

## SECTION 1: IDENTIFICATION

### 1.1. PRODUCT IDENTIFIER

Product name : ZL-60D Aerosol  
 Product code : Not available

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

Use of the substance/mixture : 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

#### GHS classification

Flam. Aerosol 2  
 Liquefied gas  
 Skin Irrit. 2  
 Eye Dam. 1  
 Skin Sens. 1  
 Asp. Tox. 1  
 Simple Asphy

### 2.2. LABEL ELEMENTS

#### GHS labelling

Hazard pictograms (GHS) :



Signal word (GHS) :

Danger

Hazard statements (GHS) :

Flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May be fatal if swallowed and enters airways. May displace oxygen and cause rapid suffocation.

Precautionary statements (GHS) :

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Wear protective gloves/eye protection/face protection. Contaminated work clothing must not be allowed out of the workplace. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash 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. Immediately call a poison center/doctor. If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

### 2.3. OTHER HAZARDS

No additional information available.

### 2.4. UNKNOWN ACUTE TOXICITY (GHS)

Not applicable.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. SUBSTANCE

Not applicable.

#### 3.2. MIXTURE

Name	Product identifier	%
Petroleum gases, liquefied, sweetened	(CAS No) 68476-86-8	30
Petroleum distillates, hydrotreated light	(CAS No) 64742-47-8	24.54
Alcohols, C6-12, ethoxylated propoxylated or Alcohols, C6-10, ethoxylated propoxylated	(CAS No) 68937-66-6 or (CAS No) 68987-81-5	14.01
Alcohols, C12-15, ethoxylated propoxylated	(CAS No) 68551-13-3	11.92
Alcohols, C12-14-secondary, ethoxylated	(CAS No) 84133-50-6	5.61
9-Octadecenamide, N-(2-hydroxypropyl)-, (Z)-	(CAS No) 111-05-7	1.90
Coumarin, 7-(diethylamino)-4-methyl-	(CAS No) 91-44-1	1.02

### SECTION 4: FIRST AID MEASURES

#### 4.1. DESCRIPTION OF FIRST AID MEASURES

- First-aid measures after inhalation : If inhaled, remove 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 : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.
- First-aid measures after ingestion : IF SWALLOWED: immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

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

- Symptoms/injuries after inhalation : May cause respiratory tract irritation. May displace oxygen and cause rapid suffocation. May cause cardiac arrhythmia.
- Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
- Symptoms/injuries 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/injuries after ingestion : May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

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

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

### SECTION 5: FIREFIGHTING MEASURES

#### 5.1. EXTINGUISHING MEDIA

- Suitable extinguishing media : Water spray. Water fog. Foam. Dry chemical. Carbon dioxide.
- Unsuitable extinguishing media : Do not use water jet.

#### 5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

- Fire hazard : Flammable aerosol. Products of combustion may include, and are not limited to: oxides of carbon, oxides of nitrogen, oxides of sulfur and hydrocarbons.
- Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

#### 5.3. ADVICE FOR FIREFIGHTERS

- Firefighting instructions : DO NOT fight fire when fire reaches explosives. Evacuate area.
- 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 : Remove ignition sources. Use special care to avoid static electric charges. Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

**6.2. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP**

- For containment : Stop leak, if possible without risk. Move containers from spill area. Use only non-sparking tools. Use explosion-proof equipment. 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 : Scoop up material and place in a disposal container. Provide ventilation.

**6.3. REFERENCE TO OTHER SECTIONS**

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

**SECTION 7: HANDLING AND STORAGE**

**7.1. PRECAUTIONS FOR SAFE HANDLING**

- Additional hazards when processed : Keep away from sources of ignition - No smoking. Hazardous waste due to potential risk of explosion. Pressurized container: Do not pierce or burn, even after use.
- Precautions for safe handling : Do not spray on an open flame or other ignition source. Use non-sparking tools. Use explosion-proof equipment. Take precautionary measures against static discharge. Do not get in eyes, on skin, or on clothing. 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 : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

**7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES**

- Technical measures : Proper grounding procedures to avoid static electricity should be followed.
- Storage conditions : Keep locked up and out of reach of children. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatibles. Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep in fireproof place.

