14 00 [3113]

PRODUCT NUMBER

F75YC19

PRODUCT NAME

SHER-KEM® High Gloss Metal Finishing Enamel, Equipment Yellow

MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

This document includes all data required by 40 CFR 63.801(a) for a Certified Product Data Sheet under criteria specified in 40 CFR 63.805(a). 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.

Hazard Category (for SARA 311.312)

F75YC19 = | Acute | Chronic | Fire |

Product Weight	Specific Gravity	FLASH POINT
9.04 lb/gal	1.09	80 °F PMCC

Volatile Ingredients

Chemical / Compound	SARA 302 EHS	CERCLA	SARA 313 TC	HAPS 112	% by Weight	% by Volume
Light Aliphatic Hydrocarbon 64742-47-8	N	N	N	N	29	41
Toluene 108-88-3	N	Y	Y	Y	1	1
Ethylbenzene 100-41-4	N	Y	Y	Y	0.3	0.3
Xylene 1330-20-7	N	Y	Y	Y	1	2
Light Aromatic Hydrocarbons 64742-95-6	N	N	N	N	5	6
Cumene 98-82-8	N	Y	Y	Y	0.3	0.4
Trimethylbenzene 25551-13-7	N	N	N	N	2	3
Ethyl 3-Ethoxypropionate 763-69-9	N	N	N	N	1	1

Regulated Compounds

	SARA 302 EHS	CERCLA	SARA 313 TC	HAPS 112	% by Weight	% by Volume
Mercury (as Hg)	N	N	Y	N	0.00002	
Lead (as Pb)	N	N	Y	N	0.00002	
Cobalt Compound	N	N	Y	Y	0.4	

Volatile Organic Compounds - U.S. EPA / Canada

	F75YC19	
	LB/Gal	**g/L**
Coating Density	9.04	1083
	By wt	**By vol**
Total Volatiles	45.2%	61.3%
Federally exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	45.1%	61.2%
Percent Non-Volatile	54.8%	38.7%
VOC Content	**LB/Gal**	**g/L**
Total	4.08	489
Less exempt solvents	4.08	489
Of solids	10.54	1263
Of solids	0.82 lb/lb	0.82 kg/kg
	By wt	
By wt LVP-VOC	45.0%	

Maximum Incremental Reactivity (MIR) (per US EPA Aerosol Ctg Rule, MIR Values 2009) **1.24**

Volatile Organic Compounds - California

	F75YC19	
	LB/Gal	**g/L**
Coating Density	9.04	1083
	By wt	**By vol**
Total Volatiles	45.2%	61.3%
Exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	45.1%	61.2%
Percent Non-Volatile	54.8%	38.7%
VOC Content	**LB/Gal**	**g/L**
Total	4.08	489
Less exempt solvents	4.08	489
Of solids	10.54	1263
Of solids	0.82 lb/lb	0.82 kg/kg
	By wt	
By wt LVP-VOC	45.0%	

Maximum Incremental Reactivity (MIR) (per California Air Resources Board Aerosol Products Regulation, MIR Values 2010) **1.17**

Volatile Organic Compounds - South Coast Air Quality Management District, California, US

	F75YC19	
	LB/Gal	g/L
Coating Density	9.04	1083
	By wt	By vol
Total Volatiles	45.2%	61.3%
Exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	45.1%	61.2%
Percent Non-Volatile	54.8%	38.7%
VOC Content	LB/Gal	g/L
Total	4.08	489
Less exempt solvents	4.08	489
Of solids	10.54	1263
Of solids	0.82 lb/lb	0.82 kg/kg

Volatile Organic Compounds - EU Directive 2004/42/EC

	F75YC19	
	By wt	By vol
Total Volatiles	45.2%	61.3%
VOC Content	LB/Gal	g/L
Total	4.08	489

Volatile Organic Compounds - EU Directive 2010/75/EU

	F75YC19	
	By wt	By vol
Total Volatiles	45.2%	61.3%
VOC Content	LB/Gal	g/L
Total	4.08	489

Volatile Organic Compounds - Mexico

	F75YC19	
	LB/Gal	g/L
Coating Density	9.04	1083
	By wt	By vol
Total Volatiles	45.2%	61.3%
Exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	45.1%	61.2%
Percent Non-Volatile	54.8%	38.7%
VOC Content	LB/Gal	g/L
Total	4.08	489
Less exempt solvents	4.08	489
Of solids	10.54	1263
Of solids	0.82 lb/lb	0.82 kg/kg

Hazardous Air Pollutants (Clean Air Act, Section 112(b))

	F75YC19	
	LB/Gal	kg/L
Volatile HAPS	0.26	0.031
Of solids	0.67	0.080
Of solids	0.05 lb/lb	0.05 kg/kg

Air Quality Data

Density of Organic Solvent Blend

6.67 lb/gal

Photochemically Reactive

Yes

Waste Disposal

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

SAFETY DATA SHEET

A11W253

Section 1. Identification

Product name : ALL SURFACE ENAMEL - Oil Base Gloss
Deep Base

Product code : A11W253

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 : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Product Information Telephone Number : US / Canada: 1-800-474-3794
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

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
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 38.1% (oral), 39.4% (dermal), 38.1% (inhalation)

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
May damage fertility or the unborn child.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

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. 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 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. 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

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.

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 : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Light Aliphatic Hydrocarbon	≥25 - ≤50	64742-47-8
Calcium Carbonate	≥10 - <20	1317-65-3
Titanium Dioxide	≤5	13463-67-7
2-Butoxyethanol	≤3	111-76-2
Xylene, mixed isomers	<1	1330-20-7
Hydrotreated Heavy Petroleum Naphtha	≤1	64742-48-9
Methyl Ethyl Ketoxime	<1	96-29-7
Zirconium 2-Ethylhexanoate	≤0.3	22464-99-9
Ethylbenzene	≤0.3	100-41-4
Calcium 2-Ethylhexanoate	≤0.3	136-51-6
2-(2-Methoxyethoxy)-ethanol	≤0.3	111-77-3
Med. Aliphatic Hydrocarbon Solvent	≤0.3	64742-88-7
Methyl Isobutyl Ketone	≤0.3	108-10-1

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 : 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 : 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 : 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.

Section 4. First aid measures

Skin contact : Causes skin irritation. 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 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
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, CO_2, 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.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
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. 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 swallow. 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

Section 7. Handling and storage

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
Light Aliphatic Hydrocarbon	64742-47-8	**ACGIH TLV (United States, 1/2024). [Kerosene] Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
Calcium Carbonate	1317-65-3	**OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust **NIOSH REL (United States, 10/2020). [calcium carbonate]** TWA: 5 mg/m³ 10 hours. Form: Respirable fraction TWA: 10 mg/m³ 10 hours. Form: Total
Titanium Dioxide	13463-67-7	**OSHA PEL (United States, 5/2018).** TWA: 15 mg/m³ 8 hours. Form: Total dust **ACGIH TLV (United States, 1/2024).** TWA: 2.5 mg/m³ 8 hours. Form: respirable fraction, finescale particles
2-Butoxyethanol	111-76-2	**ACGIH TLV (United States, 1/2024).** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 10/2020). Absorbed through skin.** TWA: 5 ppm 10 hours. TWA: 24 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018). Absorbed through skin.** TWA: 50 ppm 8 hours. TWA: 240 mg/m³ 8 hours.
Xylene, mixed isomers	1330-20-7	**OSHA PEL (United States, 5/2018). [Xylenes]** TWA: 100 ppm 8 hours.

Section 8. Exposure controls/personal protection

		TWA: 435 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2024). [p-xylene and mixtures containing p-xylene] Ototoxicant.** TWA: 20 ppm 8 hours.
Hydrotreated Heavy Petroleum Naphtha	64742-48-9	None.
Methyl Ethyl Ketoxime	96-29-7	**OARS WEEL (United States, 4/2022). Skin sensitizer.** TWA: 10 ppm 8 hours.
Zirconium 2-Ethylhexanoate	22464-99-9	**ACGIH TLV (United States, 1/2024). [Zirconium and compounds]** TWA: 5 mg/m³, (as Zr) 8 hours. STEL: 10 mg/m³, (as Zr) 15 minutes. **NIOSH REL (United States, 10/2020). [zirconium compounds]** TWA: 5 mg/m³, (as Zr) 10 hours. STEL: 10 mg/m³, (as Zr) 15 minutes. **OSHA PEL (United States, 5/2018). [Zirconium compounds]** TWA: 5 mg/m³, (as Zr) 8 hours.
Ethylbenzene	100-41-4	**ACGIH TLV (United States, 1/2024). Ototoxicant.** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 10/2020).** TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
Calcium 2-Ethylhexanoate	136-51-6	None.
2-(2-Methoxyethoxy)-ethanol	111-77-3	None.
Med. Aliphatic Hydrocarbon Solvent	64742-88-7	**OSHA PEL (United States, 5/2018). [Naphtha (Coal tar)]** TWA: 100 ppm 8 hours. TWA: 400 mg/m³ 8 hours.
Methyl Isobutyl Ketone	108-10-1	**ACGIH TLV (United States, 1/2024).** TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes. **NIOSH REL (United States, 10/2020).** TWA: 50 ppm 10 hours. TWA: 205 mg/m³ 10 hours. STEL: 75 ppm 15 minutes. STEL: 300 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours. TWA: 410 mg/m³ 8 hours.

Occupational exposure limits (Canada)

Section 8. Exposure controls/personal protection

Ingredient name	CAS #	Exposure limits
Petroleum refining, hydrotreated light distillate	64742-47-8	**CA British Columbia Provincial (Canada, 8/2023). [Kerosene/Jet fuels] Absorbed through skin. Notes: Application restricted to conditions in which there are negligible aerosol exposures.** TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. **CA Alberta Provincial (Canada, 3/2023). [Kerosene/Jet fuels] Absorbed through skin.** OEL: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. **CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. **CA Quebec Provincial (Canada, 2/2024). [kerosene] Absorbed through skin.** TWAEV: 200 mg/m³ 8 hours.
2-Butoxyethanol	111-76-2	**CA Alberta Provincial (Canada, 3/2023).** OEL: 97 mg/m³ 8 hours. OEL: 20 ppm 8 hours. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 20 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 30 ppm 15 minutes. TWA: 20 ppm 8 hours.
Xylene	1330-20-7	**CA Alberta Provincial (Canada, 3/2023). [Dimethylbenzene]** OEL: 100 ppm 8 hours. OEL: 651 mg/m³ 15 minutes. OEL: 150 ppm 15 minutes. OEL: 434 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 8/2023). [Xylene (o, m & p isomers)]** TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. **CA Quebec Provincial (Canada, 2/2024). [Xylene]** TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes. **CA Ontario Provincial (Canada, 6/2019). [Xylene (o-, m-, p-isomers)]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021). [Xylene]**

Section 8. Exposure controls/personal protection

		STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Methyl Ethyl Ketoxime	96-29-7	**OARS WEEL (United States, 4/2022). Skin sensitizer.** TWA: 10 ppm 8 hours.
Zirconium 2-Ethylhexanoate	22464-99-9	**CA Alberta Provincial (Canada, 3/2023). [Zirconium and compounds]** OEL: 5 mg/m³, (as Zr) 8 hours. OEL: 10 mg/m³, (as Zr) 15 minutes. **CA British Columbia Provincial (Canada, 8/2023). [Zirconium and compounds]** TWA: 5 mg/m³, (as Zr) 8 hours. STEL: 10 mg/m³, (as Zr) 15 minutes. **CA Quebec Provincial (Canada, 2/2024). [Zirconium and compounds]** TWAEV: 5 mg/m³, (as Zr) 8 hours. STEV: 10 mg/m³, (as Zr) 15 minutes. **CA Ontario Provincial (Canada, 6/2019). [Zirconium and compounds]** STEL: 10 mg/m³, (as Zr) 15 minutes. TWA: 5 mg/m³, (as Zr) 8 hours.
Ethylbenzene	100-41-4	**CA Alberta Provincial (Canada, 3/2023).** OEL: 100 ppm 8 hours. OEL: 434 mg/m³ 8 hours. OEL: 543 mg/m³ 15 minutes. OEL: 125 ppm 15 minutes. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 20 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.
Methyl isobutyl ketone	108-10-1	**CA Alberta Provincial (Canada, 3/2023).** OEL: 205 mg/m³ 8 hours. OEL: 50 ppm 8 hours. OEL: 75 ppm 15 minutes. OEL: 307 mg/m³ 15 minutes. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 20 ppm 8 hours. STEV: 75 ppm 15 minutes. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 75 ppm 15 minutes. TWA: 50 ppm 8 hours.

Section 8. Exposure controls/personal protection

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Light Aliphatic Hydrocarbon	64742-47-8	**ACGIH TLV (United States, 1/2024). [Kerosene] Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
2-Butoxyethanol	111-76-2	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 20 ppm 8 hours.
Zirconium 2-Ethylhexanoate	22464-99-9	**NOM-010-STPS-2014 (Mexico, 4/2016). [Circonio y compuestos]** TWA: 5 mg/m³, (as Zr) 8 hours. STEL: 10 mg/m³, (as Zr) 15 minutes.
Methyl Isobutyl Ketone	108-10-1	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 50 ppm 8 hours. STEL: 75 ppm 15 minutes.

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.
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.
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
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.
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)**

Section 8. Exposure controls/personal protection

	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. 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.

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.

Section 9. Physical and chemical properties

Melting point/freezing point : Not available.

Boiling point, initial boiling point, and boiling range : 148°C (298.4°F)

Flash point : Closed cup: 39°C (102.2°F) [Pensky-Martens Closed Cup]

Evaporation rate : 89 (butyl acetate = 1)

Flammability : Flammable liquid.

Lower and upper explosion limit/flammability limit : Lower: 1%
Upper: 10.6%

Vapor pressure : 0.17 kPa (1.27 mm Hg)

Relative vapor density : 4.1 [Air = 1]

Relative density : 1.06

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 : Kinematic (40°C (104°F)): <20.5 mm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Heat of combustion : 17.486 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

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
2-Butoxyethanol	LCLo Inhalation Vapor	Guinea pig	>3.1 mg/l	1 hours
	LD50 Dermal	Guinea pig	>2000 mg/kg	-
	LD50 Oral	Rat	1300 mg/kg	-
Xylene, mixed isomers	LC50 Inhalation Gas.	Rat	6700 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
Hydrotreated Heavy Petroleum Naphtha	LC50 Inhalation Vapor	Rat	8500 mg/m³	4 hours
	LD50 Oral	Rat	>6 g/kg	-
Methyl Ethyl Ketoxime	LD50 Oral	Rat	930 mg/kg	-
Zirconium 2-Ethylhexanoate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	>5 g/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Methyl Isobutyl Ketone	LD50 Oral	Rat	2080 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 ug l	-
2-Butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
Xylene, mixed isomers	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Methyl Ethyl Ketoxime	Eyes - Severe irritant	Rabbit	-	100 uL	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-
2-(2-Methoxyethoxy)-ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	500 mg	-
Methyl Isobutyl Ketone	Eyes - Moderate irritant	Rabbit	-	24 hours 100 uL	-
	Eyes - Severe irritant	Rabbit	-	40 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
Titanium Dioxide	-	2B	-
2-Butoxyethanol	-	3	-
Xylene, mixed isomers	-	3	-
Ethylbenzene	-	2B	-
Methyl Isobutyl Ketone	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Light Aliphatic Hydrocarbon	Category 3	-	Narcotic effects
Calcium Carbonate	Category 3	-	Respiratory tract irritation
2-Butoxyethanol	Category 3	-	Narcotic effects
Xylene, mixed isomers	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Methyl Ethyl Ketoxime	Category 1	-	upper respiratory tract
	Category 3		Narcotic effects
Ethylbenzene	Category 3	-	Narcotic effects
Methyl Isobutyl Ketone	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Xylene, mixed isomers	Category 2	-	-
Methyl Ethyl Ketoxime	Category 2	-	blood system
Ethylbenzene	Category 2	-	-
Med. Aliphatic Hydrocarbon Solvent	Category 1	-	-

Aspiration hazard

Name	Result
Light Aliphatic Hydrocarbon	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1
Hydrotreated Heavy Petroleum Naphtha	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
Med. Aliphatic Hydrocarbon Solvent	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. May cause an allergic skin reaction.

