

# LE2002 Wirelife ALMASOL Coating Lubricant

## Lubrication Engineers NZ Ltd

Chemwatch Hazard Alert Code: 2

Chemwatch: 22-6129

Issue Date: 23/12/2022

Version No: 8.1

Print Date: 29/10/2024

Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

S.GHS.NZL.EN

### SECTION 1 Identification of the substance / mixture and of the company / undertaking

#### Product Identifier

<b>Product name</b>	LE2002 Wirelife ALMASOL Coating Lubricant
<b>Chemical Name</b>	Not Applicable
<b>Synonyms</b>	Not Available
<b>Proper shipping name</b>	FLAMMABLE LIQUID, N.O.S. (contains 1,2,4-trimethyl benzene, n-octane and n-nonane)
<b>Chemical formula</b>	Not Applicable
<b>Other means of identification</b>	Not Available

#### Relevant identified uses of the substance or mixture and uses advised against

<b>Relevant identified uses</b>	Lubricant. Alkanes from nonane to hexadecane (an alkane with sixteen carbon atoms) are liquids of higher viscosity, less and less suitable for use in gasoline. They form instead the major part of diesel and aviation fuel. Diesel fuels are characterised by their cetane number, cetane being an old name for hexadecane. However the higher melting points of these alkanes can cause problems at low temperatures and in polar regions, where the fuel becomes too thick to flow correctly.
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#### Details of the manufacturer or supplier of the safety data sheet

<b>Registered company name</b>	Lubrication Engineers NZ Ltd
<b>Address</b>	11F Piermark Drive North Harbour Industrial Estate Albany, Auckland New Zealand
<b>Telephone</b>	+64 09 415 9411
<b>Fax</b>	+64 09 4158411
<b>Website</b>	Not Available
<b>Email</b>	Not Available

#### Emergency telephone number

<b>Association / Organisation</b>	Lubrication Engineers NZ Ltd	<b>CHEMWATCH EMERGENCY RESPONSE (24/7)</b>
<b>Emergency telephone number(s)</b>	+64 21 3385487	+64 800 700 112
<b>Other emergency telephone number(s)</b>	Not Available	+61 3 9573 3188

Once connected and if the message is not in your preferred language then please dial 01

### SECTION 2 Hazards identification

#### Classification of the substance or mixture

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation.  
 Classified as Dangerous Goods for transport purposes.

Chemwatch Hazard Ratings

	Min	Max
Flammability	2	
Toxicity	1	
Body Contact	2	
Reactivity	1	
Chronic	0	

0 = Minimum  
1 = Low  
2 = Moderate  
3 = High  
4 = Extreme

<b>Classification</b> <sup>[1]</sup>	Flammable Liquids Category 3, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure Category 2, Specific Target Organ Toxicity - Repeated Exposure Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 2
<b>Legend:</b>	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI
<b>Determined by Chemwatch using GHS/HSNO criteria</b>	3.1C, 6.4A, 6.9B, 9.1B

**Label elements**

<b>Hazard pictogram(s)</b>	
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<b>Signal word</b>	<b>Warning</b>
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**Hazard statement(s)**

<b>H226</b>	Flammable liquid and vapour.
<b>H319</b>	Causes serious eye irritation.
<b>H371</b>	May cause damage to organs.
<b>H373</b>	May cause damage to organs through prolonged or repeated exposure.
<b>H411</b>	Toxic to aquatic life with long lasting effects.

**Precautionary statement(s) Prevention**

<b>P210</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
<b>P233</b>	Keep container tightly closed.
<b>P260</b>	Do not breathe mist/vapours/spray.
<b>P240</b>	Ground and bond container and receiving equipment.

**Precautionary statement(s) Response**

<b>P370+P378</b>	In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.
<b>P305+P351+P338</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>P308+P311</b>	IF exposed or concerned: Call a POISON CENTER/doctor/physician/first aider.
<b>P314</b>	Get medical advice/attention if you feel unwell.

**Precautionary statement(s) Storage**

<b>P403+P235</b>	Store in a well-ventilated place. Keep cool.
<b>P405</b>	Store locked up.

**Precautionary statement(s) Disposal**

<b>P501</b>	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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**SECTION 3 Composition / information on ingredients****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
95-63-6	1-5	<u>1,2,4-trimethyl benzene</u>
15890-25-2	1-5	<u>antimony diamylidithiocarbamate</u>
111-65-9	1-5	<u>n-octane</u>
111-84-2	NotSpec	<u>n-nonane</u>
8042-47-5	NotSpec	<u>white mineral oil (petroleum)</u>
471-34-1	NotSpec	<u>calcium carbonate</u>
Not Available	balance	Ingredients determined not to be hazardous

**Legend:** 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; \* EU IOELVs available

## SECTION 4 First aid measures

### Description of first aid measures

<b>Eye Contact</b>	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with fresh running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>▶ If fumes or combustion products are inhaled remove from contaminated area.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>▶ <b>If swallowed do NOT induce vomiting.</b></li> <li>▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>▶ Observe the patient carefully.</li> <li>▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>▶ Seek medical advice.</li> <li>▶ Avoid giving milk or oils.</li> <li>▶ Avoid giving alcohol.</li> </ul>

### Indication of any immediate medical attention and special treatment needed

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- ▶ Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- ▶ Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO<sub>2</sub> 50 mm Hg) should be intubated.
- ▶ Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- ▶ A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- ▶ Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- ▶ Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

Medical literature on human exposure to thiocarbamate derivatives is scarce.

