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: **Dr. Schneider Automotive Systems, Inc.**

KY EIS (AFS) #: **21- 207-00030**

Permit #: **F-15-028**

Agency Interest (AI) ID: **84265**

Date: **03-16-2020**

Section AI.1: Source Information

Physical Location Address:	**Street:**	223 Progress Drive				
	City:	Russell Springs	**County:**	Russell	**Zip Code:**	42642
Mailing Address:	**Street or P.O. Box:**	223 Progress Drive				
	City:	Russell Springs	**State:**	KY	**Zip Code:**	42642

Standard Coordinates for Source Physical Location

Longitude: -85.072.119 (decimal degrees) **Latitude:** 37.028.553 (decimal degrees)

Primary (NAICS) Category: Plastics Material and Resin Manufacturing **Primary NAICS #:** 325211

Classification (SIC) Category: Plastics Materials and Resins **Primary SIC #:** 2821

Briefly discuss the type of business conducted at this site: The production of plastic injection molded parts for use in the automotive industry.

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: 402

Approximate distance to nearest residence or commercial property: *0.25 mile* **Property Area:** **Resedential** **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: Alex Hyden

Title: (if individual) EHS Officer

Mailing Address: **Street or P.O. Box:** 223 Progress Drive
City: Russell Springs **State:** KY **Zip Code:** 42642

Email: (if individual) alex.hyden@dr-schneider.com

Phone: 270-858-5457

Technical Contact

Name: Alex Hyden

Title: EHS Officer

Mailing Address: **Street or P.O. Box:** 223 Progress Drive
City: Russell Springs **State:** KY **Zip Code:** 42642

Email: alex.hyden@dr-schneider.com

Phone: 270-858-5457

Air Permit Contact for Source

Name: Alex Hyden

Title: EHS Officer

Mailing Address: **Street or P.O. Box:** 223 Progress Drive
City: Russell Springs **State:** KY **Zip Code:** 42642

Email: Alex.Hyden@dr-schneider.com

Phone: 270-858-5457

Section AI.3: Owner Information

☐ **Owner same as applicant**

Name: Thomas Reinert

Title: Plant Director

Mailing Address:
Street or P.O. Box: 223 Progress Drive
City: Russell Springs **State:** KY **Zip Code:** 42642

Email: Thomas.Reinert@dr-schneider.com

Phone:

List names of owners and officers of the company who have an interest in the company of 5% or more.

Name	Position
Sylvia Schmidt	Managing Shareholder
Annette Schneider	Managing Shareholder

Section AI.4: Type of Application

Current Status: ☐ Title V ☑ Conditional Major ☐ State-Origin ☐ General Permit ☐ Registration ☐ None

Requested Action: *(check all that apply)*

☐ Name Change	☐ Initial Registration	☐ Significant Revision	☐ Administrative Permit Amendment
☑ Renewal Permit	☐ Revised Registration	☐ Minor Revision	☐ Initial Source-wide OperatingPermit
☐ 502(b)(10)Change	☐ Extension Request	☐ Addition of New Facility	☐ Portable Plant Relocation Notice
☐ Revision	☐ Off Permit Change	☐ Landfill Alternate Compliance Submittal	☐ Modification of Existing Facilities
☐ Ownership Change	☐ Closure		

Requested Status: ☐ Title V ☑ Conditional Major ☐ State-Origin ☐ PSD ☐ NSR ☐ Other: _____

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

Pollutant:	Requested Limit:	Pollutant:	Requested Limit:
☐ Particulate Matter		☑ Single HAP	9.5 tons per year
☑ Volatile Organic Compounds (VOC)	90 tons per year	☑ Combined HAPs	22.5 tons per year
☐ 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)* NA

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

For Modifications:

Proposed Start Date of Modification: *(MM/YYYY)* NA

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

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 buldings, roads, etc.
- ☑ Site Map
- ☑ Map or drawing depicting location of facility
- ☑ Safety Data Sheet (SDS)
- ☐ Emergency Response Plan
- ☐ Other: _____

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.

Alex Hyden
Authorized Signature

3/27/20
Date

Alex Hyden
Type or Printed Name of Signatory

EHS Officer
Title of Signatory

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

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: **Dr. Schneider Automotive Systems, Inc.**

KY EIS (AFS) #: **21- 207-00030**

Permit #: **F-15-028**

Agency Interest (AI) ID: **84265**

Date: **03-16-2020**

Section K.1: Process Information

Emission Unit #: EP-01

Emission Unit Name: Spray Booth

Coating/Printing Line Name: VEN SPRAY ECCO

Proposed/Actual Date of Construction: *(MM/YYYY)* 09-15-2015

List Applicable Regulations: 401 KAR 59:010 , 401 KAR 63.020

Describe Overall Process: EP-01 is a Venjakob model VEN SPRAY ECCO spray booth that includes two Rippert RV-56-355/499/B5 exhaust fans with an airflow of 4415.5 cfm and a water wash system with 99.7% efficiency. The spray booth has eight Venjakob spray guns.

Describe Coatings/Printing Materials: Water based and solvent based paint / coatings.

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

Provide detailed description of material coated/printed:

Plastic automotive parts that are made through injection molding processes.

Provide approximate dimensions and range of sizes of parts being coated or printed:

3.5" - 3'-2"

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

Describe Surface Preparation/Pretreatment Steps:

Blown CO2 cleaning treatment. Some high gloss parts (very minimal) require being wiped with Isopropyl alcohol.

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:

Finished (painted) auto parts ready for assembly.

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: Plastic parts for automotive.

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
EP-01	Applicator 1-8	☑ Conventional Air Gun ☐ Airless ☐ HVLP ☐ Electrostatic ☐ LVLP ☐ Aerosol Spray Can ☐ Other	☐ Manual ☑ Automatic	13.23		☐ 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:	Spray guns are used to contanstly spray parts by cycle / run.

K.2B: For Brush Coating

Describe Function:	
Maximum Coating Application Rate: *(gal/hr)*	

K.2C: For Roller Coating

Roller Coat ID	Describe Function	Maximum Coating Application Rate (gal/hr)	Describe how maximum rate was determined
			☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
			☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
			☐ Testing ☐ Estimation ☐ Equipment Specification Sheet

K.2D: For Powder Coating

Powder Coat ID	Describe Function	Maximum Coating Application Rate *(gal/hr or lb/hr)*		Describe how maximum rate was determined
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet

If powder coating material is recycled, describe:	

K.2E: For Flow Coating

Flow Coat ID	Describe Function	Maximum Coating Application Rate *(gal/hr or lb/hr)*		Describe how maximum rate was determined
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet

K.2F: For Dip Tank/Electrodeposition Coating

Tank ID	Describe Function	Maximum Make-up Rate *(gal/hr or lb/hr)*		Describe how maximum rate was determined
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet

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: S-0116 Solvent

Daily Usage: 03. Mai gal/day

K.3D: For Clean-up

Type: ☐ Manual ☐ Automatic

Daily Usage: hrs/day

Operating Hours:

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
ALEXIT 342-A1	Coating	EP-01	40200101	Gallons	8	1.84	4.6	0.001	30-60	3.910	99.7	S-01
Alexit 343-36	Coating (Primer)	EP-01	40200201	Gallons	9.2	2.75	2.8	0.001	30-60	3.910	99.7	S-01
Alexit 460-1E	Coating	EP-01	40200101	Gallons	8.3	61.9	3.19	0.001	30-60	3.910	99.7	S-01
Alexit 499-16	Coating	EP-01	40200101	Gallons	8.43	39-43	5.0	0.001	30-60	3.910	99.7	S-01
Alexit 349-16	Coating	EP-01	40200101	Gallons	9.2	3.03	3.06	0.001	30-60	3.910	99.7	S-01
Woerwag 123527	Coating	EP-01	40200201	Gallons	8.8	38	2.04	0.001	30-60	3.910	99.7	S-01
Woerwag 124933	Coating	EP-01	40200201	Gallons	8.9	36	1.93	0.001	30-60	3.910	99.7	S-01
Woerwag 125030	Coating (Primer)	EP-01	40200201	Gallons	10.5	42	1.33	0.001	30-60	3.910	99.7	S-01
Woerwag 127224	Coating	EP-01	40200201	Gallons	8.8	35	1,98	0.001	30-60	3.910	99.7	S-01
AKZO Nobel 05-3669-519-,061	Coating	EP-01	40200201	Gallons	8.73	35	0.69	0.001	30-60	3.910	99.7	S-01
Alexit 345-77	Hardner	EP-01	40200101	Gallons	9.51	7.13	2.37	0.020	30-60	2.262	99.7	S-01

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
ALEXIT 405-4N	Hardner	EP-01	40200101	Gallons	9.01	8.26	2.75	0.020	30-60	2.262	99.7	S-01
Woerwag 120319	Hardner	EP-01	40200201	Gallons	9.09	68	0.05	0.020	30-60	2.262	99.7	S-01
AKZO Nobel 19-0306-508452	Hardener	EP-01	40200101	Gallons	9.28	68	2.97	0.020	30-60	2.262	99.7	S-01
Alexit 901-26	Thinner	EP-01	40200101	Gallons	7.84	0	7.84	0.000	30-60	7.860	99.7	S-01
Alexit 903-43	Thinner	EP-01	40200101	Gallons	7.4	0	7.40	0.000	30-60	7.860	99.7	S-01

**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
ALEXIT 342-A1	2-(2-ethoxyethoxy)ethoanol	111-90-0	S	>= 1 - 5	3.910	S-01
Alexit 343-36	Xylenes	1330-20-7	S	>=0.1 - <1	3.910	S-01
Alexit 343-36	2-(2-butoxyethoxy)ethanol	112-34-5	S	>=0.1 - <1	3.910	S-01
Alexit 349-16	2-(2-butoxyethoxy)ethanol	112-34-5	S	>= 1 - 5	3.910	S-01
Alexit 499-16 9201	2-(2-butoxyethoxy)ethyl acetate	124-17-4	S	>= 1 - 5	3.910	S-01
Alexit 499-16 9201	4-methylpentane-2-one	108-10-1	S	>= 1 - 5	3.910	S-01
Alexit 460-1E 90ZC	Xylenes	1330-20-7	S	>= 1 - 5	3.910	S-01

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
Alexit 460-1E 90ZC	ethylbenzene	100-41-4	S	>=0.1 - <1	3.910	S-01
Alexit 460-1E 90ZC	methyl methacrylate	80-62-6	S	>=0.1 - <1	3.910	S-01
Alexit 499-16-9201	2-(2-butoxyethoxy)ethyl acetate	124-17-4	S	>=5 - <10	3.910	S-01
Alexit 499-16-9201	Xylenes	1330-20-7	S	>= 1 - 5	3.910	S-01
Alexit 499-16-9201	4-methylpentan-2-one	108-10-1	S	>= 1 - 5	3.910	S-01
Alexit 499-16-9201	ethylbenzene	100-41-4	S	>= 1 - 5	3.910	S-01
Worwag 124933	Triethylamine	121-44-8	S	< 0.1	3.910	S-01
Worwag 124933	Glycol ethers	143-22-6	S	< 0.1	3.910	S-01

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
Worwag 124933	Glycol ethers	112-34-5	S	0.1 - 0.3	3.910	S-01
Worwag 123527	Triethylamine	121-44-8	S	0.1 - 0.3	3.910	S-01

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: Dr. Schneider Automotive Systems Inc.
KY EIS (AFS) #: 21- 207-00030
Permit #: F-15-028
Agency Interest (AI) ID: 84265
Date: 03-16-2020

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)
EU06	Spray Booth	EP-06	Coating	Solvent Based	Applicators 1-8	S-01	2.57 gallons	VOC	3910	SDS	99.7%	99.7%	17.69	17.69	77.50	<90
EU06	Spray Booth	EP-06	Coating	Solvent Based	Applicators 1-8	S-01	2.57 gallons	PM	0.001	SDS	99.7%	99.7%	0.02	0.02	0.0002	<90
EU06	Spray Booth	EP-06	Coating	Solvent Based	Applicators 1-8	S-01	2.57 gallons	Total HAP	0.892	SDS	99.7%	99.7%	2.65	2.65	11.59	<90
EU06	Spray Booth	EP-06	Coating	Solvent Based	Applicators 1-8	S-01	2.57 gallons	Xylene	0.699	SDS	99.7%	99.7%	2.05	2.05	8.99	<90
EU06	Spray Booth	EP-06	Coating	Solvent Based	Applicators 1-8	S-01	2.57 gallons	Ethylbenzene	0.193	SDS	99.7%	99.7%	0.58	0.58	2.55	<90
EU06	Spray Booth	EP-06	Coating	Solvent Based	Applicators 1-8	S-01	2.57 gallons	Hexamethylene Diisocyanate	0.000	SDS	99.7%	99.7%	0.01	0.01	0.05	<90
EU06	Spray Booth	EP-06	Hardner	Solvent Based	Applicators 1-8	S-01	0.63 gallons	VOC	2262	SDS	99.7%	99.7%	17.69	17.69	77.50	<90
EU06	Spray Booth	EP-06	Hardner	Solvent Based	Applicators 1-8	S-01	0.63 gallons	PM	0.020	SDS	99.7%	99.7%	0.02	0.02	0.0002	<90
EU06	Spray Booth	EP-06	Hardner	Solvent Based	Applicators 1-8	S-01	0.63 gallons	Total HAP	0.559	SDS	99.7%	99.7%	2.65	2.65	11.59	<90
EU06	Spray Booth	EP-06	Hardner	Solvent Based	Applicators 1-8	S-01	0.63 gallons	Xylene	0.405	SDS	99.7%	99.7%	2.05	2.05	8.99	<90

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)*
EU06	Spray Booth	EP-06	Hardner	Solvent Based	Applicators 1-8	S-01	0.63 gallons	Ethylbenzene	0.135	SDS	99.7%	99.7%	0.58	0.58	2.55	<90
EU06	Spray Booth	EP-06	Hardner	Solvent Based	Applicators 1-8	S-01	0.63 gallons	Hexamethylene Diisocyanate	0.018	SDS	99.7%	99.7%	0.01	0.01	0.05	<90
EU06	Spray Booth	EP-06	Thinner	Solvent Based	Applicators 1-8	S-01	0.81 gallons	VOC	7680	SDS	99.7%	99.7%	17.69	17.69	77.50	<90
EU06	Spray Booth	EP-06	Thinner	Solvent Based	Applicators 1-8	S-01	0.81 gallons	PM	0.000	SDS	99.7%	99.7%	0.02	0.02	0.0002	<90
EU06	Spray Booth	EP-06	Thinner	Solvent Based	Applicators 1-8	S-01	0.81 gallons	Total HAP	0.000	SDS	99.7%	99.7%	2.65	2.65	11.59	<90
EU06	Spray Booth	EP-06	Thinner	Solvent Based	Applicators 1-8	S-01	0.81 gallons	Xylene	0.000	SDS	99.7%	99.7%	2.05	2.05	8.99	<90
EU06	Spray Booth	EP-06	Thinner	Solvent Based	Applicators 1-8	S-01	0.81 gallons	Ethylbenzene	0.000	SDS	99.7%	99.7%	0.58	0.58	2.55	<90
EU06	Spray Booth	EP-06	Thinner	Solvent Based	Applicators 1-8	S-01	0.81 gallons	Hexamethylene Diisocyanate	0.000	SDS	99.7%	99.7%	0.01	0.01	0.05	<90
EU06	Spray Booth	EP-06	Coating	Water Based	Applicators 1-8	S-01	5.03 gallons	VOC	2.3265	SDS	99.7%	99.7%	13.3193		58.34	<90
EU06	Spray Booth	EP-06	Coating	Water Based	Applicators 1-8	S-01	5.03 gallons	PM	0.0121	SDS	99.7%	99.7%	0.0731		0.0010	<90
EU06	Spray Booth	EP-06	Hardner	Water Based	Applicators 1-8	S-01	0.68 gallons	VOC	2.3780	SDS	99.7%	99.7%	13.3193		58.34	<90
EU06	Spray Booth	EP-06	Hardner	Water Based	Applicators 1-8	S-01	0.68 gallons	PM	0.0180	SDS	99.7%	99.7%	0.0731		0.0010	<90
EU06	Spray Booth	EP-06	Solvent	Clean Up Solvent	Applicators 1-8	S-01	0.49 gallons	VOC	7.23	SDS	99.7%	99.7%	19.11		15.5	<90

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)*
S-01	Spray Booth Exhaust	Feb 33	5 ft	30 ft	4099716.46	671491.91	8,828.7	71.60	34.51

Section N.3: Fugitive Information

UTM Zone:

Emission Unit #	Emission Unit Name	Process ID	Area Physical Data		Area UTM Coordinates		Area Release Data	
			Length of the X Side *(ft)*	Length of the Y Side *(ft)*	Northing *(m)*	Easting *(m)*	Release Temperature *(°F)*	Release Height *(ft)*
EU-06	Spray Booth	EP-06	60 ft	24 ft	4099716.46	671491.91	71.6	30 ft

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: **Dr. Schneider Automotive Systems, Inc.**

KY EIS (AFS) #: **21- 207-000030**

Permit #: **F-15-028**

Agency Interest (AI) ID: **84265**

Date: **03-16-2020**

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
01-1	Injection Molding Press (50 Ton)	M 448	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-2	Injection Molding Press (50 Ton)	M 473	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-3	Injection Molding Press (50 Ton)	M 474	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-4	Injection Molding Press (50 Ton)	M 477	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-5	Injection Molding Press (50 Ton)	M 514	401 KAR 59:010	See attached Calculated Emissions Spreadsheet

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
01-6	Injection Molding Press (80 Ton)	M 449	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-7	Injection Molding Press (80 Ton)	M 475	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-8	Injection Molding Press (80 Ton)	M 476	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-9	Injection Molding Press (80 Ton)	M 478	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-10	Injection Molding Press (110 Ton)	M 436	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-11	Injection Molding Press (110 Ton)	M 480	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-12	Injection Molding Press (110 Ton)	M 487	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-13	Injection Molding Press (110 Ton)	M 515	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-14	Injection Molding Press (110 Ton)	M 516	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-15	Injection Molding Press (130/2K Ton)	M 438	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-16	Injection Molding Press (160 Ton)	M 437	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-17	Injection Molding Press (160 Ton)	M 479	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-18	Injection Molding Press (160 Ton)	M 517	401 KAR 59:010	See attached Calculated Emissions Spreadsheet

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
01-19	Injection Molding Press (160 Ton)	M 518	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-20	Injection Molding Press (160 Ton)	M 523	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-21	Injection Molding Press (160/2K Ton)	M 439	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-22	Injection Molding Press (160/2K Ton)	M 463	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-23	Injection Molding Press (160/2K Ton)	M 464	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-24	Injection Molding Press (160/2K Ton)	M 569	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-25	Injection Molding Press (250 Ton)	M 440	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-26	Injection Molding Press (250 Ton)	M 519	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-27	Injection Molding Press (350 Ton)	M 441	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-28	Injection Molding Press (350 Ton)	M 442	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-29	Injection Molding Press (350 Ton)	M 447	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-30	Injection Molding Press (350 Ton)	M 520	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-31	Injection Molding Press (350 Ton)	M 521	401 KAR 59:010	See attached Calculated Emissions Spreadsheet

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
01-32	Injection Molding Press (350 Ton)	M 524	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-33	Injection Molding Press (500 Ton)	M 598	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-34	Injection Molding Press (650 Ton)	M 522	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-35	Injection Molding Press (650/2K Ton)	M 568	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-36	Injection Molding Press (650/2K Ton)	M 597	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-37	Injection Molding Press (1000 Ton)	M 445	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
01-38	Injection Molding Press (1000 Ton)	M 446	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
(02-1) - (02-19)	(19) Plastic Regrind Machines	EU02	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
03-01	(1) Resin Convey and Transfer Conveyance unit	EU03	401 KAR 59:010	See attached Calculated Emissions Spreadsheet
04-1	Aerosol mold release / degreasor	EU05	401 KAR 59:010	See attached Calculated Emissions Spreadsheet

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.

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions

Alex Hyden — Authorized Signature

3/27/20 — Date

By:

Alex Hyden — Type/Print Name of Siguatory

EHS Officer — Title of Siguatory

Dr. Schneider Automotive Systems Inc.
Source ID: 21-207-00030
Agency Interest: 84265

Emission Unit: EU-01
Source Description: Plastic Injection Molding (36 units)

				Emission Factors (lb/ton):	1.30E-01	6.14E-02	6.14E-04	6.14E-05	6.14E-05	1.84E-07	
Emission Unit ID	**Size**	**Maximum Throughput**			**PM/PM10**	**VOC**	**Styrene**	**Acrylonitrite**	**1,3-Butadiene**	**Methyl Chloride**	**Total HAP**
		lb/hr	ton/yr		tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
01-1	50 ton press	13.50	59.13		3.84E-03	1.82E-03	1.82E-05	1.82E-06	1.82E-06	5.44E-09	2.18E-05
01-2	50 ton press	13.50	59.13		3.84E-03	1.82E-03	1.82E-05	1.82E-06	1.82E-06	5.44E-09	2.18E-05
01-3	50 ton press	13.50	59.13		3.84E-03	1.82E-03	1.82E-05	1.82E-06	1.82E-06	5.44E-09	2.18E-05
01-4	50 ton press	13.50	59.13		3.84E-03	1.82E-03	1.82E-05	1.82E-06	1.82E-06	5.44E-09	2.18E-05
01-5	50 ton press	13.50	59.13		3.84E-03	1.82E-03	1.82E-05	1.82E-06	1.82E-06	5.44E-09	2.18E-05
01-6	80 ton press	14.10	61.76		4.01E-03	1.90E-03	1.90E-05	1.90E-06	1.90E-06	5.68E-09	2.28E-05
01-7	80 ton press	14.10	61.76		4.01E-03	1.90E-03	1.90E-05	1.90E-06	1.90E-06	5.68E-09	2.28E-05
01-8	80 ton press	14.10	61.76		4.01E-03	1.90E-03	1.90E-05	1.90E-06	1.90E-06	5.68E-09	2.28E-05
01-9	80 ton press	14.10	61.76		4.01E-03	1.90E-03	1.90E-05	1.90E-06	1.90E-06	5.68E-09	2.28E-05
01-10	110 ton press	16.80	73.60		4.78E-03	2.26E-03	2.26E-05	2.26E-06	2.26E-06	6.77E-09	2.71E-05
01-11	110 ton press	16.80	73.60		4.78E-03	2.26E-03	2.26E-05	2.26E-06	2.26E-06	6.77E-09	2.71E-05
01-12	110 ton press	16.80	73.60		4.78E-03	2.26E-03	2.26E-05	2.26E-06	2.26E-06	6.77E-09	2.71E-05
01-13	110 ton press	16.80	73.60		4.78E-03	2.26E-03	2.26E-05	2.26E-06	2.26E-06	6.77E-09	2.71E-05
01-14	110 ton press	16.80	73.60		4.78E-03	2.26E-03	2.26E-05	2.26E-06	2.26E-06	6.77E-09	2.71E-05
01-15	130/2k ton press	18.70	81.90		5.32E-03	2.51E-03	2.51E-05	2.51E-06	2.51E-06	7.53E-09	3.02E-05
01-16	160 ton press	18.70	81.90		5.32E-03	2.51E-03	2.51E-05	2.51E-06	2.51E-06	7.53E-09	3.02E-05
01-17	160 ton press	18.70	81.90		5.32E-03	2.51E-03	2.51E-05	2.51E-06	2.51E-06	7.53E-09	3.02E-05
01-18	160 ton press	18.70	81.90		5.32E-03	2.51E-03	2.51E-05	2.51E-06	2.51E-06	7.53E-09	3.02E-05
01-19	160 ton press	18.70	81.90		5.32E-03	2.51E-03	2.51E-05	2.51E-06	2.51E-06	7.53E-09	3.02E-05
01-20	160 ton press	18.70	81.90		5.32E-03	2.51E-03	2.51E-05	2.51E-06	2.51E-06	7.53E-09	3.02E-05
01-21	160/2K ton press	18.70	81.90		5.32E-03	2.51E-03	2.51E-05	2.51E-06	2.51E-06	7.53E-09	3.02E-05
01-22	160/2K ton press	18.70	81.90		5.32E-03	2.51E-03	2.51E-05	2.51E-06	2.51E-06	7.53E-09	3.02E-05
01-23	250 ton press	45.50	199.30		1.30E-02	6.12E-03	6.12E-05	6.12E-06	6.12E-06	1.83E-08	7.34E-05
01-24	250 ton press	45.50	199.30		1.30E-02	6.12E-03	6.12E-05	6.12E-06	6.12E-06	1.83E-08	7.34E-05
01-25	350 ton press	99.00	433.60		2.82E-02	1.33E-02	1.33E-04	1.33E-05	1.33E-05	3.99E-08	1.60E-04
01-26	350 ton press	99.00	433.60		2.82E-02	1.33E-02	1.33E-04	1.33E-05	1.33E-05	3.99E-08	1.60E-04
01-27	350 ton press	99.00	433.60		2.82E-02	1.33E-02	1.33E-04	1.33E-05	1.33E-05	3.99E-08	1.60E-04
01-28	350 ton press	99.00	433.60		2.82E-02	1.33E-02	1.33E-04	1.33E-05	1.33E-05	3.99E-08	1.60E-04
01-29	350 ton press	99.00	433.60		2.82E-02	1.33E-02	1.33E-04	1.33E-05	1.33E-05	3.99E-08	1.60E-04

01-30	350 ton press	99.00	433.60	2.82E-02	1.33E-02	1.33E-04	1.33E-05	1.33E-05	3.99E-08	1.60E-04
01-31	500 ton press	215.55	944.11	6.15E-02	2.9E-02	2.9E-04	2.9E-05	2.9E-05	8.7E-08	3.48E-04
01-32	650 ton press	280.21	1227.34	7.99E-02	3.77E-02	3.77E-04	3.77E-05	3.77E-05	1.1E-07	4.52E-04
01-33	650/2K ton press	280.21	1227.34	7.99E-02	3.77E-02	3.77E-04	3.77E-05	3.77E-05	1.1E-07	4.52E-04
01-34	650/2K ton press	280.21	1227.34	7.99E-02	3.77E-02	3.77E-04	3.77E-05	3.77E-05	1.1E-07	4.52E-04
01-35	1000 ton press	431.10	1888.22	1.23E-01	5.80E-02	5.80E-04	5.80E-05	5.80E-05	1.74E-07	6.96E-04
01-36	1000 ton press	431.10	1888.22	1.23E-01	5.80E-02	5.80E-04	5.80E-05	5.80E-05	1.74E-07	6.96E-04

Dr. Schneider Automotive Systems Inc.
Source ID: 21-207-00030
Agency Interest: 84265

Emission Unit: EU-02
Source Description: Plastic Regrind (19 units)

Emission Unit	Unit	Maximum Throughput	Maximum Throughput	Emission Factor	Emissions
		(lb/hr)	(TPY)	(lb/ton)	(TPY)
02-01	Grinder 1	5.00	22.10	5.60E-01	6.19E-03
02-02	Grinder 2	5.00	22.10	5.60E-01	6.19E-03
02-03	Grinder 3	5.00	22.10	5.60E-01	6.19E-03
02-04	Grinder 4	5.00	22.10	5.60E-01	6.19E-03
02-05	Grinder 5	5.00	22.10	5.60E-01	6.19E-03
02-06	Grinder 6	5.60	24.60	5.60E-01	6.19E-03
02-07	Grinder 7	5.60	24.60	5.60E-01	6.19E-03
02-08	Grinder 8	5.60	24.60	5.60E-01	6.19E-03
02-09	Grinder 9	5.60	24.60	5.60E-01	6.19E-03
02-10	Grinder 10	5.60	24.60	5.60E-01	6.19E-03
02-11	Grinder 11	5.60	24.60	5.60E-01	6.19E-03
02-12	Grinder 12	5.60	24.60	5.60E-01	6.19E-03
02-13	Grinder 13	5.60	24.60	5.60E-01	6.19E-03
02-14	Grinder 14	5.60	24.60	5.60E-01	6.19E-03
02-15	Grinder 15	5.60	24.60	5.60E-01	6.19E-03
02-16	Grinder 16	5.60	24.60	5.60E-01	6.19E-03
02-17	Grinder 17	5.60	24.60	5.60E-01	6.19E-03
02-18	Grinder 18	5.60	24.60	5.60E-01	6.19E-03
02-19	Grinder 19	29.70	130.10	5.60E-01	3.64E-02

Dr. Schneider Automotive Systems Inc.
Source ID: 21-207-00030
Agency Interest: 84265

Emission Unit: EU-03
Source Description: Resin Convey and Transfer

	Emission Factors (lb/ton):		6.60E-01	4.60E-01	4.60E-03	4.60E-04	4.60E-04	1.38E-06	
Emission Unit ID	**Maximum Throughput**		**PM/PM10**	**VOC**	**Styrene**	**Acrylonitrite**	**1,3-Butadiene**	**Methyl Chloride**	**Total HAP**
	tons/hr	ton/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
03-01	0.2045	1,790.98	5.91E-01	4.12E-01	4.12E-03	4.12E-04	4.12E-04	1.24E-06	4.94E-03

Dr. Schneider Automotive Systems Inc.
Source ID: 21-207-00030
Agency Interest: 84265

Emission Unit: EU-04
Source Description: Aerosol Grease

	Emission Factors (lb/gallon):		7.51E-03
Emission Unit ID	**Maximum Throughput**		**VOC**
	gallons/hr	gallons/yr	tons/yr
EU-04	0.0014	12.26	4.61E-05

DR. SCHNEIDER AUTOMOTIVE SYSTEMS, INC.

General Information

Organization Number	0862679
Name	DR. SCHNEIDER AUTOMOTIVE SYSTEMS, INC.
Profit or Non-Profit	P - Profit
Company Type	FCO - Foreign Corporation
Status	A - Active
Standing	G - Good
State	MI
File Date	7/22/2013
Authority Date	7/22/2013
Last Annual Report	5/13/2019
Principal Office	223 PROGRESS DRIVE RUSSELL SPRINGS, KY 42642
Registered Agent	TORSTEN LANGGUTH 223 PROGRESS DRIVE RUSSELL SPRINGS, KY 42642

Current Officers

President	Thomas Stadelmann

Individuals / Entities listed at time of formation

Images available online

Documents filed with the Office of the Secretary of State on September 15, 2004 or thereafter are available as scanned images or PDF documents. Documents filed prior to September 15, 2004 will become available as the images are created.