Section 11. Toxicological information

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

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.

General : 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.

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

Section 11. Toxicological information

Route	ATE value
Oral Inhalation (vapors)	58445.61 mg/kg 146.11 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Light Aliphatic Hydrocarbon	Acute LC50 2200 µg/l Fresh water	Fish - *Lepomis macrochirus*	4 days
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - *Fundulus heteroclitus*	96 hours
2-Butoxyethanol	Acute EC50 >1000 mg/l Fresh water	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 800000 µg/l Marine water	Crustaceans - *Crangon crangon*	48 hours
	Acute LC50 1250 ppm Marine water	Fish - *Menidia beryllina*	96 hours
Xylene, mixed isomers	Acute LC50 8500 µg/l Marine water	Crustaceans - *Palaemonetes pugio*	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
Methyl Ethyl Ketoxime	Acute LC50 843000 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	96 hours
	Acute EC50 6.53 mg/l Marine water	Crustaceans - *Artemia sp.* - Nauplii	48 hours
	Acute EC50 2.93 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - *Oncorhynchus mykiss*	96 hours
2-(2-Methoxyethoxy)-ethanol	Acute EC50 >930 ppm Fresh water	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 7500 ppm Fresh water	Fish - *Lepomis macrochirus*	96 hours
Methyl Isobutyl Ketone	Acute LC50 505000 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
	Chronic NOEC 78 mg/l Fresh water	Daphnia - *Daphnia magna*	21 days
	Chronic NOEC 168 mg/l Fresh water	Fish - *Pimephales promelas* - Embryo	33 days

Persistence and degradability

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

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene, mixed isomers	-	8.1 to 25.9	Low
Hydrotreated Heavy Petroleum Naphtha	-	10 to 2500	High
Methyl Ethyl Ketoxime	-	2.5 to 5.8	Low
Zirconium 2-Ethylhexanoate	-	2.96	Low
Calcium 2-Ethylhexanoate	-	2.96	Low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : 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. Marine pollutant (Light Aliphatic Hydrocarbon)
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	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	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).	-	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

	materials in package sizes less than the product reportable quantity. **ERG No.** 128	**ERG No.** 128	**ERG No.** 128		

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

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet, where applicable.

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.

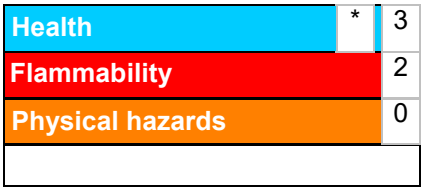
Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists :
Australia inventory (AIIC): 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.)



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
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION - Category 1B	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing : 10/1/2024

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Date of previous issue : 5/14/2024

Version : 29

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

Section 16. Other information

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.

ENVIRONMENTAL DATA SHEET

(Certified Product Data Sheet)

Date of Preparation
Sep 6, 2024

17 00 [2504]

PRODUCT NUMBER

A11W253

PRODUCT NAME

ALL SURFACE ENAMEL - Oil Base Gloss, Deep Base

MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

This document includes all data required by 40 CFR 63.801(a) for a Certified Product Data Sheet under criteria specified in 40 CFR 63.805(a). 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.

Hazard Category (for SARA 311.312)

A11W253 = | Acute | Chronic | Fire |

Product Weight	**Specific Gravity**	**FLASH POINT**
8.86 lb/gal	1.07	102 °F PMCC

Volatile Ingredients

Chemical / Compound	SARA 302 EHS	CERCLA	HAPS 112	% by Weight	% by Volume
Light Aliphatic Hydrocarbon **64742-47-8**	N	N	N	38	53
Ethylbenzene **100-41-4**	N	Y	Y	0.1	0.2
2-Butoxyethanol **111-76-2**	N	N	N	1	2
Methyl Isobutyl Ketone **108-10-1**	N	Y	Y	0.1	0.1

Regulated Compounds

	SARA 302 EHS	CERCLA	HAPS 112	% by Weight	% by Volume
Glycol Ethers (SARA)	N	N	N	1	

Volatile Organic Compounds - U.S. EPA / Canada

	A11W253	
	LB/Gal	**g/L**
Coating Density	8.86	1061
	By wt	**By vol**
Total Volatiles	41.7%	57.4%
Federally exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	41.7%	57.4%
Percent Non-Volatile	58.3%	42.6%
VOC Content	**LB/Gal**	**g/L**
Total	3.69	443
Less exempt solvents	3.69	443
Of solids	8.67	1039
Of solids	0.71 lb/lb	0.71 kg/kg
	By wt	
By wt LVP-VOC	41.7%	

Maximum Incremental Reactivity (MIR) (per US EPA Aerosol Ctg Rule, MIR Values 2009) **0.48**

Volatile Organic Compounds - California

	A11W253	
	LB/Gal	**g/L**
Coating Density	8.86	1061
	By wt	**By vol**
Total Volatiles	41.7%	57.4%
Exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	41.7%	57.4%
Percent Non-Volatile	58.3%	42.6%
VOC Content	**LB/Gal**	**g/L**
Total	3.69	443
Less exempt solvents	3.69	443
Of solids	8.67	1039
Of solids	0.71 lb/lb	0.71 kg/kg
	By wt	
By wt LVP-VOC	41.7%	

Maximum Incremental Reactivity (MIR) (per California Air Resources Board Aerosol Products Regulation, MIR Values 2010) **0.38**

Volatile Organic Compounds - South Coast Air Quality Management District, California, US

	A11W253	
	LB/Gal	g/L
Coating Density	8.86	1061
	By wt	By vol
Total Volatiles	41.7%	57.4%
Exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	41.7%	57.4%
Percent Non-Volatile	58.3%	42.6%
VOC Content	LB/Gal	g/L
Total	3.69	443
Less exempt solvents	3.69	443
Of solids	8.67	1039
Of solids	0.71 lb/lb	0.71 kg/kg

Volatile Organic Compounds - EU Directive 2004/42/EC

	A11W253	
	By wt	By vol
Total Volatiles	41.7%	57.4%
VOC Content	LB/Gal	g/L
Total	3.69	443

Volatile Organic Compounds - EU Directive 2010/75/EU

	A11W253	
	By wt	By vol
Total Volatiles	41.7%	57.4%
VOC Content	LB/Gal	g/L
Total	3.69	443

Volatile Organic Compounds - Mexico

	A11W253	
	LB/Gal	g/L
Coating Density	8.86	1061
	By wt	By vol
Total Volatiles	41.7%	57.4%
Exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	41.7%	57.4%
Percent Non-Volatile	58.3%	42.6%
VOC Content	LB/Gal	g/L
Total	3.69	443
Less exempt solvents	3.69	443
Of solids	8.67	1039
Of solids	0.71 lb/lb	0.71 kg/kg

Hazardous Air Pollutants (Clean Air Act, Section 112(b))

	A11W253	
	LB/Gal	kg/L
Volatile HAPS	0.02	0.002
Of solids	0.05	0.006
Of solids	0.00 lb/lb	0.00 kg/kg

Air Quality Data

Density of Organic Solvent Blend

6.45 lb/gal

Photochemically Reactive

No

Waste Disposal

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

SAFETY DATA SHEET

Revision date 06-Dec-2023 **Version** 18 **Supersedes Date:** 03-Apr-2023

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier
Product Code 048.1400936

Product Name 1400936H1 BLACK GREY

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

Skin corrosion/irritation	Category 2
Skin sensitization	Category 1
Carcinogenicity	Category 1B
Reproductive toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1
Aspiration toxicity	Category 1
Flammable liquids	Category 3

Label elements

Signal word **DANGER**

HAZARD STATEMENTS
Flammable liquid and vapor
Causes skin irritation

May cause an allergic skin reaction
May cause cancer
May damage fertility or the unborn child
May cause drowsiness or dizziness
May be fatal if swallowed and enters airways
Causes damage to the following organs through prolonged or repeated exposure: Nervous System
May cause damage to the following organs through prolonged or repeated exposure: Nervous System, Ears

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. Wash face, hands and any exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. P210 - 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.

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
If skin irritation or rash occurs: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

Fire
In case of fire: Use CO2, dry chemical, or foam for extinction.

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

DISPOSAL
Dispose of contents/containers in accordance with local regulations.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)
No information available.

OTHER HAZARDS
spontaneously combustible material. Risk of self-ignition of used cleaning rags, paper wipes etc. Contaminated materials should be soaked in water and placed in a closed metal container before disposal.

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-%
Solvent naphtha, petroleum, medium aliphatic	64742-88-7	10 - 25
n-Butyl acetate	123-86-4	10 - 25
Xylenes	1330-20-7	5 - 10
Naphtha, petroleum, hydrotreated heavy	64742-48-9	3 - 5
Solvent naphtha, petroleum, light aromatic	64742-95-6	1 - 3
Benzene, trimethyl-	25551-13-7	1 - 3
Titanium dioxide	13463-67-7	1 - 3
Petroleum distillates, hydrotreated light	64742-47-8	1 - 3
Toluene	108-88-3	1 - 3

Ethylbenzene	100-41-4	1 - 3
1,2,4-Trimethylbenzene	95-63-6	1 - 3
Propylene glycol monomethyl ether acetate	108-65-6	1 - 3
Proprietary additive	Proprietary	0.3 - 1
Carbon black	1333-86-4	0.3 - 1
Zirconium ethyl hexoate	22464-99-9	0.3 - 1
2-Butanone, oxime	96-29-7	0.1 - 0.3
Alkanoate ester	Proprietary	0.1 - 0.3
Cumene	98-82-8	0.1 - 0.3
Sulfonic acids, petroleum, calcium salts	61789-86-4	0.1 - 0.3
Hexanoic acid, 2-ethyl-, cobalt(2+) salt (2:1)	136-52-7	0.1 - 0.3

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

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
If skin irritation or rash occurs: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

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. May cause sensitization by skin contact. spontaneously combustible material. Risk of self-ignition of used cleaning rags, paper wipes etc. Contaminated materials should be soaked in water and placed in a closed metal container before disposal. Keep product and empty container away from heat and sources of ignition.

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. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Take precautionary measures against static discharges.

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. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.

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. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. Take up mechanically, placing in appropriate containers for disposal.

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. Use only with adequate ventilation. 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. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Risk of self-ignition of used cleaning rags, paper wipes etc. Contaminated materials should be soaked in water and placed in a closed metal container before disposal.

General Hygiene Considerations
When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Avoid contact with skin, eyes or clothing.

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 container tightly closed in a dry and well-ventilated place. 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 IDLH
n-Butyl acetate	STEL: 150 ppm	TWA: 150 ppm	IDLH: 1700 ppm

123-86-4	TWA: 50 ppm	TWA: 710 mg/m³	TWA: 150 ppm TWA: 710 mg/m³ STEL: 200 ppm STEL: 950 mg/m³
Xylenes 1330-20-7	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m³	
Benzene, trimethyl- 25551-13-7	TWA: 25 ppm		
Titanium dioxide 13463-67-7	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust	IDLH: 5000 mg/m³
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm Ceiling: 300 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m³ STEL: 150 ppm STEL: 560 mg/m³
Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m³	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m³ STEL: 125 ppm STEL: 545 mg/m³
1,2,4-Trimethylbenzene 95-63-6	TWA: 25 ppm		TWA: 25 ppm TWA: 125 mg/m³
Carbon black 1333-86-4	TWA: 3 mg/m³ inhalable particulate matter	TWA: 3.5 mg/m³	IDLH: 1750 mg/m³ TWA: 3.5 mg/m³ TWA: 0.1 mg/m³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH
Zirconium ethyl hexoate 22464-99-9	STEL: 10 mg/m³ Zr TWA: 5 mg/m³ Zr	TWA: 5 mg/m³ Zr	IDLH: 25 mg/m³ Zr TWA: 5 mg/m³ except Zirconium tetrachloride Zr STEL: 10 mg/m³ Zr
Cumene 98-82-8	TWA: 50 ppm	TWA: 50 ppm TWA: 245 mg/m³ S*	IDLH: 900 ppm TWA: 50 ppm TWA: 245 mg/m³

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
Tight sealing safety goggles.

Skin and body protection
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. 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	Solvent
Color	black
Odor Threshold	No information available
pH value	No information available
Melting point/freezing point	No information available
Boiling point / boiling range	No information available °C / °F
flash point	33 °C / 91 °F
evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	13.1
Lower flammability limit:	.7
Vapor pressure	30
vapor density	No information available
Density (lbs per US gallon)	7.96
specific gravity	.95
Solubility(ies)	No information available
Partition coefficient	No information available
Autoignition temperature	200.2 °C / 392 °F
Decomposition temperature	No information available
Kinematic viscosity	No information available
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 (CO2). Chlorine gas.

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Not applicable
Skin Contact
May cause an allergic skin reaction
Causes skin irritation
Ingestion
May be fatal if swallowed and enters airways
Inhalation
May cause drowsiness or dizziness

Numerical measures of toxicity - Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Solvent naphtha, petroleum,	> 25 mL/kg (Rat)	> 3000 mg/kg (Rabbit)	> 13 mg/L (Rat) 4 h

medium aliphatic 64742-88-7			
n-Butyl acetate 123-86-4	= 10768 mg/kg (Rat)	> 17600 mg/kg (Rabbit)	= 390 ppm (Rat) 4 h
Xylenes 1330-20-7	= 3500 mg/kg (Rat)	> 1700 mg/kg (Rabbit) > 4350 mg/kg (Rabbit)	= 5000 ppm (Rat) 4 h = 29.08 mg/L (Rat) 4 h
Naphtha, petroleum, hydrotreated heavy 64742-48-9	> 6000 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	> 8500 mg/m³ (Rat) 4 h
Solvent naphtha, petroleum, light aromatic 64742-95-6	= 8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3400 ppm (Rat) 4 h
Benzene, trimethyl- 25551-13-7	= 8970 mg/kg (Rat)	-	-
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Petroleum distillates, hydrotreated light 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
Toluene 108-88-3	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h
Ethylbenzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.4 mg/L (Rat) 4 h
1,2,4-Trimethylbenzene 95-63-6	= 3280 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 18 g/m³ (Rat) 4 h
Propylene glycol monomethyl ether acetate 108-65-6	= 8532 mg/kg (Rat)	> 5 g/kg (Rabbit)	-
Proprietary additive	= 2615 mg/kg (Rat)	-	-
Carbon black 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-
Zirconium ethyl hexoate 22464-99-9	-	-	-
2-Butanone, oxime 96-29-7	= 930 mg/kg (Rat)	1000 - 1800 mg/kg (Rabbit)	> 4800 mg/m³ (Rat) 4 h
Alkanoate ester	-	-	-
Cumene 98-82-8	= 1400 mg/kg (Rat)	= 12300 µL/kg (Rabbit)	> 3577 ppm (Rat) 6 h = 39000 mg/m³ (Rat) 4 h
Sulfonic acids, petroleum, calcium salts 61789-86-4	> 20 g/kg (Rat)	> 5000 mg/kg (Rabbit)	-
Hexanoic acid, 2-ethyl-, cobalt(2+) salt (2:1) 136-52-7	-	> 5000 mg/kg (Rabbit)	> 10 mg/L (Rat) 1 h

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	35449 Mg/kg
ATEmix (dermal)	18649 Mg/kg
ATEmix (inhalation-dust/mist)	13.4 mg/l
ATEmix (inhalation-vapor)	98 mg/l

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. According to IARC, Volume 93, no significant exposure to primary particles of carbon black 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
Ethylbenzene	A3	Group 2B		X

100-41-4				
Carbon black 1333-86-4	A3	Group 2B		X
Cumene 98-82-8		Group 2B	Reasonably Anticipated	X
Hexanoic acid, 2-ethyl-, cobalt(2+) salt (2:1) 136-52-7		Group 2B		X

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen.
IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans.
NTP (National Toxicology Program)
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen.
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present.