- ▶ Animal studies suggest that contact dermatitis and thyroid hyperplasia may occur following exposure.
- ▶ These compounds do not have the cholinergic properties of structurally related carbamate insecticides.
- ▶ The usual measures for gut and skin contamination are recommended for large doses.
- ▶ Some thiocarbamates are structurally similar to disulfiram and may cause the characteristically unpleasant alcohol type reactions lasting for several hours; they may respond to fluids, oxygen and analgesics. Dysrhythmias may occur and patients with serious reactions should have cardiac monitoring.
- ▶ Precautions should be taken to prohibit intake of alcohol for 10 days.
- ▶ Fats, oils and lipid solvents must not be consumed as they may enhance absorption.

As a general rule thiocarbamates can be absorbed by the skin, mucous membranes and respiratory and gastrointestinal tract. They are eliminated quickly via expired air and urine. Two major pathways exist for the metabolism of thiocarbamates in mammals. One is via sulfoxidation and conjugation with glutathione. The conjugation product is cleaved to the cysteine derivative which is further metabolised to a mercapturic acid compound. The second route involves oxidation of the sulfur to a sulfoxide which is oxidised to a sulfone, or hydroxylation to compounds which enter the carbon metabolic pool.

- ▶ Chelation with British Anti-Lewisite (BAL) for serious antimony exposures should be employed.

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- ▶ Dialyse as needed. The role of exchange diffusion is not clear.
- ▶ Be sure to monitor for dysrhythmias.

[Ellenhorn and Barceloux: Medical Toxicology]

## SECTION 5 Firefighting measures

### Extinguishing media

- ▶ Water spray or fog.
- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ Carbon dioxide.

Do not use a water jet to fight fire.

### Special hazards arising from the substrate or mixture

<b>Fire Incompatibility</b>	<ul style="list-style-type: none"> <li>▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result</li> </ul>
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### Advice for firefighters

<b>Fire Fighting</b>	<ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> </ul>
<b>Fire/Explosion Hazard</b>	<ul style="list-style-type: none"> <li>▶ Liquid and vapour are flammable.</li> <li>▶ Moderate fire hazard when exposed to heat or flame.</li> <li>▶ Vapour forms an explosive mixture with air.</li> <li>▶ Moderate explosion hazard when exposed to heat or flame.</li> </ul> <p>Combustion products include:</p> <p>metal oxides other pyrolysis products typical of burning organic material. carbon dioxide (CO<sub>2</sub>) sulfur oxides (SO<sub>x</sub>)</p>

## SECTION 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

See section 8

### Environmental precautions

See section 12

### Methods and material for containment and cleaning up

<b>Minor Spills</b>	<ul style="list-style-type: none"> <li>▶ Remove all ignition sources.</li> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> </ul>
<b>Major Spills</b>	<ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 Handling and storage

### Precautions for safe handling

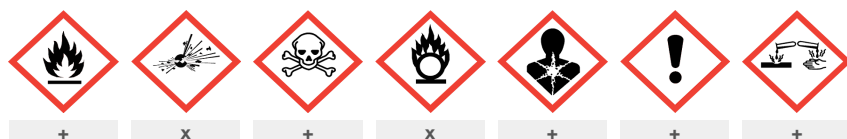
<b>Safe handling</b>	<ul style="list-style-type: none"> <li>▶ Containers, even those that have been emptied, may contain explosive vapours.</li> <li>▶ Do NOT cut, drill, grind, weld or perform similar operations on or near containers.</li> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> <li>· Electrostatic discharge may be generated during pumping - this may result in fire.</li> <li>· Ensure electrical continuity by bonding and grounding (earthing) all equipment.</li> <li>· Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<math>\leq 1</math> m/sec until fill pipe submerged to twice its diameter, then <math>\leq 7</math> m/sec).</li> <li>· Avoid splash filling.</li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of overexposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> </ul>
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Other information	<ul style="list-style-type: none"> <li>▶ Prevent concentration in hollows and sumps.</li> </ul>
	<ul style="list-style-type: none"> <li>▶ Store in original containers in approved flammable liquid storage area.</li> <li>▶ Store away from incompatible materials in a cool, dry, well-ventilated area.</li> <li>▶ <b>DO NOT store in pits, depressions, basements or areas where vapours may be trapped.</b></li> <li>▶ No smoking, naked lights, heat or ignition sources.</li> </ul>

### Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> <li>▶ Packing as supplied by manufacturer.</li> <li>▶ Plastic containers may only be used if approved for flammable liquid.</li> <li>▶ Check that containers are clearly labelled and free from leaks.</li> <li>▶ For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure.</li> <li>▶ For materials with a viscosity of at least 2680 cSt. (23 deg. C)</li> <li>▶ For manufactured product having a viscosity of at least 250 cSt.</li> </ul>
Storage incompatibility	<ul style="list-style-type: none"> <li>▶ Avoid reaction with oxidising agents</li> <li>▶ Avoid strong acids, bases.</li> </ul>



X — Must not be stored together

0 — May be stored together with specific preventions

+ — May be stored together

Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.

