

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

Date of issue: 11/30/2018 Revision date: 07/26/2019 Version: 2.0

SECTION 1: IDENTIFICATION

1.1. IDENTIFICATION

Product form : Mixture
 Product name : ZL-405
 Product code : Not available

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
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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

Eye Dam. 1

2.2. LABEL ELEMENTS

GHS labelling

Hazard pictograms (GHS) : 

GHS05

Signal word (GHS) : Danger
 Hazard statements (GHS) : Causes serious eye damage.
 Precautionary statements (GHS) : Wear protective gloves/protective clothing/eye protection/face protection. 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.

2.3. OTHER HAZARDS

No additional information available

2.4. UNKNOWN ACUTE TOXICITY

Not applicable

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	3 - 7

*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 : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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 : May be 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 : Water spray. Dry powder. Foam.
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

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). Spilled material may present a slipping hazard.

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. Spills of this material are a slipping hazard.

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 without prior consultation of water authority.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

- For containment : Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.
- 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. Provide adequate ventilation.
- Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

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

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 : No data available
 Odour threshold : No data available
 pH : 8.25
 Melting point : No data available
 Freezing point : No data available
 Boiling point : > 100 °C (212 °F)
 Flash point : > 200°F (>93°C)
 Relative evaporation rate (butylacetate=1) : No data available
 Flammability (solid, gas) : Not flammable.
 Vapour pressure : No data available
 Relative vapour density at 20 °C : No data available
 Relative density : 1.01 g/cm³
 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 : 4.79 cSt
 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 : 44.44 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

Acids. alkalines. Caustics. Halogens. Reactive 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) : Not classified.
 Acute toxicity (dermal) : Not classified.
 Acute toxicity (inhalation) : Not classified.

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: Neutral
Serious eye damage/irritation	: Causes serious eye damage. pH: Neutral
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-405	
Viscosity, kinematic (calculated value) (40 °C)	4.79 mm ² /s
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	: May be 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-405	
Persistence and degradability	Not established.

12.3. BIOACCUMULATIVE POTENTIAL

ZL-405	
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 in a safe manner in accordance with local/national regulations. The generation of waste should be avoided or minimized wherever possible.

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

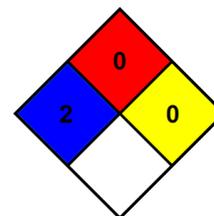
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

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
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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	: 0
NFPA reactivity	: 0


15.2. INTERNATIONAL REGULATIONS

No additional information available

15.3. US STATE REGULATIONS
 **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

SECTION 16: OTHER INFORMATION

Revision date : 07/26/2019
Other information : None.
Prepared by : Nexreg Compliance Inc.
www.Nexreg.com



SDS HazCom 2012 - WHMIS 2015 (Nexreg_MAGNAFLUX)

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