Skin corrosion/irritation Causes skin irritation
Serious eye damage/eye irritation Not applicable
Skin sensitization May cause an allergic skin reaction
Respiratory sensitization Not applicable
Germ cell mutagenicity Not applicable
Carcinogenicity May cause cancer
Reproductive Toxicity May damage fertility or the unborn child
Specific target organ toxicity (single exposure) May cause drowsiness or dizziness
Specific target organ toxicity (repeated exposure)
Causes damage to the following organs through prolonged or repeated exposure: Nervous System
May cause damage to the following organs through prolonged or repeated exposure: Nervous System Ears
Aspiration hazard May be fatal if swallowed and enters airways

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Environmental precautions — Prevent product from entering drains.

Marine pollutant — This product contains a chemical which is listed as a marine pollutant according to DOT

Marine pollutant — This material meets the definition of a marine pollutant

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

	DOT	IMDG	IATA
14.1 UN number or ID number	UN1263	UN1263	UN1263

14.2 Proper shipping name	Paint	Paint	Paint
14.3 Hazard Class	3	3	3
14.4 Packing Group	III	III	III

14.5 Environmental hazard

Marine pollutant This product contains a chemical which is listed as a marine pollutant according to DOT

Marine pollutant This material meets the definition of a marine pollutant

Marine pollutant Solvent naphtha, petroleum, medium aliphatic , Naphtha, petroleum, hydrotreated heavy

14.6 Special Provisions	367, B1, B52, B131, IB3, T2, TP1, TP29	163, 223, 367, 955	A3, A72, A192
	Emergency Response Guide Number 128	**EmS-No** F-E, S-E	

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 — Not all components are listed or exempt from listing

US Federal Regulations

Chemical Name	SARA 313 - Threshold Values %	Metals	Hazardous air pollutants (HAPs) content
Xylenes 1330-20-7 5 - 10	1		Present
Toluene 108-88-3 1 - 3	1		Present
Ethylbenzene 100-41-4 1 - 3	0.1		Present
1,2,4-Trimethylbenzene 95-63-6 1 - 3	1		
Cumene 98-82-8 0.1 - 0.3	0.1		Present
Hexanoic acid, 2-ethyl-, cobalt(2+) salt (2:1) 136-52-7 0.1 - 0.3	1	Cobalt	Present

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
n-Butyl acetate 123-86-4	5000 lb			X
Xylenes 1330-20-7	100 lb			X
Toluene 108-88-3	1000 lb	X	X	X
Ethylbenzene 100-41-4	1000 lb	X	X	X

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
n-Butyl acetate 123-86-4	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

Xylenes 1330-20-7	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
Toluene 108-88-3	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Ethylbenzene 100-41-4	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Cumene 98-82-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

Rule 66 status of product
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
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Solvent naphtha, petroleum, medium aliphatic 64742-88-7
n-Butyl acetate 123-86-4
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Xylenes 1330-20-7
Naphtha, petroleum, hydrotreated heavy 64742-48-9
Solvent naphtha, petroleum, light aromatic 64742-95-6
Benzene, trimethyl- 25551-13-7
Titanium dioxide 13463-67-7
Petroleum distillates, hydrotreated light 64742-47-8
Toluene 108-88-3
Ethylbenzene 100-41-4
1,2,4-Trimethylbenzene 95-63-6
Propylene glycol monomethyl ether acetate 108-65-6
Proprietary additive
Zirconium ethyl hexoate 22464-99-9
2-Butanone, oxime 96-29-7
Alkanoate ester
Cumene 98-82-8

Hexanoic acid, 2-ethyl-, cobalt(2+) salt (2:1) 136-52-7

Section 16: OTHER INFORMATION

HMIS

Health hazards	3*
** = Chronic Health Hazard*	
Flammability	3
Physical hazards	0
Personal Protection	X

Supplier Address

Valspar Coatings
5400 Avenue Of The Cities
Moline, IL 61265
309-762-7546

Prepared By Product Stewardship

Revision date 06-Dec-2023
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

valspar
if it matters, we're on it.®

Environmental Data

P.O. Box 1461
Minneapolis, MN 55440
800-328-8044

Date: December 05, 2024

Product Number: **048.1400936**
Product Description: **1400936H1 BLACK GREY**

Specifications

Physical Characteristics:	**Lb/Gal**	**g/L**
Density of Product	7.96	954
Density of Organic Solvent	6.96	834
Non-Volatile Mass (%):	44.53	44.53
Non-Volatile Volume (%):	36.53	36.53
Total Volatiles by Weight (%):	55.47	55.47
H20 by Weight (%):	0.00	0.00
H20 by Volume (%):	0.00	0.00
Exempts by Weight (%):	0.00	0.00
Exempts by Volume (%):	0.00	0.00
VOC by Weight (%):	55.46	55.46
VOC Information:		
Coating VOC (VOC less water and exempt solvents):	4.41	528
Material VOC (VOC with water and exempt solvents):	4.41	528
Wgt VOC/Vol Solids:	0.00	0
Wgt VOC/Wgt of Solids*:	1.25	1.25
HAP Information:		
Wgt VHAP/Wgt of Solids*:	0.20	0.20
Wgt VHAP/Vol of Solids:	1.90	228
Wgt VHAP/Vol of Product:	0.69	83
% VHAP:	8.73	8.73
Wgt Total HAP/Wgt of Solids*:	0.20	0.20
Wgt Total HAP/Vol of Solids:	1.92	230
Wgt Total HAP/Vol of Product:	0.70	84
% Total HAP:	8.83	8.83
Photochemically Reactive (Rule-66 / CA-102):		YES
Mix Ratio:		***Not Available ***

* Values represented Lb/Lb or g/g.
Reported HAP information includes any HAP ingredients present below de minimis concentrations.

Volatile Composition						
Chemical Name	**CAS Number**	**Weight %**	**Lb/Gal**	**g/L**	**Lb/Gal Solids**	**g/L Solids**
Solvent naphtha, petroleum, medium aliphatic	64742-88-7	19.69	1.57	188	4.29	514
n-Butyl acetate	123-86-4	10.08	0.80	96	2.20	263
Xylenes	1330-20-7	5.90	0.47	56	1.29	154
Naphtha, petroleum, hydrotreated heavy	64742-48-9	3.99	0.32	38	0.87	104
Solvent naphtha, petroleum, light aromatic	64742-95-6	2.74	0.22	26	0.60	71
Benzene, trimethyl-	25551-13-7	2.73	0.22	26	0.60	71
Ethyl 3-ethoxypropanoate	763-69-9	2.14	0.17	20	0.47	56
Petroleum distillates, hydrotreated light	64742-47-8	1.58	0.13	15	0.34	41
Toluene	108-88-3	1.31	0.10	13	0.29	34
Ethylbenzene	100-41-4	1.30	0.10	12	0.28	34
1,2,4-Trimethylbenzene	95-63-6	1.25	0.10	12	0.27	33
Propylene glycol monomethyl ether acetate	108-65-6	1.22	0.10	12	0.27	32
Cumene	98-82-8	0.18	0.01	2	0.04	5

Regulatory Information				
Chemical Name	**CAS Number**	**Weight %**	**HAP**	**SARA 313**
Xylenes	1330-20-7	5.90	YES	YES
Toluene	108-88-3	1.31	YES	YES
Ethylbenzene	100-41-4	1.30	YES	YES
1,2,4-Trimethylbenzene	95-63-6	1.25	NO	YES
Cumene	98-82-8	0.18	YES	YES

SAFETY DATA SHEET

REDUCER 54

Section 1. Identification

Product name : Reducer #54
530-8671 / 530-8689 / 530-8697

Product code : REDUCER 54

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 : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Product Information Telephone Number : US / Canada: 1-800-474-3794
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

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
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
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 73.4%

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 respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
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 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.

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 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

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.

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	CAS number
Methyl Isobutyl Ketone	≥25 - ≤51	108-10-1
Ethanol	≥10 - ≤25	64-17-5
Xylene, mixed isomers	≥10 - ≤25	1330-20-7
Ethylbenzene	<4	100-41-4
Lt. Aliphatic Hydrocarbon Solvent	≤0.3	64742-89-8

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 : 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. 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. May cause respiratory irritation.

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:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

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

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

Section 4. First aid measures

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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, 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

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

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 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
Methyl Isobutyl Ketone	108-10-1	**ACGIH TLV (United States, 1/2024).** TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes. **NIOSH REL (United States, 10/2020).** TWA: 50 ppm 10 hours. TWA: 205 mg/m³ 10 hours. STEL: 75 ppm 15 minutes. STEL: 300 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).**

Section 8. Exposure controls/personal protection

		TWA: 100 ppm 8 hours. TWA: 410 mg/m³ 8 hours.
Ethanol	64-17-5	**ACGIH TLV (United States, 1/2024).** STEL: 1000 ppm 15 minutes. **NIOSH REL (United States, 10/2020).** TWA: 1000 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours.
Xylene, mixed isomers	1330-20-7	**OSHA PEL (United States, 5/2018). [Xylenes]** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2024). [p-xylene and mixtures containing p-xylene] Ototoxicant.** TWA: 20 ppm 8 hours.
Ethylbenzene	100-41-4	**ACGIH TLV (United States, 1/2024). Ototoxicant.** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 10/2020).** TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
Lt. Aliphatic Hydrocarbon Solvent	64742-89-8	**NIOSH REL (United States, 10/2020). [HEXANE ISOMERS]** TWA: 100 ppm 10 hours. TWA: 350 mg/m³ 10 hours. CEIL: 510 ppm 15 minutes. CEIL: 1800 mg/m³ 15 minutes. **ACGIH TLV (United States, 1/2024). [branched hexane isomers]** TWA: 200 ppm 8 hours.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Methyl isobutyl ketone	108-10-1	**CA Alberta Provincial (Canada, 3/2023).** OEL: 205 mg/m³ 8 hours. OEL: 50 ppm 8 hours. OEL: 75 ppm 15 minutes. OEL: 307 mg/m³ 15 minutes. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 20 ppm 8 hours. STEV: 75 ppm 15 minutes.

Section 8. Exposure controls/personal protection

		CA Saskatchewan Provincial (Canada, 4/2021). STEL: 75 ppm 15 minutes. TWA: 50 ppm 8 hours.
Ethyl alcohol	64-17-5	**CA Alberta Provincial (Canada, 3/2023).** OEL: 1000 ppm 8 hours. OEL: 1880 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 8/2023).** STEL: 1000 ppm 15 minutes. **CA Ontario Provincial (Canada, 6/2019).** STEL: 1000 ppm 15 minutes. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024).** STEV: 1000 ppm 15 minutes.
Xylene	1330-20-7	**CA Alberta Provincial (Canada, 3/2023). [Dimethylbenzene]** OEL: 100 ppm 8 hours. OEL: 651 mg/m³ 15 minutes. OEL: 150 ppm 15 minutes. OEL: 434 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 8/2023). [Xylene (o, m & p isomers)]** TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. **CA Quebec Provincial (Canada, 2/2024). [Xylene]** TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes. **CA Ontario Provincial (Canada, 6/2019). [Xylene (o-, m-, p-isomers)]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021). [Xylene]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Ethylbenzene	100-41-4	**CA Alberta Provincial (Canada, 3/2023).** OEL: 100 ppm 8 hours. OEL: 434 mg/m³ 8 hours. OEL: 543 mg/m³ 15 minutes. OEL: 125 ppm 15 minutes. **CA British Columbia Provincial (Canada, 8/2023).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 2/2024).** TWAEV: 20 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 4/2021).** STEL: 125 ppm 15 minutes.

Section 8. Exposure controls/personal protection

		TWA: 100 ppm 8 hours.
Lt. Aliphatic Hydrocarbon Solvent	64742-89-8	**CA Saskatchewan Provincial (Canada, 4/2021). [Hexane]** STEL: 1000 ppm 15 minutes. TWA: 500 ppm 8 hours. **CA British Columbia Provincial (Canada, 8/2023). [Hexane, all isomers except n-Hexane]** TWA: 200 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019). [Hexane isomers, other than n-hexane]** TWA: 500 ppm 8 hours. STEL: 1000 ppm 15 minutes. **CA Quebec Provincial (Canada, 2/2024). [Hexane]** TWAEV: 500 ppm 8 hours. TWAEV: 1760 mg/m³ 8 hours. STEV: 1000 ppm 15 minutes. STEV: 3500 mg/m³ 15 minutes. **CA Alberta Provincial (Canada, 3/2023). [Dimethylbutane]** OEL: 1760 mg/m³ 8 hours. OEL: 1000 ppm 15 minutes. OEL: 3500 mg/m³ 15 minutes. OEL: 500 ppm 8 hours.

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Methyl Isobutyl Ketone	108-10-1	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 50 ppm 8 hours. STEL: 75 ppm 15 minutes.
Ethanol	64-17-5	**NOM-010-STPS-2014 (Mexico, 4/2016).** STEL: 1000 ppm 15 minutes.
Xylene, mixed isomers	1330-20-7	**NOM-010-STPS-2014 (Mexico, 4/2016). [Xileno, mezcla]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Ethylbenzene	100-41-4	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 20 ppm 8 hours.

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.
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.

Section 8. Exposure controls/personal protection

Biological exposure indices (Canada)

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) [xylenes (technical or commercial grade)]** BEI: 1.5 g/g creatinine, methyl hippuric acids [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.

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. 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.

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, initial boiling point, and boiling range : 77°C (170.6°F)

Flash point : Closed cup: 13°C (55.4°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: 19%

Section 9. Physical and chemical properties

Vapor pressure : 5.9 kPa (44 mm Hg)

Relative vapor density : 1.5 [Air = 1]

Relative density : 0.81

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 : Kinematic (40°C (104°F)): <20.5 mm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Heat of combustion : 30.866 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	Species	Dose	Exposure
Methyl Isobutyl Ketone	LD50 Oral	Rat	2080 mg/kg	-
Ethanol	LC50 Inhalation Vapor	Rat	124700 mg/m^3	4 hours
	LD50 Oral	Rat	7 g/kg	-
Xylene, mixed isomers	LC50 Inhalation Gas.	Rat	6700 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl Isobutyl Ketone	Eyes - Moderate irritant	Rabbit	-	24 hours 100 uL	-
	Eyes - Severe irritant	Rabbit	-	40 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	100 uL	-
	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	400 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
Xylene, mixed isomers	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Methyl Isobutyl Ketone	-	2B	-
Ethanol	-	1	-
Xylene, mixed isomers	-	3	-
Ethylbenzene	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Methyl Isobutyl Ketone	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Ethanol	Category 3	-	Narcotic effects
Xylene, mixed isomers	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Ethylbenzene	Category 3	-	Narcotic effects
Lt. Aliphatic Hydrocarbon Solvent	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Xylene, mixed isomers	Category 2	-	-
Ethylbenzene	Category 2	-	-

Aspiration hazard

Name	Result
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
Lt. Aliphatic Hydrocarbon Solvent	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. May cause respiratory irritation.

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:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

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

Section 11. Toxicological information

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.

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.

Teratogenicity : No known significant effects or critical hazards.