## SECTION 8 Exposure controls / personal protection

### Control parameters

#### Occupational Exposure Limits (OEL)

#### INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	antimony diamylthiocarbamate	Antimony and compounds, as Sb	0.5 mg/m <sup>3</sup>	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	n-octane	Octane	300 ppm / 1400 mg/m <sup>3</sup>	1750 mg/m <sup>3</sup> / 375 ppm	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	n-nonane	Nonane	200 ppm / 1050 mg/m <sup>3</sup>	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	white mineral oil (petroleum)	Oil mist, mineral	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	Not Available	(om) - Sampled by a method that does not collect vapour
New Zealand Workplace Exposure Standards (WES)	calcium carbonate	Limestone (Calcium carbonate)	10 mg/m <sup>3</sup>	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	calcium carbonate	Calcium carbonate	10 mg/m <sup>3</sup>	Not Available	Not Available	Not Available


Ingredient	Original IDLH	Revised IDLH
1,2,4-trimethyl benzene	Not Available	Not Available
antimony diamylthiocarbamate	50 mg/m <sup>3</sup>	Not Available
n-octane	Not Available	Not Available
n-nonane	Not Available	Not Available
white mineral oil (petroleum)	2,500 mg/m <sup>3</sup>	Not Available
calcium carbonate	Not Available	Not Available

#### Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
1,2,4-trimethyl benzene	E	≤ 0.1 ppm

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
<b>Notes:</b>	<i>Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.</i>	

## Exposure controls

<b>Appropriate engineering controls</b>	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.</p>
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.</li> </ul>
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	<ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care.</p>
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ PVC Apron.</li> <li>▶ PVC protective suit may be required if exposure severe.</li> <li>▶ Eyewash unit.</li> <li>▶ Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.</li> <li>▶ For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).</li> <li>▶ Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot and shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds.</li> </ul>

## Recommended material(s)

### GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

**"Forsberg Clothing Performance Index".**

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

LE2002 Wirelife ALMASOL Coating Lubricant

Material	CPI
HYPALON	A
NITRILE	B
NATURAL RUBBER	C
NEOPRENE	C
NITRILE+PVC	C
PVC	C

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

**NOTE:** As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice

## Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-
up to 100 x ES	-	A-2 P2	A-PAPR-2 P2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.

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of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

#### Ansell Glove Selection

Glove — In order of recommendation
AlphaTec® Solvex® 37-185
AlphaTec® 58-008
AlphaTec® 58-530W
AlphaTec® 58-530B
AlphaTec® 58-735
AlphaTec® Solvex® 37-675
AlphaTec® 15-554
AlphaTec® 38-612
AlphaTec® 79-700
AlphaTec® 53-001

The suggested gloves for use should be confirmed with the glove supplier.

- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

## SECTION 9 Physical and chemical properties

### Information on basic physical and chemical properties

<b>Appearance</b>	Brown flammable liquid with a hydrocarbon-like odour; not miscible with water.		
<b>Physical state</b>	Liquid	<b>Relative density (Water = 1)</b>	0.91
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	6-8	<b>Decomposition temperature (°C)</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	Not Available	<b>Molecular weight (g/mol)</b>	Not Applicable
<b>Flash point (°C)</b>	60	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Flammable.	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Available	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (kPa)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility in water</b>	Immiscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	<1	<b>VOC g/L</b>	Not Available
<b>Heat of Combustion (kJ/g)</b>	Not Available	<b>Ignition Distance (cm)</b>	Not Available
<b>Flame Height (cm)</b>	Not Available	<b>Flame Duration (s)</b>	Not Available
<b>Enclosed Space Ignition Time Equivalent (s/m<sup>3</sup>)</b>	Not Available	<b>Enclosed Space Ignition Deflagration Density (g/m<sup>3</sup>)</b>	Not Available

## SECTION 10 Stability and reactivity

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	<ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul>
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7