Annual Report	5/13/2019	1 page	PDF	
Annual Report	4/26/2018	1 page	PDF	
Annual Report	5/18/2017	1 page	PDF	
Annual Report	6/22/2016	1 page	PDF	
Annual Report	6/9/2015	1 page	PDF	
Annual Report	7/17/2014	1 page	PDF	
Principal Office Address Change	10/15/2013	1 page	tiff	PDF
Registered Agent name/address change	10/15/2013	1 page	tiff	PDF
Application for Certificate of Authority(Corp)	7/22/2013	2 pages	tiff	PDF

Assumed Names

Activity History

Filing	File Date	Effective Date	Org. Referenced
Annual report	5/13/2019 1:46:22 PM	5/13/2019 1:46:22 PM	
Annual report	4/26/2018 11:34:24 AM	4/26/2018 11:34:24 AM	
Annual report	5/18/2017	5/18/2017	

	2:46:58 PM	2:46:58 PM
Annual report	6/22/2016 4:36:31 PM	6/22/2016 4:36:31 PM
Annual report	6/9/2015 3:17:51 PM	6/9/2015 3:17:51 PM
Annual report	7/17/2014 5:37:46 PM	7/17/2014 5:37:46 PM
Registered agent address change	10/15/2013 8:27:28 AM	10/15/2013
Principal office change	10/15/2013 8:26:39 AM	10/15/2013
Add	7/22/2013 1:40:34 PM	7/22/2013

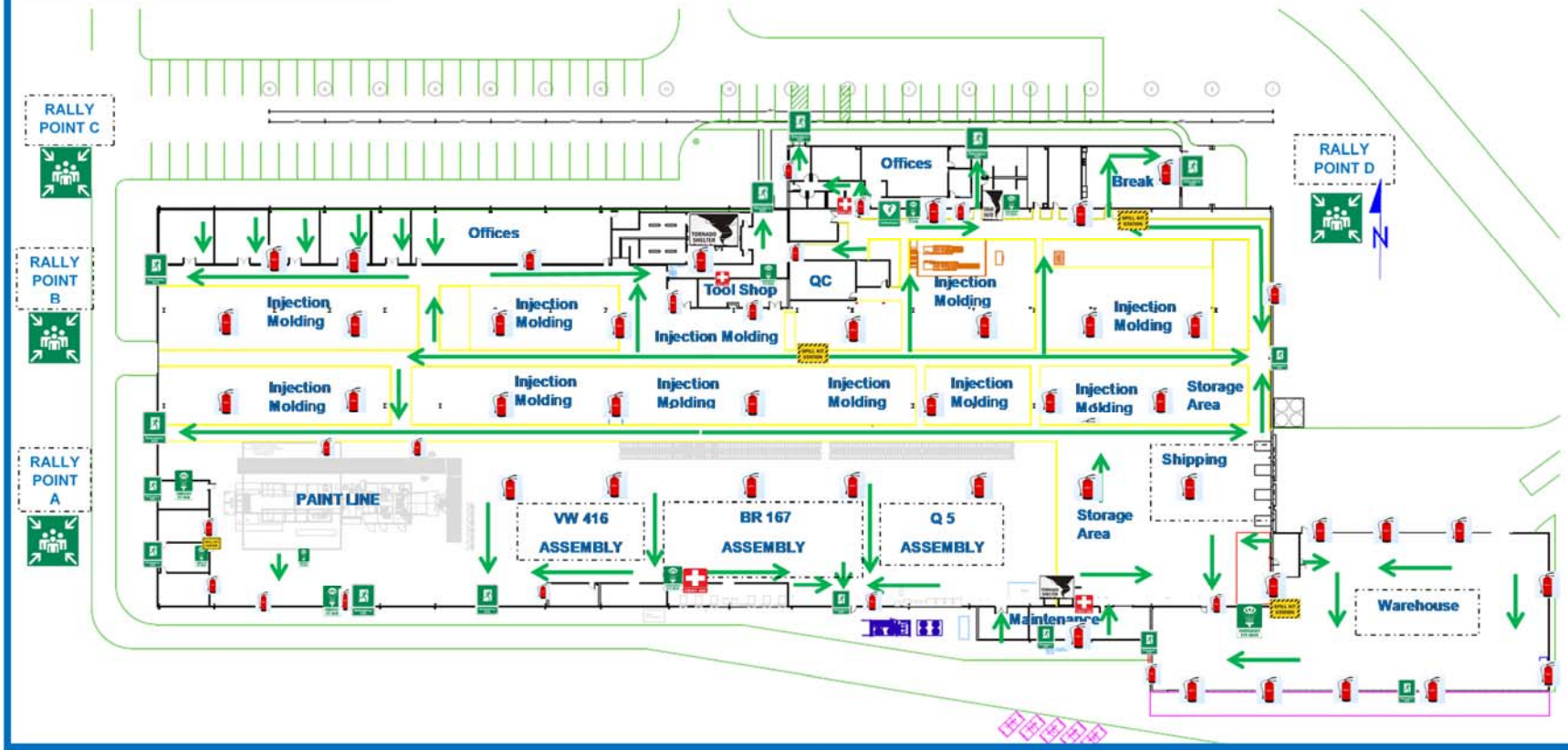
Microfilmed Images

AMBULANCE/FIRE/POLICE

CALL 911

Revision #003 Date: 7/10/17 Author: C. Yocum

DR. SCHNEIDER AUTOMOTIVE SYSTEMS, INC.



LEGEND

	FIRE EXTINGUISHER		EYE WASH STATION		DEFIBRILLATOR		ESCAPE ROUTE		EMERGENCY EXIT
TORNADO SHELTER	TORNADO SHELTER	SPILL KIT STATION	SPILL KIT STATION	FIRST AID	FIRST AID KIT STATION		RALLY POINT		YOU ARE HERE

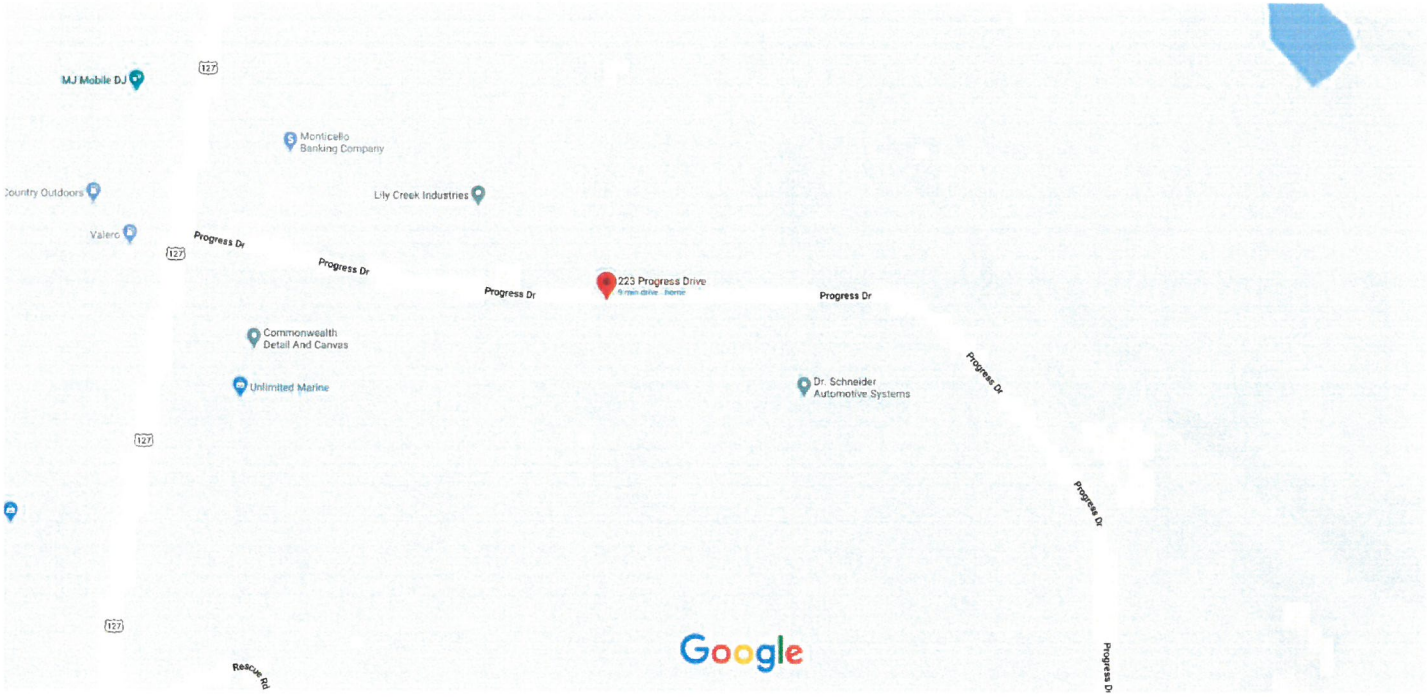
Process Flow

- Raw product (resin) is received into warehouse and stored
- As needed resin is taken to Resin Convey System
- The Resin Convey System feeds the Injection Molding Presses
- Parts produced from Injection Molding are either sent directly to Assembly or to the Paint Line depending on the part
- All parts from Injection Molding and Paint Line are used to assemble product in Assembly
- Completed parts are transferred to containers / dunnage and stored in warehouse
- Parts are shipped out to customers from warehouse / shipping & Receiving

Google Maps

223 Progress Dr

Longitude -85.072.119 / Latitude 37.028.553



Map data ©2020 50 m

SAFETY DATA SHEET

L-1QB SATIN BLACK LASERABLE SENOSOL™ W/B 2K

Section 1. Identification

Prepared for

ATTN:

Prepared by
Akzo Nobel Coatings Inc.
1872 SC-9-BYP W
Lancaster, SC 29720

(803) 285-9401
In case of emergency (Health or Spills):
CHEMTREC (US and Canada) (800) 424-9300

Product no. : **05-3669-519-061**
Product - Class : **L-1QB SATIN BLACK LASERABLE SENOSOL™ W/B 2K**
Customer Part Number :
Customer ShipTo ID :

Section 2. Hazards identification

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

Classification of the substance or mixture : SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : May cause an allergic skin reaction.
Suspected of causing cancer.

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. Wear eye or face protection. Wear protective clothing. Avoid breathing vapor. Contaminated work clothing must not be allowed out of the workplace.

Section 2. Hazards identification

Response : IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.

Storage : Store locked up.

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

Hazards not otherwise classified : None known.

NOTICE: Reports have associated repeated and prolonged OVEREXPOSURE to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents of this package may be harmful or fatal.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

CAS number : Not applicable.

Product code : 05-3669-519-061

Ingredient name	%	CAS number
polycarboxylic acid ester	≤3	.....
2-(2-ethoxyethoxy) ethanol	≤3	111-90-0
carbon black	≤1	1333-86-4
titanium dioxide	≤0.3	13463-67-7
ethylenediamine, ethoxylated and propoxylated	≤0.3	26316-40-5
1,2-benzisothiazolin-3-one	≤0.1	2634-33-5

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

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

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

Section 4. First aid measures

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 not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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.

Section 4. First aid measures

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

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

Ingestion : No specific data.

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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

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

Section 5. Fire-fighting measures

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

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

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

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. 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. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

polycarboxylic acid ester	None.
2-(2-ethoxyethoxy) ethanol	**ACGIH TLV (United States).** TWA: 25 ppm 8 hours.
carbon black	**ACGIH TLV (United States).** TWA: 3 mg/m³ 8 hours. **OSHA PEL (United States).** TWA: 3.5 mg/m³ 8 hours.
titanium dioxide	None.
ethylenediamine, ethoxylated and propoxylated	None.
1,2-benzisothiazolin-3-one	None.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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

Individual protection measures

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

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

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

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

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

Respiratory protection : 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

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : 97 - 285 °C (206.6 - 545 °F)

Flash point : Closed cup: >93.3°C (>199.9°F) [Product does not sustain combustion.]

Evaporation rate : Less than 1. (2-(2-ethoxyethoxy) ethanol) compared with butyl acetate

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not determined.

Vapor pressure : 17.5 mm Hg (2.3275 kPa) (Highest known value: water)

Vapor density : < 1 (Air = 1) (Calculation method)

Density : 1.047 g/cm^3

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

Viscosity : Not available.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-(2-ethoxyethoxy) ethanol	LD50 Dermal	Rabbit	4158 mg/kg	-
	LD50 Oral	Rat	1920 mg/kg	-
1,2-benzisothiazolin-3-one	LD50 Oral	Rat	1020 mg/kg	-

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
carbon black	-	2B	-
titanium dioxide	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
titanium dioxide	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

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

Ingestion : No specific data.

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 : 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	78824.5 mg/kg
Dermal	341232.3 mg/kg
Inhalation (dusts and mists)	41.03 mg/l

Section 12. Ecological information

Data available upon request.

Section 13. Disposal considerations

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

Section 13. Disposal considerations

safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Please Note: The information provided in section 14 is based on a bulk package shipment via ground transport in North America. All shippers are responsible for ensuring the proper transportation classification and package/container requirements are followed for the relevant mode of transport.

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	-	-	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act (CAA) 112 regulated toxic substances: 2-(2-ethoxyethoxy) ethanol; 4-methylpentan-2-one; methanol; hexachlorobenzene; ethyl acrylate

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Section 15. Regulatory information

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
polycarboxylic acid ester	≤3	No.	No.	No.	Yes.	No.
2-(2-ethoxyethoxy) ethanol	≤3	Yes.	No.	No.	Yes.	No.
carbon black	≤1	No.	No.	No.	No.	Yes.
titanium dioxide	≤0.3	No.	No.	No.	Yes.	Yes.
ethylenediamine, ethoxylated and propoxylated	≤0.3	No.	No.	Yes.	Yes.	No.
1,2-benzisothiazolin-3-one	≤0.1	No.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	2-(2-ethoxyethoxy) ethanol hexachlorobenzene	111-90-0 118-74-1	≤3 <0.001

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
carbon black	Yes.	No.	No.	No.
titanium dioxide	Yes.	No.	No.	No.
n-methyl-2-pyrrolidone	No.	Yes.	No.	No.
methanol	No.	Yes.	No.	No.
4-methylpentan-2-one	Yes.	Yes.	No.	No.
hexachlorobenzene	No.	Yes.	No.	No.
ethyl acrylate	Yes.	No.	No.	No.

International lists

National inventory

Australia : Not determined.

Canada : Not determined.

China : Not determined.

Section 15. Regulatory information

Europe	: Not determined.
Japan	: **Japan inventory (ENCS)**: Not determined. **Japan inventory (ISHL)**: Not determined.
Malaysia	: Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Turkey	: Not determined.

Section 16. Other information

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

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

Procedure used to derive the classification

Classification	Justification
SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2	Calculation method Calculation method

History

Date of printing	: 3/26/2020
Date of issue/Date of revision	: 3/26/2020
Date of previous issue	: 3/13/2020
Version	: 2.04
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	: Not available.

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

CLEAR 19-0306-508452 HARDENER S/B

Section 1. Identification

Prepared for

ATTN:

Prepared by
Akzo Nobel Coatings Inc.
1872 SC-9-BYP W
Lancaster, SC 29720

(803) 285-9401
In case of emergency (Health or Spills):
CHEMTREC (US and Canada) (800) 424-9300

Product no. : **S000508452**
Product - Class : **CLEAR 19-0306-508452 HARDENER S/B**
Customer Part Number :
Customer ShipTo ID :

Section 2. Hazards identification

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

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (inhalation) - Category 2
EYE IRRITATION - Category 2A
RESPIRATORY SENSITIZATION - Category 1
SKIN SENSITIZATION - Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Flammable liquid and vapor.
Fatal if inhaled.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.

Precautionary statements

Section 2. Hazards identification

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

Prevention : Wear protective gloves. Wear eye or face protection. Wear respiratory protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response : IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. If experiencing respiratory symptoms: Call a POISON CENTER or physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical 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 attention.

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

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

Hazards not otherwise classified : None known.

NOTICE: Reports have associated repeated and prolonged OVEREXPOSURE to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents of this package may be harmful or fatal.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

CAS number : Not applicable.

Product code : S000508452

Ingredient name	%	CAS number
hexamethylene diisocyanate, oligomers	≥50 - ≤75	28182-81-2
propylene glycol diacetate	≥10 - ≤25	623-84-7
butyl acetate	≤5	123-86-4
solvent naphta,light arom.	≤3	64742-95-6
1,2,4-trimethylbenzene	<2.5	95-63-6
hexamethylene-1,6-diisocyanate	≤0.3	822-06-0

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

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

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

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

Inhalation : Adverse symptoms may include the following:
wheezing and breathing difficulties
asthma

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

Ingestion : No specific data.

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

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

Section 4. First aid measures

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. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

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

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

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

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

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

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

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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 or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

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

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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
hexamethylene diisocyanate, oligomers	**ACGIH TLV (United States).** TWA: 1 mg/m³ 8 hours.
propylene glycol diacetate	None.
butyl acetate	**OSHA PEL 1989 (United States, 3/1989).** TWA: 150 ppm 8 hours. TWA: 710 mg/m³ 8 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2013).** TWA: 150 ppm 10 hours. TWA: 710 mg/m³ 10 hours. STEL: 200 ppm 15 minutes.

Section 8. Exposure controls/personal protection

	STEL: 950 mg/m³ 15 minutes. **OSHA PEL (United States, 2/2013).** TWA: 150 ppm 8 hours. TWA: 710 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2016).** STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.
solvent naphta,light arom.	None.
1,2,4-trimethylbenzene	**ACGIH TLV (United States).** TWA: 25 ppm 8 hours.
hexamethylene-1,6-diisocyanate	**ACGIH TLV (United States).** TWA: 0.005 ppm 8 hours.

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

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : 160 - 190 °C (320 - 374 °F)

Flash point : Closed cup: 37.22°C (99°F)

Evaporation rate : Highest known value: Less than 1. (propylene glycol diacetate) compared with butyl acetate

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 2.8% Upper: 12.7%

Vapor pressure : Not applicable.

Vapor density : > 1 (Air = 1) (Calculation method)

Density : 1.112 g/cm^3

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

Viscosity : Not available.

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.

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
hexamethylene diisocyanate, oligomers	LC50 Inhalation Vapor	Rat	18500 mg/m³	1 hours
propylene glycol diacetate	LD50 Oral	Rat	13530 mg/kg	-
butyl acetate	LC50 Inhalation Vapor	Rat	390 ppm	4 hours
	LD50 Oral	Rat	10768 mg/kg	-
1,2,4-trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m³	4 hours
	LD50 Oral	Rat	5000 mg/kg	-
hexamethylene-1, 6-diisocyanate	LC50 Inhalation Vapor	Rat	120 mg/m³	4 hours
	LD50 Dermal	Rabbit	570 mg/kg	-
	LD50 Oral	Rat	746 mg/kg	-

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
butyl acetate	Category 3	Not applicable.	Narcotic effects
1,2,4-trimethylbenzene	Category 3	Not applicable.	Respiratory tract irritation
hexamethylene-1,6-diisocyanate	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
solvent naphta,light arom.	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Section 11. Toxicological information

Eye contact : Causes serious eye irritation.

Inhalation : Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

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

Inhalation : Adverse symptoms may include the following:
wheezing and breathing difficulties
asthma

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

Ingestion : No specific data.

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 : No known significant effects or critical hazards.

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	413907.3 mg/kg
Dermal	4489.8 mg/kg
Inhalation (vapors)	1.813 mg/l

Section 12. Ecological information

Data available upon request.

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

Please Note: The information provided in section 14 is based on a bulk package shipment via ground transport in North America. All shippers are responsible for ensuring the proper transportation classification and package/container requirements are followed for the relevant mode of transport.

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
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	-	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2. 18-2.19 (Class 3).	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

California Prop. 65

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
cumene	Yes.	No.	No.	No.

International lists

National inventory

Australia : Not determined.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Europe : Not determined.

Japan : **Japan inventory (ENCS)**: Not determined.
Japan inventory (ISHL): Not determined.

Malaysia : Not determined.

New Zealand : Not determined.

Philippines : Not determined.

Republic of Korea : Not determined.

Taiwan : Not determined.

Turkey : Not determined.

Section 16. Other information

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

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
ACUTE TOXICITY (inhalation) - Category 2	Calculation method
EYE IRRITATION - Category 2A	Calculation method
RESPIRATORY SENSITIZATION - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method

History

Date of printing : 9/25/2019

Date of issue/Date of revision : 9/25/2019

Section 14. Transport information

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act (CAA) 112 regulated toxic substances: hexamethylene-1, 6-diisocyanate; xylene, mixed isomers; cumene

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
hexamethylene diisocyanate, oligomers	≥50 - ≤75	No.	No.	No.	Yes.	No.
propylene glycol diacetate	≥10 - ≤25	Yes.	No.	No.	Yes.	No.
butyl acetate	≤5	Yes.	No.	No.	Yes.	No.
solvent naphta,light arom.	≤3	Yes.	No.	No.	No.	No.
1,2,4-trimethylbenzene	<2.5	Yes.	No.	No.	Yes.	No.
hexamethylene-1,6-diisocyanate	≤0.3	No.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	1,2,4-trimethylbenzene	95-63-6	<2.5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

Section 16. Other information

Date of previous issue : 9/20/2019

Version : 4.66

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SECTION 1. IDENTIFICATION

Product name : ALEXIT-finemetallic 342-A1 99TK dunkel plata LI-2JT Seidenglänzend / Silk Gloss

Product number : 342A199TKU000

Manufacturer or supplier's details

Manufacturer, importer, supplier : Mankiewicz Coatings L.L.C

Address : 1200 Charleston Regional Parkway
Charleston, South Carolina 29492
USA

Telephone : +1 (843) 6547755
Telefax : +1 (843) 6547759
E-mail address : sdb_info@umco.de

Emergency telephone : CHEMTREC +1 (800) 4249300 or + (703) 5273887

Recommended use of the chemical and restrictions on use

Recommended use : Industrial serial painting

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Skin sensitization : Category 1

Carcinogenicity : Category 2

GHS label elements

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.

Precautionary Statements : **Prevention:**

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture of synthetic resins, water and pigments

Components

Chemical name	CAS-No.	Concentration (% w/w)
dimethyl sulfoxide	67-68-5	>= 5 - < 12.5
2-(2-ethoxyethoxy)ethanol	111-90-0	>= 1 - < 5
2-butoxyethanol	111-76-2	>= 1 - < 5
2,4,7,9-Tetramethyl-4,7-Decanediol	17913-76-7	>= 1 - < 5
aluminium	7429-90-5	>= 1 - < 5
1-methoxypropan-2-ol	107-98-2	>= 1 - < 5
reaction mass of a-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-w-hydroxypoly(oxyethylene) and a-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-w-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxy-phenyl)propionyloxypoly(oxyethylene)	104810-47-1 104810-48-2	>= 0.25 - < 0.5

2-dimethylaminoethanol	108-01-0	>= 0.1 - < 0.25
carbon black	1333-86-4	>= 0.1 - < 0.25

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice	:	In all cases of doubt, or when sickness symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
If inhaled	:	Remove to fresh air, keep patient warm and at rest. Irregular breathing/no breathing: artificial respiration. If unconscious place in recovery position and seek medical advice.
In case of skin contact	:	Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners !
In case of eye contact	:	Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.
If swallowed	:	Do NOT induce vomiting. If accidentally swallowed obtain immediate medical attention. Never give anything by mouth to an unconscious person. Keep at rest.
Most important symptoms and effects, both acute and delayed	:	For information on symptoms and effects refer to Section 2 Hazard statements and Section 11 Toxicological Information.
Notes to physician	:	No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Alcohol resistant foam, CO2, powders, water spray
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
Further information	:	Cool endangered containers with water in case of fire. DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO

ENTER DRAINS OR WATER COURSES!!

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Exclude sources of ignition and ventilate the area.
Do not inhale vapors.
Refer to protective measures listed in sections 7 and 8.
Evacuate personnel to safe areas.

Environmental precautions : Do not let product enter drains.
If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

Methods and materials for containment and cleaning up : Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).
Clean preferably with a detergent; avoid use of solvents.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Keep away from ignition sources and provide for good ventilation.

Advice on safe handling : Comply with the health and safety at work laws.
In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded.
Smoking, eating and drinking should be prohibited in the application area.
Observe specific national regulations for handling and use of paints.

Conditions for safe storage : Keep container tightly closed. Never use pressure to empty: container isnot a pressure vessel. No smoking. Prevent unauthorized access.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Further information on storage conditions : Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight.
Keep container dry in a cool, well-ventilated place.
Avoid cooling to under 32°F.

Materials to avoid : Keep away from oxidizing agents and strongly acid or alkaline materials.

Recommended storage temperature : 41 - 95 °F / 5 - 35 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
dimethyl sulfoxide	67-68-5	TWA	250 ppm	US WEEL
2-(2-ethoxyethoxy)ethanol	111-90-0	TWA	30 ppm 165 mg/m3	CA ON OEL
		TWA	25 ppm	US WEEL
2-butoxyethanol	111-76-2	TWA	20 ppm	CR OEL
	Further information: Confirmed animal carcinogen, Substances for which there is a Biological Exposure Index or Indices (see BEI section), Eye irritation, Upper Respiratory Tract irritation			
		TWA	20 ppm 97 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWAEV	20 ppm 97 mg/m3	CA QC OEL
		VLE-PPT	20 ppm	NOM-010-STPS-2014
		TWA	20 ppm	ACGIH
		TWA	5 ppm 24 mg/m3	NIOSH REL
		TWA	50 ppm 240 mg/m3	OSHA Z-1
		TWA	25 ppm 120 mg/m3	OSHA P0
aluminium	7429-90-5	TWA (Respirable fraction)	1 mg/m3 (Aluminum)	CR OEL
	Further information: Not classifiable as a human carcinogen, Neurotoxicity, Upper Respiratory Tract irritation, Pneumoconiosis			
		TWA (Dust)	10 mg/m3	CA AB OEL
		TWAEV	10 mg/m3	CA QC OEL
		TWA (Respirable)	5 mg/m3	NIOSH REL
		TWA (total)	10 mg/m3	NIOSH REL
		TWA (total dust)	15 mg/m3 (Aluminum)	OSHA Z-1
		TWA (respir-	5 mg/m3	OSHA Z-1

		able fraction)	(Aluminum)	
		TWA (Total dust)	15 mg/m3 (Aluminum)	OSHA P0
		TWA (respir-able dust fraction)	5 mg/m3 (Aluminum)	OSHA P0
		TWAEV (Welding fumes)	5 mg/m3 (Aluminum)	CA QC OEL
1-methoxypropan-2-ol	107-98-2	TWA	50 ppm	CR OEL
	Further information: Not classifiable as a human carcinogen, Eye irritation, Upper Respiratory Tract irritation			
		STEL	100 ppm	CR OEL
	Further information: Not classifiable as a human carcinogen, Eye irritation, Upper Respiratory Tract irritation			
		STEL	150 ppm 553 mg/m3	CA AB OEL
		TWA	100 ppm 369 mg/m3	CA AB OEL
		TWA	50 ppm	CA BC OEL
		STEL	100 ppm	CA BC OEL
		TWAEV	100 ppm 369 mg/m3	CA QC OEL
		STEV	150 ppm 553 mg/m3	CA QC OEL
		VLE-PPT	100 ppm	NOM-010-STPS-2014
		VLE-CT	150 ppm	NOM-010-STPS-2014
		TWA	50 ppm	ACGIH
		STEL	100 ppm	ACGIH
		ST	150 ppm 540 mg/m3	NIOSH REL
		TWA	100 ppm 360 mg/m3	NIOSH REL
		TWA	100 ppm 360 mg/m3	OSHA P0
		STEL	150 ppm 540 mg/m3	OSHA P0
carbon black	1333-86-4	TWA	3.5 mg/m3	CA AB OEL
		TWA (Inhal-able)	3 mg/m3	CA BC OEL
		TWAEV	3.5 mg/m3	CA QC OEL
		VLE-PPT (Inhalable)	3 mg/m3	NOM-010-STPS-2014
		TWA (Inhal-able fraction)	3 mg/m3	ACGIH
		TWA	3.5 mg/m3	NIOSH REL

		TWA	3.5 mg/m3	OSHA Z-1
		TWA	3.5 mg/m3	OSHA P0
		TWA	0.1 mg/m3 (PAHs)	NIOSH REL

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sam-pling time	Permissible concentra-tion	Basis
2-butoxyethanol	111-76-2	Butoxyacetic acid (BAA)	Urine	End of shift	200 mg/g Creatinine	MX BEI
		Butoxyacetic acid (BAA)	Urine	End of shift (As soon as possible after exposure ceases)	200 mg/g Creatinine	ACGIH BEI
		Butoxyacetic acid (BAA)	Urine	End of shift	200 mg/g Creatinine	CR BEI

Engineering measures : Provide adequate ventilation. Where reasonably practicable this shoud be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and below the OEL (= Occupational Exposure Limit), suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection : If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators:
Use MSHA/NIOSH approved respirator if concentration exceeds recommended exposure levels.
Dry grinding, torch cutting and/or welding however can produce hazardous dust and/or vapor.
If possible, machine employing a wet medium.
Where practicable, install exhaust hoods to improve capture of vapors and fumes and avoid exposition; otherwise wear respiratory protection equipment.

Hand protection

Remarks : Glove permeation data does not exist for this material.
The following glove(s) should be used for splash protection only:
Appropriate material: nitrile

Eye protection	:	Use safety glasses or face shield (ANSI Z87.1 or approved equivalent).
Skin and body protection	:	Personal should wear protective clothing as necessary to prevent skin contact. All parts of the body should be washed after contact.
Protective measures	:	Do not eat or drink during work - no smoking. Avoid product contact with skin, eyes and clothing. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapor in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process until such time as the particulates and solvent vapor concentration has fallen below the exposure limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	according product name
Odor	:	characteristic
Boiling point/boiling range	:	ca. 212 °F / 100 °C
Flash point	:	Not applicable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	ca. 100 hPa (122 °F / 50 °C)
Density	:	ca. 8 lb/gal (1 g/cm3) (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	completely miscible
Autoignition temperature	:	> 572 °F / > 300 °C
Viscosity		

Viscosity, kinematic	:	21 mm2/s (104 °F / 40 °C)
		267 mm2/s (73 °F / 23 °C)
Flow time	:	ca. 60 s Cross section: 4 mm Method: DIN 53211
		41 s Cross section: 6 mm Method: ISO 2431

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use. There are no data available on the preparation itself.
Conditions to avoid	:	Stable under recommended storage and handling conditions (See section 7).
Incompatible materials	:	Keep away from oxidizing agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions.
Hazardous decomposition products	:	When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: 58.33 mg/l Exposure time: 4 h Test atmosphere: vapor Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method

Components:

2-(2-ethoxyethoxy)ethanol:

Acute oral toxicity	:	LD50 (Rat): 5,540 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 5.2 mg/l Exposure time: 4 h Test atmosphere: vapor
Acute dermal toxicity	:	LD50 (Rat): 5,940 mg/kg

2-butoxyethanol:

Acute oral toxicity	:	LD50 (Rat): 1,300 mg/kg
Acute dermal toxicity	:	LD50 (Rabbit): > 400 - 2,000 mg/kg

2-dimethylaminoethanol:

Acute oral toxicity	:	LD50 (Rat): 1,183 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 5.9 mg/l Exposure time: 4 h Test atmosphere: vapor
Acute dermal toxicity	:	LD50 (Rabbit): 1,219 mg/kg

Carcinogenicity

IARC Group 2B: Possibly carcinogenic to humans
carbon black 1333-86-4

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information

Product:

Remarks : Exposure of vapor concentration in excess of the stated OEL's may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue muscular weakness, drowsiness and in extrem cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

The liquid splashed in the eyes may cause irritation and reversible damage.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : There are no data available on the preparation itself.

Components:

2-(2-ethoxyethoxy)ethanol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 12,900 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3,940 mg/l
Exposure time: 48 h

2,4,7,9-Tetramethyl-4,7-Decanediol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 53.2 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 127 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum (green algae)): 10.2 mg/l
Exposure time: 72 h

Persistence and degradability

Product:

Biodegradability : Remarks: There are no data available on the preparation itself.

Components:

2-(2-ethoxyethoxy)ethanol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 90 %
Exposure time: 28 d
Method: OECD Test Guideline 301

2,4,7,9-Tetramethyl-4,7-Decanediol:

Biodegradability : Result: Not readily biodegradable.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: There are no data available on the preparation itself.

Mobility in soil

Product:

Mobility : Remarks: There are no data available on the preparation itself.

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : There are no data available on the preparation itself.

The product should not be allowed to enter drains or water courses.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Respiratory or skin sensitization
Carcinogenicity

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

2-(2-ethoxyeth-oxy)ethanol	111-90-0	>= 1 - < 5 %
2-butoxyethanol	111-76-2	>= 1 - < 5 %

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

2-(2-ethoxyethoxy)ethanol	111-90-0	>= 1 - < 5 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

dimethyl sulfoxide	67-68-5	>= 10 - < 20 %
2-(2-ethoxyethoxy)ethanol	111-90-0	>= 1 - < 5 %
2-butoxyethanol	111-76-2	>= 1 - < 5 %

Clean Water Act

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307
The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

ammonia, aqueous solution	1336-21-6	>= 0 - < 0.1 %
formaldehyde	Not Assigned	>= 0 - < 0.1 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

ammonia, aqueous solution	1336-21-6	>= 0 - < 0.1 %

formaldehyde	Not Assigned	>= 0 - < 0.1 %

US State Regulations

Massachusetts Right To Know

2-butoxyethanol	111-76-2
aluminium	7429-90-5
1-methoxypropan-2-ol	107-98-2

Pennsylvania Right To Know

2-(2-ethoxyethoxy)ethanol	111-90-0
2-butoxyethanol	111-76-2
aluminium	7429-90-5
1-methoxypropan-2-ol	107-98-2
ammonia, aqueous solution	1336-21-6

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

formaldehyde	Not Assigned

Washington Chemicals of High Concern

formaldehyde	Not Assigned

California Prop. 65

WARNING: This product can expose you to chemicals including carbon black, formaldehyde, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

2-butoxyethanol	111-76-2
aluminium	7429-90-5
1-methoxypropan-2-ol	107-98-2

California Permissible Exposure Limits for Chemical Contaminants

2-butoxyethanol	111-76-2
aluminium	7429-90-5
1-methoxypropan-2-ol	107-98-2

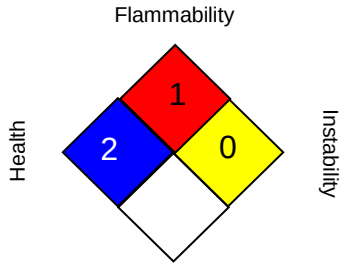
The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

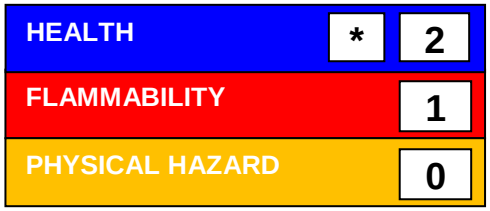
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Health
0=Slightly HazardousSlightly Hazardous
2=Hazardous
3=Extreme danger
4=Deadly

Flammability
0=Will not burn
2=Flashpoint below 200 F
3=Flashpoint below 100 F
4=Flashpoint below 73 F

Instability
0=Stable
1=Unstable if heated
2=Violent chemical reaction; water reactive
3=Shock or heat may detonate
4=May detonate

Special hazard
SA Simple Asphyxiant
ACID Acid
OX Oxidizer
W Water Reactive
CORR Corrosive

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA ON OEL	:	Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.

CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
CR BEI	:	Maximum allowable occupational exposure limits in the workplace - Table 3. Adopted Biological Exposure Indices
CR OEL	:	Costa Rica. Maximum allowable occupational exposure limits in the workplace.
MX BEI	:	Official Mexican Norm NOM-047-SSA1-2011, Environmental Health - Biological exposure indices for workers occupationally exposed to chemical agents
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
NOM-010-STPS-2014	:	Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and Control - Appendix 1 Occupational Exposure Limits
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
US WEEL	:	USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA AB OEL / STEL	:	15-minute occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA BC OEL / STEL	:	short-term exposure limit
CA ON OEL / TWA	:	Time-Weighted Average Limit (TWA)
CA QC OEL / TWAEV	:	Time-weighted average exposure value
CA QC OEL / STEV	:	Short-term exposure value
CR OEL / TWA	:	Time weighted average 8-hr value
CR OEL / STEL	:	Short term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
NOM-010-STPS-2014 / VLE-PPT	:	Time weighted average limit value
NOM-010-STPS-2014 / VLE-CT	:	Short term exposure limit value
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / STEL	:	Short-term exposure limit
OSHA Z-1 / TWA	:	8-hour time weighted average
US WEEL / TWA	:	8-hr TWA

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with

x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 10/30/2019

The information provided in this Material 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.

US / Z8

SECTION 1. IDENTIFICATION

Product name : ALEXIT-Grundierung 343-36 farblos / transparent stumpfmatt

Product number : 3433600001000

Manufacturer or supplier's details

Manufacturer, importer, supplier : Mankiewicz Coatings L.L.C

Address : 1200 Charleston Regional Parkway
Charleston, South Carolina 29492
USA

Telephone : +1 (843) 6547755
Telefax : +1 (843) 6547759
E-mail address : sdb_info@umco.de

Emergency telephone : CHEMTREC +1 (800) 4249300 or + (703) 5273887

Recommended use of the chemical and restrictions on use

Recommended use : Industrial serial painting

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture of synthetic resins, water and pigments

Components

Chemical name	CAS-No.	Concentration (% w/w)
2-dimethylaminoethanol	108-01-0	>= 0.1 - < 0.25

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice	:	In all cases of doubt, or when sickness symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
If inhaled	:	Remove to fresh air, keep patient warm and at rest. Irregular breathing/no breathing: artificial respiration. If unconscious place in recovery position and seek medical advice.
In case of skin contact	:	Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners !
In case of eye contact	:	Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.
If swallowed	:	Do NOT induce vomiting. If accidentally swallowed obtain immediate medical attention. Never give anything by mouth to an unconscious person. Keep at rest.
Most important symptoms and effects, both acute and delayed	:	For information on symptoms and effects refer to Section 2 Hazard statements and Section 11 Toxicological Information.
Notes to physician	:	No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Alcohol resistant foam, CO2, powders, water spray
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
Further information	:	Cool endangered containers with water in case of fire. DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO ENTER DRAINS OR WATER COURSES!!
Special protective equipment for fire-fighters	:	As in any fire, wear self-contained breathing apparatus pressure - demand, MSHA / NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Exclude sources of ignition and ventilate the area. Do not inhale vapors. Refer to protective measures listed in sections 7 and 8. Evacuate personnel to safe areas.
Environmental precautions	:	Do not let product enter drains. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.
Methods and materials for containment and cleaning up	:	Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Clean preferably with a detergent; avoid use of solvents.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Keep away from ignition sources and provide for good ventilation.
Advice on safe handling	:	Comply with the health and safety at work laws. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Smoking, eating and drinking should be prohibited in the application area. Observe specific national regulations for handling and use of paints.
Conditions for safe storage	:	Keep container tightly closed. Never use pressure to empty: container isnot a pressure vessel. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Further information on storage conditions	:	Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight. Keep container dry in a cool, well-ventilated place. Avoid cooling to under 32°F.
Materials to avoid	:	Keep away from oxidizing agents and strongly acid or alkaline materials.
Recommended storage temperature	:	41 - 95 °F / 5 - 35 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Provide adequate ventilation. Where reasonably practicable this shoud be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and below the OEL (= Occupational Exposure Limit), suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection : If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators:
Use MSHA/NIOSH approved respirator if concentration exceeds recommended exposure levels.
Dry grinding, torch cutting and/or welding however can produce hazardous dust and/or vapor.
If possible, machine employing a wet medium.
Where practicable, install exhaust hoods to improve capture of vapors and fumes and avoid exposition; otherwise wear respiratory protection equipment.

Hand protection

Remarks : Glove permeation data does not exist for this material.
The following glove(s) should be used for splash protection only:
Appropriate material: nitrile

Eye protection : Use safety glasses or face shield (ANSI Z87.1 or approved equivalent).

Skin and body protection : Personal should wear protective clothing as necessary to prevent skin contact. All parts of the body should be washed after contact.

Protective measures : Do not eat or drink during work - no smoking.
Avoid product contact with skin, eyes and clothing.
When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapor in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process until such time as the particulates and solvent vapor concentration has fallen below the exposure limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	according product name
Odor	:	characteristic
Boiling point/boiling range	:	ca. 212 °F / 100 °C
Flash point	:	Not applicable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	ca. 100 hPa (122 °F / 50 °C)
Density	:	ca. 9.2 lb/gal (1.1 g/cm3) (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	completely miscible
Autoignition temperature	:	> 572 °F / > 300 °C
Viscosity		
Viscosity, kinematic	:	21 mm2/s (104 °F / 40 °C)
		684 mm2/s (73 °F / 23 °C)
Flow time	:	> 150 s Cross section: 4 mm Method: DIN 53211
		> 100 s Cross section: 6 mm Method: ISO 2431

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under normal conditions.

Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use. There are no data available on the preparation itself.
Conditions to avoid	:	Stable under recommended storage and handling conditions (See section 7).
Incompatible materials	:	Keep away from oxidizing agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions.
Hazardous decomposition products	:	When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute inhalation toxicity	:	Acute toxicity estimate: > 200 mg/l Exposure time: 4 h Test atmosphere: vapor Method: Calculation method

Components:

2-dimethylaminoethanol:

Acute oral toxicity	:	LD50 (Rat): 1,183 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 5.9 mg/l Exposure time: 4 h Test atmosphere: vapor
Acute dermal toxicity	:	LD50 (Rabbit): 1,219 mg/kg

Carcinogenicity

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information

Product:

Remarks : Exposure of vapor concentration in excess of the stated OEL's may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue muscular weakness, drowsiness and in extrem cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : There are no data available on the preparation itself.

Persistence and degradability

Product:

Biodegradability : Remarks: There are no data available on the preparation itself.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: There are no data available on the preparation itself.

Mobility in soil

Product:

Mobility : Remarks: There are no data available on the preparation itself.

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : There are no data available on the preparation itself.

The product should not be allowed to enter drains or water courses.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

49 CFR
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards
No SARA Hazards

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

xylenes	1330-20-7	>= 0.1 - < 1 %
2-(2-butoxyethoxy)ethanol	112-34-5	>= 0.1 - < 1 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

xylenes	1330-20-7	>= 0.1 - < 1 %
ammonia, aqueous solution	1336-21-6	>= 0.1 - < 1 %
ethylbenzene	100-41-4	>= 0 - < 0.1 %
toluene	108-88-3	>= 0 - < 0.1 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

xylenes	1330-20-7	>= 0.1 - < 1 %
ammonia, aqueous solution	1336-21-6	>= 0.1 - < 1 %
ethylbenzene	100-41-4	>= 0 - < 0.1 %
toluene	108-88-3	>= 0 - < 0.1 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

quartz (SiO2)	14808-60-7

Pennsylvania Right To Know

xylenes	1330-20-7
ammonia, aqueous solution	1336-21-6
2-(2-butoxyethoxy)ethanol	112-34-5
2-phenoxyethanol	122-99-6
ethylbenzene	100-41-4

Maine Chemicals of High Concern

quartz (SiO2)	14808-60-7
toluene	108-88-3
octamethylcyclotetrasiloxane	556-67-2

Vermont Chemicals of High Concern

ethylbenzene	100-41-4
toluene	108-88-3
octamethylcyclotetrasiloxane	556-67-2

Washington Chemicals of High Concern

ethylbenzene	100-41-4
toluene	108-88-3

California Prop. 65

WARNING: This product can expose you to chemicals including quartz (SiO2), ethylbenzene, which is/are known to the State of California to cause cancer, and toluene, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

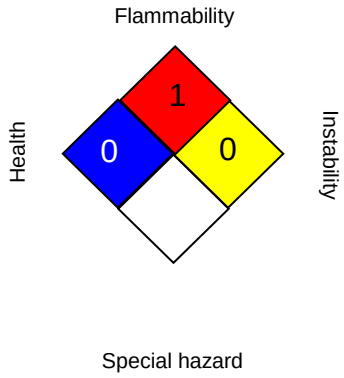
The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

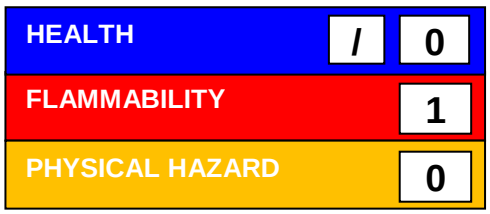
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Health
0=Slightly HazardousSlightly Hazardous
2=Hazardous
3=Extreme danger
4=Deadly

Flammability
0=Will not burn
2=Flashpoint below 200 F
3=Flashpoint below 100 F
4=Flashpoint below 73 F

Instability
0=Stable
1=Unstable if heated
2=Violent chemical reaction; water reactive
3=Shock or heat may detonate
4=May detonate

Special hazard

SA Simple Asphyxiant
ACID Acid
OX Oxidizer
W Water Reactive
CORR Corrosive

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 09/13/2019

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US / Z8

SAFETY DATA SHEET

Commercial Product Name: ALEXIT-Hot-Stamp-Coating 349-16
Product No.: 3491690D3S000

Version	Revision Date:	SDS Number:	Date of last issue: 07/24/2018
1.67	09/16/2019	F-3491690D3S	Date of first issue: 08/21/2015

SECTION 1. IDENTIFICATION

Product name : ALEXIT-Hot-Stamp-Coating 349-16 90D3 schwarz stumpfmatt

Product number : 3491690D3S000

Manufacturer or supplier's details

Manufacturer, importer, supplier : Mankiewicz Coatings L.L.C

Address : 1200 Charleston Regional Parkway
Charleston, South Carolina 29492
USA

Telephone : +1 (843) 6547755
Telefax : +1 (843) 6547759
E-mail address : sdb_info@umco.de

Emergency telephone : CHEMTREC +1 (800) 4249300 or + (703) 5273887

Recommended use of the chemical and restrictions on use

Recommended use : Industrial serial painting

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Carcinogenicity : Category 2

GHS label elements

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H351 Suspected of causing cancer.

Precautionary Statements :

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture of synthetic resins, water and pigments

Components

Chemical name	CAS-No.	Concentration (% w/w)
dimethyl sulfoxide	67-68-5	>= 5 - < 12.5
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-Ethane-1,2-diol, ethoxylated	25322-68-3	>= 1 - < 5
2-(2-butoxyethoxy)ethanol	112-34-5	>= 1 - < 5
silica gel	112926-00-8	>= 1 - < 5
carbon black	1333-86-4	>= 1 - < 5
2-dimethylaminoethanol	108-01-0	>= 0.25 - < 0.5

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : In all cases of doubt, or when sickness symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

If inhaled : Remove to fresh air, keep patient warm and at rest.
Irregular breathing/no breathing: artificial respiration.
If unconscious place in recovery position and seek medical advice.

In case of skin contact : Take off all contaminated clothing immediately.
Wash skin thoroughly with soap and water or use recognised skin cleanser.
Do NOT use solvents or thinners !

In case of eye contact	:	Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.
If swallowed	:	Do NOT induce vomiting. If accidentally swallowed obtain immediate medical attention. Never give anything by mouth to an unconscious person. Keep at rest.
Most important symptoms and effects, both acute and delayed	:	For information on symptoms and effects refer to Section 2 Hazard statements and Section 11 Toxicological Information.
Notes to physician	:	No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Alcohol resistant foam, CO2, powders, water spray
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
Further information	:	Cool endangered containers with water in case of fire. DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO ENTER DRAINS OR WATER COURSES!!
Special protective equipment for fire-fighters	:	As in any fire, wear self-contained breathing apparatus pressure - demand, MSHA / NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Exclude sources of ignition and ventilate the area. Do not inhale vapors. Refer to protective measures listed in sections 7 and 8. Evacuate personnel to safe areas.
Environmental precautions	:	Do not let product enter drains. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.
Methods and materials for containment and cleaning up	:	Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).

Clean preferably with a detergent; avoid use of solvents.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Keep away from ignition sources and provide for good ventilation.
Advice on safe handling	:	Comply with the health and safety at work laws. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Smoking, eating and drinking should be prohibited in the application area. Observe specific national regulations for handling and use of paints.
Conditions for safe storage	:	Keep container tightly closed. Never use pressure to empty: container isnot a pressure vessel. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Further information on storage conditions	:	Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight. Keep container dry in a cool, well-ventilated place. Avoid cooling to under 32°F.
Materials to avoid	:	Keep away from oxidizing agents and strongly acid or alkaline materials.
Recommended storage temperature	:	41 - 95 °F / 5 - 35 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
dimethyl sulfoxide	67-68-5	TWA	250 ppm	US WEEL
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-Ethane-1,2-diol, ethoxylated	25322-68-3	TWA (aerosol)	10 mg/m3	US WEEL
2-(2-butoxyethoxy)ethanol	112-34-5	TWA (Inhalable fraction	10 ppm	CR OEL

		and vapour)		
	Further information: Hematologic effects, Kidney effects, Liver effects			
		TWA (Inhalable fraction and vapor)	10 ppm	ACGIH
silica gel	112926-00-8	TWAEV (respirable dust)	6 mg/m3	CA QC OEL
		TWA (Respirable)	1.5 mg/m3	CA BC OEL
		TWA (Total)	4 mg/m3	CA BC OEL
		TWA	6 mg/m3	OSHA P0
		TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2 (Silica)	OSHA Z-3
carbon black	1333-86-4	TWA	3.5 mg/m3	CA AB OEL
		TWA (Inhalable)	3 mg/m3	CA BC OEL
		TWAEV	3.5 mg/m3	CA QC OEL
		VLE-PPT (Inhalable)	3 mg/m3	NOM-010-STPS-2014
		TWA (Inhalable fraction)	3 mg/m3	ACGIH
		TWA	3.5 mg/m3	NIOSH REL
		TWA	3.5 mg/m3	OSHA Z-1
		TWA	3.5 mg/m3	OSHA P0
		TWA	0.1 mg/m3 (PAHs)	NIOSH REL

Engineering measures : Provide adequate ventilation. Where reasonably practicable this shoud be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and below the OEL (= Occupational Exposure Limit), suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection : If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators:
Use MSHA/NIOSH approved respirator if concentration exceeds recommended exposure levels.
Dry grinding, torch cutting and/or welding however can produce hazardous dust and/or vapor.
If possible, machine employing a wet medium.

Where practicable, install exhaust hoods to improve capture of vapors and fumes and avoid exposition; otherwise wear respiratory protection equipment.

Hand protection

Remarks : Glove permeation data does not exist for this material.
The following glove(s) should be used for splash protection only:
Appropriate material: nitrile

Eye protection : Use safety glasses or face shield (ANSI Z87.1 or approved equivalent).

Skin and body protection : Personal should wear protective clothing as necessary to prevent skin contact. All parts of the body should be washed after contact.

Protective measures : Do not eat or drink during work - no smoking.
Avoid product contact with skin, eyes and clothing.
When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapor in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process until such time as the particulates and solvent vapor concentration has fallen below the exposure limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : according product name

Odor : characteristic

Boiling point/boiling range : ca. 212 °F / 100 °C

Flash point : Not applicable

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure	:	ca. 100 hPa (122 °F / 50 °C)
Density	:	ca. 9.2 lb/gal (1.1 g/cm3) (68 °F / 20 °C)
Solubility(ies) Water solubility	:	completely miscible
Autoignition temperature	:	> 572 °F / > 300 °C
Viscosity Viscosity, kinematic	:	21 mm2/s (104 °F / 40 °C)
		684 mm2/s (73 °F / 23 °C)
Flow time	:	> 150 s Cross section: 4 mm Method: DIN 53211
		> 100 s Cross section: 6 mm Method: ISO 2431

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use. There are no data available on the preparation itself.
Conditions to avoid	:	Stable under recommended storage and handling conditions (See section 7).
Incompatible materials	:	Keep away from oxidizing agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions.
Hazardous decomposition products	:	When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute inhalation toxicity : Acute toxicity estimate: > 200 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: Calculation method

Components:

2-dimethylaminoethanol:

Acute oral toxicity : LD50 (Rat): 1,183 mg/kg

Acute inhalation toxicity : LC50 (Rat): 5.9 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 (Rabbit): 1,219 mg/kg

Carcinogenicity

IARC Group 2B: Possibly carcinogenic to humans
carbon black 1333-86-4

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information

Product:

Remarks : Exposure of vapor concentration in excess of the stated OEL's may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue muscular weakness, drowsiness and in extrem cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : There are no data available on the preparation itself.

Persistence and degradability

Product:

Biodegradability : Remarks: There are no data available on the preparation itself.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: There are no data available on the preparation itself.

Mobility in soil

Product:

Mobility : Remarks: There are no data available on the preparation itself.

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : There are no data available on the preparation itself.

The product should not be allowed to enter drains or water courses.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

49 CFR
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard
Carcinogenicity

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

2-(2-butoxyeth-oxy)ethanol	112-34-5	>= 1 - < 5 %

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

2-(2-butoxyethoxy)ethanol	112-34-5	>= 1 - < 5 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

dimethyl sulfoxide	67-68-5	>= 5 - < 10 %
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-Ethane-1,2-diol, ethoxylated	25322-68-3	>= 1 - < 5 %
2-(2-butoxyethoxy)ethanol	112-34-5	>= 1 - < 5 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

silica gel	112926-00-8
carbon black	1333-86-4

Pennsylvania Right To Know

2-(2-butoxyethoxy)ethanol	112-34-5
silica gel	112926-00-8
carbon black	1333-86-4
Polychloro copper phthalocyanine	1328-53-6
29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper	147-14-8

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

California Prop. 65

WARNING: This product can expose you to chemicals including carbon black, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

carbon black	1333-86-4

California Permissible Exposure Limits for Chemical Contaminants

carbon black	1333-86-4

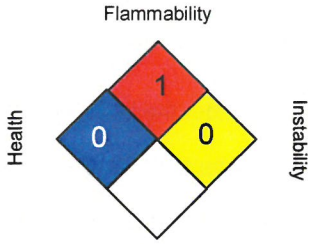
The ingredients of this product are reported in the following inventories:

TSCA	:	All substances listed as active on the TSCA inventory

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

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Health
0=Slightly HazardousSlightly Hazardous
2=Hazardous
3=Extreme danger
4=Deadly

Flammability
0=Will not burn
2=Flashpoint below 200 F
3=Flashpoint below 100 F
4=Flashpoint below 73 F

Instability
0=Stable
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3=Shock or heat may detonate
4=May detonate

Special hazard
SA Simple Asphyxiant
ACID Acid
OX Oxidizer
W Water Reactive
CORR Corrosive

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)

CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
CR OEL	:	Costa Rica. Maximum allowable occupational exposure limits in the workplace.
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
NOM-010-STPS-2014	:	Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and Control - Appendix 1 Occupational Exposure Limits
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-3	:	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
US WEEL	:	USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / TWA	:	8-hour, time-weighted average
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA QC OEL / TWAEV	:	Time-weighted average exposure value
CR OEL / TWA	:	Time weighted average 8-hr value
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NOM-010-STPS-2014 / VLE-PPT	:	Time weighted average limit value
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average
OSHA Z-3 / TWA	:	8-hour time weighted average
US WEEL / TWA	:	8-hr TWA

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Revision Date : 09/16/2019

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US / Z8

SECTION 1. IDENTIFICATION

Product name	:	ALEXIT-HighGloss Monolyer® 460-1E 90ZC schwarz L-041
Product number	:	4601E90ZC9000

Manufacturer or supplier's details

Manufacturer, importer, supplier	:	Mankiewicz Coatings L.L.C
Address	:	1200 Charleston Regional Parkway Charleston, South Carolina 29492 USA
Telephone	:	+1 (843) 6547755
Telefax	:	+1 (843) 6547759
E-mail address	:	sdb_info@umco.de
Emergency telephone	:	CHEMTREC +1 (800) 4249300 or + (703) 5273887

Recommended use of the chemical and restrictions on use

Recommended use	:	Industrial serial painting

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids	:	Category 3
Skin sensitization	:	Category 1
Carcinogenicity	:	Category 2
Reproductive toxicity	:	Category 2
Specific target organ toxicity - single exposure	:	Category 3 (Central nervous system)
Specific target organ toxicity - repeated exposure	:	Category 2

GHS label elements

Hazard pictograms :

Signal Word : Warning

Hazard Statements :
H226 Flammable liquid and vapor.
H317 May cause an allergic skin reaction.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements :

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture of synthetic resins, organic solvents and pigments

Components

Chemical name	CAS-No.	Concentration (% w/w)
n-butyl acetate	123-86-4	>= 25 - < 40
xylenes	1330-20-7	>= 1 - < 5
dimethyl sulfoxide	67-68-5	>= 1 - < 5
carbon black	1333-86-4	>= 0.5 - < 1
ethylbenzene	100-41-4	>= 0.5 - < 1
zinc bis(2-ethylhexanoate)	136-53-8	>= 0.5 - < 1
methyl methacrylate	80-62-6	>= 0.1 - < 0.25

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : In all cases of doubt, or when sickness symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

If inhaled : Remove to fresh air, keep patient warm and at rest.
Irregular breathing/no breathing: artificial respiration.
If unconscious place in recovery position and seek medical advice.

In case of skin contact : Take off all contaminated clothing immediately.
Wash skin thoroughly with soap and water or use recognised skin cleanser.
Do NOT use solvents or thinners !

In case of eye contact : Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.

If swallowed : Do NOT induce vomiting.

If accidentally swallowed obtain immediate medical attention.
Never give anything by mouth to an unconscious person.
Keep at rest.

Most important symptoms and effects, both acute and delayed : For information on symptoms and effects refer to Section 2 Hazard statements and Section 11 Toxicological Information.

Notes to physician : No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Alcohol resistant foam, CO2, powders

Unsuitable extinguishing media : High volume water jet

Specific hazards during fire fighting : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Further information : Cool endangered containers with water in case of fire.
DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO ENTER DRAINS OR WATER COURSES!!

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Exclude sources of ignition and ventilate the area.
Do not inhale vapors.
Refer to protective measures listed in sections 7 and 8.
Evacuate personnel to safe areas.

Environmental precautions : Do not let product enter drains.
If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

Methods and materials for containment and cleaning up : Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).
Clean preferably with a detergent; avoid use of solvents.

SECTION 7. HANDLING AND STORAGE

Advice on protection against : The product should only be used in areas from which all

fire and explosion		naked lights and other sources of ignition have been excluded. Preparation may charge electrostatically: always use earthing leads whentransferring from one container to another. Operators should wear anti-static footwear and clothing. No sparking tools should be used. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air.
Advice on safe handling	:	Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentrations higher than the occupational exposure limits. Comply with the health and safety at work laws. Smoking, eating and drinking should be prohibited in the application area. Observe specific national regulations for handling and use of paints.
Conditions for safe storage	:	Electrical equipment should be protected to the appropriate standard. Floors should be of the conducting type. Keep container tightly closed. Never use pressure to empty: container isnot a pressure vessel. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Further information on storage conditions	:	Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight. Keep container dry in a cool, well-ventilated place.
Materials to avoid	:	Keep away from oxidizing agents and strongly acid or alkaline materials.
Recommended storage temperature	:	41 - 95 °F / 5 - 35 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
n-butyl acetate	123-86-4	TWA	50 ppm	CR OEL
	Further information: Eye irritation, Upper Respiratory Tract irritation			
		STEL	150 ppm	CR OEL
	Further information: Eye irritation, Upper Respiratory Tract irrita-			

	tion			
		TWA	150 ppm 713 mg/m3	CA AB OEL
		STEL	200 ppm 950 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWAEV	150 ppm 713 mg/m3	CA QC OEL
		STEV	200 ppm 950 mg/m3	CA QC OEL
		VLE-PPT	150 ppm	NOM-010-STPS-2014
		VLE-CT	200 ppm	NOM-010-STPS-2014
		TWA	150 ppm 710 mg/m3	NIOSH REL
		ST	200 ppm 950 mg/m3	NIOSH REL
		TWA	150 ppm 710 mg/m3	OSHA Z-1
		TWA	150 ppm 710 mg/m3	OSHA P0
		STEL	200 ppm 950 mg/m3	OSHA P0
		TWA	50 ppm	ACGIH
		STEL	150 ppm	ACGIH
xylenes	1330-20-7	VLE-PPT	100 ppm	NOM-010-STPS-2014
		VLE-CT	150 ppm	NOM-010-STPS-2014
		TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
		STEL	150 ppm 651 mg/m3	CA AB OEL
		TWA	100 ppm 434 mg/m3	CA AB OEL
		TWAEV	100 ppm 434 mg/m3	CA QC OEL
		STEV	150 ppm 651 mg/m3	CA QC OEL
		TWA	100 ppm	CA BC OEL
		STEL	150 ppm	CA BC OEL
		STEL	150 ppm 655 mg/m3	OSHA P0
		TWA	100 ppm 435 mg/m3	OSHA P0

dimethyl sulfoxide	67-68-5	TWA	250 ppm	US WEEL
carbon black	1333-86-4	TWA	3.5 mg/m3	CA AB OEL
		TWA (Inhal-able)	3 mg/m3	CA BC OEL
		TWAEV	3.5 mg/m3	CA QC OEL
		VLE-PPT (Inhalable)	3 mg/m3	NOM-010-STPS-2014
		TWA (Inhal-able fraction)	3 mg/m3	ACGIH
		TWA	3.5 mg/m3	NIOSH REL
		TWA	3.5 mg/m3	OSHA Z-1
		TWA	3.5 mg/m3	OSHA P0
		TWA	0.1 mg/m3 (PAHs)	NIOSH REL
ethylbenzene	100-41-4	TWA	20 ppm	CR OEL
	Further information: Confirmed animal carcinogen, Substances for which there is a Biological Exposure Index or Indices (see BEI section), Visual impairment, Upper Respiratory Tract irritation, Kidney damage (nephropathy)			
		TWA	100 ppm 434 mg/m3	CA AB OEL
		STEL	125 ppm 543 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		STEV	125 ppm 543 mg/m3	CA QC OEL
		TWAEV	100 ppm 434 mg/m3	CA QC OEL
		VLE-PPT	20 ppm	NOM-010-STPS-2014
		TWA	20 ppm	ACGIH
		TWA	100 ppm 435 mg/m3	NIOSH REL
		ST	125 ppm 545 mg/m3	NIOSH REL
		TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	100 ppm 435 mg/m3	OSHA P0
		STEL	125 ppm 545 mg/m3	OSHA P0
methyl methacrylate	80-62-6	TWA	50 ppm	CR OEL
	Further information: Not classifiable as a human carcinogen, Pul-monary edema, Eye irritation, Upper Respiratory Tract irritation, body weight effects, Dermal Sensitization			
		STEL	100 ppm	CR OEL
	Further information: Not classifiable as a human carcinogen, Pul-monary edema, Eye irritation, Upper Respiratory Tract irritation,			

	body weight effects, Dermal Sensitization			
		STEL	100 ppm 410 mg/m3	CA AB OEL
		TWA	50 ppm 205 mg/m3	CA AB OEL
		TWA	50 ppm	CA BC OEL
		STEL	100 ppm	CA BC OEL
		TWAEV	50 ppm 205 mg/m3	CA QC OEL
		VLE-PPT	50 ppm	NOM-010-STPS-2014
		VLE-CT	100 ppm	NOM-010-STPS-2014
		TWA	50 ppm	ACGIH
		STEL	100 ppm	ACGIH
		TWA	100 ppm 410 mg/m3	NIOSH REL
		TWA	100 ppm 410 mg/m3	OSHA Z-1
		TWA	100 ppm 410 mg/m3	OSHA P0

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sam-pling time	Permissible concentra-tion	Basis
xylenes	1330-20-7	Methyl-hippuric acids	Urine	End of shift (As soon as possible after exposure ceases)	1.5 g/g cre-atinine	ACGIH BEI
		Methyl-hippuric acid	Urine	End of shift	1.5 g/g cre-atinine	MX BEI
		Methyl-hippuric acids	Urine	End of shift	1.5 g/g cre-atinine	CR BEI
ethylbenzene	100-41-4	Sum of Mandelic acid plus phenylgly-oxylic acid	Urine	End of shift at end of work-week	0.7 g/g cre-atinine	MX BEI
		Sum of mandelic acid and phenyl gly-oxylic acid	Urine	End of shift (As soon as possible after	0.15 g/g creatinine	ACGIH BEI

				exposure ceases)		
		Sum of mandelic acid and phenyl gly-oxylic acid	Urine	End of shift	0.15 g/g creatinine	CR BEI

Engineering measures : Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain aerosol- and solvent vapors concentration below the OEL, suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection : If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators.
Use MSHA/NIOSH approved respirator if concentration exceeds recommended exposure levels.
Dry grinding, torch cutting and/or welding however can produce hazardous dust and/or vapor.
If possible, machine employing a wet medium.
Where practicable, install exhaust hoods to improve capture of vapors and fumes and avoid exposition; otherwise wear respiratory protection equipment.

Hand protection

Remarks : Glove permeation data does not exist for this material.
The following glove(s) should be used for splash protection only:
Appropriate material: nitrile

Eye protection : Use safety glasses or face shield (ANSI Z87.1 or approved equivalent).

Skin and body protection : Personal should wear protective clothing as necessary to prevent skin contact. All parts of the body should be washed after contact.

Protective measures : Do not eat or drink during work - no smoking.
Avoid product contact with skin, eyes and clothing.
Avoid the inhalation of dust from sanding, particulates and spray mist arising from the application of this preparation.
When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapor in all cases. In such circumstances they should wear a compressed air-fed

respirator during the spraying process until such time as the particulates and solvent vapor concentration has fallen below the exposure limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	according product name
Odor	:	characteristic
Boiling point/boiling range	:	ca. 248 °F / 120 °C
Flash point	:	75 °F / 24 °C Method: ISO 13736
Upper explosion limit / Upper flammability limit	:	10 %(V)
Lower explosion limit / Lower flammability limit	:	1 %(V)
Vapor pressure	:	ca. 100 hPa (122 °F / 50 °C)
Density	:	ca. 8.3 lb/gal (1.0 g/cm3) (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	insoluble
Autoignition temperature	:	> 752 °F / > 400 °C
Viscosity		
Viscosity, kinematic	:	21 mm2/s (104 °F / 40 °C) 171 mm2/s (73 °F / 23 °C)
Flow time	:	ca. 40 s Cross section: 4 mm Method: DIN 53211 ca. 28 s Cross section: 6 mm Method: ISO 2431

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use. There are no data available on the preparation itself.
Conditions to avoid	:	Stable under recommended storage and handling conditions (See section 7).
Incompatible materials	:	Keep away from oxidizing agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions.
Hazardous decomposition products	:	When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: > 200 mg/l Exposure time: 4 h Test atmosphere: vapor Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method

Components:

xylenes:

Acute oral toxicity	:	LD50 (Rat): 4,300 mg/kg

Carcinogenicity

IARC	Group 2B: Possibly carcinogenic to humans carbon black	1333-86-4
	Group 2B: Possibly carcinogenic to humans ethylbenzene	100-41-4

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information

Product:

Remarks : Exposure of vapor concentration in excess of the stated OEL's may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue muscular weakness, drowsiness and in extrem cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : There are no data available on the preparation itself.