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	15793.43 mg/kg
Dermal	2977.62 mg/kg
Inhalation (vapors)	20.16 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl Isobutyl Ketone	Acute LC50 505000 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
	Chronic NOEC 78 mg/l Fresh water	Daphnia - *Daphnia magna*	21 days
	Chronic NOEC 168 mg/l Fresh water	Fish - *Pimephales promelas* - Embryo	33 days
Ethanol	Acute EC50 17.921 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Acute EC50 2 mg/l Fresh water	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - *Artemia franciscana* - Larvae	48 hours
	Acute LC50 42000 µg/l Fresh water	Fish - *Oncorhynchus mykiss*	4 days
	Chronic NOEC 4.995 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Chronic NOEC 100 ul/L Fresh water	Daphnia - *Daphnia magna* - Neonate	21 days
	Chronic NOEC 0.375 ul/L Fresh water	Fish - *Gambusia holbrooki* - Larvae	12 weeks
Xylene, mixed isomers	Acute LC50 8500 µg/l Marine water	Crustaceans - *Palaemonetes pugio*	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - *Raphidocelis subcapitata*	96 hours

Section 12. Ecological information

	Acute EC50 6.53 mg/l Marine water	Crustaceans - *Artemia sp.* - Nauplii	48 hours
	Acute EC50 2.93 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - *Oncorhynchus mykiss*	96 hours
Lt. Aliphatic Hydrocarbon Solvent	Acute LC50 >100000 ppm Fresh water	Fish - *Oncorhynchus mykiss*	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl Isobutyl Ketone	-	-	Readily
Ethanol	-	-	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
Lt. Aliphatic Hydrocarbon Solvent	-	10 to 2500	High

Mobility in soil

Soil/water partition coefficient (K_{OC}) : 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

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	- **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

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet, where applicable.

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

Section 15. Regulatory information

Montreal Protocol

Not listed.

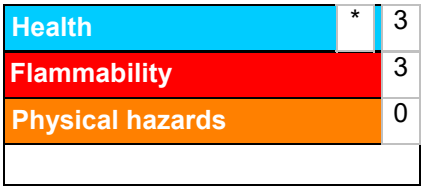
Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists : **Australia inventory (AIIC)**: 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.)



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 2A	Calculation method
CARCINOGENICITY - Category 2	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
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing : 10/1/2024

Date of issue/Date of revision : 10/1/2024

Date of previous issue : 5/19/2024

Version : 16

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.

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.

ENVIRONMENTAL DATA SHEET

(Certified Product Data Sheet)

Date of Preparation
May 21, 2019

08 00 [1286]

PRODUCT NUMBER
REDUCER 54

PRODUCT NAME
Reducer #54, 530-8671 / 530-8689 / 530-8697

MANUFACTURER'S NAME
THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

This document includes all data required by 40 CFR 63.801(a) for a Certified Product Data Sheet under criteria specified in 40 CFR 63.805(a). All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED. Variations may occur on individual batches due to adjustments made during production.

Hazard Category (for SARA 311.312)
REDUCER 54 = | Acute | Chronic | Fire |

Product Weight	Specific Gravity	FLASH POINT
6.75 lb/gal	0.81	55 °F TCC

Volatile Ingredients

Chemical / Compound	SARA 302 EHS	CERCLA	SARA 313 TC	HAPS 112	% by Weight	% by Volume
Ethylbenzene 100-41-4	N	Y	Y	Y	4	4
Xylene 1330-20-7	N	Y	Y	Y	22	21
Ethanol 64-17-5	N	N	N	N	23	23
Methyl Isobutyl Ketone 108-10-1	N	Y	Y	Y	51	51

Volatile Organic Compounds - U.S. EPA / Canada

	REDUCER 54	
	LB/Gal	g/L
Coating Density	6.75	808
	By wt	By vol
Total Volatiles	100.0%	100.0%
Federally exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	100.0%	100.0%
Percent Non-Volatile	0.0%	0.0%
VOC Content	LB/Gal	g/L
Total	6.74	808
Less exempt solvents	6.74	808
Of solids	0.00	0
Of solids	0.00 lb/lb	0.00 kg/kg
	By wt	
By wt LVP-VOC	100.0%	

Maximum Incremental Reactivity (MIR) (per US EPA Aerosol Ctg Rule, MIR Values 2009) **4.39**

Volatile Organic Compounds - California

	REDUCER 54	
	LB/Gal	**g/L**
Coating Density	6.75	808
	By wt	**By vol**
Total Volatiles	100.0%	100.0%
Exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	100.0%	100.0%
Percent Non-Volatile	0.0%	0.0%
VOC Content	**LB/Gal**	**g/L**
Total	6.74	808
Less exempt solvents	6.74	808
Of solids	0.00	0
Of solids	0.00 lb/lb	0.00 kg/kg
	By wt	
By wt LVP-VOC	100.0%	

Maximum Incremental Reactivity (MIR) (per California Air Resources Board Aerosol Products Regulation, MIR Values 2010) **4.14**

Volatile Organic Compounds - South Coast Air Quality Management District, California, US

	REDUCER 54	
	LB/Gal	**g/L**
Coating Density	6.75	808
	By wt	**By vol**
Total Volatiles	100.0%	100.0%
Exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	100.0%	100.0%
Percent Non-Volatile	0.0%	0.0%
VOC Content	**LB/Gal**	**g/L**
Total	6.74	808
Less exempt solvents	6.74	808
Of solids	0.00	0
Of solids	0.00 lb/lb	0.00 kg/kg

Volatile Organic Compounds - EU Directive 2004/42/EC

	REDUCER 54	
	By wt	**By vol**
Total Volatiles	100.0%	100.0%
VOC Content	**LB/Gal**	**g/L**
Total	6.74	808

Volatile Organic Compounds - EU Directive 2010/75/EU

	REDUCER 54	
	By wt	**By vol**
Total Volatiles	100.0%	100.0%
VOC Content	**LB/Gal**	**g/L**
Total	6.74	808

Volatile Organic Compounds - Mexico

	REDUCER 54	
	LB/Gal	**g/L**
Coating Density	6.75	808
	By wt	**By vol**
Total Volatiles	100.0%	100.0%
Exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	100.0%	100.0%
Percent Non-Volatile	0.0%	0.0%
VOC Content	**LB/Gal**	**g/L**
Total	6.74	808
Less exempt solvents	6.74	808
Of solids	0.00	0
Of solids	0.00 lb/lb	0.00 kg/kg

Hazardous Air Pollutants (Clean Air Act, Section 112(b))

	REDUCER 54		
	LB/Gal	**kg/L**	
Volatile HAPS	5.19	0.622	76.97 % by wt
Of solids	lb/gal	kg/l of solids	Not applicable
Of solids	lb/lb	kg/kg of solids	Not applicable

Air Quality Data

Density of Organic Solvent Blend
6.75 lb/gal
Photochemically Reactive
Yes

Additional Regulatory Information

US EPA TSCA:
Not Applicable
Relevant identified uses of the substance or mixture and uses advised against:
Not Applicable

Waste Disposal

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.
Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Addition of reducers or other additives to this product may substantially alter the above data. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

SAFETY DATA SHEET

Revision Date 19-Dec-2022 **Version** 6

1. IDENTIFICATION

Product identifier
Product Name Gray Primer R/I

Other means of identification
Product Code PN-0523
UN/ID no UN1263
SKU(s) None

Recommended use of the chemical and restrictions on use
Recommended Use No information available.
Uses advised against No information available

Details of the supplier of the safety data sheet
Manufacturer Address
Diamond Vogel
1020 Albany Place SE
Orange City, IA 51041
Phone: (712) 737-4993
Fax: (712) 737-4997

Emergency telephone number
Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Skin sensitization	Category 1
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A
Reproductive toxicity	Category 2
Aspiration toxicity	Category 1
Flammable liquids	Category 2

Emergency Overview

Danger

Hazard statements
Harmful if inhaled
Causes skin irritation
May cause an allergic skin reaction
May cause genetic defects
May cause cancer
Suspected of damaging fertility or the unborn child
May be fatal if swallowed and enters airways
Highly flammable liquid and vapor

Appearance No information available **Physical state** Liquid **Odor** No information available

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Use explosion-proof electrical/ ventilating/ lighting/ equipment

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
If skin irritation or rash occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Other Information
• May be harmful in contact with skin
• Toxic to aquatic life with long lasting effects
• Toxic to aquatic life
Unknown acute toxicity 3.28% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%	Trade Secret
Xylene	1330-20-7	10 - 30	*
Aliphatic Hydrocarbon	64742-49-0	7 - 13	*
Ethyl Benzene	100-41-4	5 - 10	*
Solvent Naphtha, Light Aliphatic	64742-89-8	3 - 7	*
Barite	13462-86-7	3 - 7	*

Talc (powder)	14807-96-6	1 - 5	*
Titanium dioxide	13463-67-7	1 - 5	*
Titanium Dioxide, Rutile	1317-80-2	1 - 5	*
Aromatic 150	64742-94-5	1 - 5	*
Barium metaborate monohydrate	13701-59-2	1 - 5	*
Zinc oxide, as Zn (fume)	1314-13-2	0.1 - 1	*
Naphthalene	91-20-3	0.1 - 1	*
Toluene	108-88-3	0.1 - 1	*
Crystalline Silica	14808-60-7	0.1 - 1	*
Octane	111-65-9	0.1 - 1	*
Heptane	142-82-5	0.1 - 1	*
Methyl Ethyl Ketoxime	96-29-7	0.1 - 1	*
Carbon Black	1333-86-4	0.1 - 1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact Call a physician immediately.

Inhalation Move victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.

Ingestion Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

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.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical
Flammable.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Remove all sources of ignition. Use personal protective equipment as required.

Environmental precautions

Environmental precautions Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information.

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 Cover liquid spill with sand, earth or other non-combustible absorbent material. Soak up with inert absorbent material.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Incompatible materials Strong oxidizing agents. Strong acids. Chlorinated compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines .

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Xylene 1330-20-7	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m³ (vacated) STEL: 150 ppm (vacated) STEL: 655 mg/m³	-
Ethyl Benzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m³ (vacated) STEL: 125 ppm (vacated) STEL: 545 mg/m³	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m³ STEL: 125 ppm STEL: 545 mg/m³
Talc (powder) 14807-96-6	TWA: 2 mg/m³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	(vacated) TWA: 2 mg/m³ respirable dust <1% Crystalline silica, containing no Asbestos TWA: 20 mppcf if 1% Quartz or more;use Quartz limit	IDLH: 1000 mg/m³ TWA: 2 mg/m³ containing no Asbestos and <1% Quartz respirable dust
Titanium dioxide 13463-67-7	TWA: 0.2 mg/m³ nanoscale respirable particulate matter TWA: 2.5 mg/m³ finescale respirable particulate matter	TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction	IDLH: 5000 mg/m³ TWA: 2.4 mg/m³ CIB 63 fine TWA: 0.3 mg/m³ CIB 63 ultrafine, including engineered nanoscale
Barium metaborate monohydrate 13701-59-2	STEL: 6 mg/m³ inhalable particulate matter TWA: 0.5 mg/m³ Ba TWA: 2 mg/m³ inhalable particulate matter	TWA: 0.5 mg/m³ Ba regulated under CAS 7440-39-3 (vacated) TWA: 0.5 mg/m³ Ba	IDLH: 50 mg/m³ Ba TWA: 0.5 mg/m³ except Barium sulfate Ba
Zinc oxide, as Zn (fume) 1314-13-2	STEL: 10 mg/m³ respirable particulate matter TWA: 2 mg/m³ respirable particulate matter	TWA: 5 mg/m³ fume TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ fume (vacated) TWA: 10 mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable fraction	IDLH: 500 mg/m³ Ceiling: 15 mg/m³ dust TWA: 5 mg/m³ dust and fume STEL: 10 mg/m³ fume

		(vacated) STEL: 10 mg/m³ fume	
Naphthalene 91-20-3	TWA: 10 ppm S*	TWA: 10 ppm TWA: 50 mg/m³ (vacated) TWA: 10 ppm (vacated) TWA: 50 mg/m³ (vacated) STEL: 15 ppm (vacated) STEL: 75 mg/m³	IDLH: 250 ppm TWA: 10 ppm TWA: 50 mg/m³ STEL: 15 ppm STEL: 75 mg/m³
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm (vacated) TWA: 100 ppm (vacated) TWA: 375 mg/m³ (vacated) STEL: 150 ppm (vacated) STEL: 560 mg/m³ Ceiling: 300 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m³ STEL: 150 ppm STEL: 560 mg/m³
Crystalline Silica 14808-60-7	TWA: 0.025 mg/m³ respirable particulate matter	TWA: 50 µg/m³ TWA: 50 µg/m³ excludes construction work, agricultural operations, and exposures that result from the processing of sorptive clays (vacated) TWA: 0.1 mg/m³ respirable dust : (250)/(%SiO2 + 5) mppcf TWA respirable fraction : (10)/(%SiO2 + 2) mg/m³ TWA respirable fraction	IDLH: 50 mg/m³ respirable dust TWA: 0.05 mg/m³ respirable dust
Octane 111-65-9	TWA: 300 ppm	TWA: 500 ppm TWA: 2350 mg/m³ (vacated) TWA: 300 ppm (vacated) TWA: 1450 mg/m³ (vacated) STEL: 375 ppm (vacated) STEL: 1800 mg/m³	IDLH: 1000 ppm Ceiling: 385 ppm 15 min Ceiling: 1800 mg/m³ 15 min TWA: 75 ppm TWA: 350 mg/m³
Heptane 142-82-5	STEL: 500 ppm TWA: 400 ppm	TWA: 500 ppm TWA: 2000 mg/m³ (vacated) TWA: 400 ppm (vacated) TWA: 1600 mg/m³ (vacated) STEL: 500 ppm (vacated) STEL: 2000 mg/m³	IDLH: 750 ppm Ceiling: 440 ppm 15 min Ceiling: 1800 mg/m³ 15 min TWA: 85 ppm TWA: 350 mg/m³
Carbon Black 1333-86-4	TWA: 3 mg/m³ inhalable particulate matter	TWA: 3.5 mg/m³ (vacated) TWA: 3.5 mg/m³	IDLH: 1750 mg/m³ TWA: 3.5 mg/m³ TWA: 0.1 mg/m³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH

NIOSH Immediately Dangerous to Life or Health

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection No special technical protective measures are necessary.

Skin and body protection No special technical protective measures are necessary.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	No information available	**Odor**	No information available
Color	No information available	**Odor threshold**	No information available

Property	**Values**	**Remarks • Method**
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	>= 64 °C / 148 °F	
Flash point	10 °C / 50 °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	
Vapor density	No information available	
Specific Gravity	1.08	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
Liquid Density	8.98 lbs/gal
Bulk density	No information available
Percent solids by weight	46.8%
Percent volatile by weight	53.2%
Percent solids by volume	32.0%
Actual VOC (lbs/gal)	4.8
Actual VOC (grams/liter)	572.5
EPA VOC (lbs/gal)	4.8
EPA VOC (grams/liter)	572.5
EPA VOC (lb/gal solids)	14.9

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
Strong oxidizing agents. Strong acids. Chlorinated compounds.

Hazardous decomposition products
Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation No data available.

Eye contact No data available.

Skin Contact No data available.

Ingestion No data available.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Xylene 1330-20-7	= 3500 mg/kg (Rat)	> 4350 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h
Aliphatic Hydrocarbon 64742-49-0	> 5000 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 73680 ppm (Rat) 4 h
Ethyl Benzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.4 mg/L (Rat) 4 h
Solvent Naphtha, Light Aliphatic 64742-89-8	-	= 3000 mg/kg (Rabbit)	-
Barite 13462-86-7	> 15000 mg/kg (Rat)	-	-
Talc (powder) 14807-96-6	= 55,000 mg/kg (Rat)	-	-
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	= 5.09 mg/L (Rat) 4 h
Aromatic 150 64742-94-5	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 590 mg/m³ (Rat) 4 h
Barium metaborate monohydrate 13701-59-2	= 530 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 3.5 mg/L (Rat) 4 h
Zinc oxide, as Zn (fume) 1314-13-2	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 5700 mg/m³ (Rat) 4 h
Naphthalene 91-20-3	= 1110 mg/kg (Rat)	= 1120 mg/kg (Rabbit)	> 0.4 mg/L (Rat) 4 h
Toluene 108-88-3	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h
Crystalline Silica 14808-60-7	> 22,500 mg/kg (Rat)	-	-
Octane 111-65-9	-	-	> 24.88 mg/L (Rat) 4 h
Heptane 142-82-5	-	= 3000 mg/kg (Rabbit)	> 73.5 mg/L (Rat) 4 h
Methyl Ethyl Ketoxime 96-29-7	= 930 mg/kg (Rat)	1000 - 1800 mg/kg (Rabbit)	> 4.83 mg/L (Rat) 4 h
Carbon Black 1333-86-4	> 15400 mg/kg (Rat)	-	> 4.6 mg/m³ (Rat) 4 h

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity No information available.

