

SAFETY DATA SHEET

According to Safe Work Australia

1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: ZL-60D AEROSOL

Other Means of Identification: Mixture

Part Number: 13010026

Recommended Use of the Chemical and Restriction on Use: Non-destructive testing

Details of Manufacturer or Importer:

Andrew Engineering Pty Ltd

86-90 Northern Road

West Heidelberg VIC 3081

Phone Number: +61 3 9457 0700

Emergency telephone number: National Poison Information Centre: 13 11 26

2 . HAZARDS IDENTIFICATION

Hazardous Nature:

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).



flame

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



corrosion

Eye Dam. 1 H318 Causes serious eye damage.



Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Acute 3 H402 Harmful to aquatic life.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

Signal Word Danger

Hazard Statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

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H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H304	May be fatal if swallowed and enters airways.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
P211	Do not spray on an open flame or other ignition source.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P273	Avoid release to the environment.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see on this label).
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P330	Rinse mouth.
P331	Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container in accordance with local/regional/national regulations.

3 . COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:

68476-86-8	Petroleum gases, liquefied, sweetened ⚠ Flam. Gas 1, H220; Flam. Liq. 1, H224; ⚠ Press. Gas C, H280	15- 40%
8042-47-5	White mineral oil, petroleum ⚠ Asp. Tox. 1, H304	10- 30%
64742-47-8	Distillates (petroleum), hydrotreated light ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304	10- 30%
68987-81-5	Alcohols, C6-10, ethoxylated propoxylated ⚠ Eye Dam. 1, H318; ⚠ Skin Irrit. 2, H315	10- 30%
120313-48-6	Alcohols, C12-15-branched and linear, ethoxylated propoxylated ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; ⚠ Skin Irrit. 2, H315	7- 13%
84133-50-6	Alcohols, C12-C14-secondary, ethoxylated ⚠ Eye Dam. 1, H318; ⚠ Skin Irrit. 2, H315	3- 7%
111-05-7	9-Octadecenamide, N-(2-hydroxypropyl)-, (Z)- ⚠ Aquatic Chronic 2, H411; ⚠ Skin Sens. 1, H317; Aquatic Acute 2, H401	1- 5%

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91-44-1	7-(diethylamino)-4-methyl-2-benzopyrone ⚠ Acute Tox. 2, H300; Acute Tox. 2, H310; Acute Tox. 2, H330	1- 5%
75-56-9	propylene oxide ⚠ Flam. Liq. 1, H224; ⚠ Muta. 1B, H340; ⚠ Carc. 1B, H350; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	<0.1%
123-91-1	1,4-dioxane ⚠ Flam. Liq. 2, H225; ⚠ Carc. 2, H351; ⚠ Eye Irrit. 2A, H319; STOT SE 3, H335	<0.1%
75-21-8	ethylene oxide ⚠ Flam. Gas 1, H220; Flam. Liq. 1, H224; ⚠ Press. Gas C, H280; ⚠ Acute Tox. 3, H331; ⚠ Muta. 1B, H340; ⚠ Carc. 1B, H350; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	<0.1%

Additional information:

Note K: The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0.1% w/w 1,3 butadiene (EINECS no. 203-450-8). This note applies to certain complex oil-derived substances in Annex I (CAS No. 68476-86-8).

34% of the mixture consists of ingredient(s) of unknown acute toxicity

4 . FIRST AID MEASURES

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

Eye Contact:

In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek immediate medical attention.

Ingestion:

If swallowed, do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: Harmful if inhaled. May cause respiratory irritation, drowsiness and dizziness.

Skin Contact: Harmful in contact with skin. Causes skin irritation, redness, drying, defatting and cracking. May cause an allergic skin reaction.

Eye Contact: Causes serious eye damage and burns, pain, redness, swelling and tearing.

Ingestion: Harmful if swallowed. May cause nausea, vomiting and chemical pneumonitis if aspirated into lungs. May be fatal if swallowed and enters airways.

5 . FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Foam or carbon dioxide. Do not use full water jet.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon.