**7.3. SPECIFIC END USE(S)**

Not available.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. CONTROL PARAMETERS**

Petroleum gases, liquefied, sweetened (68476-86-8)		
ACGIH	ACGIH STEL (ppm)	1000 ppm
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
Petroleum distillates, hydrotreated light (64742-47-8)		
ACGIH	Not applicable	
OSHA	Not applicable	
Alcohols, C6-12, ethoxylated propoxylated (68937-66-6)		
ACGIH	Not applicable	
OSHA	Not applicable	
Alcohols, C6-10, ethoxylated propoxylated (68987-81-5)		
ACGIH	Not applicable	
OSHA	Not applicable	
Alcohols, C12-15, ethoxylated propoxylated (68551-13-3)		
ACGIH	Not applicable	
OSHA	Not applicable	
Alcohols, C12-14-secondary, ethoxylated (84133-50-6)		
ACGIH	Not applicable	
OSHA	Not applicable	
9-Octadecenamide, N-(2-hydroxypropyl)-, (Z)- (111-05-7)		
ACGIH	Not applicable	
OSHA	Not applicable	

**Coumarin, 7-(diethylamino)-4-methyl- (91-44-1)**

ACGIH	Not applicable
OSHA	Not applicable

**8.2. EXPOSURE CONTROLS**

Appropriate engineering controls	: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapour, etc.) below recommended exposure limits.
Hand protection	: Wear chemically resistant protective gloves.
Eye protection	: Wear approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).
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	: Maintain levels below Community environmental protection thresholds.
Other information	: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

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

Physical state	: Gas/Pressurized Liquid
Appearance	: Oily
Colour	: Green
Odour	: Mild
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Flammable
Explosive limits	: No data available
Explosive properties	: Pressurised container: May burst if heated.
Oxidising properties	: No data available
Vapour pressure	: No data available
Relative density	: No data available
Relative vapour density at 20 °C	: No data available
Solubility	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

**9.2. OTHER INFORMATION**

VOC content	: 441.85 g/l
Heat of combustion	: 14,879 Btu/lb

**SECTION 10: STABILITY AND REACTIVITY****10.1. REACTIVITY**

No dangerous reaction known under conditions of normal use.

**10.2. CHEMICAL STABILITY**

Flammable aerosol. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Extreme risk of explosion by shock, friction, fire or other sources of ignition.

**10.3. POSSIBILITY OF HAZARDOUS REACTIONS**

No dangerous reaction known under conditions of normal use.

**10.4. CONDITIONS TO AVOID**

Sources of ignition. Heat. Incompatible materials.

**10.5. INCOMPATIBLE MATERIALS**

Strong oxidizers. Acids. Bases. Caustics. Halogens. Alkalis.

**10.6. HAZARDOUS DECOMPOSITION PRODUCTS**

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

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1. INFORMATION ON TOXICOLOGICAL EFFECTS**

Acute toxicity : Not classified.

ZL-60D Aerosol	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 5 mg/l/4h

Petroleum distillates, hydrotreated light (64742-47-8)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 5.2 mg/l/4h

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

Alcohols, C12-14-secondary, ethoxylated (84133-50-6)	
LD50 oral rat	2100 mg/kg

Coumarin, 7-(diethylamino)-4-methyl- (91-44-1)	
LD50 oral rat	5 g/kg

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	: Based on available data, the classification criteria are not met.
Aspiration hazard	: May be fatal if swallowed and enters airways.
Symptoms/injuries after inhalation	: May cause respiratory tract irritation. May displace oxygen and cause rapid suffocation. May cause cardiac arrhythmia.
Symptoms/injuries after skin contact	: Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
Symptoms/injuries 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/injuries after ingestion	: May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1. TOXICITY**

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

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

**12.2. PERSISTENCE AND DEGRADABILITY**

ZL-60D Aerosol	
Persistence and degradability	Not established.

**12.3. BIOACCUMULATIVE POTENTIAL**

ZL-60D Aerosol	
Bioaccumulative potential	Not established.

**12.4. MOBILITY IN SOIL**

No additional information available.

**12.5. OTHER ADVERSE EFFECTS**

Effect on the global warming : No known ecological damage caused by this product.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1. WASTE TREATMENT METHODS**

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

Additional information : Pressurized container: Do not pierce or burn, even after use. Flammable vapours may accumulate in the container.

**SECTION 14: TRANSPORT INFORMATION**

In accordance with DOT/TDG/IATA/IMDG

DOT Ground : Consumables, Limited Quantity  
 TDG : Consumables, Limited Quantity  
 IATA : UN 1950, Aerosols, Flammable, 2.1  
 IMDG : UN 1950, Aerosols, 2.1 (Limited Quantity)

**ADDITIONAL INFORMATION**

Other information : No supplementary information available.  
 Special transport precautions : Do not handle until all safety precautions have been read and understood.

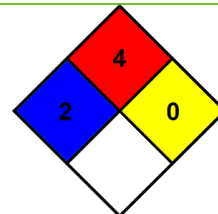
**SECTION 15: REGULATORY INFORMATION**

**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.

NFPA health hazard : 2  
 NFPA fire hazard : 4  
 NFPA reactivity : 0



**15.2. US STATE REGULATIONS**

ZL-60D Aerosol	
State or local regulations	This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

**SECTION 16: OTHER INFORMATION**

Date of issue : 04/13/2016  
 Revision date : 04/13/2016  
 Other information : None.

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