Chemical name	ACGIH	IARC	NTP	OSHA
Xylene 1330-20-7	-	Group 3	-	-

Ethyl Benzene 100-41-4	A3	Group 2B	-	X
Talc (powder) 14807-96-6	-	Group 3	-	X
Titanium dioxide 13463-67-7	A3	Group 2B	-	X
Titanium Dioxide, Rutile 1317-80-2	-	Group 2B	-	-
Naphthalene 91-20-3	A3	Group 2B	Reasonably Anticipated	X
Toluene 108-88-3	-	Group 3	-	-
Crystalline Silica 14808-60-7	A2	Group 1	Known	X
Carbon Black 1333-86-4	A3	Group 2B	-	X

ACGIH (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
Group 3 - Not classifiable as a human carcinogen
NTP (National Toxicology Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity Product is or contains a chemical which is a known or suspected reproductive hazard.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Chronic toxicity Contains a known or suspected reproductive toxin. Ethylbenzene has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B). Prolonged or repeated overexposure to ethylbenzene may result in adverse effects to the kidneys, liver, respiratory system, thyroid, testicles, and pituitary glands.
Target organ effects Central nervous system, Central Vascular System (CVS), Eyes, Lungs, Respiratory system, Skin.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document mg/kg mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

13.64% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
Xylene 1330-20-7	-	13.1 - 16.5: 96 h Lepomis macrochirus mg/L LC50 flow-through 13.5 - 17.3: 96 h Oncorhynchus mykiss mg/L LC50 2.661 - 4.093: 96 h Oncorhynchus mykiss mg/L LC50 static 23.53 - 29.97: 96 h Pimephales promelas mg/L LC50 static 30.26 - 40.75: 96 h Poecilia reticulata mg/L LC50 static 7.711 - 9.591: 96 h Lepomis macrochirus mg/L LC50 static 13.4: 96 h Pimephales promelas mg/L LC50 flow-through 19: 96 h Lepomis macrochirus mg/L LC50 780: 96 h Cyprinus carpio mg/L LC50	0.6: 48 h Gammarus lacustris mg/L LC50 3.82: 48 h water flea mg/L EC50

		semi-static 780: 96 h Cyprinus carpio mg/L LC50	
Aliphatic Hydrocarbon 64742-49-0	-	8.41: 96 h Oncorhynchus mykiss mg/L LC50 semi-static, closed	-
Ethyl Benzene 100-41-4	1.7 - 7.6: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 2.6 - 11.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 4.6: 72 h Pseudokirchneriella subcapitata mg/L EC50 438: 96 h Pseudokirchneriella subcapitata mg/L EC50	11.0 - 18.0: 96 h Oncorhynchus mykiss mg/L LC50 static 7.55 - 11: 96 h Pimephales promelas mg/L LC50 flow-through 9.1 - 15.6: 96 h Pimephales promelas mg/L LC50 static 32: 96 h Lepomis macrochirus mg/L LC50 static 4.2: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 9.6: 96 h Poecilia reticulata mg/L LC50 static	1.8 - 2.4: 48 h Daphnia magna mg/L EC50
Solvent Naphtha, Light Aliphatic 64742-89-8	4700: 72 h Pseudokirchneriella subcapitata mg/L EC50	-	-
Talc (powder) 14807-96-6	-	100: 96 h Brachydanio rerio g/L LC50 semi-static	-
Aromatic 150 64742-94-5	-	1740: 96 h Lepomis macrochirus mg/L LC50 static 19: 96 h Pimephales promelas mg/L LC50 static 2.34: 96 h Oncorhynchus mykiss mg/L LC50 41: 96 h Pimephales promelas mg/L LC50 45: 96 h Pimephales promelas mg/L LC50 flow-through	0.95: 48 h Daphnia magna mg/L EC50
Zinc oxide, as Zn (fume) 1314-13-2	-	1.55: 96 h Danio rerio mg/L LC50 static	-
Naphthalene 91-20-3	-	0.91 - 2.82: 96 h Oncorhynchus mykiss mg/L LC50 static 5.74 - 6.44: 96 h Pimephales promelas mg/L LC50 flow-through 1.6: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 1.99: 96 h Pimephales promelas mg/L LC50 static 31.0265: 96 h Lepomis macrochirus mg/L LC50 static	1.09 - 3.4: 48 h Daphnia magna mg/L EC50 Static 1.96: 48 h Daphnia magna mg/L EC50 Flow through 2.16: 48 h Daphnia magna mg/L LC50
Toluene 108-88-3	12.5: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 433: 96 h Pseudokirchneriella subcapitata mg/L EC50	11.0 - 15.0: 96 h Lepomis macrochirus mg/L LC50 static 14.1 - 17.16: 96 h Oncorhynchus mykiss mg/L LC50 static 15.22 - 19.05: 96 h Pimephales promelas mg/L LC50 flow-through 5.89 - 7.81: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 50.87 - 70.34: 96 h Poecilia reticulata mg/L LC50 static 12.6: 96 h Pimephales promelas mg/L LC50 static 28.2: 96 h Poecilia reticulata mg/L LC50 semi-static 5.8: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 54: 96 h Oryzias latipes mg/L LC50 static	5.46 - 9.83: 48 h Daphnia magna mg/L EC50 Static 11.5: 48 h Daphnia magna mg/L EC50
Octane 111-65-9	-	-	0.38: 48 h water flea mg/L EC50
Heptane 142-82-5	-	375.0: 96 h Cichlid fish mg/L LC50	-
Methyl Ethyl Ketoxime 96-29-7	83: 72 h Desmodesmus subspicatus mg/L EC50	777 - 914: 96 h Pimephales promelas mg/L LC50 flow-through 760: 96 h Poecilia reticulata mg/L LC50 static	750: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical name	Partition coefficient
Xylene	2.77 - 3.15

1330-20-7	
Ethyl Benzene 100-41-4	3.6
Aromatic 150 64742-94-5	2.8 - 6.5
Barium metaborate monohydrate 13701-59-2	0.69897
Naphthalene 91-20-3	3.4
Toluene 108-88-3	2.73 3.44 3.93
Octane 111-65-9	5.18
Heptane 142-82-5	4.66
Methyl Ethyl Ketoxime 96-29-7	0.65

Other adverse effects No information available

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 Do not reuse container.

14. TRANSPORT INFORMATION

DOT

UN/ID no	UN1263
Proper shipping name	Paint
Hazard class	3
Packing Group	II
Reportable Quantity (RQ)	(Ethyl Benzene: RQ (kg)= 454.00, Toluene: RQ (kg)= 0.454, Xylene: RQ (kg)= 45.40, Naphthalene: RQ (kg)= 0.454)
Special Provisions	149, B52, IB2, T4, TP1, TP8, TP28
Description	UN1263, Paint, 3, II
Emergency Response Guide Number	128

TDG

UN/ID no	UN1263
Proper shipping name	Paint
Hazard class	3
Packing Group	II
Special Provisions	59, 83
Description	UN1263, Paint, 3, II

MEX

UN/ID no	UN1263
Proper shipping name	Paint
Hazard class	3
Special Provisions	163
Packing Group	II
Description	UN1263, Paint, 3, II

ICAO (air)

UN/ID no	UN1263
Proper shipping name	Paint

Hazard class	3
Packing Group	II
Special Provisions	A3, A72
Description	UN1263, Paint, 3, II

IATA

UN Number	UN1263
Proper shipping name	Paint
Transport hazard class(es)	3
Packing Group	II
ERG Code	3L
Special Provisions	A3, A72
Description	UN1263, Paint, 3, II

IMDG

UN Number	UN1263
Transport hazard class(es)	3
Packing Group	II
EmS-No	F-E, S-E
Special Provisions	163
Description	UN1263, Paint, 3, II, (10°C c.c.)

RID

UN/ID no	UN1263
Proper shipping name	Paint
Transport hazard class(es)	3
Packing Group	II
Classification code	F1
Special Provisions	163, 640C, 650
Description	UN1263, Paint, 3, II
Labels	3

ADR

UN Number	UN1263
Proper shipping name	Paint
Transport hazard class(es)	3
Packing Group	II
Classification code	F1
Tunnel restriction code	(D/E)
Special Provisions	163, 640C, 650
Description	UN1263, Paint, 3, II, (D/E)
Labels	3

ADN

Proper shipping name	Paint
Transport hazard class(es)	3
Packing Group	II
Classification code	F1
Special Provisions	163, 640C, 650
Description	UN1263, Paint, 3, II
Hazard label(s)	3
Limited quantity (LQ)	5 L
Ventilation	VE01
Equipment Requirements	PP, EX, A

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies *

* This product contains an unknown chemical, therefore, this product's compliance to the inventory list is NOT DETERMINED

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Xylene - 1330-20-7	1.0
Ethyl Benzene - 100-41-4	0.1
Barite - 13462-86-7	1.0
Barium metaborate monohydrate - 13701-59-2	1.0
Naphthalene - 91-20-3	0.1

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Xylene 1330-20-7	100 lb	-	-	X
Ethyl Benzene 100-41-4	1000 lb	X	X	X
Zinc oxide, as Zn (fume) 1314-13-2	-	X	-	-
Naphthalene 91-20-3	100 lb	X	X	X
Toluene 108-88-3	1000 lb	X	X	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Xylene 1330-20-7	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ
Ethyl Benzene 100-41-4	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ
Naphthalene 91-20-3	100 lb 1 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ RQ 1 lb final RQ RQ 0.454 kg final RQ
Toluene 108-88-3	1000 lb 1 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ RQ 1 lb final RQ RQ 0.454 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Ethyl Benzene - 100-41-4	Carcinogen
Titanium dioxide - 13463-67-7	Carcinogen

Titanium Dioxide, Rutile - 1317-80-2	Carcinogen
Naphthalene - 91-20-3	Carcinogen
Silica, Amorphous fumed - 7631-86-9	Carcinogen
Methanol - 67-56-1	Developmental
Toluene - 108-88-3	Developmental
Crystalline Silica - 14808-60-7	Carcinogen
Carbon Black - 1333-86-4	Carcinogen
Cumene - 98-82-8	Carcinogen
Hexane - 110-54-3	Male Reproductive
Benzene(including benzene from gasoline) - 71-43-2	Carcinogen Developmental Male Reproductive
Nickel - 7440-02-0	Carcinogen
Cadmium - 7440-43-9	Carcinogen Developmental Male Reproductive
Lead - 7439-92-1	Carcinogen Developmental Female Reproductive Male Reproductive

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts
Xylene 1330-20-7	X	X
Ethyl Benzene 100-41-4	X	X
Barite 13462-86-7	X	-
Talc (powder) 14807-96-6	X	X
Titanium dioxide 13463-67-7	X	X
Barium metaborate monohydrate 13701-59-2	X	-
Naphthalene 91-20-3	X	X
Methanol 67-56-1	X	X
Toluene 108-88-3	X	X
Crystalline Silica 14808-60-7	X	X
Octane 111-65-9	X	X
Heptane 142-82-5	X	X
Carbon Black 1333-86-4	X	X

Chemical name	Pennsylvania
Xylene 1330-20-7	X
Ethyl Benzene 100-41-4	X
Barite 13462-86-7	X
Talc (powder) 14807-96-6	X
Titanium dioxide 13463-67-7	X
Titanium Dioxide, Rutile 1317-80-2	X
Barium metaborate monohydrate 13701-59-2	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

LIST OF HAZARDOUS AIR POLLUTANTS SUBJECT TO THE PROVISIONS OF THE CLEAN AIR ACT, TITLE I SECTION 112 'National Emission Standards for Hazardous Air Pollutants' (present individually at 1% by weight, or greater):

Chemical name	Weight % of HAPS in Product	Pounds HAPS / Gal Product
Xylene 1330-20-7	24.52%	2.20
Ethyl Benzene 100-41-4	7.80%	0.70

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA **Health hazards** 2 **Flammability** 3 **Instability** 0 **Physical and chemical properties** -

HMIS **Health hazards** 2 * **Flammability** 3 **Physical hazards** 0 **Personal protection** X

Chronic Hazard Star Legend * = *Chronic Health Hazard*

Revision Date 19-Dec-2022

Revision Note

No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Shipping information may vary based upon container size and shipping destination. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage, or release to the environment. The manufacturer assumes no responsibility for injury to the recipient or third persons, or for any damages to any property resulting from misuse of the product.

End of Safety Data Sheet

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER **SDS ID: 82343**

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

Product Code

5850, 5825, 6782

Synonyms

None

Product Use

For cleaning coating equipment (e.g., paint spray guns). If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

Restrictions on Use

THIS PRODUCT IS NOT FOR SALE OR USE IN THE STATE OF CALIFORNIA.
This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

MANUFACTURER

Safety-Kleen Systems, Inc.
2600 North Central Expressway
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Richardson, TX 75080
www.safety-kleen.com

SUPPLIER (in Canada)

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Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with Schedule 1 of Hazardous Products Regulations (HPR)(SOR/2015-17) and paragraph (d) of 29 CFR 1910.1200.

Flammable Liquids - Category 2
Aspiration Hazard - Category 1
Acute Toxicity - Oral - Category 4
Acute Toxicity - Dermal - Category 4
Acute Toxicity - Inhalation - Vapor - Category 2
Skin Corrosion/Irritation - Category 2
Serious Eye Damage/Eye Irritation - Category 1
Germ Cell Mutagenicity - Category 1B
Carcinogenicity - Category 1B
Reproductive Toxicity - Category 2
Specific Target Organ Toxicity - Single Exposure - Category 3
Specific Target Organ Toxicity - Repeated Exposure - Category 2

GHS Label Elements
Symbol(s)

Signal Word
Danger
Hazard Statement(s)
Highly flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Fatal if inhaled.
Harmful if swallowed or in contact with skin.
Causes skin irritation and serious eye damage.
May cause genetic defects and cancer.
Suspected of damaging fertility or the unborn child.
May cause respiratory irritation and drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
Precautionary Statement(s)
Prevention
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep away from heat/sparks/open flame/hot surfaces - No smoking. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Do not breathe fume/gas/mist/vapors/spray. Wear protective gloves/ clothing, eye, face, and respiratory protection. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.
Response
In case of fire: Use carbon dioxide, regular foam, regular dry chemical and water spray.
IF exposed or concerned: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. 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/physician. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Rinse mouth.
Storage
Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.
Statement(s) of Unknown Acute Toxicity
0% of the mixture consists of ingredient(s) of unknown acute toxicity.
Other Hazards
None known.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component	Percent
63231-51-6	Aromatic hydrocarbons	30-75
*MIXTURE	Ketones	0-60
**MIXTURE	Aliphatic hydrocarbons	0-60
***MIXTURE	Acetates	0-17
763-69-9	Ethyl 3-ethoxypropanoate	0-17
68475-56-9	Alcohols, C1-3	0-12
****MIXTURE	Other alcohols	0-10
*****MIXTURE	Chlorinated solvents	0-1

Component Information/Information on Non-Hazardous Components

*Mixture of 67-64-1, 78-93-3, 108-10-1, 110-43-0, 107-87-9
**Mixture of 64741-89-5, 8030-6
***Mixture of 123-86-4, 110-19-0, 108-21-4, 108-65-6, 141-78-6
****Mixture of 71-36-3, 75-65-0
*****Mixture of 75-09-2, 127-18-4, 71-55-6

Section 4 - FIRST AID MEASURES

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eyes

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/physician.

Ingestion

IF SWALLOWED: Aspiration hazard. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms/Effects

Acute

May be fatal if swallowed and enters airways. Fatal if inhaled. Harmful if swallowed or in contact with skin. Causes skin irritation, central nervous system damage, liver damage, respiratory tract irritation, central nervous system depression, eye burns, kidney damage, blood damage, lung damage (from aspiration).