Product is extremely flammable. Vapours may travel considerable distances to a source of ignition where they can ignite, flashback, or explode.

Closed containers may explode when exposed to extreme heat. Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

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Special Protective Equipment and Precautions for Fire Fighters:

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6 . ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material. Collect the spilled material and place into a suitable container for disposal. Use only non-sparking tools.

7 . HANDLING AND STORAGE

Precautions for Safe Handling:

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area.

Take precautionary measures against static discharge. Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Protect from direct sunlight. Do not expose to temperatures exceeding 50 °C. Keep away from sources of ignition - no smoking. Do not spray on an open flame or other ignition source. Pressurized container. Do not pierce or burn, even after use. Container may explode if heated. Keep away from strong oxidising agents.

8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:

64742-47-8 Distillates (petroleum), hydrotreated light

OSHA-PEL 100 ppm

ACGOH-TLV 200 mg/m³

68476-86-8 Petroleum gases, liquefied, sweetened

OSHA-PEL 1000 ppm

ACGIH-TLV 1000 ppm

75-56-9 propylene oxide

NES TWA: 48 mg/m³, 20 ppm

123-91-1 1,4-dioxane

NES TWA: 36 mg/m³, 10 ppm

Sk

75-21-8 ethylene oxide

NES TWA: 1.8 mg/m³, 1 ppm

Engineering Controls:

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below the limits.

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Respiratory Protection:

Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

Chemical resistant gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:

Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9 . PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form:	Oily liquid
Colour:	Green
Odour:	Mild
Odour Threshold:	No information available
pH-Value:	9.66
Melting point/Melting range:	No information available
Initial Boiling Point/Boiling Range:	~235 °C
Flash Point:	Not applicable, as aerosol.
Flammability:	Extremely flammable
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available
Vapour Pressure at 24 °C:	60 psi
Relative Density:	0.92
Vapour Density:	>1
Evaporation Rate:	Negligible
Solubility in Water:	Emulsifies into water.
Partition Coefficient (n-octanol/water):	No information available
Viscosity:	9.32- 11.4 cSt

10 . STABILITY AND REACTIVITY

Possibility of Hazardous Reactions: No dangerous reactions known under conditions of normal use.

Chemical Stability:

Stable at ambient temperature and under normal conditions of use. Contents under pressure. Container may explode if heated. Do not pierce or burn, even after use.

Conditions to Avoid: Heat, sparks, open flames and other sources of ignition.

Incompatible Materials: Strong oxidising agents.

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Hazardous Decomposition Products: Oxides of carbon and nitrogen oxides.

11 . TOXICOLOGICAL INFORMATION

Toxicity:

LD₅₀/LC₅₀ Values Relevant for Classification:		
68476-86-8 Petroleum gases, liquefied, sweetened		
Inhalation	LC ₅₀ /4 h	658 mg/L (rat)
8042-47-5 White mineral oil, petroleum		
Oral	LD ₅₀	>5000 mg/kg (rat)
Dermal	LD ₅₀	>2000 mg/kg (rabbit)
Inhalation	LC ₅₀ /4 h	>5 mg/L (rat)
64742-47-8 Distillates (petroleum), hydrotreated light		
Oral	LD ₅₀	>5000 mg/kg (rat)
Dermal	LD ₅₀	>2000 mg/kg (rabbit)
Inhalation	LC ₅₀ /4 h	5.2 mg/L (rat)
91-44-1 7-(diethylamino)-4-methyl-2-benzopyrone		
Oral	LD ₅₀	5 g/kg (rat)
75-56-9 propylene oxide		
Oral	LD ₅₀	380 mg/kg (rat)
Dermal	LD ₅₀	1.5 mL/kg (rabbit) 1245 mg/kg (rabbit)
123-91-1 1,4-dioxane		
Oral	LD ₅₀	4200 mg/kg (rat) 5700 mg/kg (mouse)
Dermal	LD ₅₀	7600 mg/kg (rabbit)
Inhalation	LC ₅₀ /4 h	48.5 mg/L (rat)
75-21-8 ethylene oxide		
Oral	LD ₅₀	72 mg/kg (rat)
Inhalation	LC ₅₀ /4 h	2671 mg/L (rat) 800 ppm (rat)

Acute Health Effects

Inhalation: Harmful if inhaled. May cause respiratory irritation, drowsiness and dizziness.

