

1 - Product and Company Identification

Product name: Mulsifan 1450 MO
Product type/usage/industry: Polyethylene Glycol 1450 Monooleate
Manufacturer/Supplier Information: Zschimmer and Schwarz, Inc.
70 GA Hwy. 22 W
Milledgeville, GA 31061
Phone: (478) 454-1942
Emergency contact: **Company:** (478) 454-1942
CHEMTREC (24HR): (800) 424-9300

2 – Hazards Identification

Classification of the substance or mixture: Classification of this substance/mixture is based on
29 CFR 1910.1200/HazCom 2012 (GHS-US)

Acute Aquatic Toxicity	Category 2	H401	Toxic to aquatic life
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Labelling:

Signal Word:

None

Hazard Symbols:

None

Precautionary Statements:

P262: Do not get in eyes, on skin, or on clothing.
P273: Avoid release to the environment.
P302+352: IF ON SKIN: Wash with plenty of soap and water.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P314: Get medical advice/attention if you feel unwell.

Key to Hazard Categories:

1=Severe Hazard 2=Serious Hazard 3=Moderate Hazard 4=Slight Hazard 5=Minimal Hazard

3 – Composition/Information on Ingredients

<u>CAS Number</u>	<u>Material or component</u>	<u>Avg % weight</u>
9004-96-0	Poly(oxy-1,2-ethanediyl), α -(1-oxo-octadecenyl)- ω -hydroxy-, (Z)-	~ 100%

This is not intended to be a complete compositional disclosure. Information provided pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200/ HazCom 2012). See Section 8 for Exposure Limits, if any.

4 - First Aid Measures

Eyes:	Immediately flush with gentle but large stream of water for 15 min, lifting upper and lower eyelids occasionally. Get medical attention if irritation develops.
Skin:	Wash affected area with soap and water. If itching or redness develops, seek medical attention. Contaminated clothing should be removed immediately and washed before reuse. Contaminated shoes should be discarded.
Inhalation:	Move the person to fresh air. If breathing becomes difficult, contact a physician.
Ingestion:	Do not induce vomiting. If large amounts were swallowed, give water to drink and get medical attention if you feel unwell.

5 - Firefighting Measures

Extinguishing Media:	Water spray, dry chemical, alcohol foam, or carbon dioxide.
Unsuitable Extinguishing Media:	None known.
Special Protective Equipment for Firefighters:	Self-contained breathing apparatus and protective clothing when fighting any chemical fire.
Unusual Fire & Explosion Hazards:	In case of fire, containers may explode from internal pressure. Cool with water. May emit toxic fumes of CO and CO ₂ under fire conditions.

6 - Accidental Release Measures

Personal precautions:	Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep people away from and upwind of spill/leak. Ensure adequate ventilation, especially in confined areas. Keep away from heat and sources of ignition.
Environmental precautions:	P273: Avoid release to the environment Limit leakage with earth or sand. Do not discharge into the drains/surface water/groundwater. Dispose of absorbed material in accordance with local, state and federal regulations.
Methods for Containment/Cleaning Up:	Take up with absorbent material (e.g. vermiculite, general purpose binder). Dispose of absorbed material in accordance with local, state, and federal regulations.

7 - Handling and Storage

Handling:	P261: Avoid breathing mists of product P262: Do not get in eyes, on skin, or on clothing P264: Wash thoroughly after handling P280: Wear protective gloves/eye protection
Storage:	P402+404: Store in a dry place. Store in a closed container P403+233: Store in a well ventilated place. Keep container tightly closed Protect from moisture. Store in cool dry places between 32°F (0°C) and 95°F (35°C).
Special Packaging Requirements:	None known.
Incompatible Materials or Fire/Explosion Protection:	Strong oxidizers, strong acids, and strong bases at high temperatures.

8 - Exposure Controls/Personal Protection

Personal Protective Equipment (PPE):

Hand Protection: Use impervious gloves.
Eye Protection: Wear safety glasses with side shields.
Skin Protection: Wear protective clothing.
Respiratory Protection: Recommended if ventilation is limited.

Engineering Measures/Controls:

Ventilation: Ensure adequate ventilation to maintain product at acceptable airborne levels.
Other measures: Eye-wash station.

Exposure Limits/Guidelines:

Material	CAS #	BASIS	TYPE	VALUE
None				

9 - Physical and Chemical Properties

Form and Appearance:	Off-white solid, clear pale yellow liquid at melt	Odor:	Fatty
pH:	~ 6.5 @ 5%	Odor Threshold:	N/D
Boiling Point:	> 347°F (175°C)	Melting/Freezing point:	N/D
Vapor Pressure:	< 0.01 mmHg @ 20°C	Vapor Density (Air=1):	N/A
Flash Point:	> 302°F (150°C) (COC)	Evaporation Rate:	< 0.01
UEL:	N/A	LEL:	N/A
Viscosity:	N/D	Solubility in Water:	Dispersible
Octanol/Water Partition Coefficient:	~5.94 (lit.)	Specific Gravity/ Bulk Density:	N/D
Auto-ignition temperature:	N/D	Decomposition Temperature:	N/D
Volatile content:	< 1.0%	VOC Data:	N/D

10 - Stability and Reactivity

Chemical Stability: Product is stable under ordinary conditions of use and storage.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Exposure to moist air or water.

