

SECTION 1: IDENTIFICATION**1.1. IDENTIFICATION**

Product form : Mixture
Product name : ZL-440

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Recommended use : Non-Destructive Testing.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Manufacturer	Distributor
Magnaflux 155 Harlem Ave. Glenview, IL 60025 - USA T 847-657-5300	

1.4. EMERGENCY TELEPHONE NUMBER

Emergency number : CHEMTREC 800-424-9300

SECTION 2: HAZARD IDENTIFICATION**2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE****GHS classification**

Acute Tox. 4 (Oral)
Eye Dam. 1

2.2. LABEL ELEMENTS**GHS labelling**

Hazard pictograms (GHS) :



GHS05

GHS07

Signal word (GHS) : Danger

Hazard statements (GHS) : Harmful if swallowed. Causes serious eye damage.

Precautionary statements (GHS) : Wash hands, forearms and face thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. OTHER HAZARDS

No additional information available

2.4. UNKNOWN ACUTE TOXICITY

15.78% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1. SUBSTANCES**

Not applicable

3.2. MIXTURES

Name	Product identifier	%
Oxirane, methyl-, polymer with oxirane, mono(2-propylheptyl) ether	(CAS-No.) 166736-08-9	10 - 30
Diethylene glycol monobutyl ether	(CAS-No.) 112-34-5	5 - 13
9-Octadecenamide, N-(2-hydroxypropyl)-, (Z)-	(CAS-No.) 111-05-7	0.1 - 1.5

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: FIRST-AID MEASURES
4.1. DESCRIPTION OF FIRST AID MEASURES

- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : If skin irritation occurs: Wash skin with plenty of water. Obtain medical attention if irritation persists.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
- First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
- Symptoms/effects after skin contact : May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
- Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
- Symptoms/effects after ingestion : Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES
5.1. EXTINGUISHING MEDIA

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : None known.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.
- Reactivity : No dangerous reactions known under normal conditions of use.

5.3. ADVICE FOR FIREFIGHTERS

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: ACCIDENTAL RELEASE MEASURES
6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.1.1. FOR NON-EMERGENCY PERSONNEL

No additional information available

6.1.2. FOR EMERGENCY RESPONDERS

No additional information available

6.2. ENVIRONMENTAL PRECAUTIONS

Prevent entry to sewers and public waters.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

- For containment : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

6.4. REFERENCE TO OTHER SECTIONS

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: HANDLING AND STORAGE
7.1. PRECAUTIONS FOR SAFE HANDLING

- Precautions for safe handling : Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.
- Hygiene measures : Wash contaminated clothing before reuse. Wash hands, forearms and face thoroughly after handling.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- Storage conditions : Keep out of the reach of children. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1. CONTROL PARAMETERS

9-Octadecenamide, N-(2-hydroxypropyl)-, (Z)- (111-05-7)		
Not applicable		
Oxirane, methyl-, polymer with oxirane, mono(2-propylheptyl) ether (166736-08-9)		
Not applicable		
Diethylene glycol monobutyl ether (112-34-5)		
ACGIH	ACGIH TWA (ppm)	10 ppm (inhalable fraction and vapor)

8.2. EXPOSURE CONTROLS

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Hand protection : Wear suitable gloves.
- Eye protection : Wear eye/face protection.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Environmental exposure controls : Avoid release to the environment.
- Other information : Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

- Physical state : Liquid
- Appearance : Green liquid.
- Colour : Green
- Odour : Mild
- Odour threshold : No data available
- pH : 9
- Melting point : No data available
- Freezing point : No data available
- Boiling point : > 200 °F (93.33 °C)
- Flash point : > 200 °F (93.33 °C)
- Relative evaporation rate (butylacetate=1) : No data available
- Flammability (solid, gas) : No data available
- Vapour pressure : No data available
- Relative vapour density at 20 °C : No data available
- Relative density : 1.007
- Solubility : No data available
- Partition coefficient n-octanol/water : No data available
- Auto-ignition temperature : No data available

Decomposition temperature	: No data available
Viscosity, kinematic	: 14 cSt (@ 100 °F/37.78 °C)
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. OTHER INFORMATION

VOC content	: 66.46 g/l
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SECTION 10: STABILITY AND REACTIVITY
10.1. REACTIVITY

No dangerous reactions known under normal conditions of use.

10.2. CHEMICAL STABILITY

Stable under normal conditions.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reactions known under normal conditions of use.

10.4. CONDITIONS TO AVOID

Heat. Incompatible materials.

10.5. INCOMPATIBLE MATERIALS

Strong oxidizing agents.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

May include, and are not limited to: oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION
11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified.
Acute toxicity (inhalation)	: Not classified.

ATE CA (oral)	500 mg/kg bodyweight
Unknown acute toxicity (GHS CA)	15.78% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)

Diethylene glycol monobutyl ether (112-34-5)	
LD50 oral rat	5660 mg/kg
LD50 dermal rabbit	2700 mg/kg

Skin corrosion/irritation	: Not classified. pH: 9
Serious eye damage/irritation	: Causes serious eye damage. pH: 9
Respiratory or skin sensitisation	: Not classified.
Germ cell mutagenicity	: Not classified.
Carcinogenicity	: Not classified.
Reproductive toxicity	: Not classified.
STOT-single exposure	: Not classified.
STOT-repeated exposure	: Not classified.
Aspiration hazard	: Not classified.

ZL-440	
Viscosity, kinematic (calculated value) (40 °C)	14 mm ² /s (100 °F / 38 °C)

Symptoms/effects after inhalation	: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact	: May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Prepared according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Symptoms/effects after ingestion : Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
 Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Diethylene glycol monobutyl ether (112-34-5)	
LC50 fish 1	1300 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	> 100 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. PERSISTENCE AND DEGRADABILITY

ZL-440	
Persistence and degradability	Not established.

12.3. BIOACCUMULATIVE POTENTIAL

ZL-440	
Bioaccumulative potential	Not established.

Diethylene glycol monobutyl ether (112-34-5)	
BCF fish 1	(no bioconcentration expected)

12.4. MOBILITY IN SOIL

No additional information available

12.5. OTHER ADVERSE EFFECTS

Other information : No other effects known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14: TRANSPORT INFORMATION

In accordance with DOT/TDG/IATA/IMDG

DOT (bulk) : Not regulated for transport
 DOT (non-bulk) : Not regulated for transport
 Transportation of Dangerous Goods : Not regulated for transport
 IATA : Not regulated for transport
 IMDG : Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. FEDERAL REGULATIONS

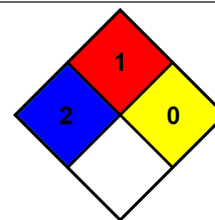
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories except for:

Oxirane, methyl-, polymer with oxirane, mono(2-propylheptyl) ether	CAS-No. 166736-08-9
Oxirane, methyl-, polymer with oxirane, mono(2-propylheptyl) ether (166736-08-9)	
EPA TSCA Regulatory Flag	PMN - PMN - indicates a commenced PMN substance. XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

Prepared according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

NFPA health hazard	:	2
NFPA fire hazard	:	1
NFPA reactivity	:	0

**15.2. US STATE REGULATIONS**

 **WARNING:** Cancer - www.P65Warnings.ca.gov.

SECTION 16: OTHER INFORMATION

Revision date	:	07/23/2019
Other information	:	None.
Prepared by	:	Nexreg Compliance Inc. www.Nexreg.com



Indication of changes:
VOC content.

SDS HazCom 2012 - WHMIS 2015 (Nexreg_MAGNAFLUX)

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