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

Date of issue: 07/03/2019 Revision date: 07/23/2019 Version: 1.1

SECTION 1: IDENTIFICATION

1.1. IDENTIFICATION

Product form : Mixture

Product name : ZL-425

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

Distributor

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 labeling

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 or 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 or 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

14.07% 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 - 10

***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 or doctor/physician.

First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician 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/vapors/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

Diethylene glycol monobutyl ether (112-34-5)		
ACGIH	ACGIH TWA (ppm)	10 ppm (inhalable fraction and vapor)
Manitoba	OEL TWA (ppm)	10 ppm (inhalable fraction and vapor)
Newfoundland & Labrador	OEL TWA (ppm)	10 ppm (inhalable fraction and vapor)
Nova Scotia	OEL TWA (ppm)	10 ppm (inhalable fraction and vapor)
Ontario	OEL TWA (ppm)	10 ppm (inhalable fraction and vapor)
Prince Edward Island	OEL TWA (ppm)	10 ppm (inhalable fraction and vapor)

Oxirane, methyl-, polymer with oxirane, mono(2-propylheptyl) ether (166736-08-9)
Not applicable

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.

Color : Green

Odor : Mild

Odor 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 (butyl acetate=1) : No data available

Flammability (solid, gas) : No data available

Vapor pressure : No data available

Relative vapor density at 20 °C : No data available

Relative density : 0.999

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	:	14.4 cSt (@ 100 °F/37.78 °C)
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. OTHER INFORMATION

VOC content : 59.94 g/l

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 body weight
Unknown acute toxicity (GHS CA)	14.07% 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 sensitization	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
Specific target organ toxicity – single exposure	:	Not classified
Specific target organ toxicity – repeated exposure	:	Not classified
Aspiration hazard	:	Not classified

ZL-425	
Viscosity, kinematic (calculated value) (40 °C)	14.4 mm²/s (@ 100 °F)

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.
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-425	
Persistence and degradability	Not established.

12.3. BIOACCUMULATIVE POTENTIAL

ZL-425	
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

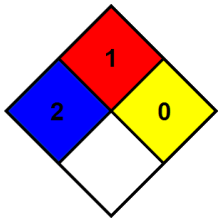
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

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).

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

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.