

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. PRODUCT IDENTIFIER

Product name : ZL-27A 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  
Eye Irrit. 2B  
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 eye irritation. 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. Wash hands thoroughly after handling. 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. 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	30.10
Petroleum distillates, hydrotreated light	(CAS No) 64742-47-8	26.24
Castor oil	(CAS No) 8001-79-4	12.27
Triphenyl phosphate	(CAS No) 115-86-6	< 1.30
Coumarin, 7-(diethylamino)-4-methyl-	(CAS No) 91-44-1	1.11

**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 : If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.
- 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. If irritation persists, get medical attention.
- 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 : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- Symptoms/injuries after eye contact : Causes 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 stomach distress, nausea or vomiting. May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis.

**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 fog. Water spray. 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, phosphorus oxides, nitrogen oxides and oxides of sulfur.
- 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). Use water spray to keep fire-exposed containers cool.

**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. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. 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	
Castor oil (8001-79-4)		
ACGIH	Not applicable	
OSHA	Not applicable	
Triphenyl phosphate (115-86-6)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
USA - IDLH	US IDLH (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
USA - NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
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	: Safety glasses or goggles are recommended when using product.
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 oily
Odour threshold	: No data available
pH	: Neutral
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	: Pressurized 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	: 349.12 g/l
Heat of combustion	: 14,582 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. Strong acids. Strong alkalis.

**10.6. HAZARDOUS DECOMPOSITION PRODUCTS**

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

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Acute toxicity : Not classified.

ZL-27A 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

Triphenyl phosphate (115-86-6)	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	> 10000 mg/kg

Coumarin, 7-(diethylamino)-4-methyl- (91-44-1)	
LD50 oral rat	5000 mg/kg

Skin corrosion/irritation : Based on available data, the classification criteria are not met.

Serious eye damage/irritation : Causes eye irritation.

Respiratory or skin sensitisation : Based on available data, the classification criteria are not met.

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 : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Symptoms/injuries after eye contact : Causes 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 stomach distress, nausea or vomiting. May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. TOXICITY

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

### 12.2. PERSISTENCE AND DEGRADABILITY

ZL-27A Aerosol	
Persistence and degradability	Not established.

### 12.3. BIOACCUMULATIVE POTENTIAL

ZL-27A 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.

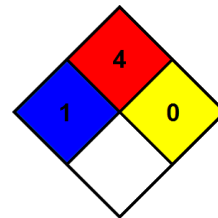
**SECTION 15: REGULATORY INFORMATION**

**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 : 1  
 NFPA fire hazard : 4  
 NFPA reactivity : 0



**15.2. US STATE REGULATIONS**

**ZL-27A Aerosol**

State or local regulations	This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
----------------------------	--

**SECTION 16: OTHER INFORMATION**

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

*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.*