Delayed

Mutagenic effects, cancer, reproductive effects, and central nervous system, nervous system, kidney, liver, blood, respiratory system, and lung damage.

Indication of any immediate medical attention and special treatment needed

IF exposed: Call a POISON CENTER or doctor/physician. Treat symptomatically and supportively.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, regular foam, dry chemical, water spray, or water fog.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

Highly flammable liquid and vapor. Vapors may form explosive mixture with air. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Fire may produce irritating, poisonous and/or corrosive fumes. Runoff may create fire or explosion hazard. Empty product containers may retain product residue and can be dangerous. Containers may rupture or explode.

Hazardous Combustion Products

Burning may produce: Phosgene, chlorides, chloroacetylenes, formaldehyde, peracetic acid, carbon monoxide and unidentified organic compounds.

Fire Fighting Measures

Keep storage containers cool with water spray. Move container from fire area if it can be done without risk. Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. Stay away from the ends of tanks. Do not scatter spilled material with high-pressure water streams. Apply water from a protected location or from a safe distance. Avoid inhalation of material or combustion by-products. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Stay upwind and keep out of low areas. Dike for later disposal.

Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

Methods and Materials for Containment and Cleaning Up

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal. Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal. There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product.
Also see SECTION 15: REGULATORY INFORMATION.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring large quantities of product, metal containers, including trucks and tank cars, should be grounded and bonded.

Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes Skin clothing shoes. Do not smoke while using this product. Wash thoroughly after handling.

Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Store in a dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Empty product containers may retain product residue and can be dangerous. See SECTION 14: TRANSPORTATION INFORMATION for Packing Group information.

Incompatible Materials

Combustible materials, strong acids, strong oxidizing materials, alkalis, reducing agents, reactive halogens, reactive metals.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Toluene	**108-88-3**
ACGIH:	20 ppm TWA
NIOSH:	100 ppm TWA ; 375 mg/m3 TWA; 150 ppm STEL ; 560 mg/m3 STEL 500 ppm IDLH
OSHA (US):	200 ppm TWA; 300 ppm Ceiling
Alberta	50 ppm TWA ; 188 mg/m3 TWA Substance may be readily absorbed through intact skin
British Columbia, Nova Scotia, Ontario, Prince Edward Island	20 ppm TWA
Manitoba	20 ppm TWA; Skin - potential for cutaneous absorption
New Brunswick	50 ppm TWA ; 188 mg/m3 TWA; Skin - potential for cutaneous absorption
Northwest Territories, Nunavut	50 ppm TWA; 60 ppm STEL; Skin notation
Quebec	50 ppm TWAEV ; 188 mg/m3 TWAEV; Skin designation
Saskatchewan	50 ppm TWA; 60 ppm STEL; Potentially harmful after absorption through skin or mucous membranes
Yukon	100 ppm TWA ; 375 mg/m3 TWA; 150 ppm STEL ; 560 mg/m3 STEL Skin notation
Naphtha	**8030-30-6**
NIOSH:	100 ppm TWA ; 400 mg/m3 TWA; 1000 ppm IDLH (10% LEL)
OSHA (US):	100 ppm TWA ; 400 mg/m3 TWA
Alberta, New Brunswick	400 ppm TWA ; 1590 mg/m3 TWA

British Columbia	(reciprocal calculation method - see OHS Guideline G5.48-12)
Northwest Territories; Nunavut; Saskatchewan	400 ppm TWA; 500 ppm STEL
Quebec	400 ppm TWAEV ; 1590 mg/m3 TWAEV
Yukon	400 ppm TWA (Rubber solvent and Coal tar); 1800 mg/m3 TWA (Rubber solvent and Coal tar) 500 ppm STEL (Rubber solvent and Coal tar); 2250 mg/m3 STEL (Rubber solvent and Coal tar)
2-Pentanone, 4-methyl-	**108-10-1**
ACGIH:	20 ppm TWA; 75 ppm STEL
NIOSH:	50 ppm TWA ; 205 mg/m3 TWA; 75 ppm STEL ; 300 mg/m3 STEL 500 ppm IDLH
OSHA (US):	100 ppm TWA ; 410 mg/m3 TWA
Alberta, New Brunswick	50 ppm TWA ; 205 mg/m3 TWA; 75 ppm STEL ; 307 mg/m3 STEL
British Columbia, Nova Scotia, Ontario, Prince Edward Island	20 ppm TWA; 75 ppm STEL
Manitoba	20 ppm TWA
Northwest Territories, Nunavut, Saskatchewan	50 ppm TWA; 75 ppm STEL
Quebec	50 ppm TWAEV ; 205 mg/m3 TWAEV; 75 ppm STEV ; 307 mg/m3 STEV
Yukon	100 ppm TWA ; 410 mg/m3 TWA; 125 ppm STEL ; 510 mg/m3 STEL Skin notation
Methyl n-amyl ketone	**110-43-0**
ACGIH:	50 ppm TWA
NIOSH:	100 ppm TWA ; 465 mg/m3 TWA; 800 ppm IDLH
OSHA (US):	100 ppm TWA ; 465 mg/m3 TWA
Alberta, New Brunswick	50 ppm TWA ; 233 mg/m3 TWA
British Colombia, Manitoba, Nova Scotia, Prince Edward Island	50 ppm TWA
Northwest Territories, Nunavut, Saskatchewan	50 ppm TWA; 60 ppm STEL
Ontario	25 ppm TWA ; 115 mg/m3 TWA
Quebec	50 ppm TWAEV ; 233 mg/m3 TWAEV
Yukon	100 ppm TWA ; 465 mg/m3 TWA; 150 ppm STEL ; 710 mg/m3 STEL

Methyl ethyl ketone	**78-93-3**
ACGIH:	200 ppm TWA; 300 ppm STEL
NIOSH:	200 ppm TWA ; 590 mg/m3 TWA; 300 ppm STEL ; 885 mg/m3 STEL; 3000 ppm IDLH
OSHA (US):	200 ppm TWA ; 590 mg/m3 TWA
Alberta, New Brunswick	200 ppm TWA ; 590 mg/m3 TWA; 300 ppm STEL ; 885 mg/m3 STEL
British Columbia	50 ppm TWA; 100 ppm STEL
Manitoba	200 ppm TWA
Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Saskatchewan	200 ppm TWA; 300 ppm STEL
Quebec	50 ppm TWAEV ; 150 mg/m3 TWAEV; 100 ppm STEV ; 300 mg/m3 STEV
Yukon	200 ppm TWA ; 590 mg/m3 TWA; 250 ppm STEL ; 740 mg/m3 STEL
Methyl propyl ketone	**107-87-9**
ACGIH:	150 ppm STEL
NIOSH:	150 ppm TWA ; 530 mg/m3 TWA; 1500 ppm IDLH
OSHA (US):	200 ppm TWA ; 700 mg/m3 TWA
Alberta, New Brunswick	200 ppm TWA ; 705 mg/m3 TWA; 250 ppm STEL ; 881 mg/m3 STEL
British Columbia	150 ppm TWA; 250 ppm STEL
Northwest Territories, Nunavut, Saskatchewan	200 ppm TWA; 250 ppm STEL
Nova Scotia, Ontario, Prince Edward Island	150 ppm STEL
Quebec	150 ppm TWAEV ; 530 mg/m3 TWAEV
Yukon	200 ppm TWA ; 700 mg/m3 TWA; 250 ppm STEL ; 875 mg/m3 STEL
Acetone	**67-64-1**
ACGIH:	250 ppm TWA; 500 ppm STEL
NIOSH:	250 ppm TWA ; 590 mg/m3 TWA; 2500 ppm IDLH (10% LEL)
OSHA (US):	1000 ppm TWA ; 2400 mg/m3 TWA
Alberta	500 ppm TWA ; 1200 mg/m3 TWA; 750 ppm STEL ; 1800 mg/m3 STEL
British Columbia, Nova Scotia, Prince Edward Island	250 ppm TWA; 500 ppm STEL

Manitoba	250 ppm TWA
New Brunswick	500 ppm TWA ; 1188 mg/m3 TWA; 750 ppm STEL ; 1782 mg/m3 STEL
Northwest Territories, Nunavut, Ontario, Saskatchewan	500 ppm TWA; 750 ppm STEL
Quebec	500 ppm TWAEV ; 1190 mg/m3 TWAEV; 1000 ppm STEV ; 2380 mg/m3 STEV
Yukon	1000 ppm TWA ; 2400 mg/m3 TWA; 1250 ppm STEL ; 3000 mg/m3 STEL
Ethyl 3-ethoxypropanoate	**763-69-9**
Ontario	50 ppm TWA ; 300 mg/m3 TWA
Ethyl acetate	**141-78-6**
ACGIH:	400 ppm TWA
NIOSH:	400 ppm TWA ; 1400 mg/m3 TWA; 2000 ppm IDLH (10% LEL)
OSHA (US):	400 ppm TWA ; 1400 mg/m3 TWA
Alberta, New Brunswick	400 ppm TWA ; 1440 mg/m3 TWA
British Columbia	150 ppm TWA
Manitoba, Nova Scotia, Ontario, Prince Edward Island	400 ppm TWA
Northwest Territories, Nunavut, Saskatchewan	400 ppm TWA; 500 ppm STEL
Quebec	400 ppm TWAEV ; 1440 mg/m3 TWAEV
Yukon	400 ppm TWA ; 1400 mg/m3 TWA; 400 ppm STEL ; 1400 mg/m3 STEL
Propylene glycol monomethyl ether acetate	**108-65-6**
British Columbia	50 ppm TWA; 75 ppm STEL
Ontario	50 ppm TWA ; 270 mg/m3 TWA
Isopropyl acetate	**108-21-4**
ACGIH:	100 ppm TWA; 200 ppm STEL
NIOSH:	1800 ppm IDLH
OSHA (US):	250 ppm TWA ; 950 mg/m3 TWA
Alberta	100 ppm TWA ; 416 mg/m3 TWA; 200 ppm STEL ; 832 mg/m3 STEL
British Columbia, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Saskatchewan	100 ppm TWA; 200 ppm STEL
Manitoba	100 ppm TWA

New Brunswick	250 ppm TWA ; 1040 mg/m3 TWA; 310 ppm STEL ; 1290 mg/m3 STEL
Quebec	250 ppm TWAEV; 1040 mg/m3 TWAEV; 310 ppm STEV; 1290 mg/m3 STEV
Yukon	250 ppm TWA ; 950 mg/m3 TWA; 310 ppm STEL ; 1185 mg/m3 STEL
n-Butyl acetate	**123-86-4**
ACGIH:	50 ppm TWA; 150 ppm STEL
NIOSH:	150 ppm TWA ; 710 mg/m3 TWA; 200 ppm STEL ; 950 mg/m3 STEL; 1700 ppm IDLH (10% LEL)
OSHA (US):	150 ppm TWA ; 710 mg/m3 TWA
Alberta, New Brunswick	150 ppm TWA ; 713 mg/m3 TWA; 200 ppm STEL ; 950 mg/m3 STEL
British Colombia	20 ppm TWA
Manitoba	50 ppm TWA
Northwest Territories, Nunavut, Ontario, Saskatchewan	150 ppm TWA; 200 ppm STEL
Nova Scotia, Prince Edward Island	50 ppm TWA; 150 ppm STEL
Quebec	150 ppm TWAEV ; 713 mg/m3 TWAEV 200 ppm STEV ; 950 mg/m3 STEV
Yukon	150 ppm TWA ; 710 mg/m3 TWA 200 ppm STEL ; 950 mg/m3 STEL
Isobutyl acetate	**110-19-0**
ACGIH:	50 ppm TWA; 150 ppm STEL
NIOSH:	150 ppm TWA ; 700 mg/m3 TWA; 1300 ppm IDLH (10% LEL)
OSHA (US):	150 ppm TWA ; 700 mg/m3 TWA
Alberta, New Brunswick,	150 ppm TWA ; 713 mg/m3 TWA
British Columbia, Ontario	150 ppm TWA
Manitoba	50 ppm TWA
Northwest Territories, Nunavut, Saskatchewan	150 ppm TWA; 188 ppm STEL
Nova Scotia, Prince Edward Island	50 ppm TWA; 150 ppm STEL
Quebec	150 ppm TWAEV ; 713 mg/m3 TWAEV
Yukon	150 ppm TWA ; 700 mg/m3 TWA; 187 ppm STEL ; 875 mg/m3 STEL
tert-Butyl alcohol	**75-65-0**

ACGIH:	100 ppm TWA
NIOSH:	100 ppm TWA ; 300 mg/m3 TWA; 150 ppm STEL ; 450 mg/m3 STEL; 1600 ppm IDLH
OSHA (US):	100 ppm TWA ; 300 mg/m3 TWA
Alberta, New Brunswick	100 ppm TWA ; 303 mg/m3 TWA
British Columbia, Manitoba, Nova Scotia, Ontario, Prince Edward Island	100 ppm TWA
Northwest Territories, Nunavut, Saskatchewan	100 ppm TWA; 125 ppm STEL
Quebec	100 ppm TWAEV ; 303 mg/m3 TWAEV
Yukon	100 ppm TWA ; 300 mg/m3 TWA; 150 ppm STEL ; 450 mg/m3 STEL
1-Butanol	**71-36-3**
ACGIH:	20 ppm TWA
NIOSH:	50 ppm Ceiling ; 150 mg/m3 Ceiling; potential for dermal absorption; 1400 ppm IDLH (10% LEL)
OSHA (US):	100 ppm TWA ; 300 mg/m3 TWA
Alberta	20 ppm TWA ; 60 mg/m3 TWA
British Columbia	15 ppm TWA; 30 ppm Ceiling
Manitoba	20 ppm TWA; Skin - potential for cutaneous absorption
New Brunswick	50 ppm Ceiling ; 152 mg/m3 Ceiling; Skin - potential for cutaneous absorption
Northwest Territories, Nunavut, Saskatchewan	20 ppm TWA; 30 ppm STEL
Nova Scotia, Ontario, Prince Edward Island	20 ppm TWA
Quebec	50 ppm Ceiling ; 152 mg/m3 Ceiling; Skin designation
Yukon	Skin notation
Tetrachloroethylene	**127-18-4**
ACGIH:	25 ppm TWA; 100 ppm STEL
NIOSH:	150 ppm IDLH
OSHA (US):	100 ppm TWA; 200 ppm Ceiling
Alberta	25 ppm TWA ; 170 mg/m3 TWA; 100 ppm STEL ; 678 mg/m3 STEL

British Columbia, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Saskatchewan	25 ppm TWA; 100 ppm STEL
Manitoba	25 ppm TWA
New Brunswick	25 ppm TWA ; 170 mg/m3 TWA;100 ppm STEL ; 685 mg/m3 STEL
Quebec	25 ppm TWAEV ; 170 mg/m3 TWAEV; 100 ppm STEV ; 685 mg/m3 STEV
Yukon	100 ppm TWA ; 670 mg/m3 TWA; 150 ppm STEL ; 1000 mg/m3 STEL Skin notation
Methylene chloride	**75-09-2**
ACGIH:	50 ppm TWA
NIOSH:	2300 ppm IDLH
OSHA (US):	25 ppm TWA; 125 ppm STEL (See 29 CFR 1910.1052) 15 min ; 12.5 ppm Action Level (See 29 CFR 1910.1052); 25 ppm TWA (See 29 CFR 1910.1052); 125 ppm STEL (see 29 CFR 1910.1052)
Alberta, New Brunswick	50 ppm TWA ; 174 mg/m3 TWA
British Colombia	25 ppm TWA
Manitoba, Nova Scotia, Ontario, Prince Edward Island	50 ppm TWA
Northwest Territories, Nunavut, Saskatchewan	50 ppm TWA; 75 ppm STEL (regulated under Dichloromethane); 63 ppm STEL
Quebec	50 ppm TWAEV ; 174 mg/m3 TWAEV
Yukon	200 ppm TWA ; 700 mg/m3 TWA ; 720 mg/m3 TWA (regulated under Dichloromethane); 250 ppm STEL ; 870 mg/m3 STEL ; 200 ppm STEL (regulated under Dichloromethane); 720 mg/m3 STEL (regulated under Dichloromethane)
1,1,1-Trichloroethane	**71-55-6**
ACGIH:	350 ppm TWA; 450 ppm STEL
NIOSH:	350 ppm Ceiling 15 min ; 1900 mg/m3 Ceiling 15 min 700 ppm IDLH
OSHA (US):	350 ppm TWA ; 1900 mg/m3 TWA
Alberta, New Brunswick	350 ppm TWA ; 1910 mg/m3 TWA; 450 ppm STEL ; 2460 mg/m3 STEL
British Columbia, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Saskatchewan	350 ppm TWA; 450 ppm STEL
Manitoba	350 ppm TWA