Persistence and degradability

Product:

Biodegradability : Remarks: There are no data available on the preparation itself.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: There are no data available on the preparation itself.

Mobility in soil

Product:

Mobility : Remarks: There are no data available on the preparation itself.

Other adverse effects

Product:

Ozone-Depletion Potential	:	Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological information	:	There are no data available on the preparation itself. The product should not be allowed to enter drains or water courses.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No.	:	UN 1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Labels	:	Class 3 - Flammable liquids
Packing instruction (cargo aircraft)	:	366
Packing instruction (passenger aircraft)	:	355

IMDG-Code

UN number	:	UN 1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Labels	:	Class 3 - Flammable liquids
Marine pollutant	:	no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Respiratory or skin sensitization
Carcinogenicity
Specific target organ toxicity (single or repeated exposure)
Reproductive toxicity

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

xylenes	1330-20-7	>= 1 - < 5 %
ethylbenzene	100-41-4	>= 0.1 - < 1 %

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

xylenes	1330-20-7	>= 1 - < 5 %
ethylbenzene	100-41-4	>= 0.1 - < 1 %
methyl methacrylate	80-62-6	>= 0.1 - < 1 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

n-butyl acetate	123-86-4	>= 30 - < 50 %
xylenes	1330-20-7	>= 1 - < 5 %
dimethyl sulfoxide	67-68-5	>= 1 - < 5 %

Clean Water Act

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307
The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

n-butyl acetate	123-86-4	>= 30 - < 50 %
xylenes	1330-20-7	>= 1 - < 5 %
ethylbenzene	100-41-4	>= 0.1 - < 1 %
methyl methacrylate	80-62-6	>= 0.1 - < 1 %
toluene	108-88-3	>= 0 - < 0.1 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

n-butyl acetate	123-86-4	>= 30 - < 50 %
xylenes	1330-20-7	>= 1 - < 5 %
ethylbenzene	100-41-4	>= 0.1 - < 1 %
methyl methacrylate	80-62-6	>= 0.1 - < 1 %
toluene	108-88-3	>= 0 - < 0.1 %

US State Regulations

Massachusetts Right To Know

n-butyl acetate	123-86-4
xylenes	1330-20-7

Pennsylvania Right To Know

n-butyl acetate	123-86-4
xylenes	1330-20-7
ethylbenzene	100-41-4
butan-1-ol	71-36-3
zinc bis(2-ethylhexanoate)	136-53-8
methyl methacrylate	80-62-6

Maine Chemicals of High Concern

toluene	108-88-3

Vermont Chemicals of High Concern

ethylbenzene	100-41-4
2-ethylhexanoic acid	149-57-5
toluene	108-88-3

Washington Chemicals of High Concern

ethylbenzene	100-41-4
2-ethylhexanoic acid	149-57-5
toluene	108-88-3

California Prop. 65

WARNING: This product can expose you to chemicals including carbon black, ethylbenzene, which is/are known to the State of California to cause cancer, and

toluene, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

n-butyl acetate	123-86-4
xylenes	1330-20-7

California Permissible Exposure Limits for Chemical Contaminants

n-butyl acetate	123-86-4
xylenes	1330-20-7

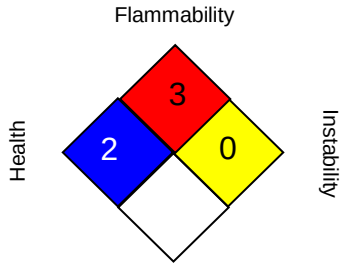
The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

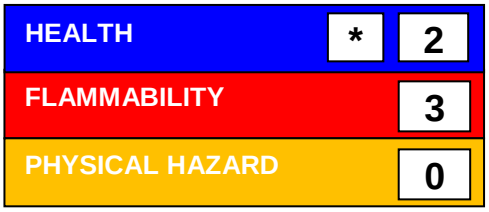
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Health
0=Slightly HazardousSlightly Hazardous
2=Hazardous
3=Extreme danger
4=Deadly

Flammability
0=Will not burn
2=Flashpoint below 200 F
3=Flashpoint below 100 F
4=Flashpoint below 73 F

Instability
0=Stable
1=Unstable if heated
2=Violent chemical reaction; water reactive
3=Shock or heat may detonate

4=May detonate

Special hazard
SA Simple Asphyxiant
ACID Acid
OX Oxidizer
W Water Reactive
CORR Corrosive

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
CR BEI	:	Maximum allowable occupational exposure limits in the workplace - Table 3. Adopted Biological Exposure Indices
CR OEL	:	Costa Rica. Maximum allowable occupational exposure limits in the workplace.
MX BEI	:	Official Mexican Norm NOM-047-SSA1-2011, Environmental Health - Biological exposure indices for workers occupationally exposed to chemical agents
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
NOM-010-STPS-2014	:	Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and Control - Appendix 1 Occupational Exposure Limits
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
US WEEL	:	USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA AB OEL / STEL	:	15-minute occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA BC OEL / STEL	:	short-term exposure limit
CA QC OEL / TWAEV	:	Time-weighted average exposure value
CA QC OEL / STEV	:	Short-term exposure value
CR OEL / TWA	:	Time weighted average 8-hr value
CR OEL / STEL	:	Short term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
NOM-010-STPS-2014 / VLE-PPT	:	Time weighted average limit value
NOM-010-STPS-2014 / VLE-CT	:	Short term exposure limit value

OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / STEL	:	Short-term exposure limit
OSHA Z-1 / TWA	:	8-hour time weighted average
US WEEL / TWA	:	8-hr TWA

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 01/09/2020

The information provided in this Material 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.

US / Z8

SECTION 1. IDENTIFICATION

Product name : ALEXIT-Hot-Stamp-Coating 499-16 9201 schwarz / black glänzend

Product number : 499169201S000

Manufacturer or supplier's details

Manufacturer, importer, supplier : Mankiewicz Coatings L.L.C

Address : 1200 Charleston Regional Parkway
Charleston, South Carolina 29492
USA

Telephone : +1 (843) 6547755
Telefax : +1 (843) 6547759
E-mail address : sdb_info@umco.de

Emergency telephone : CHEMTREC +1 (800) 4249300 or + (703) 5273887

Recommended use of the chemical and restrictions on use

Recommended use : Industrial serial painting

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids : Category 3

Carcinogenicity : Category 2

Specific target organ toxicity - single exposure : Category 3 (Central nervous system)

Specific target organ toxicity - repeated exposure : Category 2

GHS label elements

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H226 Flammable liquid and vapor.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements :

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture of synthetic resins, organic solvents and pigments

Components

Chemical name	CAS-No.	Concentration (% w/w)
n-butyl acetate	123-86-4	>= 40 - <= 100
cyclohexanone	108-94-1	>= 1 - < 5
xylenes	1330-20-7	>= 1 - < 5
4-methylpentan-2-one	108-10-1	>= 1 - < 5
ethylbenzene	100-41-4	>= 1 - < 5
carbon black	1333-86-4	>= 0.5 - < 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : In all cases of doubt, or when sickness symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

If inhaled : Remove to fresh air, keep patient warm and at rest.
Irregular breathing/no breathing: artificial respiration.
If unconscious place in recovery position and seek medical advice.

In case of skin contact : Take off all contaminated clothing immediately.
Wash skin thoroughly with soap and water or use recognised skin cleanser.
Do NOT use solvents or thinners !

In case of eye contact : Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.

If swallowed : Do NOT induce vomiting.
If accidentally swallowed obtain immediate medical attention.
Never give anything by mouth to an unconscious person.
Keep at rest.

Most important symptoms and effects, both acute and delayed : For information on symptoms and effects refer to Section 2 Hazard statements and Section 11 Toxicological Information.

Notes to physician : No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Alcohol resistant foam, CO2, powders, water spray

Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
Further information	:	Cool endangered containers with water in case of fire. DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO ENTER DRAINS OR WATER COURSES!!
Special protective equipment for fire-fighters	:	As in any fire, wear self-contained breathing apparatus pressure - demand, MSHA / NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Exclude sources of ignition and ventilate the area. Do not inhale vapors. Refer to protective measures listed in sections 7 and 8. Evacuate personnel to safe areas.
Environmental precautions	:	Do not let product enter drains. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.
Methods and materials for containment and cleaning up	:	Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Clean preferably with a detergent; avoid use of solvents.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Preparation may charge electrostatically: always use earthing leads whentransferring from one container to another. Operators should wear anti-static footwear and clothing. No sparking tools should be used. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air.
Advice on safe handling	:	Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentrations higher than the occupational exposure limits. Comply with the health and safety at work laws. Smoking, eating and drinking should be prohibited in the

application area.
Observe specific national regulations for handling and use of paints.

Conditions for safe storage : Electrical equipment should be protected to the appropriate standard. Floors should be of the conducting type.
Keep container tightly closed. Never use pressure to empty: container isnot a pressure vessel. No smoking. Prevent unauthorized access.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Further information on storage conditions : Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight.
Keep container dry in a cool, well-ventilated place.

Materials to avoid : Keep away from oxidizing agents and strongly acid or alkaline materials.

Recommended storage temperature : 41 - 95 °F / 5 - 35 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
n-butyl acetate	123-86-4	TWA	50 ppm	CR OEL
	Further information: Eye irritation, Upper Respiratory Tract irritation			
		STEL	150 ppm	CR OEL
	Further information: Eye irritation, Upper Respiratory Tract irritation			
		TWA	150 ppm 713 mg/m3	CA AB OEL
		STEL	200 ppm 950 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWAEV	150 ppm 713 mg/m3	CA QC OEL
		STEV	200 ppm 950 mg/m3	CA QC OEL
		VLE-PPT	150 ppm	NOM-010-STPS-2014
		VLE-CT	200 ppm	NOM-010-

				STPS-2014
		TWA	150 ppm 710 mg/m3	NIOSH REL
		ST	200 ppm 950 mg/m3	NIOSH REL
		TWA	150 ppm 710 mg/m3	OSHA Z-1
		TWA	150 ppm 710 mg/m3	OSHA P0
		STEL	200 ppm 950 mg/m3	OSHA P0
		TWA	50 ppm	ACGIH
		STEL	150 ppm	ACGIH
cyclohexanone	108-94-1	TWA	20 ppm	CR OEL
	Further information: Confirmed animal carcinogen, Risk of cutaneous absorption, Eye irritation, Upper Respiratory Tract irritation			
		STEL	50 ppm	CR OEL
	Further information: Confirmed animal carcinogen, Risk of cutaneous absorption, Eye irritation, Upper Respiratory Tract irritation			
		TWA	20 ppm 80 mg/m3	CA AB OEL
		STEL	50 ppm 200 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		STEL	50 ppm	CA BC OEL
		TWAEV	25 ppm 100 mg/m3	CA QC OEL
		VLE-PPT	20 ppm	NOM-010-STPS-2014
		VLE-CT	50 ppm	NOM-010-STPS-2014
		TWA	20 ppm	ACGIH
		STEL	50 ppm	ACGIH
		TWA	25 ppm 100 mg/m3	NIOSH REL
		TWA	50 ppm 200 mg/m3	OSHA Z-1
		TWA	25 ppm 100 mg/m3	OSHA P0
xylenes	1330-20-7	VLE-PPT	100 ppm	NOM-010-STPS-2014
		VLE-CT	150 ppm	NOM-010-STPS-2014
		TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
		STEL	150 ppm	CA AB OEL

			651 mg/m3	
		TWA	100 ppm 434 mg/m3	CA AB OEL
		TWAEV	100 ppm 434 mg/m3	CA QC OEL
		STEV	150 ppm 651 mg/m3	CA QC OEL
		TWA	100 ppm	CA BC OEL
		STEL	150 ppm	CA BC OEL
		STEL	150 ppm 655 mg/m3	OSHA P0
		TWA	100 ppm 435 mg/m3	OSHA P0
4-methylpentan-2-one	108-10-1	TWA	20 ppm	CR OEL
	Further information: Confirmed animal carcinogen, Substances for which there is a Biological Exposure Index or Indices (see BEI section), Dizziness, Headache, Upper Respiratory Tract irritation			
		STEL	75 ppm	CR OEL
	Further information: Confirmed animal carcinogen, Substances for which there is a Biological Exposure Index or Indices (see BEI section), Dizziness, Headache, Upper Respiratory Tract irritation			
		TWA	50 ppm 205 mg/m3	CA AB OEL
		STEL	75 ppm 307 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		STEL	75 ppm	CA BC OEL
		TWAEV	50 ppm 205 mg/m3	CA QC OEL
		STEV	75 ppm 307 mg/m3	CA QC OEL
		VLE-PPT	20 ppm	NOM-010-STPS-2014
		VLE-CT	75 ppm	NOM-010-STPS-2014
		TWA	20 ppm	ACGIH
		STEL	75 ppm	ACGIH
		ST	75 ppm 300 mg/m3	NIOSH REL
		TWA	50 ppm 205 mg/m3	NIOSH REL
		TWA	100 ppm 410 mg/m3	OSHA Z-1
		TWA	50 ppm 205 mg/m3	OSHA P0
		STEL	75 ppm 300 mg/m3	OSHA P0
ethylbenzene	100-41-4	TWA	20 ppm	CR OEL

	Further information: Confirmed animal carcinogen, Substances for which there is a Biological Exposure Index or Indices (see BEI section), Visual impairment, Upper Respiratory Tract irritation, Kidney damage (nephropathy)			
		TWA	100 ppm 434 mg/m3	CA AB OEL
		STEL	125 ppm 543 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		STEV	125 ppm 543 mg/m3	CA QC OEL
		TWAEV	100 ppm 434 mg/m3	CA QC OEL
		VLE-PPT	20 ppm	NOM-010-STPS-2014
		TWA	20 ppm	ACGIH
		TWA	100 ppm 435 mg/m3	NIOSH REL
		ST	125 ppm 545 mg/m3	NIOSH REL
		TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	100 ppm 435 mg/m3	OSHA P0
		STEL	125 ppm 545 mg/m3	OSHA P0
carbon black	1333-86-4	TWA	3.5 mg/m3	CA AB OEL
		TWA (Inhalable)	3 mg/m3	CA BC OEL
		TWAEV	3.5 mg/m3	CA QC OEL
		VLE-PPT (Inhalable)	3 mg/m3	NOM-010-STPS-2014
		TWA (Inhalable fraction)	3 mg/m3	ACGIH
		TWA	3.5 mg/m3	NIOSH REL
		TWA	3.5 mg/m3	OSHA Z-1
		TWA	3.5 mg/m3	OSHA P0
		TWA	0.1 mg/m3 (PAHs)	NIOSH REL

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
cyclohexanone	108-94-1	1,2-Cyclohexanediol	Urine	End of shift at end of work-	80 mg/l	MX BEI

				week		
		Cyclohexa-nol	Urine	End of shift	8 mg/l	MX BEI
		1,2-Cyclohexa-nediol	Urine	End of shift at end of work-week	80 mg/l	ACGIH BEI
		Cyclohexa-nol	Urine	End of shift (As soon as possible after exposure ceases)	8 mg/l	ACGIH BEI
		1,2-Cyclohexa-nediol	Urine	End of shift at end of work-week	80 mg/l	CR BEI
		cyclohexa-nol	Urine	End of shift	8 mg/l	CR BEI
xylenes	1330-20-7	Methyl-hippuric acids	Urine	End of shift (As soon as possible after exposure ceases)	1.5 g/g cre-atinine	ACGIH BEI
		Methyl-hippuric acid	Urine	End of shift	1.5 g/g cre-atinine	MX BEI
		Methyl-hippuric acids	Urine	End of shift	1.5 g/g cre-atinine	CR BEI
4-methylpentan-2-one	108-10-1	MIBK	Urine	End of shift	2 mg/l	MX BEI
		methyl isobutyl ketone	Urine	End of shift (As soon as possible after exposure ceases)	1 mg/l	ACGIH BEI
		Methyl isobutyl ketone (MIBK)	Urine	End of shift	1 mg/l	CR BEI
ethylbenzene	100-41-4	Sum of	Urine	End of	0.7 g/g cre-	MX BEI

		Mandelic acid plus phenylgly-oxylic acid		shift at end of work-week	atinine	
		Sum of mandelic acid and phenyl gly-oxylic acid	Urine	End of shift (As soon as possible after exposure ceases)	0.15 g/g creatinine	ACGIH BEI
		Sum of mandelic acid and phenyl gly-oxylic acid	Urine	End of shift	0.15 g/g creatinine	CR BEI

Engineering measures : Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain aerosol- and solvent vapors concentration below the OEL, suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection : If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators.
Use MSHA/NIOSH approved respirator if concentration exceeds recommended exposure levels.
Dry grinding, torch cutting and/or welding however can produce hazardous dust and/or vapor.
If possible, machine employing a wet medium.
Where practicable, install exhaust hoods to improve capture of vapors and fumes and avoid exposition; otherwise wear respiratory protection equipment.

Hand protection

Remarks : Glove permeation data does not exist for this material.
The following glove(s) should be used for splash protection only:
Appropriate material: nitrile

Eye protection : Use safety glasses or face shield (ANSI Z87.1 or approved equivalent).

Skin and body protection : Personal should wear protective clothing as necessary to prevent skin contact. All parts of the body should be washed

after contact.

Protective measures : Do not eat or drink during work - no smoking.
Avoid product contact with skin, eyes and clothing.
Avoid the inhalation of dust from sanding, particulates and spray mist arising from the application of this preparation.
When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapor in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process until such time as the particulates and solvent vapor concentration has fallen below the exposure limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	according product name
Odor	:	characteristic
Boiling point/boiling range	:	ca. 248 °F / 120 °C
Flash point	:	77.9 °F / 25.5 °C Method: ISO 13736
Upper explosion limit / Upper flammability limit	:	10 %(V)
Lower explosion limit / Lower flammability limit	:	1 %(V)
Vapor pressure	:	ca. 100 hPa (122 °F / 50 °C)
Density	:	ca. 8.43 lb/gal (1.01 g/cm3) (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	insoluble
Autoignition temperature	:	> 752 °F / > 400 °C
Viscosity		
Viscosity, kinematic	:	21 mm2/s (104 °F / 40 °C)

684 mm2/s (73 °F / 23 °C)

Flow time : 300 s
Cross section: 4 mm
Method: DIN 53211

> 101 s
Cross section: 6 mm
Method: ISO 2431

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use. There are no data available on the preparation itself.

Conditions to avoid : Stable under recommended storage and handling conditions (See section 7).

Incompatible materials : Keep away from oxidizing agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions.

Hazardous decomposition products : When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: 103.51 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Components:

cyclohexanone:

Acute inhalation toxicity : LC50 (Rat): 10.7 mg/l
Exposure time: 4 h
Test atmosphere: vapor

xylenes:

Acute oral toxicity : LD50 (Rat): 4,300 mg/kg

4-methylpentan-2-one:

Acute oral toxicity : LD50 (Rat): 2,080 mg/kg

Serious eye damage/eye irritation

Components:

4-methylpentan-2-one:

Species : Rabbit
Result : Moderate eye irritation
Method : OECD Test Guideline 405

Carcinogenicity

IARC	Group 2B: Possibly carcinogenic to humans 4-methylpentan-2-one	108-10-1
	Group 2B: Possibly carcinogenic to humans ethylbenzene	100-41-4
	Group 2B: Possibly carcinogenic to humans carbon black	1333-86-4

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information

Product:

Remarks : Exposure of vapor concentration in excess of the stated OEL's may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue muscular weakness, drowsiness and in extrem cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

The liquid splashed in the eyes may cause irritation and reversible damage.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : There are no data available on the preparation itself.

Persistence and degradability

Product:

Biodegradability : Remarks: There are no data available on the preparation itself.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: There are no data available on the preparation itself.

Mobility in soil

Product:

Mobility : Remarks: There are no data available on the preparation itself.

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : There are no data available on the preparation itself.

The product should not be allowed to enter drains or water courses.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No.	:	UN 1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Labels	:	Class 3 - Flammable liquids
Packing instruction (cargo aircraft)	:	366
Packing instruction (passenger aircraft)	:	355

IMDG-Code

UN number	:	UN 1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Labels	:	Class 3 - Flammable liquids
Marine pollutant	:	no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Carcinogenicity
Specific target organ toxicity (single or repeated exposure)

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

2-(2-butoxyeth-oxy)ethyl acetate	124-17-4	>= 5 - < 10 %
xylenes	1330-20-7	>= 1 - < 5 %
4-methylpentan-2-one	108-10-1	>= 1 - < 5 %
ethylbenzene	100-41-4	>= 1 - < 5 %

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

2-(2-butoxyethoxy)ethyl acetate	124-17-4	>= 5 - < 10 %
xylenes	1330-20-7	>= 1 - < 5 %
4-methylpentan-2-one	108-10-1	>= 1 - < 5 %
ethylbenzene	100-41-4	>= 1 - < 5 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

n-butyl acetate	123-86-4	>= 30 - < 50 %
2-(2-butoxyethoxy)ethyl acetate	124-17-4	>= 5 - < 10 %
cyclohexanone	108-94-1	>= 1 - < 5 %
xylenes	1330-20-7	>= 1 - < 5 %
4-methylpentan-2-one	108-10-1	>= 1 - < 5 %
ethylbenzene	100-41-4	>= 1 - < 5 %

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

n-butyl acetate	123-86-4	>= 30 - < 50 %

xylenes	1330-20-7	>= 1 - < 5 %
ethylbenzene	100-41-4	>= 1 - < 5 %
methyl methacrylate	80-62-6	>= 0 - < 0.1 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

n-butyl acetate	123-86-4	>= 30 - < 50 %
xylenes	1330-20-7	>= 1 - < 5 %
ethylbenzene	100-41-4	>= 1 - < 5 %
methyl methacrylate	80-62-6	>= 0 - < 0.1 %

This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307

ethylbenzene	100-41-4	>= 1 - < 5 %

US State Regulations

Massachusetts Right To Know

n-butyl acetate	123-86-4
cyclohexanone	108-94-1
xylenes	1330-20-7
4-methylpentan-2-one	108-10-1
ethylbenzene	100-41-4
ethyl acrylate	140-88-5

Pennsylvania Right To Know

n-butyl acetate	123-86-4
2-(2-butoxyethoxy)ethyl acetate	124-17-4
cyclohexanone	108-94-1
xylenes	1330-20-7
4-methylpentan-2-one	108-10-1
ethylbenzene	100-41-4
ethyl acrylate	140-88-5
methyl methacrylate	80-62-6

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

ethylbenzene	100-41-4

Washington Chemicals of High Concern

ethylbenzene	100-41-4

California Prop. 65

WARNING: This product can expose you to chemicals including 4-methylpentan-2-one, ethylbenzene, carbon black, ethyl acrylate, which is/are known to the State of California to cause cancer, and
4-methylpentan-2-one, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

n-butyl acetate	123-86-4
cyclohexanone	108-94-1

xylenes	1330-20-7
4-methylpentan-2-one	108-10-1
ethylbenzene	100-41-4

California Permissible Exposure Limits for Chemical Contaminants

n-butyl acetate	123-86-4
cyclohexanone	108-94-1
xylenes	1330-20-7
4-methylpentan-2-one	108-10-1
ethylbenzene	100-41-4

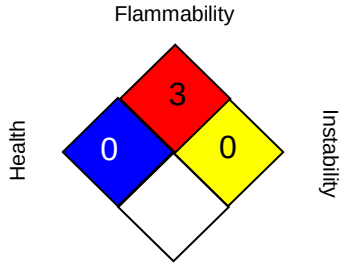
The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

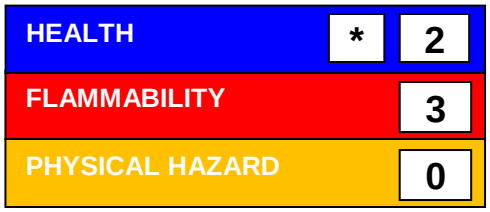
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Health
0=Slightly HazardousSlightly Hazardous
2=Hazardous
3=Extreme danger
4=Deadly

Flammability
0=Will not burn
2=Flashpoint below 200 F
3=Flashpoint below 100 F
4=Flashpoint below 73 F

Instability
0=Stable
1=Unstable if heated
2=Violent chemical reaction; water reactive
3=Shock or heat may detonate

4=May detonate

Special hazard
SA Simple Asphyxiant
ACID Acid
OX Oxidizer
W Water Reactive
CORR Corrosive

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
CR BEI	:	Maximum allowable occupational exposure limits in the workplace - Table 3. Adopted Biological Exposure Indices
CR OEL	:	Costa Rica. Maximum allowable occupational exposure limits in the workplace.
MX BEI	:	Official Mexican Norm NOM-047-SSA1-2011, Environmental Health - Biological exposure indices for workers occupationally exposed to chemical agents
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
NOM-010-STPS-2014	:	Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and Control - Appendix 1 Occupational Exposure Limits
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA AB OEL / STEL	:	15-minute occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA BC OEL / STEL	:	short-term exposure limit
CA QC OEL / TWAEV	:	Time-weighted average exposure value
CA QC OEL / STEV	:	Short-term exposure value
CR OEL / TWA	:	Time weighted average 8-hr value
CR OEL / STEL	:	Short term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
NOM-010-STPS-2014 / VLE-PPT	:	Time weighted average limit value
NOM-010-STPS-2014 / VLE-CT	:	Short term exposure limit value
OSHA P0 / TWA	:	8-hour time weighted average

OSHA P0 / STEL : Short-term exposure limit
OSHA Z-1 / TWA : 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 09/12/2019

The information provided in this Material 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.

US / Z8

SECTION 1. IDENTIFICATION

Product name	:	ALEXIT-Härter / Hardener 345-77
Product number	:	3457700000000

Manufacturer or supplier's details

Manufacturer, importer, supplier	:	Mankiewicz Coatings L.L.C
Address	:	1200 Charleston Regional Parkway Charleston, South Carolina 29492 USA
Telephone	:	+1 (843) 6547755
Telefax	:	+1 (843) 6547759
E-mail address	:	sdb_info@umco.de
Emergency telephone	:	CHEMTREC +1 (800) 4249300 or + (703) 5273887

Recommended use of the chemical and restrictions on use

Recommended use	:	Industrial serial painting

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids	:	Category 4
Acute toxicity (Inhalation)	:	Category 4
Respiratory sensitization	:	Category 1
Skin sensitization	:	Category 1
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system)

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements : H227 Combustible liquid.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.

Precautionary Statements :

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/ eye protection/ face protection.
P285 In case of inadequate ventilation wear respiratory protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Hardener based on polyisocyanates

Components

Chemical name	CAS-No.	Concentration (% w/w)
Hexamethylene diisocyanate, oligomers	28182-81-2	>= 40 - <= 100
aliphatic polyisocyanate		>= 12.5 - < 20
hexamethylene diisocyanate	822-06-0	>= 0.1 - < 0.25

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice	:	In all cases of doubt, or when sickness symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
If inhaled	:	Remove to fresh air, keep patient warm and at rest. Irregular breathing/no breathing: artificial respiration. If unconscious place in recovery position and seek medical advice.
In case of skin contact	:	Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners !
In case of eye contact	:	Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.
If swallowed	:	Do NOT induce vomiting. If accidentally swallowed obtain immediate medical attention. Never give anything by mouth to an unconscious person. Keep at rest.
Most important symptoms and effects, both acute and delayed	:	For information on symptoms and effects refer to Section 2 Hazard statements and Section 11 Toxicological Information.
Notes to physician	:	No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Alcohol resistant foam, CO2, powders, water spray
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Further information	:	Cool endangered containers with water in case of fire. DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO ENTER DRAINS OR WATER COURSES!!
Special protective equipment for fire-fighters	:	As in any fire, wear self-contained breathing apparatus pressure - demand, MSHA / NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures :

Exclude sources of ignition and ventilate the area.
Do not inhale vapors.
Refer to protective measures listed in sections 7 and 8.
Evacuate personnel to safe areas.
Immediately clean contaminated areas with following substances:

Water	45 Vol.%
Ethanol or Isopropyl Alcohol	50 Vol.%
Ammonia solution (density=0,88)	5 Vol.%

Alternative applicable to that (not flammable):

Sodium Carbonate	5 Vol.%
Water	95 Vol.%

Environmental precautions : Do not let product enter drains.
If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.
Add the specified decontamination material to the remnants and let stand for several days until no further reaction is observed. Once this stage is reached, close container and dispose according to local regulations.

Methods and materials for containment and cleaning up : Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).
Clean preferably with a detergent; avoid use of solvents.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : The product should only be used in areas from which all naked lights and other sources of ignition have been excluded.
Preparation may charge electrostatically: always use earthing leads whentransferring from one container to another.
Operators should wear anti-static footwear and clothing. No sparking tools should be used.
Vapors are heavier than air and may spread along floors.

Vapors may form explosive mixtures with air.

Advice on safe handling : Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used !
Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentrations higher than the occupational exposure limits.
Comply with the health and safety at work laws.
Smoking, eating and drinking should be prohibited in the application area.

Conditions for safe storage : Electrical equipment should be protected to the appropriate standard. Floors should be of the conducting type.
Keep container tightly closed. Never use pressure to empty: container isnot a pressure vessel. No smoking. Prevent unauthorized access.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Further information on storage conditions : Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight.
Keep container dry in a cool, well-ventilated place.
Precautions should be taken to minimise exposure to atmospheric humidityor water: CO2 will be formed which in closed containers can result in pressurisation. DO NOT KEEP THE CONTAINERS SEALED !!

Materials to avoid : Keep away from oxidizing agents and strongly acid or alkaline materials.

Recommended storage temperature : 41 - 95 °F / 5 - 35 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
hexamethylene diisocyanate	822-06-0	TWA	0.005 ppm	CR OEL
	Further information: Sensitisation, Upper Respiratory Tract irritation			
		TWA	0.005 ppm 0.03 mg/m3	CA AB OEL
		TWA	0.005 ppm	CA BC OEL
		C	0.01 ppm	CA BC OEL

		TWA	0.005 ppm	CA ON OEL
		C	0.02 ppm	CA ON OEL
		TWAEV	0.005 ppm 0.034 mg/m3	CA QC OEL
		VLE-PPT	0.005 ppm	NOM-010-STPS-2014
		TWA	0.005 ppm	ACGIH
		TWA	0.005 ppm 0.035 mg/m3	NIOSH REL
		C	0.02 ppm 0.14 mg/m3	NIOSH REL

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sam-pling time	Permissible concentra-tion	Basis
hexamethylene diisocy-anate	822-06-0	1,6-Hexamethy-lene diami-ne	Urine	End of shift	15 µg/g creatinine	ACGIH BEI
		1,6-Hexamethy-lene diami-ne	Urine	End of shift	15 µg/g creatinine	CR BEI

Engineering measures : Provide adequate ventilation. Where reasonably practicable this shoud be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and below the OEL (= Occupational Exposure Limit), suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection : By spraying: air-fed respirator(MHSA/NIOSH approved)

By other operations than spraying: in well ventilated areas, air-fed respirators could be replaced by a combination of charcoal filter and particulate filter mask(it should be MHSA/NIOSH approved).
Use MSHA/NIOSH approved respirator if concentration exceeds recommended exposure levels.

Hand protection

Remarks : Glove permeation data does not exist for this material.
The following glove(s) should be used for splash protection only:

Appropriate material: nitrile

Eye protection	:	Use safety glasses or face shield (ANSI Z87.1 or approved equivalent).
Skin and body protection	:	Personal should wear protective clothing as necessary to prevent skin contact. All parts of the body should be washed after contact.
Protective measures	:	Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used. Do not eat or drink during work - no smoking. Avoid product contact with skin, eyes and clothing. Avoid the inhalation of dust from sanding, particulates and spray mist arising from the application of this preparation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	according product name
Odor	:	characteristic
pH	:	6 - 8
Boiling point/boiling range	:	ca. 248 °F / 120 °C
Flash point	:	149 °F / 65 °C Method: ISO 13736
Upper explosion limit / Upper flammability limit	:	10.0 %(V)
Lower explosion limit / Lower flammability limit	:	1.0 %(V)
Vapor pressure	:	ca. 100 hPa (122 °F / 50 °C)
Density	:	ca. 9.51 lb/gal (1.14 g/cm3) (68 °F / 20 °C)
Solubility(ies) Water solubility	:	insoluble

Autoignition temperature	:	> 752 °F / > 400 °C
Viscosity		
Viscosity, kinematic	:	21 mm2/s (104 °F / 40 °C)
		147 mm2/s (73 °F / 23 °C)
Flow time	:	35 s Cross section: 4 mm Method: DIN 53211
		24 s Cross section: 6 mm Method: ISO 2431

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use. There are no data available on the preparation itself.
Conditions to avoid	:	Stable under recommended storage and handling conditions (See section 7).
Incompatible materials	:	Keep away from oxidizing agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions. The product reacts slowly with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result distortion blowing and in extreme cases bursting of the container.
Hazardous decomposition products	:	In a fire, hazardous decomposition products, such as smoke, carbon monoxide, carbon dioxiode, oxides of nitrogen, hydrogen cyanide, monomers of isocyanates, amines and alcohols may be produced.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute inhalation toxicity	:	Assessment: The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations.