## LE2002 Wirelife ALMASOL Coating Lubricant

**Hazardous decomposition products**

See section 5

**SECTION 11 Toxicological information****Information on toxicological effects**

<b>Inhaled</b>	<p>Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.</p> <p>Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</p> <p>There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</p> <p>Inhalation hazard is increased at higher temperatures.</p> <p>Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.</p> <p>Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.</p> <p>Concentrated nonane vapours may cause irritation of the nose and throat, headache, drowsiness, dizziness, confusion, nausea, tremors, incoordination and difficulty in breathing. Very high concentrations may cause unconsciousness and death. The odour of nitrous oxides is not easily detected.</p> <p>Inhalation of antimony can cause breathing difficulties and gastrointestinal upset including sore throat, shallow breathing, dizziness, weight loss, gum bleeds and anaemia. Lung swelling and congestion can occur.</p>
<b>Ingestion</b>	<p>Accidental ingestion of the material may be damaging to the health of the individual.</p> <p>Lethal doses of some thiocarbamates have produced muscle weakness and ascending paralysis progressing to respiratory paralysis and death in animals. Exposure to small quantities of thiocarbamates and intake of small quantities of ethanol may produce flushing, breathing difficulties, nausea and vomiting and lowered blood pressure.</p> <p>The acute toxicity of thiocarbamates is generally low, because of their rapid metabolism. Exposure to high doses may produce signs such as loss of appetite, squinting, excessive production of saliva, watery eyes, hairs standing on end, laboured breathing, reduced body temperature, incoordination, depression and rapid muscle twitching.</p> <p>Antimony poisoning causes similar symptoms to arsenic poisoning although vomiting is more prominent. There may be changes in the rhythm of the heart beat.</p> <p>Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.</p>
<b>Skin Contact</b>	<p>There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.</p> <p>Skin contact with antimony compounds may result in redness and severe irritation, with the formation of itchy papules, pustules, skin lesions and small infected blisters (antimony spots) within a few hours.</p> <p>Skin contact may also cause inflammation of the cavity of the nose.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>The material may accentuate any pre-existing dermatitis condition</p>
<b>Eye</b>	There is some evidence to suggest that this material can cause eye irritation and damage in some persons.
<b>Chronic</b>	<p>There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.</p> <p>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.</p> <p>Based on experience with similar materials, there is a possibility that exposure to the material may reduce fertility in humans at levels which do not cause other toxic effects.</p> <p>Repeated or prolonged exposure to antimony and its compounds may produce inflammation of the mouth cavity, dry throat, metallic taste, gum infection, perforation of the nasal septum and throat, laryngitis, headache, difficulty breathing, indigestion, nausea, vomiting, diarrhoea, loss of appetite, anaemia, weight loss, tightness and pain in the chest, sleeplessness, muscular pain and weakness, dizziness, pharyngitis, bronchitis and pneumonia. Degenerative changes of the liver and kidney may occur.</p> <p>Thiocarbamates have been show to alter sperm form and therefore reproduction.</p> <p>Some dithiocarbamates may cause birth defects and cancer and may affect male reproductive capacity. They may also cause goitre (overactivity of the thyroid gland) and nerve disorders.</p>

<b>LE2002 Wirelife ALMASOL Coating Lubricant</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>1,2,4-trimethyl benzene</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >3160 mg/kg <sup>[2]</sup>	Eye: adverse effect observed (irritating) <sup>[1]</sup>
	Inhalation (Rat) LC50: 18 mg/L4h <sup>[2]</sup>	Skin: adverse effect observed (irritating) <sup>[1]</sup>
	Oral (Rat) LD50: 6000 mg/kg <sup>[1]</sup>	
<b>antimony diamyldithiocarbamate</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >16000 mg/kg <sup>[2]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >16400 mg/kg <sup>[2]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>

Continued...



	TOXICITY	IRRITATION
n-octane	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Inhalation (Rat) LC50: >=6.1 mg/L4h <sup>[1]</sup>	Skin: adverse effect observed (irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >5000 mg/kg <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
n-nonane	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Inhalation (Rat) LC50: 3200 ppm4h <sup>[2]</sup>	Skin (Mammal - pig): 250uL/24H - Mild
	Oral (Rat) LD50: >5000 mg/kg <sup>[1]</sup>	Skin (Rodent - rat): 300uL/4D - Moderate
		Skin: adverse effect observed (irritating) <sup>[1]</sup>
white mineral oil (petroleum)	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Inhalation (Rat) LC50: >4.5 mg/l4h <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >5000 mg/kg <sup>[2]</sup>	
calcium carbonate	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (Rodent - rabbit): 750ug/24H - Severe
	Inhalation (Rat) LC50: >3 mg/l4h <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >2000 mg/kg <sup>[1]</sup>	Skin (Rodent - rabbit): 500mg/24H - Moderate
		Skin: no adverse effect observed (not irritating) <sup>[1]</sup>

**Legend:**

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

LE2002 Wirelife ALMASOL Coating Lubricant	<p>For C9 aromatics (typically trimethylbenzenes – TMBs)</p> <p>Acute toxicity: Animal testing shows that semi-lethal concentrations and doses vary amongst this group. The semilethal concentrations for inhalation range from 6000 to 10000 mg/cubic metre for C9 aromatic naphtha and 18000-24000 mg/cubic metre for 1,2,4- and 1,3,5-TMB, respectively.</p> <p>Irritation and sensitization: Results from animal testing indicate that C9 aromatic hydrocarbon solvents are mildly to moderately irritating to the skin, minimally irritating to the eye, and have the potential to irritate the airway and cause depression of breathing rate. There is no evidence that it sensitizes skin.</p> <p>Repeated dose toxicity: Animal studies show that chronic inhalation toxicity for C9 aromatic hydrocarbon solvents is slight. Similarly, oral exposure does not appear to pose a high toxicity hazard for pure trimethylbenzene isomers.</p> <p>Mutation-causing ability: No evidence of mutation-causing ability and genetic toxicity was found in animal and laboratory testing.</p> <p>Reproductive and developmental toxicity: No definitive effects on reproduction were seen, although reduction in weight in developing animals may be seen at concentrations that are toxic to the mother.</p> <p>Petroleum contains aromatic (benzene, toluene, ethyl benzene, naphthalene) and aliphatic hydrocarbons (n-hexane), which can result in many detrimental health effects, including, cancer, tumour formation, hearing loss, and nervous system toxicity. Animal testing shows breathing in petroleum causes tumours of the liver and kidney; these are however not considered to be relevant in humans. Similarly, exposure to gasoline over a lifetime can cause kidney cancer in animals, but the relevance in humans is questionable.</p> <p>Most studies involving gasoline have shown that gasoline does not cause genetic mutation, including all recent studies in living human subjects (such as in petrol service station attendants).</p> <p>Animal studies show concentrations of toluene (&gt;0.1%) can cause developmental effects such as lower birth weight and developmental toxicity to the nervous system of the foetus. Other studies show no adverse effects on the foetus.</p> <p>Prolonged contact with petroleum may result in skin inflammation and make the skin more sensitive to irritation and penetration by other materials.</p>
1,2,4-TRIMETHYL BENZENE	Other Toxicity data is available for CHEMWATCH 12172 1,2,3-trimethylbenzene CHEMWATCH 2325 1,3,5-trimethylbenzene
N-OCTANE	Oral (rat) LD50: 5630 mg/kg* [CCINFO] Nil reported
WHITE MINERAL OIL (PETROLEUM)	<p>Oral (rat) TLo: 92000 mg/kg/92D-Cont. Generally the toxicity and irritation is of low order. White oils and highly/solvent refined oils have not shown the long term risk of skin cancer that follows persistent skin contamination with some other mineral oils, due in all probability to refining that produces low content of both polyaromatics (PAH) and benz-alpha-pyrenes (BaP)</p> <p>The substance is classified by IARC as Group 3: <b>NOT</b> classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.</p> <p>For highly and severely refined distillate base oils: In animal studies, the acute, oral, semilethal dose is &gt;5g/kg body weight and the semilethal dose by skin contact is &gt;2g/kg body weight. The semilethal concentration for inhalation is 2.18 to &gt;4 mg/L. The materials have varied from "non-irritating" to "moderately irritating" when tested for skin and eye irritation. Testing for sensitisation has been negative. The materials included in the Lubricating Base Oils category are related from both process and physical-chemical perspectives;</p>

