

## SECTION 1: IDENTIFICATION

### 1.1. IDENTIFICATION

Product form : Mixtures

Product name : ZL-4C

### 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: HAZARDS IDENTIFICATION

### 2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

The hazards given in this SDS apply to the product at full concentration. By diluting the product, the hazards will be reduced. It is up to the employer/user to determine the proper personal protection equipment and safety precautions when using diluted product.

#### GHS classification

 Skin Irrit. 2  
 Eye Irrit. 2A

### 2.2. LABEL ELEMENTS

#### GHS labelling

Hazard pictograms (GHS) :



GHS07

Signal word (GHS) :

Warning

Hazard statements (GHS) :

Causes skin irritation. Causes serious eye irritation

Precautionary statements (GHS) :

Wash hands, forearms and face thoroughly after handling. Wear protective gloves, eye protection, face protection. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/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 advice/attention

### 2.3. OTHER HAZARDS

No additional information available

### 2.4. UNKNOWN ACUTE TOXICITY

Not applicable

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. SUBSTANCE

Not applicable

### 3.2. MIXTURES

Name	Product identifier	%
2,4-Pentanediol, 2-methyl-	(CAS No) 107-41-5	14.97
Alcohols, C12-15, ethoxylated propoxylated	(CAS No) 68551-13-3	14.00

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

## 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 ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
- 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. If eye irritation persists: Get medical advice/attention.
- 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/injuries after inhalation : May cause irritation to the respiratory tract.
- Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Symptoms/injuries after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

### 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: FIREFIGHTING 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, Aldehydes, Various hydrocarbon fragments.
- 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 : 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.

### 6.4. REFERENCE TO OTHER SECTIONS

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

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

## 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 : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

### 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

2,4-Pentanediol, 2-methyl- (107-41-5)		
ACGIH	ACGIH Ceiling (ppm)	25 ppm
NIOSH	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	125 mg/m <sup>3</sup>
NIOSH	NIOSH REL (ceiling) (ppm)	25 ppm
Alcohols, C12-15, ethoxylated propoxylated (68551-13-3)		
Not applicable		

### 8.2. EXPOSURE CONTROLS

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Hand protection : Wear suitable gloves resistant to chemical penetration.
- Eye protection : Wear eye/face protection.
- 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 : No data available
- Colour : Green
- Odour : Characteristic
- Odour threshold : No data available
- pH : Neutral
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Flammability (solid, gas) : Not flammable
- Vapour pressure : < 1 mm Hg
- Relative vapour density at 20 °C : No data available
- Relative density : 1.006
- 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 : 5.5 cSt
- Viscosity, dynamic : No data available
- Explosive limits : No data available

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Explosive properties : No data available  
Oxidising properties : No data available

## 9.2. OTHER INFORMATION

VOC content : 15.496 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. Direct sunlight. Incompatible materials.

### 10.5. INCOMPATIBLE MATERIALS

Strong acids. Strong bases. Materials reactive with hydroxyl compounds. Alcohols. Amines. Oxidizing agent.

### 10.6. HAZARDOUS DECOMPOSITION PRODUCTS

May include, and are not limited to: oxides of carbon, Aldehydes, Various hydrocarbon fragments.

## 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.

ZL-4C	
LD50 oral rat	> 2000 mg/kg (Calculated acute toxicity estimate)
LD50 dermal rabbit	> 2000 mg/kg (Calculated acute toxicity estimate)
LC50 inhalation rat	> 20 mg/l/4h (Calculated acute toxicity estimate)

2,4-Pentanediol, 2-methyl- (107-41-5)	
LD50 oral rat	3700 mg/kg
LC50 inhalation rat	> 310 mg/m <sup>3</sup> /1h

Alcohols, C12-15, ethoxylated propoxylated (68551-13-3)	
LD50 oral rat	1350 mg/kg
LD50 dermal rat	2000 mg/kg

Skin corrosion/irritation : Causes skin irritation.  
pH: Neutral  
Serious eye damage/irritation : Causes serious eye irritation.  
pH: Neutral  
Respiratory or skin sensitization : 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-4C	
Viscosity, kinematic (calculated value) (40 °C)	5.5 mm <sup>2</sup> /s

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Symptoms/injuries after inhalation	: May cause irritation to the respiratory tract.
Symptoms/injuries after skin contact	: Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact	: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/injuries after ingestion	: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
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.

2,4-Pentanediol, 2-methyl- (107-41-5)	
LC50 fish 1	10500 - 11000 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	2700 - 3700 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	10000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

### 12.2. PERSISTENCE AND DEGRADABILITY

ZL-4C	
Persistence and degradability	Not established.

### 12.3. BIOACCUMULATIVE POTENTIAL

ZL-4C	
Bioaccumulative potential	Not established.

2,4-Pentanediol, 2-methyl- (107-41-5)	
Partition coefficient n-octanol/water	< 0.14

### 12.4. MOBILITY IN SOIL

No additional information available

### 12.5. OTHER ADVERSE EFFECTS

Effect on the global warming : No known effects from this product.

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.

## 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.

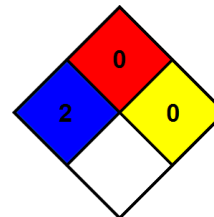
All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

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

**Alcohols, C12-15, ethoxylated propoxylated (68551-13-3)**

EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e, Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).
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NFPA health hazard : 2  
 NFPA fire hazard : 0  
 NFPA reactivity : 0



**15.2. INTERNATIONAL REGULATIONS**

No additional information available.

**15.3. US STATE REGULATIONS**

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

**2,4-Pentanediol, 2-methyl- (107-41-5)**

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

**SECTION 16: OTHER INFORMATION**

Revision date : 12/07/2016  
 Other information : None.  
 Prepared by : Nexreg Compliance Inc.  
[www.Nexreg.com](http://www.Nexreg.com)



SDS HazCom 2012 - WHMIS 2015 Nexreg Magnaflux

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