Assessment: The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations.

Acute toxicity estimate: 13.68 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: Calculation method

Components:

Hexamethylene diisocyanate, oligomers:

Acute inhalation toxicity : Assessment: The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations.

Respiratory or skin sensitization

Components:

Hexamethylene diisocyanate, oligomers:

Species : Mouse
Assessment : May cause sensitization by skin contact.
Method : OECD Test Guideline 406

Carcinogenicity

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

STOT-single exposure

Components:

Hexamethylene diisocyanate, oligomers:

Assessment : May cause respiratory irritation.

Further information

Product:

Remarks : Exposure of vapor concentration in excess of the stated OEL's may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue muscular weakness, drowsiness and in extrem cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.
The liquid splashed in the eyes may cause irritation and reversible damage.
Based on the properties of the isocyanate components and considering toxicological data on similar preparations: This preparation may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and a thightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : There are no data available on the preparation itself.

Persistence and degradability

Product:

Biodegradability : Remarks: There are no data available on the preparation itself.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: There are no data available on the preparation itself.

Mobility in soil

Product:

Mobility : Remarks: There are no data available on the preparation itself.

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufac-

tured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : There are no data available on the preparation itself.

The product should not be allowed to enter drains or water courses.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	NA 1993
Proper shipping name	:	Combustible Liquid, n.o.s (hexamethylene diisocyanate) ()
Class	:	3
Packing group	:	III
Labels	:	Class 3 - Flammable liquids
Marine pollutant	:	no
Remarks	:	Above applies only to containers over 119 gallons or 450 liters. Not regulated if shipped in packages less than or equal to 119 gallons (450 liters).

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard
Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Respiratory or skin sensitization
Specific target organ toxicity (single or repeated exposure)

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

hexamethylene diisocyanate	822-06-0	>= 0.1 - < 1 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

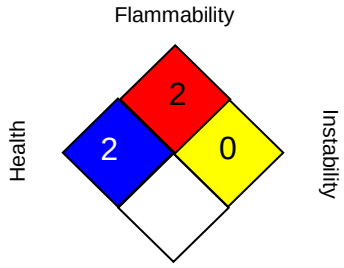
The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

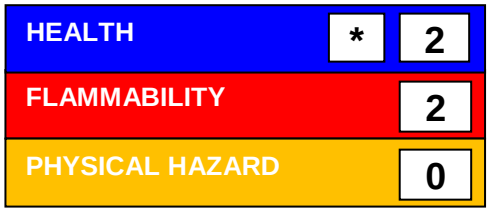
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Health
0=Slightly HazardousSlightly Hazardous
2=Hazardous
3=Extreme danger
4=Deadly

Flammability
0=Will not burn
2=Flashpoint below 200 F
3=Flashpoint below 100 F
4=Flashpoint below 73 F

Instability
0=Stable
1=Unstable if heated
2=Violent chemical reaction; water reactive
3=Shock or heat may detonate
4=May detonate

Special hazard
SA Simple Asphyxiant
ACID Acid
OX Oxidizer
W Water Reactive
CORR Corrosive

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA ON OEL	:	Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
CR BEI	:	Maximum allowable occupational exposure limits in the workplace - Table 3. Adopted Biological Exposure Indices
CR OEL	:	Costa Rica. Maximum allowable occupational exposure limits in the workplace.
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
NOM-010-STPS-2014	:	Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and Control - Appendix 1 Occupational Exposure Limits
ACGIH / TWA	:	8-hour, time-weighted average
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA BC OEL / C	:	ceiling limit
CA ON OEL / C	:	Ceiling Limit (C)
CA ON OEL / TWA	:	Time-Weighted Average Limit (TWA)
CA QC OEL / TWAEV	:	Time-weighted average exposure value
CR OEL / TWA	:	Time weighted average 8-hr value
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / C	:	Ceiling value not be exceeded at any time.
NOM-010-STPS-2014 / VLE-PPT	:	Time weighted average limit value

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Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 10/02/2019

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US / Z8

SECTION 1. IDENTIFICATION

Product name	:	ALEXIT-Härter / Hardener 405-4P
Product number	:	4054P00000000

Manufacturer or supplier's details

Manufacturer, importer, supplier	:	Mankiewicz Coatings L.L.C
Address	:	1200 Charleston Regional Parkway Charleston, South Carolina 29492 USA
Telephone	:	+1 (843) 6547755
Telefax	:	+1 (843) 6547759
E-mail address	:	sdb_info@umco.de
Emergency telephone	:	CHEMTREC +1 (800) 4249300 or + (703) 5273887

Recommended use of the chemical and restrictions on use

Recommended use	:	Industrial serial painting

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids	:	Category 3
Acute toxicity (Inhalation)	:	Category 4
Respiratory sensitization	:	Category 1
Skin sensitization	:	Category 1
Specific target organ systemic toxicity - single exposure	:	Category 3 (Respiratory system)
Specific target organ systemic toxicity - repeated exposure	:	Category 2

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements :
H226 Flammable liquid and vapor.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements :

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/ eye protection/ face protection.
P285 In case of inadequate ventilation wear respiratory protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Hardener based on polyisocyanates

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Hexamethylene diisocyanate, oligomers	28182-81-2	>= 40 - < 100
n-butyl acetate	123-86-4	>= 12.5 - < 20
xylenes	1330-20-7	>= 1 - < 5
Solvent naphtha (petroleum), light arom.	64742-95-6	>= 1 - < 5
ethylbenzene	100-41-4	>= 1 - < 5
hexamethylene diisocyanate	822-06-0	>= 0.1 - < 0.25

SECTION 4. FIRST AID MEASURES

General advice : In all cases of doubt, or when sickness symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

If inhaled : Remove to fresh air, keep patient warm and at rest.
Irregular breathing/no breathing: artificial respiration.
If unconscious place in recovery position and seek medical advice.

In case of skin contact : Take off all contaminated clothing immediately.
Wash skin thoroughly with soap and water or use recognised skin cleanser.
Do NOT use solvents or thinners !

In case of eye contact : Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.

If swallowed : Do NOT induce vomiting.
If accidentally swallowed obtain immediate medical attention.
Never give anything by mouth to an unconscious person.
Keep at rest.

Most important symptoms and effects, both acute and delayed : For information on symptoms and effects refer to Section 2 Hazard statements and Section 11 Toxicological Information.

Notes to physician : No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Alcohol resistant foam, CO2, powders, water spray
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
Further information	:	Cool endangered containers with water in case of fire. DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO ENTER DRAINS OR WATER COURSES!!
Special protective equipment for fire-fighters	:	As in any fire, wear self-contained breathing apparatus pressure - demand, MSHA / NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures :

Exclude sources of ignition and ventilate the area.
Do not inhale vapors.
Refer to protective measures listed in sections 7 and 8.
Evacuate personnel to safe areas.
Immediately clean contaminated areas with following substances:

Water	45 Vol.%
Ethanol or Isopropyl Alcohol	50 Vol.%
Ammonia solution (density=0,88)	5 Vol.%

Alternative applicable to that (not flammable):

Sodium Carbonate	5 Vol.%
Water	95 Vol.%

Environmental precautions : Do not let product enter drains.
If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.
Add the specified decontamination material to the remnants and let stand for several days until no further reaction is observed. Once this stage is reached, close container and dispose according to local regulations.

Methods and materials for containment and cleaning up : Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).
Clean preferably with a detergent; avoid use of solvents.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : The product should only be used in areas from which all naked lights and other sources of ignition have been excluded.
Preparation may charge electrostatically: always use earthing leads whentransferring from one container to another.

Operators should wear anti-static footwear and clothing. No sparking tools should be used.
Vapors are heavier than air and may spread along floors.
Vapors may form explosive mixtures with air.

Advice on safe handling : Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used !
Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentrations higher than the occupational exposure limits.
Comply with the health and safety at work laws.
Smoking, eating and drinking should be prohibited in the application area.

Conditions for safe storage : Electrical equipment should be protected to the appropriate standard. Floors should be of the conducting type.
Keep container tightly closed. Never use pressure to empty: container isnot a pressure vessel. No smoking. Prevent unauthorized access.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Technical measures/Precautions : Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight.
Keep container dry in a cool, well-ventilated place.
Precautions should be taken to minimise exposure to atmospheric humidityor water: CO2 will be formed which in closed containers can result in pressurisation. DO NOT KEEP THE CONTAINERS SEALED !!

Materials to avoid : Keep away from oxidizing agents and strongly acid or alkaline materials.

Recommended storage temperature : 5 - 35 °C / 41 - 95 °F

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
n-butyl acetate	123-86-4	TWA	150 ppm 713 mg/m3	CA AB OEL
		STEL	200 ppm 950 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWAEV	150 ppm 713 mg/m3	CA QC OEL
		STEV	200 ppm	CA QC OEL

			950 mg/m3	
		ST	200 ppm 950 mg/m3	NIOSH REL
		TWA	150 ppm 710 mg/m3	NIOSH REL
		TWA	150 ppm 710 mg/m3	OSHA Z-1
		TWA	150 ppm 710 mg/m3	OSHA P0
		STEL	200 ppm 950 mg/m3	OSHA P0
		VLE-PPT	150 ppm	NOM-010-STPS-2014
		VLE-CT	200 ppm	NOM-010-STPS-2014
xylenes	1330-20-7	TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
		TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWAEV	100 ppm 435 mg/m3	CA ON OEL
		STEV	150 ppm 650 mg/m3	CA ON OEL
		TWA	100 ppm 435 mg/m3	OSHA P0
		STEL	150 ppm 655 mg/m3	OSHA P0
		TWA	100 ppm 434 mg/m3	CA AB OEL
		STEL	150 ppm 651 mg/m3	CA AB OEL
		TWAEV	100 ppm 434 mg/m3	CA QC OEL
		STEV	150 ppm 651 mg/m3	CA QC OEL
		TWA	100 ppm	CA BC OEL
		STEL	150 ppm	CA BC OEL
		VLE-PPT	100 ppm	NOM-010-STPS-2014
		VLE-CT	150 ppm	NOM-010-STPS-2014
ethylbenzene	100-41-4	TWA	100 ppm 434 mg/m3	CA AB OEL
		STEL	125 ppm 543 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		STEL	125 ppm	CA BC OEL
		TWAEV	100 ppm 435 mg/m3	CA ON OEL
		STEV	125 ppm 540 mg/m3	CA ON OEL
		TWAEV	100 ppm 434 mg/m3	CA QC OEL

		STEV	125 ppm 543 mg/m3	CA QC OEL
		TWA	20 ppm	ACGIH
		STEL	125 ppm	ACGIH
		TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	100 ppm 435 mg/m3	OSHA P0
		STEL	125 ppm 545 mg/m3	OSHA P0
		VLE-PPT	20 ppm	NOM-010-STPS-2014
		TWA	100 ppm 435 mg/m3	NIOSH REL
		ST	125 ppm 545 mg/m3	NIOSH REL
hexamethylene diisocyanate	822-06-0		0.005 ml/m3	ACGIH
		TWA	0.005 ppm 0.03 mg/m3	CA AB OEL
		TWA	0.005 ppm	CA BC OEL
		C	0.01 ppm	CA BC OEL
		TWA	0.005 ppm	CA ON OEL
		C	0.02 ppm	CA ON OEL
		TWAEV	0.005 ppm 0.034 mg/m3	CA QC OEL
		VLE-PPT	0.005 ppm	NOM-010-STPS-2014
		TWA	0.005 ppm	ACGIH
		TWA	0.005 ppm 0.035 mg/m3	NIOSH REL
		C	0.02 ppm 0.14 mg/m3	NIOSH REL

Hazardous components without workplace control parameters

Ingredients	CAS-No.
Hexamethylene diisocyanate, oligomers	28182-81-2
Solvent naphtha (petroleum), light arom.	64742-95-6

Biological occupational exposure limits

Ingredients	CAS-No.	Control parameters	Biological specimen	Sam-pling time	Permissible concentra-tion	Basis
ethylbenzene	100-41-4	Sum of Mandelic acid plus phenylgly-oxylic acid	Urine	End of shift at end of work-week	0.7 g/g cre-atinine	MX BEI
		Sum of mandelic acid and phenyl gly-	Urine	End of shift (As soon as possible	0.15 g/g creatinine	ACGIH BEI

		oxylic acid		after exposure ceases)		
hexamethylene diisocyanate	822-06-0	1,6-Hexamethylene diamine	Urine	End of shift	15 µg/g creatinine	ACGIH BEI

Engineering measures : Provide adequate ventilation. Where reasonably practicable this shoud be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and below the OEL (= Occupational Exposure Limit), suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection : By spraying: air-fed respirator(MHSA/NIOSH approved)

By other operations than spraying: in well ventilated areas, air-fed respirators could be replaced by a combination of charcoal filter and particulate filter mask(it should be MHSA/NIOSH approved).

Hand protection

Remarks : Glove permeation data does not exist for this material.
The following glove(s) should be used for splash protection only:
Appropriate material: nitrile

Eye protection : Use safety glasses or face shield (ANSI Z87.1 or approved equivalent).

Skin and body protection : Personal should wear protective clothing as necessary to prevent skin contact. All parts of the body should be washed after contact.

Protective measures : Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.
Do not eat or drink during work - no smoking.
Avoid product contact with skin, eyes and clothing.
Avoid the inhalation of dust from sanding, particulates and spray mist arising from the application of this preparation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : according product name

Odor : characteristic

Boiling point/boiling range	:	ca. 120 °C / 248 °F
Flash point	:	25 °C / 77 °F Method: ISO 13736
Upper explosion limit / Upper flammability limit	:	10.0 %(V)
Lower explosion limit / Lower flammability limit	:	1.0 %(V)
Vapor pressure	:	ca. 100 hPa (50 °C / 122 °F)
Density	:	ca. 9.01 lb/gal (1.08 g/cm3) (20 °C / 68 °F)
Solubility(ies)		
Water solubility	:	insoluble
Autoignition temperature	:	> 400 °C / > 752 °F
Viscosity		
Viscosity, kinematic	:	21 mm2/s (40 °C / 104 °F) 95 mm2/s (23 °C / 73 °F)
Flow time	:	21 s Cross section: 4 mm Method: DIN 53211 16 s Cross section: 6 mm Method: ISO 2431

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use. There are no data available on the preparation itself.
Conditions to avoid	:	Stable under recommended storage and handling conditions (See section 7).
Incompatible materials	:	Keep away from oxidizing agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions. The product reacts slowly with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result distortion blowing and in extreme cases bursting of the

container.

Hazardous decomposition products	:	In a fire, hazardous decomposition products, such as smoke, carbon monoxide, carbon dioxiode, oxides of nitrogen, hydrogen cyanide, monomers of isocyanates, amines and alcohols may be produced.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Assessment: The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations. Assessment: The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations. Acute toxicity estimate: 1.84 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method

Ingredients:

Hexamethylene diisocyanate, oligomers:

Acute inhalation toxicity	:	LC50 (Rat, female): 390 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations.

xylenes:

Acute oral toxicity	:	LD50 (Rat): 4,300 mg/kg

hexamethylene diisocyanate:

Acute oral toxicity	:	LD50 (Rat): 746 mg/kg Method: OECD Test Guideline 401

Respiratory or skin sensitization

Ingredients:

Hexamethylene diisocyanate, oligomers:

Species: Mouse
Assessment: May cause sensitization by skin contact.
Method: OECD Test Guideline 406

Carcinogenicity

IARC	Group 2B: Possibly carcinogenic to humans	
	ethylbenzene	100-41-4
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.	
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.	

STOT-single exposure

Ingredients:

Hexamethylene diisocyanate, oligomers:

Assessment: May cause respiratory irritation.

Further information

Product:

Remarks: Exposure of vapor concentration in excess of the stated OEL's may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue muscular weakness, drowsiness and in extrem cases, loss of consciousness.
Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.
The liquid splashed in the eyes may cause irritation and reversible damage.
Based on the properties of the isocyanate components and considering toxicological data on similar preparations: This preparation may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and a thightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : There are no data available on the preparation itself.

Persistence and degradability

Product:

Biodegradability : Remarks: There are no data available on the preparation itself.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: There are no data available on the preparation itself.

Mobility in soil

Product:

Mobility : Remarks: There are no data available on the preparation itself.

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : There are no data available on the preparation itself.

The product should not be allowed to enter drains or water courses.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No.	:	UN 1263
Proper shipping name	:	PAINT RELATED MATERIAL
Class	:	3
Packing group	:	III
Labels	:	Flammable Liquids
Packing instruction (cargo aircraft)	:	366
Packing instruction (passenger aircraft)	:	355

IMDG-Code

UN number	:	UN 1263
Proper shipping name	:	PAINT RELATED MATERIAL
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 1263
Proper shipping name	:	PAINT RELATED MATERIAL
Class	:	3
Packing group	:	III
Labels	:	FLAMMABLE LIQUID
Marine pollutant	:	no
Remarks	:	If transported within the user's premises: To be transported always in closed, upright and safe containers. Make sure that persons handling these containers are aware of the rules of conduct in case of incident or spillage.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard
Chronic Health Hazard
Flammable (gases, aerosols, liquids, or solids)

Acute toxicity (any route of exposure)
Respiratory or skin sensitization
Specific target organ toxicity (single or repeated exposure)

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

xylenes	1330-20-7	>= 1 - < 5 %
ethylbenzene	100-41-4	>= 1 - < 5 %

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

xylenes	1330-20-7	4.5 %
ethylbenzene	100-41-4	1.5 %
hexamethylene diisocyanate	822-06-0	0.1666 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

n-butyl acetate	123-86-4	14.865 %
xylenes	1330-20-7	4.5 %
ethylbenzene	100-41-4	1.5 %

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

n-butyl acetate	123-86-4	14.865 %
xylenes	1330-20-7	4.5 %
ethylbenzene	100-41-4	1.5 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

n-butyl acetate	123-86-4	14.865 %
xylenes	1330-20-7	4.5 %
ethylbenzene	100-41-4	1.5 %

This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307

ethylbenzene	100-41-4	1.5 %

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

California Prop. 65

WARNING: This product can expose you to chemicals including ethylbenzene, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

ethylbenzene	100-41-4

California Permissible Exposure Limits for Chemical Contaminants

n-butyl acetate	123-86-4
xylenes	1330-20-7
ethylbenzene	100-41-4

US Federal Regulations

Volatile organic compounds (VOC) content : 2.26 lb/gal (0.27 g/cm3)

For the calculation of VOC values in this section all substances have been considered which fall under the definition of VOC according to 40 CFR 51.100. Additionally, the calculation complies with the requirements of SCAQMD Rule 1106.1, amended February 12, 1999.

The ingredients of this product are reported in the following inventories:

TSCA : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

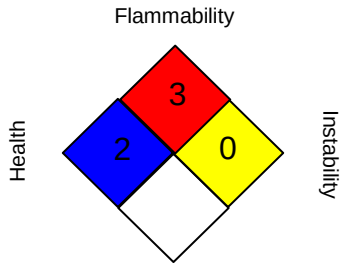
Canadian lists

No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

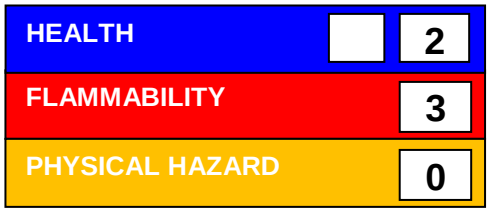
Further information

NFPA:



Special hazard.

HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Health
0=No health threat
1=Slightly Hazardous
2=Hazardous

3=Extreme danger
4=Deadly

Flammability
0=Will not burn
1=Flashpoint above 200 F
2=Flashpoint below 200 F
3=Flashpoint below 100 F
4=Flashpoint below 73 F

Instability
0=Stable
1=Unstable if heated
2=Violent chemical reaction; water reactive
3=Shock or heat may detonate
4=May detonate

Special hazard.
SA Simple Asphyxiant
ACID Acid
OX Oxidizer
W Water Reactive
CORR Corrosive

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA ON OEL	:	Canada. Ontario OELs
CA ON OEL	:	Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
MX BEI	:	Official Mexican Norm NOM-047-SSA1-2011, Environmental Health - Biological exposure indices for workers occupationally exposed to chemical agents
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
NOM-010-STPS-2014	:	Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and Control - Appendix 1 Occupational Exposure Limits
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA AB OEL / STEL	:	15-minute occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA BC OEL / STEL	:	short-term exposure limit
CA BC OEL / C	:	ceiling limit
CA ON OEL / TWAEV	:	time-weighted average exposure value
CA ON OEL / STEV	:	short-term exposure value
CA ON OEL / C	:	Ceiling Limit (C)
CA ON OEL / TWA	:	Time-Weighted Average Limit (TWA)
CA QC OEL / TWAEV	:	Time-weighted average exposure value

CA QC OEL / STEV	:	Short-term exposure value
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
NIOSH REL / C	:	Ceiling value not be exceeded at any time.
NOM-010-STPS-2014 / VLE-PPT	:	Time weighted average limit value
NOM-010-STPS-2014 / VLE-CT	:	Short term exposure limit value
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / STEL	:	Short-term exposure limit
OSHA Z-1 / TWA	:	8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 03/29/2018

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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.

US / Z8

SECTION 1. IDENTIFICATION

Product name : ALEXIT-Verdünner / Thinner 901-26

Product number : 9012600000000

Manufacturer or supplier's details

Manufacturer, importer, supplier : Mankiewicz Coatings L.L.C

Address : 1200 Charleston Regional Parkway
Charleston, South Carolina 29492
USA

Telephone : +1 (843) 6547755
Telefax : +1 (843) 6547759
E-mail address : sdb_info@umco.de

Emergency telephone : CHEMTREC +1 (800) 4249300 or + (703) 5273887

Recommended use of the chemical and restrictions on use

Recommended use : Industrial serial painting

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids : Category 3

Eye irritation : Category 2A

Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

GHS label elements

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H226 Flammable liquid and vapor.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary Statements :

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture of organic solvents, halogen-free

Components

Chemical name	CAS-No.	Concentration (% w/w)

4-hydroxy-4-methylpentan-2-one	123-42-2	>= 40 - <= 100
n-butyl acetate	123-86-4	>= 1 - < 5

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice	:	In all cases of doubt, or when sickness symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
If inhaled	:	Remove to fresh air, keep patient warm and at rest. Irregular breathing/no breathing: artificial respiration. If unconscious place in recovery position and seek medical advice.
In case of skin contact	:	Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners !
In case of eye contact	:	Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.
If swallowed	:	Do NOT induce vomiting. If accidentally swallowed obtain immediate medical attention. Never give anything by mouth to an unconscious person. Keep at rest.
Most important symptoms and effects, both acute and delayed	:	For information on symptoms and effects refer to Section 2 Hazard statements and Section 11 Toxicological Information.
Notes to physician	:	No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Alcohol resistant foam, CO2, powders, water spray
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
Further information	:	Cool endangered containers with water in case of fire. DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO ENTER DRAINS OR WATER COURSES!!

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Exclude sources of ignition and ventilate the area. Do not inhale vapors. Refer to protective measures listed in sections 7 and 8. Evacuate personnel to safe areas.
Environmental precautions	:	Do not let product enter drains. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.
Methods and materials for containment and cleaning up	:	Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Clean preferably with a detergent; avoid use of solvents.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Preparation may charge electrostatically: always use earthing leads whentransferring from one container to another. Operators should wear anti-static footwear and clothing. No sparking tools should be used. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air.
Advice on safe handling	:	Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentrations higher than the occupational exposure limits. Comply with the health and safety at work laws. Smoking, eating and drinking should be prohibited in the application area. Observe specific national regulations for handling and use of paints.
Conditions for safe storage	:	Electrical equipment should be protected to the appropriate standard. Floors should be of the conducting type. Keep container tightly closed. Never use pressure to empty: container isnot a pressure vessel. No smoking. Prevent unauthorized access.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Further information on storage conditions : Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight.
Keep container dry in a cool, well-ventilated place.

Materials to avoid : Keep away from oxidizing agents and strongly acid or alkaline materials.

Recommended storage temperature : 41 - 95 °F / 5 - 35 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
4-hydroxy-4-methylpentan-2-one	123-42-2	TWA	50 ppm	CR OEL
	Further information: Eye irritation, Upper Respiratory Tract irritation			
		TWA	50 ppm 238 mg/m3	CA AB OEL
		TWA	50 ppm	CA BC OEL
		TWAEV	50 ppm 238 mg/m3	CA QC OEL
		VLE-PPT	50 ppm	NOM-010-STPS-2014
		TWA	50 ppm	ACGIH
		TWA	50 ppm 240 mg/m3	NIOSH REL
		TWA	50 ppm 240 mg/m3	OSHA Z-1
		TWA	50 ppm 240 mg/m3	OSHA P0
n-butyl acetate	123-86-4	TWA	50 ppm	CR OEL
	Further information: Eye irritation, Upper Respiratory Tract irritation			
		STEL	150 ppm	CR OEL
	Further information: Eye irritation, Upper Respiratory Tract irritation			
		TWA	150 ppm 713 mg/m3	CA AB OEL
		STEL	200 ppm	CA AB OEL

			950 mg/m3	
		TWA	20 ppm	CA BC OEL
		TWAEV	150 ppm 713 mg/m3	CA QC OEL
		STEV	200 ppm 950 mg/m3	CA QC OEL
		VLE-PPT	150 ppm	NOM-010-STPS-2014
		VLE-CT	200 ppm	NOM-010-STPS-2014
		TWA	150 ppm 710 mg/m3	NIOSH REL
		ST	200 ppm 950 mg/m3	NIOSH REL
		TWA	150 ppm 710 mg/m3	OSHA Z-1
		TWA	150 ppm 710 mg/m3	OSHA P0
		STEL	200 ppm 950 mg/m3	OSHA P0
		TWA	50 ppm	ACGIH
		STEL	150 ppm	ACGIH

Engineering measures : Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain aerosol- and solvent vapors concentration below the OEL, suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection : If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators.

Use MSHA/NIOSH approved respirator if concentration exceeds recommended exposure levels.

Hand protection

Remarks : Glove permeation data does not exist for this material.
The following glove(s) should be used for splash protection only:
Appropriate material: nitrile

Eye protection : Use safety glasses or face shield (ANSI Z87.1 or approved equivalent).

Skin and body protection : Personal should wear protective clothing as necessary to

prevent skin contact. All parts of the body should be washed after contact.

Protective measures : Do not eat or drink during work - no smoking.
Avoid product contact with skin, eyes and clothing.
Avoid the inhalation of dust from sanding, particulates and spray mist arising from the application of this preparation.
When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapor in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process until such time as the particulates and solvent vapor concentration has fallen below the exposure limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	according product name
Odor	:	characteristic
Boiling point/boiling range	:	ca. 248 °F / 120 °C
Flash point	:	140 °F / 60 °C Method: ISO 13736
Upper explosion limit / Upper flammability limit	:	10.0 %(V)
Lower explosion limit / Lower flammability limit	:	1.0 %(V)
Vapor pressure	:	100 hPa (122 °F / 50 °C)
Density	:	7.84 lb/gal (0.94 g/cm3) (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	insoluble
Autoignition temperature	:	> 752 °F / > 400 °C
Viscosity		

Viscosity, kinematic	:	6 mm2/s (104 °F / 40 °C) 95 mm2/s (73 °F / 23 °C)
Flow time	:	< 12 s Cross section: 4 mm Method: DIN 53211 < 10 s Cross section: 6 mm Method: ISO 2431

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use. There are no data available on the preparation itself.
Conditions to avoid	:	Stable under recommended storage and handling conditions (See section 7).
Incompatible materials	:	Keep away from oxidizing agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions.
Hazardous decomposition products	:	When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: 3,032 mg/kg Method: Calculation method

Components:

4-hydroxy-4-methylpentan-2-one:

Acute oral toxicity	:	LD50 (Rat): 3,002 mg/kg
Acute dermal toxicity	:	LD50 (Rabbit): 13,630 mg/kg

Carcinogenicity

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information

Product:

Remarks : Exposure of vapor concentration in excess of the stated OEL's may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue muscular weakness, drowsiness and in extrem cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : There are no data available on the preparation itself.

Persistence and degradability

Product:

Biodegradability : Remarks: There are no data available on the preparation itself.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: There are no data available on the preparation itself.

Mobility in soil

Product:

Mobility : Remarks: There are no data available on the preparation itself.

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : There are no data available on the preparation itself.

The product should not be allowed to enter drains or water courses.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No.	:	UN 1263
Proper shipping name	:	PAINT RELATED MATERIAL
Class	:	3
Packing group	:	III
Labels	:	Class 3 - Flammable liquids
Packing instruction (cargo aircraft)	:	366
Packing instruction (passenger aircraft)	:	355

IMDG-Code

UN number	:	UN 1263
Proper shipping name	:	PAINT RELATED MATERIAL
Class	:	3

Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 1263
Proper shipping name	:	PAINT RELATED MATERIAL
Class	:	3
Packing group	:	III
Labels	:	Class 3 - Flammable liquids
Marine pollutant	:	no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard
Flammable (gases, aerosols, liquids, or solids)
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

4-hydroxy-4-methylpentan-2-one	123-42-2	>= 90 - <= 100 %
n-butyl acetate	123-86-4	>= 1 - < 5 %

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

n-butyl acetate	123-86-4	>= 1 - < 5 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

n-butyl acetate	123-86-4	>= 1 - < 5 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

4-hydroxy-4-methylpentan-2-one	123-42-2
n-butyl acetate	123-86-4

Pennsylvania Right To Know

4-hydroxy-4-methylpentan-2-one	123-42-2
n-butyl acetate	123-86-4

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

California List of Hazardous Substances

4-hydroxy-4-methylpentan-2-one	123-42-2
n-butyl acetate	123-86-4

California Permissible Exposure Limits for Chemical Contaminants

4-hydroxy-4-methylpentan-2-one	123-42-2
n-butyl acetate	123-86-4

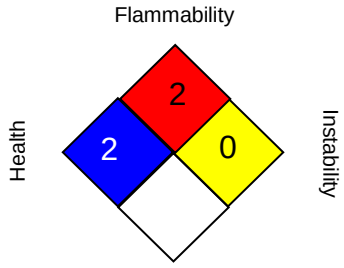
The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

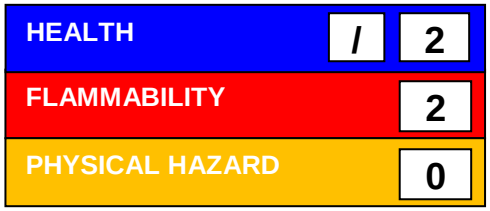
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Health
0=Slightly HazardousSlightly Hazardous
2=Hazardous
3=Extreme danger
4=Deadly

Flammability
0=Will not burn
2=Flashpoint below 200 F
3=Flashpoint below 100 F
4=Flashpoint below 73 F

Instability
0=Stable
1=Unstable if heated
2=Violent chemical reaction; water reactive
3=Shock or heat may detonate
4=May detonate

Special hazard
SA Simple Asphyxiant
ACID Acid
OX Oxidizer
W Water Reactive
CORR Corrosive

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for air-

		borne contaminants
CR OEL	:	Costa Rica. Maximum allowable occupational exposure limits in the workplace.
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
NOM-010-STPS-2014	:	Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and Control - Appendix 1 Occupational Exposure Limits
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA AB OEL / STEL	:	15-minute occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA QC OEL / TWAEV	:	Time-weighted average exposure value
CA QC OEL / STEV	:	Short-term exposure value
CR OEL / TWA	:	Time weighted average 8-hr value
CR OEL / STEL	:	Short term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
NOM-010-STPS-2014 / VLE-PPT	:	Time weighted average limit value
NOM-010-STPS-2014 / VLE-CT	:	Short term exposure limit value
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / STEL	:	Short-term exposure limit
OSHA Z-1 / TWA	:	8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Oth-

erwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 09/12/2019

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US / Z8

SECTION 1. IDENTIFICATION

Product name : ALEXIT-Verdünner / Thinner 903-43

Product number : 9034300000000

Manufacturer or supplier's details

Manufacturer, importer, supplier : Mankiewicz Coatings L.L.C

Address : 1200 Charleston Regional Parkway
Charleston, South Carolina 29492
USA

Telephone : +1 (843) 6547755
Telefax : +1 (843) 6547759
E-mail address : sdb_info@umco.de

Emergency telephone : CHEMTREC +1 (800) 4249300 or + (703) 5273887

Recommended use of the chemical and restrictions on use

Recommended use : Industrial serial painting

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids : Category 2

Eye irritation : Category 2A

Specific target organ toxicity - single exposure : Category 3 (Respiratory system, Central nervous system)

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements : H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

Precautionary Statements :

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture of organic solvents, halogen-free

Components

Chemical name	CAS-No.	Concentration (% w/w)
4-hydroxy-4-methylpentan-2-one	123-42-2	>= 40 - <= 100
acetone	67-64-1	>= 25 - < 40
ethyl acetate	141-78-6	>= 20 - < 25

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice	:	In all cases of doubt, or when sickness symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
If inhaled	:	Remove to fresh air, keep patient warm and at rest. Irregular breathing/no breathing: artificial respiration. If unconscious place in recovery position and seek medical advice.
In case of skin contact	:	Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners !
In case of eye contact	:	Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.
If swallowed	:	Do NOT induce vomiting. If accidentally swallowed obtain immediate medical attention. Never give anything by mouth to an unconscious person. Keep at rest.
Most important symptoms and effects, both acute and delayed	:	For information on symptoms and effects refer to Section 2 Hazard statements and Section 11 Toxicological Information.
Notes to physician	:	No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Alcohol resistant foam, CO2, powders, water spray
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
Further information	:	Cool endangered containers with water in case of fire.

DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO ENTER DRAINS OR WATER COURSES!!

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Exclude sources of ignition and ventilate the area.
Do not inhale vapors.
Refer to protective measures listed in sections 7 and 8.
Evacuate personnel to safe areas.

Environmental precautions : Do not let product enter drains.
If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

Methods and materials for containment and cleaning up : Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).
Clean preferably with a detergent; avoid use of solvents.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : The product should only be used in areas from which all naked lights and other sources of ignition have been excluded.
Preparation may charge electrostatically: always use earthing leads whentransferring from one container to another.
Operators should wear anti-static footwear and clothing. No sparking tools should be used.
Vapors are heavier than air and may spread along floors.
Vapors may form explosive mixtures with air.

Advice on safe handling : Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentrations higher than the occupational exposure limits.
Comply with the health and safety at work laws.
Smoking, eating and drinking should be prohibited in the application area.
Observe specific national regulations for handling and use of paints.

Conditions for safe storage : Electrical equipment should be protected to the appropriate standard. Floors should be of the conducting type.
Keep container tightly closed. Never use pressure to empty:

container isnot a pressure vessel. No smoking. Prevent unauthorized access.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Further information on storage conditions : Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight.
Keep container dry in a cool, well-ventilated place.

Materials to avoid : Keep away from oxidizing agents and strongly acid or alkaline materials.

Recommended storage temperature : 41 - 95 °F / 5 - 35 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
4-hydroxy-4-methylpentan-2-one	123-42-2	TWA	50 ppm	CR OEL
	Further information: Eye irritation, Upper Respiratory Tract irritation			
		TWA	50 ppm 238 mg/m3	CA AB OEL
		TWA	50 ppm	CA BC OEL
		TWAEV	50 ppm 238 mg/m3	CA QC OEL
		VLE-PPT	50 ppm	NOM-010-STPS-2014
		TWA	50 ppm	ACGIH
		TWA	50 ppm 240 mg/m3	NIOSH REL
		TWA	50 ppm 240 mg/m3	OSHA Z-1
		TWA	50 ppm 240 mg/m3	OSHA P0
ethyl acetate	141-78-6	TWA	400 ppm	CR OEL
	Further information: Eye irritation, Upper Respiratory Tract irritation			
		TWA	400 ppm 1,440 mg/m3	CA AB OEL
		TWA	150 ppm	CA BC OEL
		TWAEV	400 ppm	CA QC OEL

			1,440 mg/m3	
		VLE-PPT	400 ppm	NOM-010-STPS-2014
		TWA	400 ppm	ACGIH
		TWA	400 ppm 1,400 mg/m3	NIOSH REL
		TWA	400 ppm 1,400 mg/m3	OSHA Z-1
		TWA	400 ppm 1,400 mg/m3	OSHA P0

Engineering measures : Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain aerosol- and solvent vapors concentration below the OEL, suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection : If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators.

Use MSHA/NIOSH approved respirator if concentration exceeds recommended exposure levels.

Hand protection

Remarks : Glove permeation data does not exist for this material.
The following glove(s) should be used for splash protection only:
Appropriate material: nitrile

Eye protection : Use safety glasses or face shield (ANSI Z87.1 or approved equivalent).

Skin and body protection : Personal should wear protective clothing as necessary to prevent skin contact. All parts of the body should be washed after contact.

Protective measures : Do not eat or drink during work - no smoking.
Avoid product contact with skin, eyes and clothing.
Avoid the inhalation of dust from sanding, particulates and spray mist arising from the application of this preparation.
When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapor in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process until such time as the

particulates and solvent vapor concentration has fallen below the exposure limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	according product name
Odor	:	characteristic
Boiling point/boiling range	:	ca. 248 °F / 120 °C
Flash point	:	63.5 °F / 17.5 °C Method: ISO 13736
Upper explosion limit / Upper flammability limit	:	10.0 %(V)
Lower explosion limit / Lower flammability limit	:	1.0 %(V)
Vapor pressure	:	ca. 100 hPa (122 °F / 50 °C)
Density	:	ca. 7.402 lb/gal (0.887 g/cm3) (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	insoluble
Autoignition temperature	:	> 752 °F / > 400 °C
Viscosity		
Viscosity, kinematic	:	6 mm2/s (104 °F / 40 °C) 95 mm2/s (73 °F / 23 °C)
Flow time	:	10 s Cross section: 4 mm Method: DIN 53211 < 10 s Cross section: 6 mm Method: ISO 2431

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use. There are no data available on the preparation itself.
Conditions to avoid	:	Stable under recommended storage and handling conditions (See section 7).
Incompatible materials	:	Keep away from oxidizing agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions.
Hazardous decomposition products	:	When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method

Components:

4-hydroxy-4-methylpentan-2-one:

Acute oral toxicity	:	LD50 (Rat): 3,002 mg/kg
Acute dermal toxicity	:	LD50 (Rabbit): 13,630 mg/kg

Carcinogenicity

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information

Product:

Remarks : Exposure of vapor concentration in excess of the stated OEL's may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue muscular weakness, drowsiness and in extrem cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : There are no data available on the preparation itself.

Persistence and degradability

Product:

Biodegradability : Remarks: There are no data available on the preparation itself.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: There are no data available on the preparation itself.

Mobility in soil

Product:

Mobility : Remarks: There are no data available on the preparation itself.

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I

Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : There are no data available on the preparation itself.

The product should not be allowed to enter drains or water courses.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No.	:	UN 1263
Proper shipping name	:	PAINT RELATED MATERIAL
Class	:	3
Packing group	:	III
Labels	:	Class 3 - Flammable liquids
Packing instruction (cargo aircraft)	:	366
Packing instruction (passenger aircraft)	:	355

IMDG-Code

UN number	:	UN 1263
Proper shipping name	:	PAINT RELATED MATERIAL
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number : UN 1263

Proper shipping name	:	PAINT RELATED MATERIAL
Class	:	3
Packing group	:	III
Labels	:	Class 3 - Flammable liquids
Marine pollutant	:	no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard
Flammable (gases, aerosols, liquids, or solids)
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

4-hydroxy-4-methylpentan-2-one	123-42-2	>= 30 - < 50 %
acetone	67-64-1	>= 20 - < 30 %
ethyl acetate	141-78-6	>= 20 - < 30 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

4-hydroxy-4-methylpentan-2-one	123-42-2
ethyl acetate	141-78-6

Pennsylvania Right To Know

4-hydroxy-4-methylpentan-2-one	123-42-2
ethyl acetate	141-78-6

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

California List of Hazardous Substances

4-hydroxy-4-methylpentan-2-one	123-42-2
ethyl acetate	141-78-6

California Permissible Exposure Limits for Chemical Contaminants

4-hydroxy-4-methylpentan-2-one	123-42-2
ethyl acetate	141-78-6

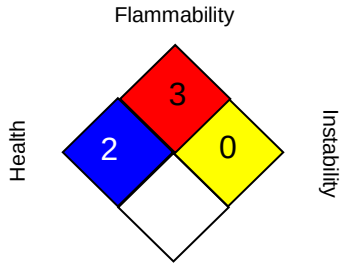
The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

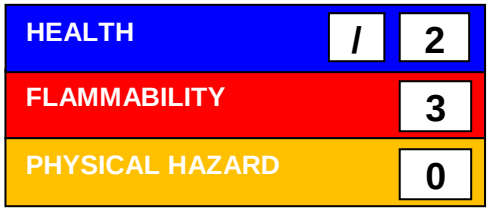
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Health
0=Slightly HazardousSlightly Hazardous
2=Hazardous
3=Extreme danger
4=Deadly

Flammability
0=Will not burn
2=Flashpoint below 200 F
3=Flashpoint below 100 F
4=Flashpoint below 73 F

Instability
0=Stable
1=Unstable if heated
2=Violent chemical reaction; water reactive
3=Shock or heat may detonate
4=May detonate

Special hazard
SA Simple Asphyxiant
ACID Acid
OX Oxidizer
W Water Reactive
CORR Corrosive

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for air-

		borne contaminants
CR OEL	:	Costa Rica. Maximum allowable occupational exposure limits in the workplace.
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
NOM-010-STPS-2014	:	Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and Control - Appendix 1 Occupational Exposure Limits
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA QC OEL / TWAEV	:	Time-weighted average exposure value
CR OEL / TWA	:	Time weighted average 8-hr value
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NOM-010-STPS-2014 / VLE-PPT	:	Time weighted average limit value
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable

Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 09/12/2019

The information provided in this Material 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.

US / Z8

SECTION 1. IDENTIFICATION

Product name : ALEXIT-Hot-Stamp-Coating 349-16 90D3 schwarz stump-fmatt

Product number : 3491690D3S000

Manufacturer or supplier's details

Manufacturer, importer, supplier : Mankiewicz Coatings L.L.C

Address : 1200 Charleston Regional Parkway
Charleston, South Carolina 29492
USA

Telephone : +1 (843) 6547755
Telefax : +1 (843) 6547759
E-mail address : sdb_info@umco.de

Emergency telephone : CHEMTREC +1 (800) 4249300 or + (703) 5273887

Recommended use of the chemical and restrictions on use

Recommended use : Industrial serial painting

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Carcinogenicity : Category 2

GHS label elements

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H351 Suspected of causing cancer.

Precautionary Statements :

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture of synthetic resins, water and pigments

Components

Chemical name	CAS-No.	Concentration (% w/w)
dimethyl sulfoxide	67-68-5	>= 5 - < 12.5
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-Ethane-1,2-diol, ethoxylated	25322-68-3	>= 1 - < 5
2-(2-butoxyethoxy)ethanol	112-34-5	>= 1 - < 5
silica gel	112926-00-8	>= 1 - < 5
carbon black	1333-86-4	>= 1 - < 5
2-dimethylaminoethanol	108-01-0	>= 0.25 - < 0.5

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : In all cases of doubt, or when sickness symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

If inhaled : Remove to fresh air, keep patient warm and at rest.
Irregular breathing/no breathing: artificial respiration.
If unconscious place in recovery position and seek medical advice.

In case of skin contact : Take off all contaminated clothing immediately.
Wash skin thoroughly with soap and water or use recognised skin cleanser.
Do NOT use solvents or thinners !

In case of eye contact	:	Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.
If swallowed	:	Do NOT induce vomiting. If accidentally swallowed obtain immediate medical attention. Never give anything by mouth to an unconscious person. Keep at rest.
Most important symptoms and effects, both acute and delayed	:	For information on symptoms and effects refer to Section 2 Hazard statements and Section 11 Toxicological Information.
Notes to physician	:	No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Alcohol resistant foam, CO2, powders, water spray
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
Further information	:	Cool endangered containers with water in case of fire. DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO ENTER DRAINS OR WATER COURSES!!
Special protective equipment for fire-fighters	:	As in any fire, wear self-contained breathing apparatus pressure - demand, MSHA / NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Exclude sources of ignition and ventilate the area. Do not inhale vapors. Refer to protective measures listed in sections 7 and 8. Evacuate personnel to safe areas.
Environmental precautions	:	Do not let product enter drains. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.
Methods and materials for containment and cleaning up	:	Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).

Clean preferably with a detergent; avoid use of solvents.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Keep away from ignition sources and provide for good ventilation.
Advice on safe handling	:	Comply with the health and safety at work laws. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Smoking, eating and drinking should be prohibited in the application area. Observe specific national regulations for handling and use of paints.
Conditions for safe storage	:	Keep container tightly closed. Never use pressure to empty: container isnot a pressure vessel. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Further information on storage conditions	:	Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight. Keep container dry in a cool, well-ventilated place. Avoid cooling to under 32°F.
Materials to avoid	:	Keep away from oxidizing agents and strongly acid or alkaline materials.
Recommended storage temperature	:	41 - 95 °F / 5 - 35 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
dimethyl sulfoxide	67-68-5	TWA	250 ppm	US WEEL
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-Ethane-1,2-diol, ethoxylated	25322-68-3	TWA (aerosol)	10 mg/m3	US WEEL
2-(2-butoxyethoxy)ethanol	112-34-5	TWA (Inhalable fraction	10 ppm	CR OEL

		and vapour)		
	Further information: Hematologic effects, Kidney effects, Liver effects			
		TWA (Inhalable fraction and vapor)	10 ppm	ACGIH
silica gel	112926-00-8	TWAEV (respirable dust)	6 mg/m3	CA QC OEL
		TWA (Respirable)	1.5 mg/m3	CA BC OEL
		TWA (Total)	4 mg/m3	CA BC OEL
		TWA	6 mg/m3	OSHA P0
		TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2 (Silica)	OSHA Z-3
carbon black	1333-86-4	TWA	3.5 mg/m3	CA AB OEL
		TWA (Inhalable)	3 mg/m3	CA BC OEL
		TWAEV	3.5 mg/m3	CA QC OEL
		VLE-PPT (Inhalable)	3 mg/m3	NOM-010-STPS-2014
		TWA (Inhalable fraction)	3 mg/m3	ACGIH
		TWA	3.5 mg/m3	NIOSH REL
		TWA	3.5 mg/m3	OSHA Z-1
		TWA	3.5 mg/m3	OSHA P0
		TWA	0.1 mg/m3 (PAHs)	NIOSH REL

Engineering measures : Provide adequate ventilation. Where reasonably practicable this shoud be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and below the OEL (= Occupational Exposure Limit), suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection : If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators:
Use MSHA/NIOSH approved respirator if concentration exceeds recommended exposure levels.
Dry grinding, torch cutting and/or welding however can produce hazardous dust and/or vapor.
If possible, machine employing a wet medium.

Where practicable, install exhaust hoods to improve capture of vapors and fumes and avoid exposition; otherwise wear respiratory protection equipment.

Hand protection

Remarks	:	Glove permeation data does not exist for this material. The following glove(s) should be used for splash protection only: Appropriate material: nitrile
Eye protection	:	Use safety glasses or face shield (ANSI Z87.1 or approved equivalent).
Skin and body protection	:	Personal should wear protective clothing as necessary to prevent skin contact. All parts of the body should be washed after contact.
Protective measures	:	Do not eat or drink during work - no smoking. Avoid product contact with skin, eyes and clothing. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapor in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process until such time as the particulates and solvent vapor concentration has fallen below the exposure limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	according product name
Odor	:	characteristic
Boiling point/boiling range	:	ca. 212 °F / 100 °C
Flash point	:	Not applicable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available

Vapor pressure	:	ca. 100 hPa (122 °F / 50 °C)
Density	:	ca. 9.2 lb/gal (1.1 g/cm3) (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	completely miscible
Autoignition temperature	:	> 572 °F / > 300 °C
Viscosity		
Viscosity, kinematic	:	21 mm2/s (104 °F / 40 °C)
		684 mm2/s (73 °F / 23 °C)
Flow time	:	> 150 s Cross section: 4 mm Method: DIN 53211
		> 100 s Cross section: 6 mm Method: ISO 2431

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use. There are no data available on the preparation itself.
Conditions to avoid	:	Stable under recommended storage and handling conditions (See section 7).
Incompatible materials	:	Keep away from oxidizing agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions.
Hazardous decomposition products	:	When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute inhalation toxicity : Acute toxicity estimate: > 200 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: Calculation method

Components:

2-dimethylaminoethanol:

Acute oral toxicity : LD50 (Rat): 1,183 mg/kg

Acute inhalation toxicity : LC50 (Rat): 5.9 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 (Rabbit): 1,219 mg/kg

Carcinogenicity

IARC Group 2B: Possibly carcinogenic to humans
carbon black 1333-86-4

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information

Product:

Remarks : Exposure of vapor concentration in excess of the stated OEL's may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue muscular weakness, drowsiness and in extrem cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : There are no data available on the preparation itself.

Persistence and degradability

Product:

Biodegradability : Remarks: There are no data available on the preparation itself.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: There are no data available on the preparation itself.

Mobility in soil

Product:

Mobility : Remarks: There are no data available on the preparation itself.

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : There are no data available on the preparation itself.

The product should not be allowed to enter drains or water courses.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

49 CFR
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard
Carcinogenicity

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

2-(2-butoxyeth-oxy)ethanol	112-34-5	>= 1 - < 5 %

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

2-(2-butoxyethoxy)ethanol	112-34-5	>= 1 - < 5 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

dimethyl sulfoxide	67-68-5	>= 5 - < 10 %
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-Ethane-1,2-diol, ethoxylated	25322-68-3	>= 1 - < 5 %
2-(2-butoxyethoxy)ethanol	112-34-5	>= 1 - < 5 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

silica gel	112926-00-8
carbon black	1333-86-4

Pennsylvania Right To Know

2-(2-butoxyethoxy)ethanol	112-34-5
silica gel	112926-00-8
carbon black	1333-86-4
Polychloro copper phthalocyanine	1328-53-6
29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper	147-14-8

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

California Prop. 65

WARNING: This product can expose you to chemicals including carbon black, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

carbon black	1333-86-4

California Permissible Exposure Limits for Chemical Contaminants

carbon black	1333-86-4

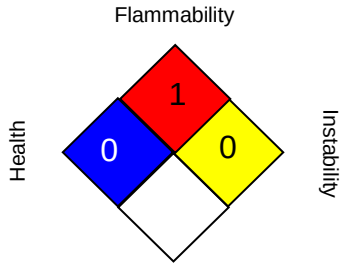
The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

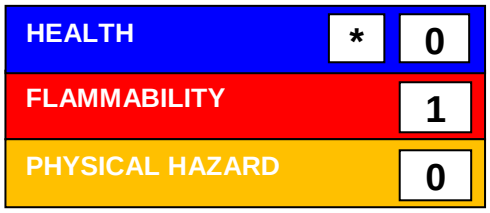
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Health
0=Slightly HazardousSlightly Hazardous
2=Hazardous
3=Extreme danger
4=Deadly

Flammability
0=Will not burn
2=Flashpoint below 200 F
3=Flashpoint below 100 F
4=Flashpoint below 73 F

Instability
0=Stable
1=Unstable if heated
2=Violent chemical reaction; water reactive
3=Shock or heat may detonate
4=May detonate

Special hazard
SA Simple Asphyxiant
ACID Acid
OX Oxidizer
W Water Reactive
CORR Corrosive

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
CA AB OEL : Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)

CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
CR OEL	:	Costa Rica. Maximum allowable occupational exposure limits in the workplace.
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
NOM-010-STPS-2014	:	Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and Control - Appendix 1 Occupational Exposure Limits
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-3	:	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
US WEEL	:	USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / TWA	:	8-hour, time-weighted average
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA QC OEL / TWAEV	:	Time-weighted average exposure value
CR OEL / TWA	:	Time weighted average 8-hr value
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NOM-010-STPS-2014 / VLE-PPT	:	Time weighted average limit value
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average
OSHA Z-3 / TWA	:	8-hour time weighted average
US WEEL / TWA	:	8-hr TWA

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse)

Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 09/16/2019

The information provided in this Material 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.

US / Z8

SAFETY DATA SHEET

Section 1: Product and company identification

Product code 123527

Product name INMOTIQ Topcoat WB 2K
R6483E Audi 6PS
Soul

Validation date 18. December 2019

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

Material uses Synthetic resin based coating, used for industrial painting of metal and/or plastic material.

Supplier's details

Worwag Coatings LLC
3420 Kossuth ST
Lafayette, IN 47905
USA
Tel .: (765) 448-9681

Emergency telephone number (with hours of operation) Chemtrec 800-424-9300 (24h)

Section 2: Hazards identification

Classification of the substance or mixture

FLAMMABLE LIQUIDS - Category 4
CARCINOGENICITY - Category 2

GHS label elements

Hazard pictograms

Signal word Warning

Hazard statements
H227 - Combustible liquid.
H351 - Suspected of causing cancer.

Precautionary statements

General Not applicable.

Prevention
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
P210 - Keep away from flames and hot surfaces. - No smoking.

Response P308 + P313 - IF exposed or concerned: Get medical attention.

Section 2: Hazards identification

Storage
P405 - Store locked up.
P403 - Store in a well-ventilated place.
P235 - Keep cool.

Disposal
P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified

None known.

Section 3: Composition/information on ingredients

Substance/mixture Mixture

Ingredient name	%	CAS number
(2-methoxymethylethoxy)propanol	5 - 10	34590-94-8
DPG-DME	3 - 5	111109-77-4
Paraffins (petroleum), normal C>10	1 - 3	64771-71-7
Carbon black	0.3 - 1	1333-86-4
propane-1,2-diol	0.3 - 1	57-55-6
triethylamine	0.1 - 0.3	121-44-8
2-diethylaminoethanol	0.1 - 0.3	100-37-8
dibutyltin dilaurate	<0.1	77-58-7
1-methoxy-2-propanol	<0.1	107-98-2
2-aminoethanol	<0.1	141-43-5
Polyethylene glycol #1540	<0.1	25322-68-3
2-butoxyethanol	<0.1	111-76-2

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

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

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

Section 4: First aid measures

Description of necessary first aid measures

Eye contact
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4: First aid measures

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 Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact No known significant effects or critical hazards.

Inhalation No known significant effects or critical hazards.

Skin contact No known significant effects or critical hazards.

Ingestion No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact No specific data.

Inhalation No specific data.

Skin contact No specific data.

Ingestion No specific data.

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. 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.

Section 5: Fire-fighting measures

Specific hazards arising from the chemical

Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous thermal decomposition products

Decomposition products may include the following materials:
carbon 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.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

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

For emergency responders

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

Environmental precautions

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

Methods and materials for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7: Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. 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.

Dry coat dust can be autoinflammable. Keep the paint wastes humides and work in water-trickeled cabins, to reduce the danger of autoinflammation.

Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 10 to 35°C (50 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
(2-methoxymethylethoxy)propanol	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** TWA: 100 ppm 8 hours. TWA: 606 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 909 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** **Absorbed through skin.** TWA: 100 ppm 8 hours. TWA: 600 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 900 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2013).**

Section 8: Exposure controls/personal protection

	Absorbed through skin. TWA: 100 ppm 10 hours. TWA: 600 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 900 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2016).** **Absorbed through skin.** TWA: 100 ppm 8 hours. TWA: 600 mg/m³ 8 hours.
DPG-DME	None.
Paraffins (petroleum), normal C>10	None.
Carbon black	**OSHA PEL 1989 (United States, 3/1989).** TWA: 3.5 mg/m³ 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 3.5 mg/m³ 10 hours. TWA: 0.1 mg of PAHs/cm³ 10 hours. **OSHA PEL (United States, 6/2016).** TWA: 3.5 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2016).** TWA: 3 mg/m³ 8 hours. Form: Inhalable fraction
propane-1,2-diol	**AIHA WEEL (United States, 10/2011).** TWA: 10 mg/m³ 8 hours.
triethylamine	**ACGIH TLV (United States, 3/2017).** **Absorbed through skin.** TWA: 0.5 ppm 8 hours. STEL: 1 ppm 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 10 ppm 8 hours. TWA: 40 mg/m³ 8 hours. STEL: 15 ppm 15 minutes. STEL: 60 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2016).** TWA: 25 ppm 8 hours. TWA: 100 mg/m³ 8 hours.
2-diethylaminoethanol	**ACGIH TLV (United States, 3/2017).** **Absorbed through skin.** TWA: 2 ppm 8 hours. TWA: 9.6 mg/m³ 8 hours. **OSHA PEL 1989 (United States, 3/1989).** **Absorbed through skin.** TWA: 10 ppm 8 hours. TWA: 50 mg/m³ 8 hours. **NIOSH REL (United States, 10/2016).** **Absorbed through skin.** TWA: 10 ppm 10 hours. TWA: 50 mg/m³ 10 hours. **OSHA PEL (United States, 6/2016).** **Absorbed through skin.** TWA: 10 ppm 8 hours.

Section 8: Exposure controls/personal protection

	TWA: 50 mg/m³ 8 hours.
dibutyltin dilaurate	**ACGIH TLV (United States, 3/2017).** **Absorbed through skin.** TWA: 0.1 mg/m³, (as Sn) 8 hours. STEL: 0.2 mg/m³, (as Sn) 15 minutes. **NIOSH REL (United States, 10/2016).** **Absorbed through skin.** TWA: 0.1 mg/m³, (as Sn) 10 hours. **OSHA PEL (United States, 6/2016).** TWA: 0.1 mg/m³, (as Sn) 8 hours. **OSHA PEL 1989 (United States, 3/1989).** **Absorbed through skin.** TWA: 0.1 mg/m³, (measured as Sn) 8 hours. Form: Organic
1-methoxy-2-propanol	**ACGIH TLV (United States, 3/2017).** TWA: 50 ppm 8 hours. TWA: 184 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 369 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 100 ppm 8 hours. TWA: 360 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 540 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2016).** TWA: 100 ppm 10 hours. TWA: 360 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 540 mg/m³ 15 minutes.
2-aminoethanol	**ACGIH TLV (United States, 3/2016).** TWA: 3 ppm 8 hours. TWA: 7.5 mg/m³ 8 hours. STEL: 6 ppm 15 minutes. STEL: 15 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 3 ppm 8 hours. TWA: 8 mg/m³ 8 hours. STEL: 6 ppm 15 minutes. STEL: 15 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2013).** TWA: 3 ppm 10 hours. TWA: 8 mg/m³ 10 hours. STEL: 6 ppm 15 minutes. STEL: 15 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2016).** TWA: 3 ppm 8 hours. TWA: 6 mg/m³ 8 hours.
Polyethylene glycol #1540	**AIHA WEEL (United States, 10/2011).**

Section 8: Exposure controls/personal protection

2-butoxyethanol	TWA: 10 mg/m³ 8 hours. Form: Aerosol **OSHA PEL 1989 (United States, 3/1989).** **Absorbed through skin.** TWA: 25 ppm 8 hours. TWA: 120 mg/m³ 8 hours. **NIOSH REL (United States, 10/2016).** **Absorbed through skin.** TWA: 5 ppm 10 hours. TWA: 24 mg/m³ 10 hours. **ACGIH TLV (United States, 3/2017).** TWA: 20 ppm 8 hours. **OSHA PEL (United States, 6/2016).** **Absorbed through skin.** TWA: 50 ppm 8 hours. TWA: 240 mg/m³ 8 hours.

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

Do not allow to enter drains or watercourses.

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

Use safety eyewear designed to protect against splash of liquids.

Skin protection

Hand protection

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment. 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. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

breakthrough time: 6 - 8h
Butyl rubber gloves. Thickness of the glove material: 0.5 mm
Nitrile gloves. Thickness of the glove material: 0.7 mm

Body protection

Personnel should wear antistatic clothing made of natural fibers or of high-temperature-resistant synthetic fibers.

Section 8: Exposure controls/personal protection

Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	organic vapor (Type A) and particulate filter (Type P1); Fresh-air tube device (DIN EN 138)

Section 9: Physical and chemical properties

Appearance

Physical state	Liquid.	
Color	Black.	
Odor	Not available.	
Odor threshold	Not available.	
pH	8.6	
Melting point/freezing point	Not available.	
Initial boiling point and boiling range	>70°C (>158°F)	
Flash point	Closed cup: 150.8°F (66°C)	
Method	Abel-Pensky.	
Evaporation rate	Not available.	
Flammability (solid, gas)	Not available.	
Upper/lower flammability or explosive limits	Lower: 0.8%	
Vapor pressure	Not available.	
Vapor density	Not available.	
Density	1.06 g/cm³	
Method	DIN 53217	
Solubility	Not available.	
Solubility in water	Not available.	
Partition coefficient: n-octanol/water	Not available.	
Miscible in water.	Yes.	
Auto-ignition temperature	Not available.	
Ignition temperature	> 200°C / > 390°F (solvent part)	
Decomposition temperature	Not available.	
Explosive properties	Not available.	
Oxidizing properties	Not available.	
Burning time	Not applicable.	
Burning rate	Not applicable.	
Viscosity	10 to 14	sek 6 mm DIN 20°C
Solids content (by Weight)	38 %	

Section 9: Physical and chemical properties

Molecular weight	Not applicable.
Type of aerosol	Not applicable.
Ignition distance	Not applicable.
Enclosed space ignition - Time equivalent	Not applicable.
Enclosed space ignition - Deflagration density	Not applicable.
Flame height	Not applicable.
Flame duration	Not applicable.

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.

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
propane-1,2-diol	LD50 Dermal	Rabbit	20800 mg/kg	-
	LD50 Oral	Rat	20 g/kg	-
2-aminoethanol	LD50 Oral	Rat	1720 mg/kg	-
2-butoxyethanol	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Guinea pig	1200 mg/kg	-

Irritation/Corrosion

Section 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
(2-methoxymethylethoxy) propanol	Eyes - Mild irritant	Human	-	8 milligrams	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
propane-1,2-diol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Child	-	96 hours 30 Percent continuous	-
	Skin - Mild irritant	Human	-	168 hours 500 milligrams	-
	Skin - Moderate irritant	Human	-	72 hours 104 milligrams Intermittent	-
	Skin - Mild irritant	Woman	-	96 hours 30 Percent	-
2-aminoethanol	Eyes - Severe irritant	Rabbit	-	250 Micrograms	-
	Skin - Moderate irritant	Rabbit	-	505 milligrams	-
Polyethylene glycol #1540	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
2-butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Carcinogenicity

Not available.

Section 11: Toxicological information

Conclusion/Summary No known significant effects or critical hazards.

Classification

Product/ingredient name	OSHA	IARC	NTP
Carbon black	-	2B	-
2-butoxyethanol	-	3	-

Reproductive toxicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Teratogenicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
triethylamine	Category 3	Not applicable.	Respiratory tract irritation
2-diethylaminoethanol	Category 3	Not applicable.	Respiratory tract irritation
dibutyltin dilaurate	Category 1	Not determined	thymus
1-methoxy-2-propanol	Category 3	Not applicable.	Narcotic effects
2-aminoethanol	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
dibutyltin dilaurate	Category 1	Not determined	immune system

Aspiration hazard

Name	Result
Paraffins (petroleum), normal C>10	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 No known significant effects or critical hazards.

Skin contact No known significant effects or critical hazards.

Ingestion No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11: Toxicological information

Eye contact	No specific data.
Inhalation	No specific data.
Skin contact	No specific data.
Ingestion	No specific data.

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	No known significant effects or critical hazards.
Carcinogenicity	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	No known significant effects or critical hazards.
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

Not available.

Section 12: Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
propane-1,2-diol	Acute EC50 >110 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1020000 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia	48 hours
	Acute LC50 710000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
dibutyltin dilaurate	Chronic EC10 >2 mg/l Fresh water	Algae - Scenedesmus subspicatus	96 hours
2-aminoethanol	Acute EC50 8.42 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours

Section 12: Ecological information

	Acute LC50 >100000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 170 mg/l Fresh water	Fish - Carassius auratus	96 hours
Polyethylene glycol #1540	Acute LC50 >1000000 µg/l Fresh water	Fish - Salmo salar - Parr	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
(2-methoxymethylethoxy) propanol	-	-	Readily
Carbon black	-	-	Not readily
propane-1,2-diol	-	-	Readily
triethylamine	-	-	Readily
dibutyltin dilaurate	-	-	Inherent
1-methoxy-2-propanol	-	-	Readily
2-butoxyethanol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
(2-methoxymethylethoxy) propanol	0.0043	-	low
propane-1,2-diol	-0.92	-	low
triethylamine	1.45	<0.5	low
2-diethylaminoethanol	0.21	<6.1	low
dibutyltin dilaurate	4.44	2.91	low
1-methoxy-2-propanol	<1	-	low
2-aminoethanol	-1.31	-	low
Polyethylene glycol #1540	-	3.2	low
2-butoxyethanol	0.81	-	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

Section 13: Disposal considerations

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

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14: Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	UN1263	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	PAINT	-	-	-	-	-
Transport hazard class(es)	Combustible liquid.	-	-	-	-	-
Packing group	III	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.	No.