Quebec	350 ppm TWAEV ; 1910 mg/m3 TWAEV; 450 ppm STEV ; 2460 mg/m3 STEV
Yukon	350 ppm TWA ; 1900 mg/m3 TWA; 440 ppm STEL ; 2400 mg/m3 STEL

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

Toluene (108-88-3)

0.2 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene ; 0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene ; 0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)

2-Pentanone, 4-methyl- (108-10-1)

1 mg/L Medium: urine Time: end of shift Parameter: MIBK

Methyl ethyl ketone (78-93-3)

2 mg/L Medium: urine Time: end of shift Parameter: MEK (nonspecific)

Acetone (67-64-1)

25 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)

Tetrachloroethylene (127-18-4)

3 ppm Medium: end-exhaled air Time: prior to shift Parameter: Tetrachloroethylene ; 0.5 mg/L Medium: blood Time: prior to shift Parameter: Tetrachloroethylene

Methylene chloride (75-09-2)

0.3 mg/L Medium: urine Time: end of shift Parameter: Dichloromethane (semi-quantitative)

1,1,1-Trichloroethane (71-55-6)

40 ppm Medium: end-exhaled air Time: prior to last shift of workweek Parameter: Methyl chloroform ; 10 mg/L Medium: urine Time: end of workweek Parameter: Trichloroacetic acid (nonspecific, semi-quantitative); 30 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Total trichloroethanol (nonspecific, semi-quantitative); 1 mg/L Medium: blood Time: end of shift at end of workweek Parameter: Total trichloroethanol (nonspecific)

Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits. Use explosion- proof equipment. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective

Equipment Eye/face protection

Wear splash resistant safety goggles with a faceshield. Additional protection like goggles, face shields, or respirators may be needed dependent upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

Skin Protection

To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical- resistant faceshield, boots, apron, whole body suits, or other protective clothing.

Respiratory Protection

A respiratory protection program which meets USA's OSHA General Industry Standard 29 CFR 1910.134 or Canada's CSA Standard Z94.4-M1982 requirements must be followed whenever workplace conditions warrant a respirator's use. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance.

Glove Recommendations

Where skin contact is likely, wear chemical impervious protective gloves; use of natural rubber (latex), polyvinyl chloride (PVC), neoprene or equivalent gloves is not recommended.

Protective Materials

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: Safety glasses, gloves, lab coat or apron.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear liquid.	**Physical State**	Liquid
Odor	Solvent odor.	**Color**	Colorless.
Odor Threshold	Not available	**pH**	Not available
Melting Point	-129 to -22 °C (-200 to -8 °F)	**Boiling Point**	56 - 172 °C (133 - 342 °F)
Boiling Point Range	Not available	**Freezing point**	Not available
Evaporation Rate	3.7 (Similar product Butyl acetate = 1)	**Flammability (solid, gas)**	Flammable.
Autoignition Temperature	427 °C (800 °F)	**Flash Point**	<21 °C [Closed Cup.] (70 °F)
Lower Explosive Limit	1 vol% (Approximate)	**Decomposition temperature**	Not available
Upper Explosive Limit	13 vol% (Approximate)	**Vapor Pressure**	86 mm Hg @ 68 ºF (20 °C.)
Vapor Density (air=1)	2.2 - 3.9 (Approximate Air = 1)	**Specific Gravity (water=1)**	0.83 (Approximate Water = 1)
Water Solubility	(Slight)	**Partition coefficient: n-octanol/water**	Not available
Viscosity	Not available	**Kinematic viscosity**	Not available
Solubility (Other)	Not available	**Density**	6.9 lb/gal (US Approximate)
Physical Form	Liquid.	**Volatility**	80 - 100 wt% (as per 40 CFR part 51.100(s))
Molecular Weight	Not available	**OSHA Flammability Category**	Flammable

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions

Will not polymerize under normal temperature and pressure conditions.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition Avoid contact with incompatible materials.

Incompatible Materials

Acids, alkalis, oxidizing agents, reducing agents, reactive halogens, or reactive metals.

Hazardous decomposition products

Not applicable under normal conditions of use and storage. See also SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

Fatal if inhaled. May cause irritation, nausea, central nervous system effects. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin Contact

Harmful in contact with skin. Causes skin irritation.

Eye Contact

Causes serious eye damage.

Ingestion

May be fatal if swallowed and enters airways. Aspiration Hazard. Harmful if swallowed. May cause, throat irritation, nausea, vomiting, diarrhea.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Toluene (108-88-3)
Oral LD50 Rat 2600 mg/kg; Dermal LD50 Rabbit 12000 mg/kg; Inhalation LC50 Rat 12.5 mg/L 4 h

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)
Oral LD50 Rat >15 g/kg; Dermal LD50 Rabbit >5 g/kg; Inhalation LC50 Rat 2.18 mg/L 4 h

Naphtha (8030-30-6)
Oral LD50 Rat >5 g/kg

2-Pentanone, 4-methyl- (108-10-1)
Oral LD50 Rat 2080 mg/kg; Dermal LD50 Rabbit 3000 mg/kg; Inhalation LC50 Rat 2000-4000 ppm L 4 h

Methyl n-amyl ketone (110-43-0)
Oral LD50 Rat 1600 mg/kg; Dermal LD50 Rabbit 12.6 mL/kg; Inhalation LC50 Rat 2000 - 4000 ppm 6 h

Methyl ethyl ketone (78-93-3)
Oral LD50 Rat 2483 mg/kg; Dermal LD50 Rabbit 5000 mg/kg; Inhalation LC50 Rat 11700 ppm 4 h

Methyl propyl ketone (107-87-9)
Oral LD50 Rat 1600 mg/kg; Dermal LD50 Rat 6480 mg/kg; Inhalation LC50 Rat 2000 - 4000 ppm 4 h

Acetone (67-64-1)
Oral LD50 Rat 5800 mg/kg; Dermal LD50 Rabbit >15700 mg/kg; Inhalation LC50 Rat 50100 mg/m3 8 h

Ethyl 3-ethoxypropanoate (763-69-9)
Oral LD50 Rat 5 g/kg; Dermal LD50 Rabbit >9500 mg/kg; Inhalation LC50 Rat >5.96 mg/L 6 h (no deaths occurred)

Ethyl acetate (141-78-6)
Oral LD50 Rat 5620 mg/kg; Dermal LD50 Rabbit >18000 mg/kg; Inhalation LC50 Mouse 1500 ppm 4 h

Propylene glycol monomethyl ether acetate (108-65-6)
Oral LD50 Rat 8532 mg/kg; Dermal LD50 Rabbit >5 g/kg

Isopropyl acetate (108-21-4)
Oral LD50 Rat 3000 mg/kg; Dermal LD50 Rabbit >17436 mg/kg; Inhalation LC50 Rat 50600 mg/m3 8 h

n-Butyl acetate (123-86-4)
Oral LD50 Rat 10768 mg/kg; Dermal LD50 Rabbit >17600 mg/kg; Inhalation LC50 Rat 390 ppm 4 h

Isobutyl acetate (110-19-0)

Oral LD50 Rat 15400 mg/kg; Dermal LD50 Rabbit >17400 mg/kg

tert-Butyl alcohol (75-65-0)

Oral LD50 Rat 2200 mg/kg; Dermal LD50 Rabbit >2 g/kg (no deaths occurred); Inhalation LC50 Rat >10000 ppm 4 h

1-Butanol (71-36-3)

Oral LD50 Rat 700 mg/kg; Dermal LD50 Rabbit 3402 mg/kg; Inhalation LC50 Rat >8000 ppm 4 h

Tetrachloroethylene (127-18-4)

Oral LD50 Rat 2629 mg/kg; Dermal LD50 Mouse 2800 mg/kg; Inhalation LC50 Rat 27.8 mg/L 4 h

Methylene chloride (75-09-2)

Oral LD50 Rat 1600 mg/kg; Inhalation LC50 Rat 53 mg/L 6 h

1,1,1-Trichloroethane (71-55-6)

Oral LD50 Rat 9600 mg/kg; Dermal LD50 Rabbit >15800 mg/kg; Inhalation LC50 Rat 18000 ppm 4 h

Product Toxicity Data

Acute Toxicity Estimate

Dermal	1555.2924 mg/kg
Inhalation - Vapor	1.2614 mg/L
Oral	555.5845 mg/kg

Immediate Effects

Fatal if inhaled, Harmful in contact with skin. harmful if swallowed, eye burns, skin irritation, respiratory tract irritation, aspiration hazard, central nervous system damage, central nervous system depression, respiratory system damage, liver damage, kidney damage, lung damage (from aspiration).

Delayed Effects

Mutagenic effects, cancer, reproductive effects, central nervous system damage, nervous system damage, kidney damage, liver damage, respiratory system damage, blood damage, lung damage.

Irritation/Corrosivity Data

Eye burns, skin irritation, respiratory tract irritation.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Component Carcinogenicity

Toluene	**108-88-3**
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
IARC:	Monograph 71 [1999] ; Monograph 47 [1989] (Group 3 (not classifiable))
2-Pentanone, 4-methyl-	**108-10-1**
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 101 [2013] (Group 2B (possibly carcinogenic to humans))
OSHA:	Present
Acetone	**67-64-1**
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
tert-Butyl alcohol	**75-65-0**

ACGIH:	A4 - Not Classifiable as a Human Carcinogen
Tetrachloroethylene	**127-18-4**
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 106 [2014] ; Monograph 63 [1995] ; Supplement 7 [1987] (Group 2A (probably carcinogenic to humans))
NTP:	Reasonably Anticipated To Be A Human Carcinogen
DFG:	Category 3B (could be carcinogenic for man)
OSHA:	Present
NIOSH:	potential occupational carcinogen
Methylene chloride	**75-09-2**
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 110 [in preparation] ; Monograph 71 [1999] (Group 2A (probably carcinogenic to humans))
NTP:	Reasonably Anticipated To Be A Human Carcinogen
DFG:	Category 5 (low carcinogenic potency)
OSHA:	Present
OSHA:	see 29 CFR 1910.1052
NIOSH:	potential occupational carcinogen
1,1,1-Trichloroethane	**71-55-6**
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
IARC:	Monograph 71 [1999] ; Supplement 7 [1987] ; Monograph 20 [1979] (Group 3 (not classifiable))

May cause cancer.

Germ Cell Mutagenicity

May cause genetic defects.

Tumorigenic Data

No data available

Reproductive Toxicity

Available data characterizes this substance as a reproductive hazard.

Specific Target Organ Toxicity - Single Exposure

Central nervous system, respiratory system.

Specific Target Organ Toxicity - Repeated Exposure

Nervous system, kidneys, liver, blood,

Aspiration hazard

This material is an aspiration hazard.

Medical Conditions Aggravated by Exposure

Blood disorders, central nervous system disorders, eye disorders, hearing or inner ear disorders, kidney disorders, liver disorders, nervous system disorders, respiratory disorders, skin disorders, heart disorders, systemic disorders.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Component Analysis - Aquatic Toxicity

Toluene	**108-88-3**
Fish:	LC50 96 h Pimephales promelas 15.22 - 19.05 mg/L [flow-through] (1 day old); LC50 96 h Pimephales promelas 12.6 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.89 - 7.81 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 14.1 - 17.16 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.8 mg/L [semi-static]; LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static]; LC50 96 h Oryzias latipes 54 mg/L [static]; LC50 96 h Poecilia reticulata 28.2 mg/L [semi-static]; LC50 96 h Poecilia reticulata 50.87 - 70.34 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >433 mg/L IUCLID ; EC50 72 h Pseudokirchneriella subcapitata 12.5 mg/L [static] EPA
Invertebrate:	EC50 48 h Daphnia magna 5.46 - 9.83 mg/L [Static] EPA ; EC50 48 h Daphnia magna 11.5 mg/L IUCLID
Distillates, petroleum, solvent-refined light paraffinic	**64741-89-5**
Fish:	LC50 96 h Oncorhynchus mykiss >5000 mg/L
Invertebrate:	EC50 48 h Daphnia magna >1000 mg/L IUCLID
Naphtha	**8030-30-6**
Fish:	LC50 96 h Lepomis macrochirus 9.2 mg/L [static]
Algae:	EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID
2-Pentanone, 4-methyl-	**108-10-1**
Fish:	LC50 96 h Pimephales promelas 496 - 514 mg/L [flow-through]
Algae:	EC50 96 h Pseudokirchneriella subcapitata 400 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 170 mg/L IUCLID
Methyl n-amyl ketone	**110-43-0**
Fish:	LC50 96 h Pimephales promelas 126 - 137 mg/L [flow-through]
Methyl ethyl ketone	**78-93-3**
Fish:	LC50 96 h Pimephales promelas 3130 - 3320 mg/L [flow-through]

Invertebrate:	EC50 48 h Daphnia magna >520 mg/L IUCLID ; EC50 48 h Daphnia magna 5091 mg/L IUCLID ; EC50 48 h Daphnia magna 4025 - 6440 mg/L [Static] EPA
Methyl propyl ketone	**107-87-9**
Fish:	LC50 96 h Pimephales promelas 1190 - 1290 mg/L [flow-through]
Acetone	**67-64-1**
Fish:	LC50 96 h Oncorhynchus mykiss 4.74 - 6.33 mL/L; LC50 96 h Pimephales promelas 6210 - 8120 mg/L [static]; LC50 96 h Lepomis macrochirus 8300 mg/L
Invertebrate:	EC50 48 h Daphnia magna 10294 - 17704 mg/L [Static] EPA ; EC50 48 h Daphnia magna 12600 - 12700 mg/L IUCLID
Ethyl 3-ethoxypropanoate	**763-69-9**
Fish:	LC50 96 h Pimephales promelas 62 mg/L [static]
Invertebrate:	EC50 48 h Daphnia magna 970 mg/L IUCLID
Ethyl acetate	**141-78-6**
Fish:	LC50 96 h Pimephales promelas 220 - 250 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 484 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 352 - 500 mg/L [semi-static]
Invertebrate:	EC50 48 h Daphnia magna 560 mg/L [Static] EPA
Propylene glycol monomethyl ether acetate	**108-65-6**
Fish:	LC50 96 h Pimephales promelas 161 mg/L [static]
Invertebrate:	EC50 48 h Daphnia magna >500 mg/L IUCLID
n-Butyl acetate	**123-86-4**
Fish:	LC50 96 h Lepomis macrochirus 100 mg/L [static]; LC50 96 h Pimephales promelas 17 - 19 mg/L [flow-through]
Algae:	EC50 72 h Desmodesmus subspicatus 674.7 mg/L IUCLID
tert-Butyl alcohol	**75-65-0**
Fish:	LC50 96 h Pimephales promelas 6130 - 6700 mg/L [flow-through]
Algae:	EC50 72 h Desmodesmus subspicatus >1000 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 933 mg/L IUCLID ; EC50 48 h Daphnia magna 4607 - 6577 mg/L [Static] EPA
1-Butanol	**71-36-3**