Skin:

Harmful in contact with skin. Causes skin irritation, redness, drying, defatting and cracking. May cause an allergic skin reaction.

Eye: Causes serious eye damage and burns, pain, redness, swelling and tearing.

Ingestion:

Harmful if swallowed. May cause nausea, vomiting and chemical pneumonitis if aspirated into lungs. May be fatal if swallowed and enters airways.

Skin Corrosion / Irritation: Causes skin irritation.

Serious Eye Damage / Irritation: Causes serious eye damage.

Respiratory or Skin Sensitisation: May cause an allergic skin reaction.

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Germ Cell Mutagenicity:

Propylene oxide and ethylene oxide are classified by Safe Work Australia as Mutagen Category 2.

Carcinogenicity:

Ethylene oxide is classified by IARC as Group 1 - Carcinogenic to humans.

Propylene oxide and 1, 4-dioxane are classified by IARC as Group 2B - Possibly carcinogenic to humans.

Propylene oxide and ethylene oxide are classified by Safe Work Australia as Carcinogen Category 2.

1,4-Dioxane is classified by Safe Work Australia as Carcinogen Category 3.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure:

Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Based on classification principles, the classification criteria are not met.

Aspiration Hazard: May be fatal if swallowed and enters airways.

Chronic Health Effects: No information available

Existing Conditions Aggravated by Exposure: No information available

12 . ECOLOGICAL INFORMATION

Ecotoxicity: No information available

Aquatic toxicity: Harmful to aquatic life with long lasting effects.

Persistence and Degradability: No information available

Bioaccumulative Potential: No information available

Mobility in Soil: No information available

Other adverse effects: No information available

13 . DISPOSAL CONSIDERATIONS

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:

Please consult your state Land Waste Management Authority for more information.

14 . TRANSPORT INFORMATION

UN Number	
ADG, IMDG, IATA	1950
Proper Shipping Name	
ADG, IMDG, IATA	AEROSOLS
Dangerous Goods Class	
ADG Class:	2.1
Packing Group:	Not applicable
Marine pollutant:	No
EMS Number:	F-D,S-U
Hazchem Code:	2YE
Special Provisions:	63, 190, 277, 327

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Packagings & IBCs - Packing Instruction: P003, LP02
Packagings & IBCs - Special Packing Provisions: PP17, PP87, L2
Portable Tanks & Bulk Containers - Instructions: No information available
Portable Tanks & Bulk Containers - Special Provisions: No information available

15 . REGULATORY INFORMATION

Australian Inventory of Chemical Substances:

68476-86-8	Petroleum gases, liquefied, sweetened
8042-47-5	White mineral oil, petroleum
64742-47-8	Distillates (petroleum), hydrotreated light
68987-81-5	Alcohols, C6-10, ethoxylated propoxylated
120313-48-6	Alcohols, C12-15-branched and linear, ethoxylated propoxylated
84133-50-6	Alcohols, C12-C14-secondary, ethoxylated
111-05-7	9-Octadecenamide, N-(2-hydroxypropyl)-, (Z)-
91-44-1	7-(diethylamino)-4-methyl-2-benzopyrone
75-56-9	propylene oxide
123-91-1	1,4-dioxane
75-21-8	ethylene oxide

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:
Poisons Schedule: 7

16 . OTHER INFORMATION

Date of Preparation or Last Revision: 20.08.2015

Prepared by: MSDS.COM.AU Pty Ltd

www.msds.com.au

Abbreviations and acronyms:

ADG: Australian Dangerous Goods
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC₅₀: Lethal concentration, 50 percent
LD₅₀: Lethal dose, 50 percent
IARC: International Agency for Research on Cancer
STEL: Short Term Exposure Limit
TWA: Time Weighted Average
NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011"

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