Continued...

	<p>The potential toxicity of a specific distillate base oil is inversely related to the severity or extent of processing the oil has undergone, since:</p> <ul style="list-style-type: none"> <li>• The adverse effects of these materials are associated with undesirable components, and</li> <li>• The levels of the undesirable components are inversely related to the degree of processing;</li> <li>• Distillate base oils receiving the same degree or extent of processing will have similar toxicities;</li> <li>• The potential toxicity of residual base oils is independent of the degree of processing the oil receives.</li> <li>• The reproductive and developmental toxicity of the distillate base oils is inversely related to the degree of processing.</li> </ul> <p>Unrefined &amp; mildly refined distillate base oils contain the highest levels of undesirable components, have the largest variation of hydrocarbon molecules and have shown the highest potential cancer-causing and mutation-causing activities. Highly and severely refined distillate base oils are produced from unrefined and mildly refined oils by removing or transforming undesirable components. In comparison to unrefined and mildly refined base oils, the highly and severely refined distillate base oils have a smaller range of hydrocarbon molecules and have demonstrated very low mammalian toxicity. Testing of residual oils for mutation-causing and cancer-causing potential has shown negative results, supporting the belief that these materials lack biologically active components or the components are largely non-bioavailable due to their molecular size. Toxicity testing has consistently shown that lubricating base oils have low acute toxicities.</p>
<b>CALCIUM CARBONATE</b>	<p>No evidence of carcinogenic properties. No evidence of mutagenic or teratogenic effects.</p> <p>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.</p>
<b>LE2002 Wirelife ALMASOL Coating Lubricant &amp; N-NONANE</b>	<p>Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins.</p> <p>The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet. Some hydrocarbons may appear unchanged as in the lipoprotein particles in the gut lymph, but most hydrocarbons partly separate from fats and undergo metabolism in the gut cell.</p> <p>Animal testing showed exposure to high concentrations (over 3500 parts per million) of C9 to C13 alkanes in air caused incoordination, seizures and spasms. Cerebellar damage was found on autopsy in some animals. It appears that exposure may possibly damage the central nervous system.</p>
<b>LE2002 Wirelife ALMASOL Coating Lubricant &amp; ANTIMONY DIAMYLDTIHOICARBAMATE</b>	<p>No significant acute toxicological data identified in literature search.</p>
<b>LE2002 Wirelife ALMASOL Coating Lubricant &amp; 1,2,4-TRIMETHYL BENZENE</b>	<p>For trimethylbenzenes:</p> <p>Absorption of 1,2,4-trimethylbenzene occurs after exposure by swallowing, inhalation, or skin contact. In the workplace, inhalation and skin contact are the most important routes of absorption; whole-body toxic effects from skin absorption are unlikely to occur as the skin irritation caused by the chemical generally leads to quick removal. The substance is fat-soluble and may accumulate in fatty tissues. It is also bound to red blood cells in the bloodstream.</p>
<b>1,2,4-TRIMETHYL BENZENE &amp; N-NONANE &amp; CALCIUM CARBONATE</b>	<p>Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.</p>

<b>Acute Toxicity</b>	✗	<b>Carcinogenicity</b>	✗
<b>Skin Irritation/Corrosion</b>	✗	<b>Reproductivity</b>	✗
<b>Serious Eye Damage/Irritation</b>	✓	<b>STOT - Single Exposure</b>	✓
<b>Respiratory or Skin sensitisation</b>	✗	<b>STOT - Repeated Exposure</b>	✓
<b>Mutagenicity</b>	✗	<b>Aspiration Hazard</b>	✗

**Legend:** ✗ – Data either not available or does not fill the criteria for classification  
 ✓ – Data available to make classification