Incompatible Materials: Strong oxidizers, strong acids, and strong bases at high temperatures.

Hazardous Decomposition Products: Extremely high temperatures may produce CO_x; thermal decomposition may produce irritating aldehydes.

11 - Toxicological Information

Acute Data:

Principle Routes of Exposure: Eye contact, skin contact, ingestion, inhalation (mist).

Acute Toxicity

Route of exposure:	Test type:	Species:	Results:	Comments:
Oral	LD50	Rat	>2000 mg/kg	H303: May be harmful if swallowed

Irritation and Corrosion

Target organ:	Species:	Results:	Comments:
Eyes	Rabbit	Non-irritating	-
Skin	Rabbit	Non-irritating	-

Sensitization

Target organ:	Species:	Results:	Comments:
Skin	Human	No effects known	-

Specific Target Organ Toxicity – Single Exposure

Target organ:	Species:	Results:	Comments:
None			-

Chronic Data:

Carcinogenicity

IARC	NTP	ACGIH	OSHA
No	No	No	No

Mutagenicity: NDA

Reproductive Effects: NDA

Target Organ Effects: NDA

12 - Ecological Information

Acute Aquatic Toxicity

Species:	Test type:	Exposure time:	Results:	Comments:
Fish	LC50	96h	1 – 10 mg/l	H401: Toxic aquatic life
Daphnia magna	EC50	48h	1 – 10 mg/l	H401: Toxic aquatic life

Environmental Fate

Persistence/Degradability:	Product is readily biodegradable. >60% in 28d
COD/BOD5:	NDA
Bioaccumulation Potential:	No bioconcentration is expected because of the relatively high water solubility.
Mobility in Soil:	NDA
Other Adverse Effects:	NDA

13 - Disposal Considerations

Product:	Dispose of absorbed material/content and/or container in accordance with local, state, federal and/or international regulations.
Packaging:	NDA

14 - Transport Regulations

US DOT Regulations (Land Transport):

Proper Shipping Name:	Not regulated.
Hazard Class:	Not regulated.
UN Number:	Not regulated.
Packing Group:	Not regulated.
Label Required:	Not regulated.
Other Information:	Not regulated.

IATA/ICAO Regulations (Air Transport):

Proper Shipping Name:	Not regulated.
Hazard Class:	Not regulated.
UN Number:	Not regulated.
Packing Group:	Not regulated.
Label Required:	Not regulated.
Other Information:	Not regulated.

IMDG/IMO Regulations (Maritime Transport):

Proper Shipping Name:	Not regulated.
Hazard Class:	Not regulated.
UN Number:	Not regulated.
Packing Group:	Not regulated.
Label Required:	Not regulated.
EMS Number:	Not regulated.
Segregation Groups:	Not regulated.
Marine Pollutant (Y/N):	Not regulated.
Other Information:	Not regulated.

15 - Regulatory Information

Domestic Regulations

Components requiring notification

SARA 302 (TPQ)	SARA 304 (RQ)	SARA 313	CERCLA (RQ)	CAA 112(b) HAPS	CAA 112(r)
None	None	None	None	None	None

SARA 311/312 Hazard Categorization: None

State Information

California Proposition 65: May contain traces (< 100 ppm) of the following components known to the State of California to cause cancer, birth defects, or other reproductive harm.

Ethylene Oxide (75-21-8)
1,4-Dioxane (123-91-1)

**State Right to Know/
Hazardous Substance List
Information:** The following chemicals are present on one or more Right to Know/Hazardous Substance Lists for the states of MA, MN, NJ, PA and RI.

Ethylene Oxide (75-21-8)
1,4-Dioxane (123-91-1)
Polyethylene glycols (25322-68-3)

This is not an exhaustive list. For information on listings in other states, please consult that state's RTK/HSL.

Chemical Inventories

United States (TSCA)	EUROPE (EINECS/ELINCS/NLP)	Australia (AICS)	Philippines (PICCS)	Canada		Korea (ECL)	Japan (ENCS/ISHL)	China (IECSC)	New Zealand (NZIoC)
				DSL	NDSL				
Yes	Polymer	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes

16 - Additional Information

Key to Abbreviations:

NDA - No data available N/D - Not determined N/A - Not applicable N/E - Not established

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