Additional information

DOT Classification Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials.

Special precautions for user **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code Not available.

Section 15: Regulatory information

United States

U.S. Federal regulations

Clean Water Act (CWA) 307: copper dinitrate; pyrithione zinc; polychloro copper phthalocyanine

Clean Water Act (CWA) 311: triethylamine; copper dinitrate; ammonia

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) Listed

Ingredient name	CAS number	Conc. [% by Weight]	Conc. Lim. used	Qualifier	Ref. number	Rep. Quantity	Date
Triethylamine	121-44-8	0.1 - 0.3	Concentration limit established via list definition was used: ≥0				15/11/1990

Clean Air Act Section 183 (e) Control of emissions from certain sources (VOC) With volume exclusion [water excluded] 2.04 lbs/gal (244.5 g/l)

Clean Air Act Section 602 Class I Substances Not listed

Clean Air Act Section 602 Class II Substances Not listed

DEA List I Chemicals (Precursor Chemicals) Not listed

DEA List II Chemicals (Essential Chemicals) Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ Not applicable.

SARA 311/312

Classification FLAMMABLE LIQUIDS - Category 4
CARCINOGENICITY - Category 2

Composition/information on ingredients

Name	%	Classification
(2-methoxymethylethoxy) propanol	5 - 10	FLAMMABLE LIQUIDS - Category 4
DPG-DME	3 - 5	FLAMMABLE LIQUIDS - Category 4
Paraffins (petroleum), normal C>10	1 - 3	ASPIRATION HAZARD - Category 1
Carbon black	0.3 - 1	CARCINOGENICITY - Category 2

State regulations

Date of issue/Date of revision 18. December 2019

Section 15: Regulatory information

Massachusetts	The following components are listed: DIATOMACEOUS EARTH; AMORPHOUS SILICA; DIPROPYLENE GLYCOL METHYL ETHER
New York	None of the components are listed.
New Jersey	The following components are listed: DIPROPYLENE GLYCOL METHYL ETHER; (2-METHOXYMETHYLETHOXY) PROPANOL; CARBON BLACK; TITANIUM DIOXIDE; TITANIUM OXIDE (TiO2)
Pennsylvania	The following components are listed: SILICA; PROPANOL, (2-METHOXYMETHYLETHOXY)-; CARBON BLACK; TITANIUM OXIDE

California Prop. 65

⚠ **WARNING**: This product can expose you to chemicals including Carbon black, Titanium dioxide, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
Carbon black Titanium dioxide	- -	- -

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	At least one component is not listed.
Canada	At least one component is not listed.
China	All components are listed or exempted.
Europe	Not determined.
Japan	**Japan inventory (ENCS)**: At least one component is not listed. **Japan inventory (ISHL)**: At least one component is not listed.
Malaysia	Not determined.
New Zealand	At least one component is not listed.
Philippines	At least one component is not listed.

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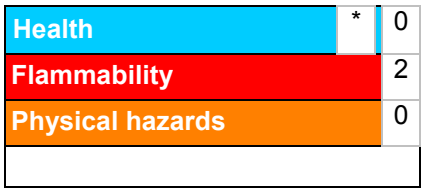
Section 15: Regulatory information

Republic of Korea	At least one component is not listed.
Taiwan	At least one component is not listed.
Thailand	Not determined.
Turkey	Not determined.
United States	All components are listed or exempted.
Viet Nam	Not determined.

Section 16: Other information

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



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.

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

National Fire Protection Association (U.S.A.)

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 4 CARCINOGENICITY - Category 2	On basis of test data Calculation method

History

Date of issue/Date of revision	18. December 2019

Section 16: Other information

Date of issue	18. December 2019
Version	6
Print date	8. January 2020
CEPE code	2
Key to abbreviations	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	Not available.

Indicates information that has changed from previously issued version.

Notice to reader

Unless otherwise specified, percentages given in this safety data sheet are expressed as percentages per weight.

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

Section 1: Product and company identification

Product code 124933

Product name INMOTIQ Topcoat WB 2K
R6470 BMW CL901
Black

Validation date 7. June 2018

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

Material uses Synthetic resin based coating, used for industrial painting of metal and/or plastic material.

Supplier's details

Worwag Coatings LLC
3420 Kossuth ST
Lafayette, IN 47905
USA
Tel .: (765) 448-9681

Emergency telephone number (with hours of operation) Chemtrec 800-424-9300 (24h)

Section 2: Hazards identification

Classification of the substance or mixture

FLAMMABLE LIQUIDS - Category 4
CARCINOGENICITY - Category 2

GHS label elements

Hazard pictograms

Signal word Warning

Hazard statements
H227 - Combustible liquid.
H351 - Suspected of causing cancer.

Precautionary statements

General Not applicable.

Prevention
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
P210 - Keep away from flames and hot surfaces. - No smoking.

Response P308 + P313 - IF exposed or concerned: Get medical attention.

Section 2: Hazards identification

Storage
P405 - Store locked up.
P403 - Store in a well-ventilated place.
P235 - Keep cool.

Disposal
P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified

None known.

Section 3: Composition/information on ingredients

Substance/mixture Mixture

Ingredient name	%	CAS number
Silicon dioxide	≤5	7631-86-9
Propane, oxybis(methoxy-	≤5	111109-77-4
(2-methoxymethylethoxy)propanol	≤5	34590-94-8
Paraffins (petroleum), normal C>10	≤3	64771-71-7
Carbon black	≤1	1333-86-4

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

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

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

Section 4: First aid measures

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 not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact
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.

Section 4: First aid measures

Ingestion Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact No known significant effects or critical hazards.

Inhalation No known significant effects or critical hazards.

Skin contact No known significant effects or critical hazards.

Ingestion No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact No specific data.

Inhalation No specific data.

Skin contact No specific data.

Ingestion No specific data.

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

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

Specific treatments No specific treatment.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training. 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 Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Section 5: Fire-fighting measures

Hazardous thermal decomposition products

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

Special protective actions for fire-fighters

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

Special protective equipment for fire-fighters

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

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

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

For emergency responders

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

Environmental precautions

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

Methods and materials for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7: Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. 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.

Dry coat dust can be autoinflammable. Keep the paint wastes humides and work in water-trickeled cabins, to reduce the danger of autoinflammation.

Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 10 to 30°C (50 to 86°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Silicon dioxide	**NIOSH REL (United States, 10/2013).** TWA: 6 mg/m³ 10 hours.
Propane, oxybis(methoxy-(2-methoxymethylethoxy)propanol	None. **ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** TWA: 100 ppm 8 hours. TWA: 606 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 909 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** **Absorbed through skin.** TWA: 100 ppm 8 hours. TWA: 600 mg/m³ 8 hours. STEL: 150 ppm 15 minutes.

Section 8: Exposure controls/personal protection

	STEL: 900 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** TWA: 100 ppm 10 hours. TWA: 600 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 900 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2016).** **Absorbed through skin.** TWA: 100 ppm 8 hours. TWA: 600 mg/m³ 8 hours.
Paraffins (petroleum), normal C>10 Carbon black	None. **OSHA PEL 1989 (United States, 3/1989).** TWA: 3.5 mg/m³ 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 3.5 mg/m³ 10 hours. TWA: 0.1 mg of PAHs/cm³ 10 hours. **OSHA PEL (United States, 6/2016).** TWA: 3.5 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2016).** TWA: 3 mg/m³ 8 hours. Form: Inhalable fraction

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

Do not allow to enter drains or watercourses.

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

Use safety eyewear designed to protect against splash of liquids.

Skin protection

Hand protection

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Section 8: Exposure controls/personal protection

	The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment. 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. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. breakthrough time: 6 - 8h Butyl rubber gloves. Thickness of the glove material: 0.5 mm Nitrile gloves. Thickness of the glove material: 0.7 mm
Body protection	Personnel should wear antistatic clothing made of natural fibers or of high-temperature-resistant synthetic fibers.
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	organic vapor (Type A) and particulate filter (Type P1); Fresh-air tube device (DIN EN 138)

Section 9: Physical and chemical properties

Appearance

Physical state	Liquid.
Color	Black.
Odor	Not available.
Odor threshold	Not available.
pH	7.2
Melting point/freezing point	Not available.
Initial boiling point and boiling range	>70°C (>158°F)
Flash point	Closed cup: 150.8°F (66°C)
Method	Abel-Pensky.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Lower: 0.8%
Vapor pressure	Not available.
Vapor density	Not available.
Density	1.07 g/cm³
Method	DIN 53217
Solubility	Not available.
Solubility in water	Not available.
Partition coefficient: n-octanol/water	Not available.
Miscible in water.	Yes.

Section 9: Physical and chemical properties

Auto-ignition temperature	Not available.	
Ignition temperature	> 200°C / > 390°F (solvent part)	
Decomposition temperature	Not available.	
Explosive properties	Not available.	
Oxidizing properties	Not available.	
Viscosity	10 to 14	sek 6 mm DIN 20°C
Solids content (by Weight)	36 %	

Aerosol product

No additional information.

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.
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

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Silicon dioxide	Eyes - Mild irritant	Rabbit	-	24 hours 25 milligrams	-
(2-methoxymethylethoxy) propanol	Eyes - Mild irritant	Human	-	8 milligrams	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Section 11: Toxicological information

Sensitization

Not available.

Mutagenicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Carcinogenicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Classification

Product/ingredient name	OSHA	IARC	NTP
Silicon dioxide	-	3	-
Carbon black	-	2B	-

Reproductive toxicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Teratogenicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
Paraffins (petroleum), normal C>10	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 No known significant effects or critical hazards.

Skin contact No known significant effects or critical hazards.

Ingestion No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact No specific data.

Inhalation No specific data.

Section 11: Toxicological information

Skin contact No specific data.

Ingestion No specific data.

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 No known significant effects or critical hazards.

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

Mutagenicity No known significant effects or critical hazards.

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	41184.6 mg/kg

Section 12: Ecological information

Toxicity

Not available.

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
(2-methoxymethylethoxy) propanol	-	-	Readily
Carbon black	-	-	Not readily

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Section 12: Ecological information

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
(2-methoxymethylethoxy) propanol	0.0043	-	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.

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

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14: Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	UN1263	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	PAINT	-	-	-	-	-
Transport hazard class(es)	Combustible liquid.	-	-	-	-	-
Packing group	III	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.	No.
Additional information	Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials.	-	-	-	-	-

Special precautions for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Not available.

Section 15: Regulatory information

United States

U.S. Federal regulations

Clean Water Act (CWA) 307: pyrithione zinc; copper dinitrate; polychloro copper phthalocyanine; copper chlorophthalocyanine; trizinc bis(orthophosphate)

Clean Water Act (CWA) 311: Triethylamine; copper dinitrate; ammonia

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

Listed

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Section 15: Regulatory information

Ingredient name	CAS number	Conc. [% by Weight]	Conc. Lim. used	Qualifier	Ref. number	Rep. Quantity	Date
Triethylamine	121-44-8	< 0.1	Concentration limit established via list definition was used: ≥0				15/11/1990
Glycol ethers	143-22-6	< 0.1	Concentration limit established via list definition was used: ≥0				15/11/1990
Glycol ethers	112-34-5	0.1 - 0.3	Concentration limit established via list definition was used: ≥0				15/11/1990

Clean Air Act Section 183 (e) Control of emissions from certain sources (VOC) With volume exclusion [water excluded] 1.93 lbs/gal (231.4 g/l)

Clean Air Act Section 602 Class I Substances Not listed

Clean Air Act Section 602 Class II Substances Not listed

DEA List I Chemicals (Precursor Chemicals) Not listed

DEA List II Chemicals (Essential Chemicals) Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ Not applicable.

SARA 311/312

Classification Fire hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Propane, oxybis(methoxy-	≤5	Yes.	No.	No.	No.	No.
(2-methoxymethylethoxy) propanol	≤5	Yes.	No.	No.	No.	No.
Carbon black	≤1	No.	No.	No.	No.	Yes.

State regulations

Massachusetts The following components are listed: DIATOMACEOUS EARTH; AMORPHOUS SILICA; DIPROPYLENE GLYCOL METHYL ETHER

Section 15: Regulatory information

New York None of the components are listed.

New Jersey The following components are listed: DIPROPYLENE GLYCOL METHYL ETHER; (2-METHOXYMETHYLETHOXY) PROPANOL; CARBON BLACK

Pennsylvania The following components are listed: SILICA; PROPANOL, (2-METHOXYMETHYLETHOXY)-; CARBON BLACK

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Carbon black	Yes.	No.	No.	No.

United States inventory (TSCA 8b) All components are listed or exempted.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

Australia At least one component is not listed.

Canada At least one component is not listed.

China At least one component is not listed.

Europe All components are listed or exempted.

Japan **Japan inventory (ENCS)**: At least one component is not listed.
Japan inventory (ISHL): At least one component is not listed.

Malaysia Not determined.

New Zealand At least one component is not listed.

Philippines At least one component is not listed.

Republic of Korea At least one component is not listed.

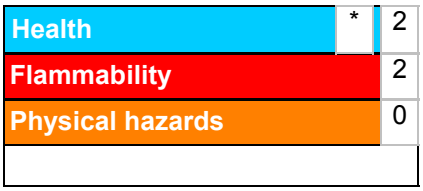
Section 15: Regulatory information

Taiwan	Not determined.
Turkey	Not determined.

Section 16: Other information

Label requirements COMBUSTIBLE LIQUID AND VAPOR. MAY CAUSE ALLERGIC SKIN REACTION. MAY CAUSE EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. POSSIBLE CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER, BASED ON ANIMAL DATA.

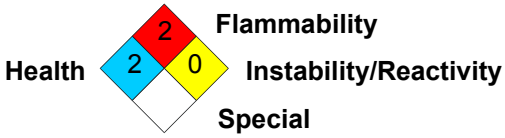
Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 4 CARCINOGENICITY - Category 2	On basis of test data Calculation method

History

Date of issue 7. June 2018

Date of issue/Date of revision	7. June 2018

Section 16: Other information

Version	3.02
Print date	7. June 2018
CEPE code	2
Key to abbreviations	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	Not available.

Indicates information that has changed from previously issued version.

Notice to reader

Unless otherwise specified, percentages given in this safety data sheet are expressed as percentages per weight.

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

Section 1: Product and company identification

Product code 125030

Product name INMOTIQ Primer WB 2K
R1479
Transparent

Validation date 24. April 2018

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

Material uses Synthetic resin based coating, used for industrial painting of metal and/or plastic material.

Supplier's details

Worwag Coatings LLC
3420 Kossuth ST
Lafayette, IN 47905
USA
Tel .: (765) 448-9681

Emergency telephone number (with hours of operation) Chemtrec 800-424-9300 (24h)

Section 2: Hazards identification

Classification of the substance or mixture

FLAMMABLE LIQUIDS - Category 4
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS)) - Category 1

GHS label elements

Hazard pictograms

Signal word Danger

Hazard statements
H227 - Combustible liquid.
H317 - May cause an allergic skin reaction.
H372 - Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS))

Precautionary statements

General Not applicable.

Section 2: Hazards identification

Prevention
P280 - Wear protective gloves. Wear eye or face protection.
P210 - Keep away from flames and hot surfaces. - No smoking.
P260 - Do not breathe vapor.
P270 - Do not eat, drink or smoke when using this product.
P264 - Wash hands thoroughly after handling.
P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.

Response
P314 - Get medical attention if you feel unwell.
P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.
P333 + P313 - If skin irritation or rash occurs: Get medical attention.

Storage
P403 - Store in a well-ventilated place.
P235 - Keep cool.

Disposal
P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified

None known.

Section 3: Composition/information on ingredients

Substance/mixture Mixture

Ingredient name	%	CAS number
Barium sulfate	≤10	7727-43-7
Talc , not containing asbestiform fibres	≤10	14807-96-6
Silicon dioxide	≤5	7631-86-9
Naphtha (petroleum), hydrodesulfurized heavy	≤3	64742-82-1
Additive, confidential	≤0.3	-
adipohydrazide	≤0.3	1071-93-8

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 as hazardous to health or the environment and hence require reporting in this section.

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

Section 4: First aid measures

Description of necessary first aid measures

Eye contact
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell.

Section 4: First aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention following exposure or if feeling unwell. 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 Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact No known significant effects or critical hazards.

Inhalation No known significant effects or critical hazards.

Skin contact May cause an allergic skin reaction.

Ingestion No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact No specific data.

Inhalation No specific data.

Skin contact Adverse symptoms may include the following:
irritation
redness

Ingestion No specific data.

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.

Section 4: First aid measures

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	Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
Hazardous thermal decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides metal oxide/oxides
Special protective actions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

Methods and materials for containment and cleaning up

Section 6: Accidental release measures

Small spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7: Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. 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.

Dry coat dust can be autoinflammable. Keep the paint wastes humides and work in water-trickeled cabins, to reduce the danger of autoinflammation.

Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 5 to 30°C (41 to 86°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Barium sulfate	**ACGIH TLV (United States, 3/2016).** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **OSHA PEL 1989 (United States, 3/1989).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust **NIOSH REL (United States, 10/2013).** TWA: 5 mg/m³ 10 hours. Form: Respirable fraction TWA: 10 mg/m³ 10 hours. Form: Total **OSHA PEL (United States, 6/2016).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust
Talc , not containing asbestiform fibres	**OSHA PEL 1989 (United States, 3/1989).** TWA: 2 mg/m³ 8 hours. Form: Respirable dust **ACGIH TLV (United States, 3/2016).** TWA: 2 mg/m³ 8 hours. Form: Respirable fraction **NIOSH REL (United States, 10/2013).** TWA: 2 mg/m³ 10 hours. Form: Respirable fraction
Silicon dioxide	**NIOSH REL (United States, 10/2013).** TWA: 6 mg/m³ 10 hours.
Naphtha (petroleum), hydrodesulfurized heavy	None.
Additive, confidential	None.
adipohydrazide	None.

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

Do not allow to enter drains or watercourses.

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
Use safety eyewear designed to protect against splash of liquids.

Skin protection

Hand protection
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment. 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. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

breakthrough time: 6 - 8h
Butyl rubber gloves. Thickness of the glove material: 0.5 mm
Nitrile gloves. Thickness of the glove material: 0.7 mm

Body protection
Personnel should wear antistatic clothing made of natural fibers or of high-temperature-resistant synthetic fibers.

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
organic vapor (Type A) and particulate filter (Type P1); Fresh-air tube device (DIN EN 138)

Section 9: Physical and chemical properties

Appearance

Physical state Liquid.

Color Colorless.

Odor Not available.

Odor threshold Not available.

pH 8.9

Melting point/freezing point Not available.

Initial boiling point and boiling range >70°C (>158°F)

Flash point Closed cup: 150.8°F (66°C)
Abel-Pensky.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits Lower: 0.8%

Section 9: Physical and chemical properties

Vapor pressure	Not available.	
Vapor density	Not available.	
Density	1.27 g/cm³	
Method	DIN 53217	
Solubility	Not available.	
Solubility in water	Not available.	
Partition coefficient: n-octanol/water	Not available.	
Miscible in water.	Yes.	
Auto-ignition temperature	Not available.	
Ignition temperature	> 200°C / > 390°F (solvent part)	
Decomposition temperature	Not available.	
Explosive properties	Not available.	
Oxidizing properties	Not available.	
Viscosity	25 to 35	sek 4 mm DIN 20°C
Solids content (by Weight)	42 %	

Aerosol product

No additional information.

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.
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

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Talc , not containing asbestiform fibres	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-
Silicon dioxide	Eyes - Mild irritant	Rabbit	-	24 hours 25 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Carcinogenicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Classification

Product/ingredient name	OSHA	IARC	NTP
Talc , not containing asbestiform fibres	-	3	-
Silicon dioxide	-	3	-

Reproductive toxicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Teratogenicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Naphtha (petroleum), hydrodesulfurized heavy	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Section 11: Toxicological information

Name	Category	Route of exposure	Target organs
Naphtha (petroleum), hydrodesulfurized heavy	Category 1	Not determined	central nervous system (CNS)

Aspiration hazard

Name	Result
Naphtha (petroleum), hydrodesulfurized heavy	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 No known significant effects or critical hazards.

Skin contact May cause an allergic skin reaction.

Ingestion No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact No specific data.

Inhalation No specific data.

Skin contact Adverse symptoms may include the following:
irritation
redness

Ingestion No specific data.

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 No known significant effects or critical hazards.

Mutagenicity No known significant effects or critical hazards.

Teratogenicity No known significant effects or critical hazards.

Section 11: Toxicological information

Developmental effects No known significant effects or critical hazards.

Fertility effects No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12: Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Barium sulfate	Acute EC50 634 mg/l Fresh water Acute EC50 32000 µg/l Fresh water	Crustaceans - Cypris subglobosa Daphnia - Daphnia magna	48 hours 48 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
adipohydrazide	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Naphtha (petroleum), hydrodesulfurized heavy	-	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

Section 13: Disposal considerations

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.

Waste disposal

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

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14: Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	UN1263	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	PAINT	-	-	-	-	-
Transport hazard class(es)	Combustible liquid.	-	-	-	-	-
Packing group	III	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.	No.

Section 14: Transport information

Additional information	Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials.	-	-	-	-	-

Special precautions for user **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code Not available.

Section 15: Regulatory information

United States

U.S. Federal regulations **Clean Water Act (CWA) 307**: Naphthalene; Toluene; Benzene; Benzene; copper dinitrate

Clean Water Act (CWA) 311: Naphthalene; xylene; Toluene; Benzene; Benzene; copper dinitrate

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) Listed

Ingredient name	CAS number	Conc. [% by Weight]	Conc. Lim. used	Qualifier	Ref. number	Rep. Quantity	Date
Glycol ethers	143-22-6	< 0.1	Concentration limit established via list definition was used: ≥0				15/11/1990
Glycol ethers	112-34-5	0.1 - 0.3	Concentration limit established via list definition was used: ≥0				15/11/1990
Naphthalene	91-20-3	< 0.1	Concentration limit established via list definition was used: ≥0				15/11/1990
Xylenes	1330-20-7	< 0.1	Concentration limit established via list definition was used: ≥0				15/11/1990
Toluene	108-88-3	< 0.1	Concentration limit established via list definition was used: ≥0				15/11/1990

Section 15: Regulatory information

Benzene	71-43-2	< 0.1	Concentration limit established via list definition was used: ≥0				15/11/1990
Benzene	71-43-2	< 0.1	Concentration limit established via list definition was used: ≥0				15/11/1990

Clean Air Act Section 183 (e) Control of emissions from certain sources (VOC) With volume exclusion [water excluded] 1.33 lbs/gal (160 g/l)

Clean Air Act Section 602 Class I Substances Not listed

Clean Air Act Section 602 Class II Substances Not listed

DEA List I Chemicals (Precursor Chemicals) Not listed

DEA List II Chemicals (Essential Chemicals) Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ Not applicable.

SARA 311/312

Classification

Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Naphtha (petroleum), hydrodesulfurized heavy	≤3	No.	No.	No.	Yes.	Yes.
Additive, confidential	≤0.3	No.	No.	No.	Yes.	No.
adipohydrazide	≤0.3	No.	No.	No.	Yes.	No.

State regulations

Massachusetts The following components are listed: BARIUM SULFATE; TALC; SOAPSTONE; DIATOMACEOUS EARTH; AMORPHOUS SILICA

New York None of the components are listed.

New Jersey The following components are listed: BARIUM SULFATE; SULFURIC ACID, BARIUM SALT (1:1); SOAPSTONE; SILICA, QUARTZ; QUARTZ (SiO2)

Section 15: Regulatory information

Pennsylvania The following components are listed: BARIUM SULFATE; TALC; SOAPSTONE DUST; QUARTZ DUST; QUARTZ; SILICA

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
crystalline silica, non-respirable	Yes.	No.	No.	No.
Quartz (SiO2)	Yes.	No.	No.	No.
Naphthalene	Yes.	No.	Yes.	No.
Benzene	Yes.	Yes.	6.4 µg/day (ingestion) 13 µg/day (inhalation)	24 µg/day (ingestion) 49 µg/day (inhalation)
Benzene	Yes.	Yes.	6.4 µg/day (ingestion) 13 µg/day (inhalation)	24 µg/day (ingestion) 49 µg/day (inhalation)
Toluene	No.	Yes.	No.	7000 µg/day (ingestion)

United States inventory (TSCA 8b) All components are listed or exempted.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

Australia At least one component is not listed.

Canada Not determined.

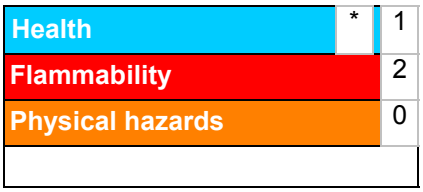
Section 15: Regulatory information

China	At least one component is not listed.
Europe	All components are listed or exempted.
Japan	**Japan inventory (ENCS)**: At least one component is not listed. **Japan inventory (ISHL)**: Not determined.
Malaysia	Not determined.
New Zealand	Not determined.
Philippines	At least one component is not listed.
Republic of Korea	At least one component is not listed.
Taiwan	At least one component is not listed.
Turkey	Not determined.

Section 16: Other information

Label requirements COMBUSTIBLE LIQUID AND VAPOR. MAY CAUSE EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

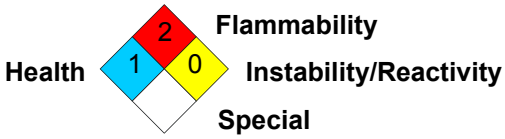
Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



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Section 16: Other information

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 4 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS)) - Category 1	On basis of test data Calculation method Calculation method

History

Date of issue	24. April 2018
Version	3.01
Print date	24. April 2018
CEPE code	2
Key to abbreviations	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	Not available.

Indicates information that has changed from previously issued version.

Notice to reader

Unless otherwise specified, percentages given in this safety data sheet are expressed as percentages per weight.

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

Section 1: Product and company identification

Product code 127224

Product name INMOTIQ Topcoat WB 2K
R6433 Subaru P4459
Black

Validation date 8. January 2020

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

Material uses Synthetic resin based coating, used for industrial painting of metal and/or plastic material.

Supplier's details

Worwag Coatings LLC
3420 Kossuth ST
Lafayette, IN 47905
USA
Tel .: (765) 448-9681

Emergency telephone number (with hours of operation) Chemtrec 800-424-9300 (24h)

Section 2: Hazards identification

Classification of the substance or mixture

FLAMMABLE LIQUIDS - Category 4
CARCINOGENICITY - Category 2

GHS label elements

Hazard pictograms

Signal word Warning

Hazard statements
H227 - Combustible liquid.
H351 - Suspected of causing cancer.

Precautionary statements

General Not applicable.

Prevention
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
P210 - Keep away from flames and hot surfaces. - No smoking.

Response P308 + P313 - IF exposed or concerned: Get medical attention.

Section 2: Hazards identification

Storage P405 - Store locked up.
P403 - Store in a well-ventilated place.
P235 - Keep cool.

Disposal P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified

None known.

Section 3: Composition/information on ingredients

Substance/mixture Mixture

Ingredient name	%	CAS number
DPG-DME	3 - 5	111109-77-4
(2-methoxymethylethoxy)propanol	3 - 5	34590-94-8
Paraffins (petroleum), normal C>10	1 - 3	64771-71-7
Carbon black	0.3 - 1	1333-86-4
propane-1,2-diol	0.3 - 1	57-55-6
2,2',2''-Nitrilotriethanol	<0.1	102-71-6
Acetone	<0.1	67-64-1
triethylamine	<0.1	121-44-8
dibutyltin dilaurate	<0.1	77-58-7
1-methoxy-2-propanol	<0.1	107-98-2
methanol	<0.1	67-56-1

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 as hazardous to health or the environment and hence require reporting in this section.

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

Section 4: First aid measures

Description of necessary first aid measures

Eye contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Section 4: First aid measures

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 Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact No known significant effects or critical hazards.

Inhalation No known significant effects or critical hazards.

Skin contact No known significant effects or critical hazards.

Ingestion No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact No specific data.

Inhalation No specific data.

Skin contact No specific data.

Ingestion No specific data.

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

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

Specific treatments No specific treatment.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training. 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.

Section 5: Fire-fighting measures

Specific hazards arising from the chemical

Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous thermal decomposition products

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

Special protective actions for fire-fighters

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

Special protective equipment for fire-fighters

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

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

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

For emergency responders

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

Environmental precautions

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

Methods and materials for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7: Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. 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.

Dry coat dust can be autoinflammable. Keep the paint wastes humides and work in water-trickeled cabins, to reduce the danger of autoinflammation.

Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 10 to 30°C (50 to 86°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
DPG-DME (2-methoxymethylethoxy)propanol	None. **ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** TWA: 100 ppm 8 hours. TWA: 606 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 909 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** **Absorbed through skin.** TWA: 100 ppm 8 hours. TWA: 600 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 900 mg/m³ 15 minutes.

Section 8: Exposure controls/personal protection

	NIOSH REL (United States, 10/2013). **Absorbed through skin.** TWA: 100 ppm 10 hours. TWA: 600 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 900 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2016).** **Absorbed through skin.** TWA: 100 ppm 8 hours. TWA: 600 mg/m³ 8 hours.
Paraffins (petroleum), normal C>10	None.
Carbon black	**OSHA PEL 1989 (United States, 3/1989).** TWA: 3.5 mg/m³ 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 3.5 mg/m³ 10 hours. TWA: 0.1 mg of PAHs/cm³ 10 hours. **OSHA PEL (United States, 6/2016).** TWA: 3.5 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2016).** TWA: 3 mg/m³ 8 hours. Form: Inhalable fraction
propane-1,2-diol	**AIHA WEEL (United States, 10/2011).** TWA: 10 mg/m³ 8 hours.
2,2',2''-Nitrilotriethanol	**ACGIH TLV (United States, 3/2016).** TWA: 5 mg/m³ 8 hours.
Acetone	**ACGIH TLV (United States, 3/2016).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 750 ppm 8 hours. TWA: 1800 mg/m³ 8 hours. STEL: 1000 ppm 15 minutes. STEL: 2400 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2013).** TWA: 250 ppm 10 hours. TWA: 590 mg/m³ 10 hours. **OSHA PEL (United States, 6/2016).** TWA: 1000 ppm 8 hours. TWA: 2400 mg/m³ 8 hours.
triethylamine	**ACGIH TLV (United States, 3/2017).** **Absorbed through skin.** TWA: 0.5 ppm 8 hours. STEL: 1 ppm 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 10 ppm 8 hours. TWA: 40 mg/m³ 8 hours. STEL: 15 ppm 15 minutes. STEL: 60 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2016).** TWA: 25 ppm 8 hours.

Section 8: Exposure controls/personal protection

	TWA: 100 mg/m³ 8 hours.
dibutyltin dilaurate	**ACGIH TLV (United States, 3/2017).** **Absorbed through skin.** TWA: 0.1 mg/m³, (as Sn) 8 hours. STEL: 0.2 mg/m³, (as Sn) 15 minutes. **NIOSH REL (United States, 10/2016).** **Absorbed through skin.** TWA: 0.1 mg/m³, (as Sn) 10 hours. **OSHA PEL (United States, 6/2016).** TWA: 0.1 mg/m³, (as Sn) 8 hours. **OSHA PEL 1989 (United States, 3/1989).** **Absorbed through skin.** TWA: 0.1 mg/m³, (measured as Sn) 8 hours. Form: Organic
1-methoxy-2-propanol	**ACGIH TLV (United States, 3/2017).** TWA: 50 ppm 8 hours. TWA: 184 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 369 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 100 ppm 8 hours. TWA: 360 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 540 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2016).** TWA: 100 ppm 10 hours. TWA: 360 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 540 mg/m³ 15 minutes.
methanol	**ACGIH TLV (United States, 3/2017).** **Absorbed through skin.** TWA: 200 ppm 8 hours. TWA: 262 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 328 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** **Absorbed through skin.** TWA: 200 ppm 8 hours. TWA: 260 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2016).** **Absorbed through skin.** TWA: 200 ppm 10 hours. TWA: 260 mg/m³ 10 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2016).** TWA: 200 ppm 8 hours.

Section 8: Exposure controls/personal protection

	TWA: 260 mg/m³ 8 hours.

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

Do not allow to enter drains or watercourses.

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

Use safety eyewear designed to protect against splash of liquids.

Skin protection

Hand protection

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment. 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. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

breakthrough time: 6 - 8h
Butyl rubber gloves. Thickness of the glove material: 0.5 mm
Nitrile gloves. Thickness of the glove material: 0.7 mm

Body protection

Personnel should wear antistatic clothing made of natural fibers or of high-temperature-resistant synthetic fibers.