## SECTION 12 Ecological information

### Toxicity

LE2002 Wirelife ALMASOL Coating Lubricant	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
1,2,4-trimethyl benzene	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1344h	Fish	31-207	7
	EC50	48h	Crustacea	ca.6.14mg/l	1

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## LE2002 Wirelife ALMASOL Coating Lubricant

	LC50	96h	Fish	3.41mg/l	2
	EC50	96h	Algae or other aquatic plants	2.356mg/l	2
	EC50(ECx)	96h	Algae or other aquatic plants	2.356mg/l	2
<b>antimony diamylidithiocarbamate</b>	<b>Endpoint</b>	<b>Test Duration (hr)</b>	<b>Species</b>	<b>Value</b>	<b>Source</b>
	Not Available	Not Available	Not Available	Not Available	Not Available
<b>n-octane</b>	<b>Endpoint</b>	<b>Test Duration (hr)</b>	<b>Species</b>	<b>Value</b>	<b>Source</b>
	EC50(ECx)	9h	Algae or other aquatic plants	0.001mg/L	4
	EC50	48h	Crustacea	0.4mg/l	2
	LC50	96h	Fish	0.11mg/l	2
<b>n-nonane</b>	<b>Endpoint</b>	<b>Test Duration (hr)</b>	<b>Species</b>	<b>Value</b>	<b>Source</b>
	NOEC(ECx)	504h	Crustacea	0.17mg/l	2
	EC50	48h	Crustacea	0.4mg/l	2
	LC50	96h	Fish	0.11mg/l	2
<b>white mineral oil (petroleum)</b>	<b>Endpoint</b>	<b>Test Duration (hr)</b>	<b>Species</b>	<b>Value</b>	<b>Source</b>
	LC50	96h	Fish	>10000mg/L	2
<b>calcium carbonate</b>	<b>Endpoint</b>	<b>Test Duration (hr)</b>	<b>Species</b>	<b>Value</b>	<b>Source</b>
	EC50	72h	Algae or other aquatic plants	>14mg/l	2
	LC50	96h	Fish	>165200mg/L	4
	NOEC(ECx)	1h	Fish	4-320mg/l	4

**Legend:** *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

When spilled this product may act as a typical oil, causing a film, sheen, emulsion or sludge at or beneath the surface of the body of water. The oil film on water surface may physically affect the aquatic organisms, due to the interruption of the oxygen transfer between the air and the water

Oils of any kind can cause:

- drowning of water-fowl due to lack of buoyancy, loss of insulating capacity of feathers, starvation and vulnerability to predators due to lack of mobility
- lethal effects on fish by coating gill surfaces, preventing respiration
- asphyxiation of benthic life forms when floating masses become engaged with surface debris and settle on the bottom and
- adverse aesthetic effects of fouled shoreline and beaches

In case of accidental releases on the soil, a fine film is formed on the soil, which prevents the plant respiration process and the soil particle saturation. It may cause deep water infestation.

For 1,2,4 - Trimethylbenzene:

Half-life (hr) air: 0.48-16;

Half-life (hr) H<sub>2</sub>O surface water: 0.24 -672;

Half-life (hr) H<sub>2</sub>O ground: 336-1344;

Half-life (hr) soil: 168-672;

Henry's Pa m<sup>3</sup> /mol: 385 -627;

Bioaccumulation: not significant. 1,2,4-Trimethylbenzene is a volatile organic compound (VOC) substance.

Atmospheric Fate: 1,2,4-trimethylbenzene can contribute to the formation of photochemical smog in the presence of other VOCs. Degradation of 1,2,4-trimethylbenzene in the atmosphere occurs by reaction with hydroxyl radicals.

For Aromatic Substances Series:

Environmental Fate: Large, molecularly complex polycyclic aromatic hydrocarbons, or PAHs, are persistent in the environment longer than smaller PAHs.

Atmospheric Fate: PAHs are "semi-volatile substances" which can move between the atmosphere and the Earth's surface in repeated, temperature-driven cycles of deposition and volatilization. Terrestrial Fate: BTEX compounds have the potential to move through soil and contaminate ground water, and their vapors are highly flammable and explosive.

Ecotoxicity - Within an aromatic series, acute toxicity increases with increasing alkyl substitution on the aromatic nucleus.

For C<sub>9</sub> aromatics (typically trimethylbenzene - TMBs)

Chemicals in this category possess properties indicating a hazard for the environment (acute toxicity for fish, invertebrates, and algae from 1 to 10 mg/L).

Category members are readily biodegradable, except 1,3,5-trimethylbenzene (CAS RN 108-67-8). Category members are not expected to be bioaccumulative.

Environmental Fate:

In the air, category member constituents have the potential to rapidly degrade through indirect photolytic processes mediated primarily by hydroxyl radicals with calculated degradation half-lives ranging from 0.54 to 2.81 days (based on a 12-hour day and a hydroxyl radical concentration of 5x10<sup>5</sup>).

When released in the environment, alkanes don't undergo rapid biodegradation, because they have no functional groups (like hydroxyl or carbonyl) that are needed by most organisms in order to metabolize the compound.

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However, some bacteria can metabolise some alkanes (especially those linear and short), by oxidizing the terminal carbon atom. The product is an alcohol, that could be next oxidised to an aldehyde, and finally to a carboxylic acid. The resulting fatty acid could be metabolised through the fatty acid degradation pathway.