Fish:	LC50 96 h Pimephales promelas 1730 - 1910 mg/L [static]; LC50 96 h Pimephales promelas 1740 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 100000 - 500000 µg/L [static]; LC50 96 h Pimephales promelas 1910000 µg/L [static]
Algae:	EC50 96 h Desmodesmus subspicatus >500 mg/L IUCLID ; EC50 72 h Desmodesmus subspicatus >500 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 1983 mg/L IUCLID ; EC50 48 h Daphnia magna 1897 - 2072 mg/L [Static] EPA
Tetrachloroethylene	**127-18-4**
Fish:	LC50 96 h Pimephales promelas 12.4 - 14.4 mg/L [flow-through]; LC50 96 h Pimephales promelas 8.6 - 13.5 mg/L [static]; LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static]; LC50 96 h Oncorhynchus mykiss 4.73 - 5.27 mg/L [flow-through]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >500 mg/L EPA
Invertebrate:	EC50 48 h Daphnia magna 6.1 - 9 mg/L [Static] EPA
Methylene chloride	**75-09-2**
Fish:	LC50 96 h Pimephales promelas 140.8 - 277.8 mg/L [flow-through]; LC50 96 h Pimephales promelas 262 - 855 mg/L [static]; LC50 96 h Lepomis macrochirus 193 mg/L [static]; LC50 96 h Lepomis macrochirus 193 mg/L [flow-through]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >500 mg/L EPA ; EC50 72 h Pseudokirchneriella subcapitata >500 mg/L EPA
Invertebrate:	EC50 48 h Daphnia magna 1532 - 1847 mg/L [Static] EPA ; EC50 48 h Daphnia magna 190 mg/L IUCLID
1,1,1-Trichloroethane	**71-55-6**
Fish:	LC50 96 h Pimephales promelas 35.2 - 50.7 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 57 - 90 mg/L [static] (juvenile); LC50 96 h Cyprinus carpio 56 mg/L [flow-through]; LC50 96 h Poecilia reticulata 52.9 mg/L [flow-through]; LC50 96 h Poecilia reticulata 69.7 mg/L [static]; LC50 96 h Pimephales promelas 91 - 126 mg/L [static]; LC50 96 h Oncorhynchus mykiss 46 - 59 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >500 mg/L EPA
Invertebrate:	LC50 48 h Daphnia magna >530 mg/L IUCLID ; EC50 48 h Daphnia magna 2384 mg/L IUCLID ; EC50 48 h Daphnia magna 9.7 - 12.8 mg/L [Static] EPA

Invertebrate Toxicity

No additional information is available.

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No additional information is available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable federal, state and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal. D001, D018, D035, D039. Based on available data, this information applies to the product as supplied to the user. Processing, use, or contamination by the user may change the waste code applicable to the disposal of this product.

Section 14 - TRANSPORT INFORMATION

US DOT Information:
Shipping Name: PAINT RELATED MATERIAL
Hazard Class: 3
UN/NA #: UN1263
Packing Group: II
Required Label(s): 3 FLAMMABLE LIQUID

IATA Information:
Shipping Name: PAINT RELATED MATERIAL
Hazard Class: 3
UN#: UN1263
Packing Group: II
Required Label(s): 3 FLAMMABLE LIQUID

TDG Information:
Shipping Name: PAINT RELATED MATERIAL
Hazard Class: 3
UN#: UN1263
Packing Group: II
Required Label(s): 3 FLAMMABLE LIQUID

Additional information
Emergency Response Guide Number 128 Reference .North American Emergency Response Guidebook

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Toluene (108-88-3), 1-Butanol (71-36-3), Methylene Chloride (75-09-2), 1,1,1-Trichlorethylene (71-55-6)	
SARA 313:	1 % de minimis concentration
CERCLA:	1000 lb final RQ ; 454 kg final RQ
2-Pentanone, 4-methyl- 108-10-1	
SARA 313:	1 % de minimis concentration

CERCLA:	5000 lb final RQ ; 2270 kg final RQ
Methyl ethyl ketone (78-93-3), Acetone (67-64-1), Ethyl Acetate (141-78-6), n-Butyl acetate (123-86-4), Isobutyl acetate (110-19-0)	
CERCLA:	5000 lb final RQ ; 2270 kg final RQ
tert-Butyl alcohol (75-65-0),	
SARA 313:	1 % de minimis concentration
Tetrachloroethylene (127-18-4)	
SARA 313:	0.1 % de minimis concentration
CERCLA:	100 lb final RQ ; 45.4 kg final RQ

This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

SARA Section 311/312 (40 CFR 370 Subparts B and C) 2016 reporting categories

Acute Health: Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactivity:** No

SARA Section 311/312 (40 CFR 370 Subparts B and C) 2017 reporting categories

Flammable; Carcinogenicity; Acute toxicity; Reproductive Toxicity; Skin Corrosion/Irritation; Serious Eye Damage/Eye Irritation; Specific Target Organ Toxicity; Aspiration Hazard; Germ Cell Mutagenicity

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CA	MA	MN	NJ	PA
Naphtha (8030-30-6), 2-Pentanone, 4-methyl-(108-10-1) Methyl n-amyl ketone (110-43-0), Methyl ethyl ketone (78-93-3), Methyl propyl ketone (107-87-9), Acetone (67-64-1), Ethyl acetate (141-78-6), Isopropyl acetate (108-21-4), n-Butyl acetate (123-86-4) Isobutyl acetate(110-19-0), tert-Butyl alcohol (75-65-0), 1-Butanol (71-36-3),Tetrachloroethylene (127-18-4), Methylene chloride (75-09-2)1,1,1-Trichloroethane (71-55-6)	Yes	Yes	Yes	Yes	Yes
Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)	No	Yes	No	No	No

THIS PRODUCT IS NOT FOR SALE OR USE IN THE STATE OF CALIFORNIA.

Canada Regulations

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

Toluene (108-88-3), 2-Pentanone, 4-methyl- (108-10-1), Methyl n-amyl ketone (110-43-0), Methyl ethyl ketone (78-93-3), Methyl propyl ketone (107-87-9), Acetone (67-64-1), Ethyl acetate (141-78-6), Isopropyl acetate (108-21-4), n-Butyl acetate (123-86-4), Isobutyl acetate (110-19-0), tert-Butyl alcohol (75-65-0), 1-Butanol (71-36-3), Tetrachloroethylene (127-18-4), Methylene chloride (75-09-2), 1,1,1-Trichloroethane (71-55-6)
1 %

Component Analysis - Inventory

Hydrocarbons, aromatic (63231-51-6) Toluene (108-88-3), Distillates, petroleum, solvent-refined light paraffinic (64741-89-5), Naphtha (8030-30-6), 2-Pentanone, 4-methyl- (108-10-1), Methyl n-amyl ketone (110-43-0), Methyl ethyl ketone (78-93-3), Methyl propyl ketone (107-87-9), Acetone (67-64-1), Alcohols, C1-3 (68475-56-9), Ethyl 3-ethoxypropanoate (763-69-9), Ethyl acetate (141-78-6), Propylene glycol monomethyl ether acetate (108-65-6), Isopropyl acetate (108-21-4), n-Butyl acetate (123-86-4), Isobutyl acetate (110-19-0), tert-Butyl alcohol (75-65-0), 1-Butanol (71-36-3), Tetrachloroethylene (127-18-4), Methylene chloride (75-09-2), 1,1,1-Trichloroethane (71-55-6)

US	CA
No	No

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 4 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

Sections 1 and 15, Restrictions on use.

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations (US); CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CPR - Controlled Products Regulations; DOT - Department of Transportation; DSL - Domestic Substances List; EPA - Environmental Protection Agency; F - Fahrenheit; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NDSL – Non-Domestic Substance List (Canada); NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; RCRA - Resource Conservation and Recovery Act; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

Disclaimer:

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplied to the user.

Appendix D

Engine Data

Years (Job Date)	Tier Level	Engine Tier HP	Engine HP
2017		2	300
	4i		305
		2	500
		2	400
		2	107
		3	452
		2	266
		2	500
		3	148
		1	400
		2	400
		3	341
	4i		332
		3	453
		2	88
		3	96
		3	121
	4i		121
		2	400
	4i		200
	4i		213
		2	300
		2	347
		3	362
		2	300
	4i		362
		2	384
		2	429
		1	400
		1	400
		2	454
		3	532
		3	165
		3	140
		2	300
	4i		204
		3	400
		2	485
2017 Total			

Years (Job Date)	Tier Level	Engine Tier HP	Engine HP
2018	4i		305
		3	353
		2	500
		2	87.5
		2	302
		1	306
		1	400
		3	360
	4i		360
		3	400
		2	452
		3	80
		3	80
		3	532
		3	452
	4i		90
		3	107
	4i		107
		2	110
		2	110
		2	205
		2	266
		3	266
		2	500
	4i		218
		1	400
		2	400
		2	400
		2	400
		3	341
		2	400
		3	453
	4i		453
		2	88
		3	96
		3	121
	4i		121
		1	400
		2	400
		2	400

		Engine Tier	Engine HP
Years (Job Date)	**Tier Level**	**HP**	
2018		3	132
		3	147
	4i		165
		2	158
		3	155
	4i		177
	4i		200
	4i		213
	4i		271
		2	300
		2	347
		3	362
		2	300
	4i		362
		2	384
		3	429
		2	400
		2	454
		3	496
		3	147
		3	171
		3	165
		3	232
		3	266
		3	429
	4i		128
		3	140
		3	140
	4i		148
		3	171
		3	192
	4i		191
	4i		191
		3	232
		1	300
		2	300
		3	272
		3	273
	4i		204
		3	300

Years (Job Date)	Tier Level	Engine Tier HP	Engine HP
2018		2	400
		3	400
		3	531
		3	92
		2	485
2018 Total			
2019		2	300
	4i		305
		3	360
		3	360
		3	133
	4i		300
		2	205
		2	266
		3	266
		2	400
		2	400
	4i		332
		2	400
	4i		453
		2	88
		2	88
		3	96
		3	96
		3	96
		2	400
		2	158
	4i		200
		2	206
	4i		241
			300
		2	300
		2	347
		3	362
		2	300
		2	300
	4i		362
		2	384
		3	429
		3	429

Years (Job Date)	Tier Level	Engine Tier HP	Engine HP
2019		2	454
	4i		68
		3	80
	4i		191
		1	300
		2	300
		3	272
		3	273
		3	273
	4i		204
	4i		204
		3	300
		2	485
		2	485
2019 Total			
2020	4i		191
	4i		219
		3	207
		3	360
		3	107
	4i		107
		3	133
		3	205
		3	266
		3	518
		2	400
		2	400
	4i		332
		2	400
	4i		453
		2	88
		3	96
		2	400
		3	147
		3	147
		3	155
	4i		213
	4i		271
		2	300
		2	347

Years (Job Date)	Tier Level	Engine Tier HP	Engine HP
2020		3	362
		2	300
	4i		362
		2	384
		3	496
		3	127
	4i		128
		3	140
		3	171
	4i		192
		3	232
		1	300
		2	300
		3	272
		3	273
	4i		204
		3	300
			400
		2	400
		2	400
		3	400
		3	531
		3	531
		3	92
		2	485
2020 Total			
2021		2	300
		3	453
	4i		357
	4i		305
	4i		360
		2	452
		3	91
		3	452
		3	107
		3	133
		3	205
		2	205
		3	266
		2	266

Years (Job Date)	Tier Level	Engine Tier HP	Engine HP
2021		3	518
		2	400
		2	400
		3	304
		3	453
	4i		453
		2	88
		3	96
	4i		97
		2	400
		2	158
		3	155
	4i		177
			300
		2	300
		2	347
		3	362
	4i		362
		2	384
		2	384
		2	454
		3	232
		3	127
	4i		128
	4i		148
		3	192
	4i		191
		3	232
		1	300
		2	300
		3	272
		3	273
	4i		204
		3	300
		2	400
		3	400
		3	400
	4i		357
		3	531
		3	531

Years (Job Date)	Tier Level	Engine Tier HP	Engine HP
2021 Total			
2022		2	500
		2	91
		3	207
	4i		305
		2	400
		2	107
		3	80
		3	107
		3	205
		3	266
		2	266
	4i		218
		3	304
	4i		453
		2	88
		3	96
		2	400
	4i		177
		2	300
		2	347
		3	362
		2	300
	4i		362
		2	384
		2	400
		2	454
		3	496
		3	496
		1	280
		3	140
	4i		148
		3	170
		1	300
		3	272
		3	273
	4i		204
		3	300
		2	400
		3	400

Years (Job Date)	Tier Level	Engine Tier HP	Engine HP
2022		3	357
	4i		357
		3	531
2022 Total			
2023		2	500
		3	207
		2	300
	4i		357
	4i		305
		2	302
		2	452
		3	80
		3	452
	4i		90
		2	400
		2	205
		3	266
	4i		264
		2	400
		2	400
		3	304
		3	453
		2	88
		3	96
		3	121
		2	400
		2	158
		3	167
		3	155
	4i		177
		3	199
		2	300
		2	347
		3	362
		3	323
	4i		362
		1	400
		2	400
		2	54
		3	127

Years (Job Date)	Tier Level	Engine Tier HP	Engine HP
2023		3	171
	4i		191
		3	272
		3	273
	4i		204
		3	300
		2	400
	4i		357
	4i		353
	4i		353
		3	531
		3	531
		3	92
2023 Total			
2024		2	91
	4i		357
	4i		305
		3	353
		2	452
	4i		90
	4i		107
		2	400
		3	205
		2	205
		2	266
	4i		218
		3	148
		1	400
		2	400
	4i		332
		3	304
		3	96
		3	121
	4i		121
		3	147
		3	155
	4i		177
	4i		213
		2	300
		2	347

Years (Job Date)	Tier Level	Engine Tier HP	Engine HP
2024		3	362
	4i		362
	4i		362
		2	384
		2	384
		3	429
		3	429
		2	500
	4i		68
		3	140
	4i		148
		2	168
		3	232
		1	300
		2	300
		3	273
		3	273
	4i		204
		3	300
	4i		357
		3	531
		2	485
2024 Total			
Grand Total			

Appendix E

Filter Specifications

GLOBAL FINISHING SOLUTIONS

GFS Wave®

The most versatile single-stage paint booth exhaust filter, GFS Wave® filters accommodate all coatings in a variety of spray applications — from clear coats to high solids paints.

MINIMAL PARTICLE EMISSION

With an exceptional removal efficiency rating of 99.94 percent, GFS Wave filters minimize particle emissions. In addition to protecting the environment, a clean exhaust air stream shields the paint booth's exhaust chamber, ductwork and fan from overspray accumulation.

EXCELLENT DEPTH LOADING

The convoluted design of GFS Wave filters maximizes surface area for exceptional depth loading and holding capacity. By effectively capturing and retaining overspray, GFS Wave filters reduce runoff. This results in less cleanup on the floor of the paint booth and quicker, more efficient filter changes.

VARIETY OF SIZES

GFS Wave filters are available in pads or rolls in a variety of sizes to accommodate paint booths of all sizes and production needs. Wave filter pads help reduce waste and save money, as you can replace each pad individually once it is soiled. Alternatively, Wave filter rolls are excellent options for high-production businesses.

CODE COMPLIANCE

GFS Wave paint booth filters meet NESHAP requirements and comply with NFPA 33, OSHA and UL 900 standards.

AVERAGE PERFORMANCE DATA

Characteristics	GFS Wave Media
Removal Efficiency	99.94%
Holding Capacity	4.4 lbs.
Runoff	186 g
Penetration	4 g
Pressure Drop (initial / final)	0.12" / 0.50" W.C.
Flammability Rating (U.S. & Canada certified)	UL Class 2

Test Conditions

Filter Size:	20" x 20" Wave filter pad
Paint Tested:	High-solids baking enamel
Spray Rate:	136 grams per minute
Air Velocity:	150 feet per minute
Test Lab:	LMS Technologies
Test:	Based on 40 CFR Part 63 Subpart HHHHHH, consistent with ASHRAE 52.1

Complete test report available upon request