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

organic vapor (Type A) and particulate filter (Type P1); Fresh-air tube device (DIN EN 138)

Section 9: Physical and chemical properties

Appearance		
Physical state	Liquid.	
Color	Black.	
Odor	Not available.	
Odor threshold	Not available.	
pH	7.2	
Melting point/freezing point	Not available.	
Initial boiling point and boiling range	>70°C (>158°F)	
Flash point	Closed cup: 150.8°F (66°C)	
Method	Abel-Pensky.	
Evaporation rate	Not available.	
Flammability (solid, gas)	Not available.	
Upper/lower flammability or explosive limits	Lower: 0.8%	
Vapor pressure	Not available.	
Vapor density	Not available.	
Density	1.07 g/cm³	
Method	DIN 53217	
Solubility	Not available.	
Solubility in water	Not available.	
Partition coefficient: n-octanol/water	Not available.	
Miscible in water.	Yes.	
Auto-ignition temperature	Not available.	
Ignition temperature	> 200°C / > 390°F (solvent part)	
Decomposition temperature	Not available.	
Explosive properties	Not available.	
Oxidizing properties	Not available.	
Burning time	Not applicable.	
Burning rate	Not applicable.	
Viscosity	8 to 12	sek 6 mm DIN 20°C
Solids content (by Weight)	35 %	
Molecular weight	Not applicable.	
Type of aerosol	Not applicable.	
Ignition distance	Not applicable.	
Enclosed space ignition - Time equivalent	Not applicable.	

Section 9: Physical and chemical properties

Enclosed space ignition - Deflagration density	Not applicable.
Flame height	Not applicable.
Flame duration	Not applicable.

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.
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
propane-1,2-diol	LD50 Dermal	Rabbit	20800 mg/kg	-
	LD50 Oral	Rat	20 g/kg	-
2,2',2''-Nitrilotriethanol	LD50 Oral	Rat	7.39 g/kg	-
Acetone	LD50 Oral	Rat	5800 mg/kg	-
methanol	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
(2-methoxymethylethoxy) propanol	Eyes - Mild irritant	Human	-	8 milligrams	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
propane-1,2-diol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Section 11: Toxicological information

	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Child	-	96 hours 30 Percent continuous	-
	Skin - Mild irritant	Human	-	168 hours 500 milligrams	-
	Skin - Moderate irritant	Human	-	72 hours 104 milligrams Intermittent	-
	Skin - Mild irritant	Woman	-	96 hours 30 Percent	-
2,2',2''-Nitrilotriethanol	Eyes - Mild irritant	Rabbit	-	10 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Human	-	72 hours 15 milligrams Intermittent	-
	Skin - Severe irritant	Mouse	-	50 Percent	-
	Skin - Mild irritant	Rabbit	-	24 hours 560 milligrams	-
Acetone	Eyes - Mild irritant	Human	-	186300 parts per million	-
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Carcinogenicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Classification

Product/ingredient name	OSHA	IARC	NTP
Carbon black	-	2B	-
2,2',2''-Nitrilotriethanol	-	3	-

Reproductive toxicity

Not available.

Section 11: Toxicological information

Conclusion/Summary No known significant effects or critical hazards.

Teratogenicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 3	Not applicable.	Narcotic effects
triethylamine	Category 3	Not applicable.	Respiratory tract irritation
dibutyltin dilaurate	Category 1	Not determined	thymus
1-methoxy-2-propanol	Category 3	Not applicable.	Narcotic effects
methanol	Category 1	Not determined	Not determined

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
dibutyltin dilaurate	Category 1	Not determined	immune system

Aspiration hazard

Name	Result
Paraffins (petroleum), normal C>10	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 No known significant effects or critical hazards.

Skin contact No known significant effects or critical hazards.

Ingestion No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact No specific data.

Inhalation No specific data.

Skin contact No specific data.

Ingestion No specific data.

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.

Section 11: Toxicological information

Long term exposure

Potential immediate effects	Not available.
Potential delayed effects	Not available.

Potential chronic health effects

Not available.

General	No known significant effects or critical hazards.
Carcinogenicity	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	No known significant effects or critical hazards.
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	43131.9 mg/kg

Section 12: Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
propane-1,2-diol	Acute EC50 >110 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1020000 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia	48 hours
	Acute LC50 710000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
2,2',2''-Nitrilotriethanol	Acute EC50 609.98 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 11800000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 16000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
dibutyltin dilaurate	Chronic EC10 >2 mg/l Fresh water	Algae - Scenedesmus subspicatus	96 hours

Persistence and degradability

Section 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
(2-methoxymethylethoxy) propanol	-	-	Readily
Carbon black	-	-	Not readily
propane-1,2-diol	-	-	Readily
Acetone	-	-	Readily
triethylamine	-	-	Readily
dibutyltin dilaurate	-	-	Inherent
1-methoxy-2-propanol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
(2-methoxymethylethoxy) propanol	0.0043	-	low
propane-1,2-diol	-0.92	-	low
2,2',2''-Nitrilotriethanol	-1	3.890451449	low
Acetone	-0.24	-	low
triethylamine	1.45	<0.5	low
dibutyltin dilaurate	4.44	2.91	low
1-methoxy-2-propanol	<1	-	low
methanol	-0.77	<10	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.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 13: Disposal considerations

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14: Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	UN1263	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	PAINT	-	-	-	-	-
Transport hazard class(es)	Combustible liquid.	-	-	-	-	-
Packing group	III	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.	No.

Additional information

DOT Classification Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials.

Special precautions for user **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code Not available.

Section 15: Regulatory information

United States

U.S. Federal regulations **Clean Water Act (CWA) 307**: copper dinitrate; pyrithione zinc; polychloro copper phthalocyanine; [N,N,N',N',N'',N''-hexaethyl-29H,31H-phthalocyaninetrimethylaminato (2-)-N29,N30,N31,N32]copper; 29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper

Clean Water Act (CWA) 311: triethylamine; copper dinitrate

Section 15: Regulatory information

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) Listed

Ingredient name	CAS number	Conc. [% by Weight]	Conc. Lim. used	Qualifier	Ref. number	Rep. Quantity	Date
Triethylamine	121-44-8	< 0.1	Concentration limit established via list definition was used: ≥0				15/11/1990
Methanol	67-56-1	< 0.1	Concentration limit established via list definition was used: ≥0				15/11/1990

Clean Air Act Section 183 (e) Control of emissions from certain sources (VOC) With volume exclusion [water excluded] 1.98 lbs/gal (237.5 g/l)

Clean Air Act Section 602 Class I Substances Not listed

Clean Air Act Section 602 Class II Substances Not listed

DEA List I Chemicals (Precursor Chemicals) Not listed

DEA List II Chemicals (Essential Chemicals) Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ Not applicable.

SARA 311/312

Classification FLAMMABLE LIQUIDS - Category 4
CARCINOGENICITY - Category 2

Composition/information on ingredients

Name	%	Classification
DPG-DME	3 - 5	FLAMMABLE LIQUIDS - Category 4
(2-methoxymethylethoxy) propanol	3 - 5	FLAMMABLE LIQUIDS - Category 4
Paraffins (petroleum), normal C>10	1 - 3	ASPIRATION HAZARD - Category 1
Carbon black	0.3 - 1	CARCINOGENICITY - Category 2

State regulations

Massachusetts The following components are listed: DIPROPYLENE GLYCOL METHYL ETHER; DIATOMACEOUS EARTH; AMORPHOUS SILICA

New York None of the components are listed.

Date of issue/Date of revision 8. January 2020

Section 15: Regulatory information

New Jersey The following components are listed: DIPROPYLENE GLYCOL METHYL ETHER; (2-METHOXYMETHYLETHOXY) PROPANOL; CARBON BLACK; COPPER compounds

Pennsylvania The following components are listed: PROPANOL, (2-METHOXYMETHYLETHOXY)-; SILICA; CARBON BLACK; COPPER COMPOUNDS

California Prop. 65

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

Ingredient name	No significant risk level	Maximum acceptable dosage level
Methanol	-	Yes.
Carbon black	-	-

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia At least one component is not listed.

Canada At least one component is not listed.

China At least one component is not listed.

Europe Not determined.

Japan **Japan inventory (ENCS)**: At least one component is not listed.
Japan inventory (ISHL): At least one component is not listed.

Malaysia Not determined.

New Zealand At least one component is not listed.

Philippines At least one component is not listed.

Republic of Korea At least one component is not listed.

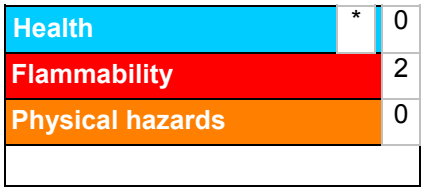
Taiwan Not determined.

Section 15: Regulatory information

Thailand	Not determined.
Turkey	Not determined.
United States	All components are listed or exempted.
Viet Nam	Not determined.

Section 16: Other information

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



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.

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

National Fire Protection Association (U.S.A.)

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 4 CARCINOGENICITY - Category 2	On basis of test data Calculation method

History

Date of issue	8. January 2020
Version	2

Date of issue/Date of revision	8. January 2020

Section 16: Other information

Print date	8. January 2020
CEPE code	2
Key to abbreviations	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	Not available.

Indicates information that has changed from previously issued version.

Notice to reader

Unless otherwise specified, percentages given in this safety data sheet are expressed as percentages per weight.

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Technical Data Sheet

Product Type: 2K Hydro Decor Soft Coating
Worwag Product Code: 127224 Technology Code: R6433

Customer: Dr. Schneider **OEM:** Subaru **Color Name:** Black **Color Code:** P4459

Performance Properties		
Storage information	:	Shelf life 6 months @ 10-30°C
Chemical characterization	:	Synthetic resins / protect from freezing

Physical Properties (as supplied)		
Viscosity (DIN #6 @ 20 °C)	:	10 ± 2 seconds
Density	:	1.06 ± 0.05 g/cm^3
WPG	:	8.88 ± 0.5 lb/gal
pH	:	7.0± 0.4
Weight Solid	:	34.0 ± 3.0% (wt)

Physical Properties (as applied)		
Activator	:	120319
Activator Ratio	:	100:30.0 by weight // 100:30 by volume
Reducer / Ratio	:	WT-C0514 (As needed to reach applied viscosity)
Applied Viscosity (DIN #6 @ 20 °C)	:	23 ± 4 seconds
Pot life	:	1 hour @ 20 - 25°C (It is recommended to use a 2K mixing unit).

Application Properties		
Stir Instruction	:	Follow general Wörwag mixing guidelines.
Film Thickness (dry film)	:	25-35 µm
Substrate	:	PC/ABS (Other substrates as tested to applicability.)
Pretreatment	:	Carefully cleaned, no dust, dirt, parting agents Or other residues on the surface.
Application Method	:	Robot Application or Hand Spray (HVLP)
Spray Application	:	Compressed Air
Gun Nozzle	:	1.1-1.5 mm
Pressure	:	3.4-4.8 bar (50-70 PSI)
Flash Off	:	Approx. 10 minutes @ 20-25°C
Curing Schedule	:	30 min @ 80°C
Gloss	:	1.8-2.2 units @ 60°

The technical information contained in this product data sheet and suggestions with reference to its application is based upon Worwag Coatings research and are believed to be reliable, but such information do not constitute a warranty either expressed or implied regarding specific OEM materials engineering requirements for application and/or performance properties. As with any coatings material care and required safety equipment should be utilized when using this product. Avoid any contact with skin or eyes. Adequate ventilation should be provided. Keep away from heat, sparks or flames. Keep container tightly sealed and comply with all local safety regulations regarding its transportation, use and storage. Refer to the Safety Data Sheet (SDS) for additional Health, Safety and Environmental information.

SAFETY DATA SHEET

Section 1: Product and company identification

Product code 120319

Product name INMOTIQ Hardener
H1000
transparent

Validation date 5. July 2019

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

Material uses Component (hardener) for 2-Pack-systems, used for industrial coating of metal and/or plastic material.

Supplier's details

Worwag Coatings LLC
3420 Kossuth ST
Lafayette, IN 47905
USA
Tel .: (765) 448-9681

Emergency telephone number (with hours of operation) Chemtrec 800-424-9300 (24h)

Section 2: Hazards identification

Classification of the substance or mixture

ACUTE TOXICITY (inhalation) - Category 4
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

GHS label elements

Hazard pictograms

Signal word Warning

Hazard statements
H332 - Harmful if inhaled.
H317 - May cause an allergic skin reaction.
H335 - May cause respiratory irritation.

Precautionary statements

General Not applicable.

Prevention
P280 - Wear protective gloves.
P271 - Use only outdoors or in a well-ventilated area.
P261 - Avoid breathing vapor.
P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.

Section 2: Hazards identification

Response	P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. P333 + P313 - If skin irritation or rash occurs: Get medical attention.
Storage	P403 + P233 - Store container tightly closed in well-ventilated place.
Disposal	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified

None known.

Section 3: Composition/information on ingredients

Substance/mixture Mixture

Ingredient name	%	CAS number
HDI oligomers, iminooxadiazindione Aliphatic isocyanate. 2-Oxepanone, polymer with 1,6-diisocyanatohexane and 1,6-hexanediol hexamethylene-di-isocyanate	25 - 50 25 - 50 10 - 15 <0.1	28182-81-2 666723-27-9 164250-92-4 822-06-0

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

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

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

Section 4: First aid measures

Description of necessary first aid measures

Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If 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.

Section 4: First aid measures

Skin contact Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. 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 Harmful if inhaled. May cause respiratory irritation.

Skin contact May cause an allergic skin reaction.

Ingestion No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact No specific data.

Inhalation Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact Adverse symptoms may include the following:
irritation
redness

Ingestion No specific data.

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

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

Specific treatments No specific treatment.

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

See toxicological information (Section 11)

Section 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
Special protective actions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

Methods and materials for containment and cleaning up

Small spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6: Accidental release measures

Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7: Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

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

Dry coat dust can be autoinflammable. Keep the paint wastes humides and work in water-trickeled cabins, to reduce the danger of autoinflammation.

Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 5 to 30°C (41 to 86°F). Store in accordance with local regulations. 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. 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

Section 8: Exposure controls/personal protection

Ingredient name	Exposure limits
HDI oligomers, iminooxadiazindione Aliphatic isocyanate. 2-Oxepanone, polymer with 1,6-diisocyanatohexane and 1,6-hexanediol hexamethylene-di-isocyanate	None. None. None. **ACGIH TLV (United States, 3/2016).** TWA: 0.005 ppm 8 hours. TWA: 0.03 mg/m³ 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 0.005 ppm 10 hours. TWA: 0.035 mg/m³ 10 hours. CEIL: 0.02 ppm 10 minutes. CEIL: 0.14 mg/m³ 10 minutes. **OSHA PEL 1989 (United States, 3/1989).** **Absorbed through skin.** TWA: 5 mg/m³, (as CN) 8 hours. **OSHA PEL (United States, 6/2016).** **Absorbed through skin.** TWA: 5 mg/m³, (as CN) 8 hours.

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.

Environmental exposure controls Do not allow to enter drains or watercourses.

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 Use safety eyewear designed to protect against splash of liquids.

Skin protection

Hand protection Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment. 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. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

breakthrough time: 6 - 8h
Butyl rubber gloves. Thickness of the glove material: 0.5 mm
Nitrile gloves. Thickness of the glove material: 0.7 mm

Section 8: Exposure controls/personal protection

Body protection	Personnel should wear antistatic clothing made of natural fibers or of high-temperature-resistant synthetic fibers.
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	organic vapor (Type A) and particulate filter (Type P1); Fresh-air tube device (DIN EN 138)

Section 9: Physical and chemical properties

Appearance

Physical state	Liquid.
Color	Colorless.
Odor	Not available.
Odor threshold	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	>70°C (>158°F)
Flash point	Closed cup: 215.6°F (102°C)
Method	Abel-Pensky.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Lower: 0.8%
Vapor pressure	Not available.
Vapor density	Not available.
Density	1.09 g/cm³
Method	DIN 53217
Solubility	Not available.
Solubility in water	Not available.
Partition coefficient: n-octanol/water	Not available.
Miscible in water.	No.
Auto-ignition temperature	Not available.
Ignition temperature	> 200°C / > 390°F (solvent part)
Decomposition temperature	Not available.
Explosive properties	Not available.
Oxidizing properties	Not available.
Burning time	Not applicable.
Burning rate	Not applicable.
Viscosity	Not available.
Solids content (by Weight)	68 %

Section 9: Physical and chemical properties

Molecular weight	Not applicable.
Type of aerosol	Not applicable.
Ignition distance	Not applicable.
Enclosed space ignition - Time equivalent	Not applicable.
Enclosed space ignition - Deflagration density	Not applicable.
Flame height	Not applicable.
Flame duration	Not applicable.

Section 10: Stability and reactivity

Reactivity No specific test data related to reactivity available for this product or its ingredients.

Chemical stability The product is stable.

Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid No specific data.

Incompatible materials No specific data.

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

Section 11: Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
HDI oligomers, iminooxadiazindione	LC50 Inhalation Dusts and mists	Rat	18500 mg/m³	1 hours
hexamethylene-di-isocyanate	LC50 Inhalation Dusts and mists	Rat	124 mg/m³	4 hours

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
HDI oligomers, iminooxadiazindione	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-

Sensitization

Section 11: Toxicological information

Not available.

Mutagenicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Carcinogenicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Reproductive toxicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Teratogenicity

Not available.

Conclusion/Summary No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
HDI oligomers, iminooxadiazindione	Category 3	Not applicable.	Respiratory tract irritation
Aliphatic isocyanate.	Category 3	Not applicable.	Respiratory tract irritation
2-Oxepanone, polymer with 1,6-diisocyanatohexane and 1, 6-hexanediol	Category 3	Not applicable.	Respiratory tract irritation
hexamethylene-di-isocyanate	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure Not available.

Potential acute health effects

Eye contact No known significant effects or critical hazards.

Inhalation Harmful if inhaled. May cause respiratory irritation.

Skin contact May cause an allergic skin reaction.

Ingestion No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact No specific data.

Section 11: Toxicological information

Inhalation	Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	Adverse symptoms may include the following: irritation redness
Ingestion	No specific data.

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	No known significant effects or critical hazards.
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
Dermal Inhalation (vapors) Inhalation (dusts and mists)	3697.7 mg/kg 80.96 mg/l 2.777 mg/l

Section 12: Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Aliphatic isocyanate.	Acute EC50 72 mg/l Acute LC50 35.2 mg/l	Algae - Desmodesmus subspicatus (Grünalge) Fish - Danio rerio (Zebrabärbling)	72 hours 96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Aliphatic isocyanate.	301F Ready Biodegradability - Manometric Respirometry Test	0 % - Not readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
HDI oligomers, iminooxadiazindione	-	-	Not readily
Aliphatic isocyanate.	-	-	Not readily
2-Oxepanone, polymer with 1, 6-diisocyanatohexane and 1, 6-hexanediol	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
HDI oligomers, iminooxadiazindione	5.54	706.2	high
hexamethylene-di-isocyanate	1.08	57.63	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

Section 13: Disposal considerations

safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14: Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-	-
Packing group	-	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.	No.

Special precautions for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Not available.

Section 15: Regulatory information

United States

U.S. Federal regulations

Clean Water Act (CWA) 307: hexamethylene-di-isocyanate

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

Listed

Date of issue/Date of revision	5. July 2019

Section 15: Regulatory information

Ingredient name	CAS number	Conc. [% by Weight]	Conc. Lim. used	Qualifier	Ref. number	Rep. Quantity	Date
Butyldiglykolacetat	124-17-4	25 - 50	Concentration limit established via list definition was used: ≥0				15/11/1990
Hexamethylene-1, 6-diisocyanate	822-06-0	< 0.1	Concentration limit established via list definition was used: ≥0				15/11/1990

Clean Air Act Section 183 (e) Control of emissions from certain sources (VOC) With volume exclusion [water excluded] 0.05 lbs/gal (6 g/l)

Clean Air Act Section 602 Class I Substances Not listed

Clean Air Act Section 602 Class II Substances Not listed

DEA List I Chemicals (Precursor Chemicals) Not listed

DEA List II Chemicals (Essential Chemicals) Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ Not applicable.

SARA 311/312

Classification ACUTE TOXICITY (inhalation) - Category 4
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Composition/information on ingredients

Name	%	Classification
HDI oligomers, iminooxadiazindione	25 - 50	ACUTE TOXICITY (inhalation) - Category 4 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Aliphatic isocyanate.	25 - 50	ACUTE TOXICITY (inhalation) - Category 4 SKIN SENSITIZATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
2-Oxepanone, polymer with 1, 6-diisocyanatohexane and 1, 6-hexanediol	10 - 15	ACUTE TOXICITY (inhalation) - Category 4 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

SARA 313

Section 15: Regulatory information

	Product name	CAS number	Concentration
Form R - Reporting requirements	Butyldiglykolacetat	-	Trade secret
Supplier notification	Butyldiglykolacetat	-	Trade secret

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

Massachusetts	None of the components are listed.
New York	None of the components are listed.
New Jersey	The following components are listed: Butyldiglykolacetat
Pennsylvania	None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	All components are listed or exempted.
Canada	All components are listed or exempted.
China	At least one component is not listed.
Europe	All components are listed or exempted.
Japan	**Japan inventory (ENCS)**: At least one component is not listed. **Japan inventory (ISHL)**: Not determined.
Malaysia	Not determined.
New Zealand	All components are listed or exempted.
Philippines	Not determined.
Republic of Korea	At least one component is not listed.
Taiwan	All components are listed or exempted.
Thailand	Not determined.

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Section 15: Regulatory information

Turkey	Not determined.
United States	All components are listed or exempted.
Viet Nam	Not determined.

Section 16: Other information

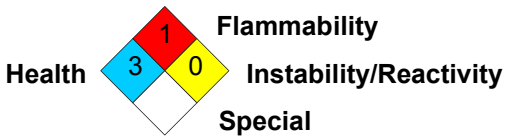
Hazardous Material Information System (U.S.A.)

Health	/	2
Flammability		0
Physical hazards		0

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.

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

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (inhalation) - Category 4 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method Calculation method Calculation method

History

Date of issue	5. July 2019
Version	7.01

Date of issue/Date of revision	5. July 2019

Section 16: Other information

Print date	18. December 2019
CEPE code	5
Key to abbreviations	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	Not available.

Indicates information that has changed from previously issued version.

Notice to reader

Unless otherwise specified, percentages given in this safety data sheet are expressed as percentages per weight.

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Mat.-No: 061771/001

WÖRWAG

061771-001

EC material safety data sheet

Material Safety data sheet in accordance with EC 1907/2006 (REACH)
Status : 26.10.2007 Date of printing : 22.11.2007
Version : 59619 / 12

1. Identification of the substance/preparation and company

Product details
59619 Woeropur - Haerter H 1000

farblos

Customer's Colour/No.
farblos

Intended use:
Component (hardener) for 2-Pack-systems, used for industrial coating of metal and/or plastic material.

Identification of the manufacturer / supplier
KARL WÖRWAG
Lack - und Farbenfabrik GmbH & Co. KG
Strohgäustraße 28, 70435 Stuttgart
Postfach 40 09 69, 70409 Stuttgart
Tel.: +49(0)711 - 8296 -0
Fax: +49(0)711 / 8296 -1222

Emergency telephone number

+49(0)711 - 8296 - 1242
Information provided by / telephone
EHS, Regulatory affairs / +49(0)711 - 8296 -1466
e-Mail: sdb@woerwag.de

2. Hazards possibilities

Hazard designation
Flammable
Harmful

Particular information pertaining specific risk for human / environment
Flammable
May cause sensitization by inhalation and skin contact.
Vapours may cause drowsiness and dizziness.
Contains Isocyanates. See information supplied by the manufacturers.This information is supplied in the present Safety Data Sheet.

3. Composition / information on ingredients

Chemical characterization
Polyisocyanates

Hazardous ingredients

CAS no.	Name :	content	Symbol	R phrases
28182-81-2	Polyisocyanates aliphatiques	ca. 27 %	XI	R 43
1330-20-7	xylene (mixture of isomers)	1 - 5 %	XN	R 10-20/21-38
123-86-4	n-butyl acetate	ca. 31 %		R 10-66-67
822-06-0	hexamethylene-di-isocyanate	< 1 %	T	R 23-36/37/38-42/43
26471-62-5	toluene-2,4-di-isocyanate, toluene-2,6-di-isocyana	< 1 %	T+	R 26-36/37/38-40-42/43-52/53
108-65-6	1-Methoxypropylacetat-2	1 - 5 %	XI	R 10-36

See full text of phrases under section 16.

4. First aid measures

General information
In case of accident or if you feel unwell, seek medical advice immediately.
Never give anything by mouth to an unconscious person.
If individual is drowsy or unconscious place in recovery position (on left side, with head down).

After inhalation
Ensure supply of fresh air.
Irregular breathing/no breathing: artificial respiration.
Keep breathing passages free.

After skin contact
Remove soiled or soaked clothing immediately.
Wash off immediately with soap and water.
Don't use solvents.

After eye contact
Separate eyelids, wash the eyes thoroughly with water (15 min.)
Seek medical aid immediately.

After ingestion
When swallowed seek medical aid immediately and show the physician the packaging or the lable of the packaging.
Provide for body rest, protect against loss of heat.
Do not induce vomiting.

5. Fire-fighting measures

Suitable extinguishing media
Alcohol-resistant foam, Carbon dioxide, Dry powder, Water spray jet

Extinguishing media that must not be used for safety reasons
Full water jet

Special exposure hazards arising from the substance or preparation itself, its combustion products

or from resulting gases
I case combustion evolution of dangerous gases possible.
If decomposition products are inhaled, remove the affected person to a source of fresh air and keep him calm. Provide medical aid.

Special protective equipment for firefighting
In case of combustion use a suitable breathing apparatus.

Other information (chapter 5.)
Cool endangered containers with water spray jet.
Collect contaminated firefighting water separately, must not be discharged into the drains.

6. Accidental release measures

Personal precautions
Keep away sources of ignition.
Other information
Refer to protective measures listed in sections 7 and 8.

Environmental precautions
Do not allow to enter drains or waterways.
In case the product spills into sewage waters, immediately inform the authorities.

Methods for cleaning up/taking up
Take up with absorbent material (eg sand, kieselguhr, universal binder).

7. Handling and storage

Handling

At allergies, asthma and chronic respiratory illnesses, no dealing with preparations of this type.

Advice on safe handling
Prevent the creation of flammable or explocsive concentrations of vapour in air and avoid vapour concentrations higher than the occupational exposure limits.
Preparation may charge electrostatically: always use earthing leads when transferring from one container to anather. Operators should wear anti-static footweare and clothing and floors should be of the conducting type.
Avoid contact with eyes and skin.
Do not breathe dust.
Do not eat, drink or smoke during work time.

Advice on protection against fire and explosion
Dust can form an explosive mixture with air.
Keep away from sources of ignition - refrain from smoking.
Dry coat dust can be autoinflammable. Keep the paint wastes humides and work in water-trickeled cabins , to reduce the danger of autoinflammation.

Storage

Requirements for storage rooms and vessels
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Hints on storage assembly
Do not store with acids or alkalies.
Do not store with strong oxidizing agents.

Further information on storage conditions
Always keep in containers of same material as the original one.
Recommended storage temperature: 15 - 25 °C.
Protect from heat and direct sunlight.
Keep container tightly closed in a well-ventilated place.
Follow the regulations about storage of inflammable liquids. (See chapter 15).

8. Exposure controls / personal protection

At allergies, asthma and chronic respiratory illnesses, no dealing with preparations of this type.

Additional hints on technical system design.

Provide adequate ventilation of working area (local exhaust ventilation if necessary).
If ventilation insufficient, use a respiratory protection apparatus.
Other information
If these are not sufficient to maintain concentrations of particulates and solvent vapour below OEL, suitable respiratory protection must be worn.
All personal protectiv equipment, including respiratory equipment, used to control exposure to hazardous substances must be selected to meet the requirements of the COSHH Regulations.

Exposure limits

CAS no.	Name :	Type	Value	Unit
1330-20-7	xylene (mixture of isomers)	AGW	100,000	ppm
123-86-4	n-butyl acetate	AGW	150,000	ppm
822-06-0	hexamethylene-di-isocyanate	AGW	0,005	ppm
26471-62-5	toluene-2,4-di-isocyanate, toluene-2,6-di-isocyan	AGW	0,010	ppm
108-65-6	1-Methoxypropylacetat-2	AGW	50,000	ppm

According e. g. TRGS (Federal Republic of Germany)

Personal protective equipment

Respiratory protection
If workers are exposed to concentrations obove the exposure limit they maust use appropriate, certified respirators.
Short term: filter apparatus, Filter P1
fresh air mask

Hand protection
Use barrier skin cream.
Neoprene gloves
Not suitable: rubber gloves / PVC gloves
See information supplied by the manufacturer.

Eye protection
Safety glasses with side protection shield

Skin protection
Wear protective clothing, anti-static

9. Physical and chemical properties

Appearance

Form : liquid Colour : farblos

	Value	Unit	method
Flash point	> 23	°C	DIN EN ISO 1523
Viscosity	21 - 29 sek 4 mm 20 C		DIN 53211
Density	1,0	g/cm³	DIN 53217
Lower explosion limit	0,8	% vol	
Upper explosion limit	not determined	% vol	
Solubility in water	immiscible		
pH value	not applicable		
Ignition temperature	200 - 300	°C	DIN 51794

10. Stability and reactivity

Conditions to avoid
See chapter 7; no measures exeeding the ones mentioned are necessary.

Materials to avoid
Acids, Alkalies, Oxidizing agents

Hazardous decomposition products
In the event of fire the following can be released: Carbon dioxide (CO2), Carbon monoxide (CO), Nitrogen oxides (NOx)

11. Toxicological information

Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weekness, drowsiness and in extreme cases, loss of consciousness.
Repeated and prolonged skin contact may lead to defatting and irritation of the skin.
There are no data available on the preparation itself. The prepaation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Sections 2 and 15 for details.

12. Ecological information

Ecological data are not available.
Do not allow product to reach the drainage.

13. Disposal considerations

Product

Recommendation of the manufacturer
Do not allow product to reach the drainage.
EWC waste code : 080111
Waste paint and varnish containing organic solvents or other dangerous substances

Uncleaned packaging

Recommendation of the manufacturer
Completely emptied packagings can be given for recycling.
Not completely emptied containers are to dispose of as hazardous waste.

14. Transport information

Land transport ADR/RID

Class : 3 UN number : 1866 Packaging group : III
Designation of commodity (country, inland waterway vessel) : HARZLOESUNG
contains

Marine transport IMDG

Class : 3 UN number : 1866 Packaging group : III
Subrisk
EmS MFAG
MARPOL : NO
proper shipping name : RESIN SOLUTION flammable
contains:

Air transport ICAO/IATA

Class : 3 UN number : 1866 Packaging group : III
proper shipping name : Resin solution flammable
contains:

15. Regulatory information

Labelling in accordance with EC directives

Hazard symbols
Flammable
XN Harmful

Hazardous component(s) to be indicated on label

contains
Polyisocyanates aliphatiques

toluene-2,4-di-isocyanate, toluene-2,6-di-isocyana

R phrases
10 Flammable
42/43 May cause sensitization by inhalation and skin contact.
67 Vapours may cause drowsiness and dizziness.

S phrases
23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
38 In case of insufficient ventilation, wear suitable respiratory equipment.
51 Use only in well-ventilated areas.

Contains Isocyanates. See information supplied by the manufacturers.This information is supplied in the present Safety Data Sheet.

Other regulations, restrictions and prohibition regulations
This product does correspond to the End of Life Vehicles Directive 2000/53/EC.
Product does not contain substances of the "List of declarable materials in automobile manufacturing - Substances in components and construction materials" (previous VDA-List 232-101; VDA = Union of the german automotive industry)
VOC (EU) : 40 %

16. Other information

R phrases
10 Flammable
20/21 Harmful by inhalation and in contact with skin.
23 Toxic by inhalation.
26 Very toxic by inhalation.
36 Irritating to eyes.
36/37/38 Irritating to eyes, respiratory system and skin.
38 Irritating to skin.
40 Possible risks of irreversible effects.
42/43 May cause sensitization by inhalation and skin contact.
43 May cause sensitization by skin contact.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.

Changed Chapters : 1

Other information
This information is based on our present state of knowledge and on current EU laws. The product is not to be used for other purposes than those specified under section 1 without first obtaining written handling instruction. It is always the responsibility of the user to take all necessary steps in order to fulfil the demand laid down in the local rules an legislation.The information in this SDS is meant as a description of the safety requirements of our product, it is not to be considered as a guarantee of the products' properties.