For Antimony (Sb):

Environmental Fate: Antimony occurs naturally in the Earth's crust and in seawater. The substance is found mainly as sulfides and oxides - sometimes as native metal. About 114 minerals containing antimony are known. Industrial dust and exhaust gases of cars and oil fuels are the main sources of antimony in urban air.

For thiocarbamates:

Environmental Fate: Thiocarbamates are volatile and will evaporate from soil. They are soluble in water so some leaching and lateral movement is possible. Some photodegradation may occur. There are many environmental factors that influence biodegradation in soil, thus long-term soil contamination is unlikely.

For dithiocarbamates:

Environmental Fate: Dithiocarbamates with hydrophilic groups form water-soluble, heavy-metal complexes, while some of the dithiocarbamate metal complexes used as fungicides are insoluble in water but soluble in non-polar solvents. Alkylene bisdithiocarbamates are insoluble in both water and non-polar solvents. While information on the environmental impact of dithiocarbamates is limited, available data suggest that they are degraded in the presence of moisture, oxygen, etc. to form a number of compounds, some of which are toxic. Dithiocarbamates can be metabolised by soil organisms, but by-products produced in the breakdown process can negatively affect the microorganisms.

**DO NOT discharge into sewer or waterways.**

### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
1,2,4-trimethyl benzene	LOW (Half-life = 56 days)	LOW (Half-life = 0.67 days)
n-octane	LOW	LOW
n-nonane	LOW	LOW

### Bioaccumulative potential

Ingredient	Bioaccumulation
1,2,4-trimethyl benzene	LOW (BCF = 275)
n-octane	HIGH (LogKOW = 5.18)
n-nonane	HIGH (LogKOW = 4.7613)

### Mobility in soil

Ingredient	Mobility
1,2,4-trimethyl benzene	LOW (Log KOC = 717.6)
n-octane	LOW (Log KOC = 506.7)
n-nonane	LOW (Log KOC = 934.6)

## SECTION 13 Disposal considerations

### Waste treatment methods

<b>Product / Packaging disposal</b>	<p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> <li>▶ Reduction</li> <li>▶ Reuse</li> <li>▶ Recycling</li> <li>▶ Disposal (if all else fails)</li> </ul> <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.</p> <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible.</li> <li>▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.</li> <li>▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material).</li> <li>▶ Decontaminate empty containers.</li> </ul>
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Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

### Disposal Requirements



Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

LE2002 Wirelife ALMASOL Coating Lubricant

**SECTION 14 Transport information**

**Labels Required**

	
Marine Pollutant	
HAZCHEM	•3Y

**Land transport (UN)**

14.1. UN number or ID number	1993	
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (contains 1,2,4-trimethyl benzene, n-octane and n-nonane)	
14.3. Transport hazard class(es)	Class	3
	Subsidiary Hazard	Not Applicable
14.4. Packing group	III	
14.5. Environmental hazard	Environmentally hazardous	
14.6. Special precautions for user	Special provisions	223; 274
	Limited quantity	5 L

**Air transport (ICAO-IATA / DGR)**

14.1. UN number	1993	
14.2. UN proper shipping name	Flammable liquid, n.o.s. * (contains 1,2,4-trimethyl benzene, n-octane and n-nonane)	
14.3. Transport hazard class(es)	ICAO/IATA Class	3
	ICAO / IATA Subsidiary Hazard	Not Applicable
	ERG Code	3L
14.4. Packing group	III	
14.5. Environmental hazard	Environmentally hazardous	
14.6. Special precautions for user	Special provisions	A3
	Cargo Only Packing Instructions	366
	Cargo Only Maximum Qty / Pack	220 L
	Passenger and Cargo Packing Instructions	355
	Passenger and Cargo Maximum Qty / Pack	60 L
	Passenger and Cargo Limited Quantity Packing Instructions	Y344
	Passenger and Cargo Limited Maximum Qty / Pack	10 L

**Sea transport (IMDG-Code / GGVSee)**

14.1. UN number	1993	
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (contains 1,2,4-trimethyl benzene, n-octane and n-nonane)	
14.3. Transport hazard class(es)	IMDG Class	3
	IMDG Subsidiary Hazard	Not Applicable
14.4. Packing group	III	
14.5. Environmental hazard	Marine Pollutant	
	EMS Number	F-E , S-E

**14.6. Special precautions for user**

Special provisions	223 274 955
Limited Quantities	5 L

**14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

**14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code**

Product name	Group
1,2,4-trimethyl benzene	Not Available
antimony diamyldithiocarbamate	Not Available
n-octane	Not Available
n-nonane	Not Available
white mineral oil (petroleum)	Not Available
calcium carbonate	Not Available

**14.7.3. Transport in bulk in accordance with the IGC Code**

Product name	Ship Type
1,2,4-trimethyl benzene	Not Available
antimony diamyldithiocarbamate	Not Available
n-octane	Not Available
n-nonane	Not Available
white mineral oil (petroleum)	Not Available
calcium carbonate	Not Available

**SECTION 15 Regulatory information****Safety, health and environmental regulations / legislation specific for the substance or mixture**

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard
HSR002528	Cleaning Products Flammable Group Standard 2020
HSR002495	Additives Process Chemicals and Raw Materials Flammable Group Standard 2020
HSR002662	Surface Coatings and Colourants Flammable Group Standard 2020
HSR002611	Metal Industry Products Flammable Group Standard 2020
HSR002621	N.O.S. Flammable Group Standard 2020
HSR002637	Photographic Chemicals Flammable Group Standard 2020
HSR002641	Polymers Flammable Group Standard 2020
HSR002647	Reagent Kits Group Standard 2020
HSR002650	Solvents Flammable Group Standard 2020
HSR002682	Water Treatment Chemicals Flammable Group Standard 2020
HSR100425	Pharmaceutical Active Ingredients Group Standard 2020
HSR002599	Leather and Textile Products Flammable Group Standard 2020
HSR002603	Lubricants Flammable Group Standard 2020
HSR002548	Corrosion Inhibitors Flammable Group Standard 2020
HSR002552	Cosmetic Products Group Standard 2020
HSR002556	Dental Products Flammable Group Standard 2020
HSR002563	Embalming Products Flammable Group Standard 2020
HSR002576	Food Additives and Fragrance Materials Flammable Group Standard 2020
HSR002583	Fuel Additives Flammable Group Standard 2020
HSR002596	Laboratory Chemicals and Reagent Kits Group Standard 2020
HSR100757	Veterinary Medicines Limited Pack Size Finished Dose Group Standard 2020
HSR100758	Veterinary Medicines Non dispersive Closed System Application Group Standard 2020
HSR100759	Veterinary Medicines Non dispersive Open System Application Group Standard 2020

Continued...

Please refer to Section 8 of the SDS for any applicable tolerable exposure limit or Section 12 for environmental exposure limit.

#### 1,2,4-trimethyl benzene is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Land Transport Rule; Dangerous Goods 2005 - Schedule 2 Dangerous Goods in Limited Quantities and Consumer Commodities

#### antimony diamylthiocarbamate is found on the following regulatory lists

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Land Transport Rule; Dangerous Goods 2005 - Schedule 1 Quantity limits for dangerous goods

New Zealand Workplace Exposure Standards (WES)

#### n-octane is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

#### n-nonane is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

#### white mineral oil (petroleum) is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

#### calcium carbonate is found on the following regulatory lists

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

### Additional Regulatory Information

Not Applicable

### Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Quantity (Closed Containers)	Quantity (Open Containers)
3.1C	500 L in containers more than 5 L	250 L
3.1C	1 500 L in containers up to and including 5 L	250 L

### Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

### Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
3.1C or 3.1D				10 L

### Tracking Requirements

Not Applicable

### National Inventory Status

National Inventory	Status
Australia - AIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (1,2,4-trimethyl benzene; antimony diamyldithiocarbamate; n-octane; n-nonane; white mineral oil (petroleum))
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	All chemical substances in this product have been designated as TSCA Inventory 'Active'
Taiwan - TCSI	Yes
Mexico - INSQ	No (antimony diamyldithiocarbamate)
Vietnam - NCI	Yes
Russia - FBEPH	Yes
<b>Legend:</b>	<i>Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.</i>

### SECTION 16 Other information

<b>Revision Date</b>	23/12/2022
<b>Initial Date</b>	01/11/2009

### SDS Version Summary

Version	Date of Update	Sections Updated
7.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification
8.1	23/12/2022	Classification review due to GHS Revision change.

### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

### Definitions and abbreviations

- ▶ PC - TWA: Permissible Concentration-Time Weighted Average
- ▶ PC - STEL: Permissible Concentration-Short Term Exposure Limit
- ▶ IARC: International Agency for Research on Cancer
- ▶ ACGIH: American Conference of Governmental Industrial Hygienists
- ▶ STEL: Short Term Exposure Limit
- ▶ TEEL: Temporary Emergency Exposure Limit,
- ▶ IDLH: Immediately Dangerous to Life or Health Concentrations
- ▶ ES: Exposure Standard
- ▶ OSF: Odour Safety Factor
- ▶ NOAEL: No Observed Adverse Effect Level
- ▶ LOAEL: Lowest Observed Adverse Effect Level
- ▶ TLV: Threshold Limit Value
- ▶ LOD: Limit Of Detection
- ▶ OTV: Odour Threshold Value



- ▶ BCF: BioConcentration Factors
- ▶ BEI: Biological Exposure Index
- ▶ DNEL: Derived No-Effect Level
- ▶ PNEC: Predicted no-effect concentration
  
- ▶ AIIC: Australian Inventory of Industrial Chemicals
- ▶ DSL: Domestic Substances List
- ▶ NDSL: Non-Domestic Substances List
- ▶ IECSC: Inventory of Existing Chemical Substance in China
- ▶ EINECS: European INventory of Existing Commercial chemical Substances
- ▶ ELINCS: European List of Notified Chemical Substances
- ▶ NLP: No-Longer Polymers
- ▶ ENCS: Existing and New Chemical Substances Inventory
- ▶ KECL: Korea Existing Chemicals Inventory
- ▶ NZIoC: New Zealand Inventory of Chemicals
- ▶ PICCS: Philippine Inventory of Chemicals and Chemical Substances
- ▶ TSCA: Toxic Substances Control Act
- ▶ TCSI: Taiwan Chemical Substance Inventory
- ▶ INSQ: Inventario Nacional de Sustancias Químicas
- ▶ NCI: National Chemical Inventory
- ▶ FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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