

# Material Safety Data Sheet

According to 1907/2006/EC, Article 31



Printing Date: 09 June 2020

Revision: 04 August 2015

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## 1 Identification of the substance/preparation and of the company/undertaking

Trade name: **linelube Antifreeze HC Blue**

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

- Use of the substance/mixture: Automotive industry – Antifreeze liquid

### Supplier:

Online Lubricants Ltd.  
Unit 20, The IO Centre, Barking, London IG11 0DR  
UK Tel. +44 (0) 208 507 0123

**In case of emergency: +44 (0) 208 507 0123**

## 2 Hazards identification

### 2.1. Classification of the substance or mixture

Physical hazards Not Classified  
Health hazards Acute Tox. 4 - H302 STOT RE 2 - H373  
Environmental hazards Not Classified  
Classification (1999/45/EC or 67/548/EEC): Xn; R22.

### Label elements

#### Labelling

#### Pictograms:



Signal word:

Warning

### Hazard statements

H302 Harmful if swallowed.  
H373 May cause damage to organs through prolonged or repeated exposure if swallowed.

### Precautionary statements

P260 Do not breathe vapour/spray.  
P264 Wash contaminated skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
P501 Dispose of contents/container in accordance with national regulations.

**Contains** Mono Ethylene Glycol

**Supplementary precautionary statements:** P330 Rinse mouth.

**Other hazards:** This substance is not classified as PBT or vPvB according to current EU criteria.

### Risk Phrases

Harmful R22 Harmful if swallowed.  
Safety Phrases S60 This material and its container must be disposed of as hazardous waste.

**Other hazards:** Not Classified as PBT/vPvB by current EU criteria.

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## 3 Composition / Information on ingredients

### 3.1 Mixtures

	CAS number:	EC number:	REACH registration no.:	%
<b>Mono Ethylene Glycol</b>	107-21-1	203-473-3	01- 2119456816-28- xx	60-100
Classification	67/548/EEC or 1999/45/EC		Acute Tox. 4 - H302 STOT RE 2 - H373	

<b>Disodium tetraborate pentahydrate</b>	12179-04-3	215-540-4	01- 2119490790-32-xxxx	1-2.99
Classification	67/548/EEC or 1999/45/EC		Eye Irrit. 2 - H319 Repr. 1B - H360FD	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

#### Composition comments:

Bitrex [Denatonium benzoate CAS 3734-33-6] may have been added in small quantities by customer request.

## 4 First-aid measures

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

#### General information

- Remove affected person from source of contamination.
- Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
- Place unconscious person on the side in the recovery position and ensure breathing can take place.
- Never give anything by mouth to an unconscious person.

#### Inhalation

- Move affected person to fresh air at once. If breathing stops, provide artificial respiration.
- When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.
- Get medical attention if any discomfort continues.

#### Ingestion

- Rinse mouth thoroughly with water. Give plenty of water to drink. Do not induce vomiting.
- If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
- Get medical attention.

#### Skin contact

- Remove contaminated clothing and rinse skin thoroughly with water.
- Get medical attention if any discomfort continues.

#### Eye contact

- Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes.
- Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

### 4.2. Most important symptoms and effects, both acute and delayed:

- Inhalation: Upper respiratory irritation.
- Ingestion: Nausea, vomiting. May cause stomach pain or vomiting.
- Skin contact: Prolonged skin contact may cause redness and irritation.
- Eye contact: May cause temporary eye irritation.

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

- Notes for the doctor: Treat symptomatically.

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## 5 Fire Fighting Measures

### 5.1. Extinguishing media

**Suitable extinguishing media:**

- Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

**Unsuitable extinguishing media:**

- Do not use water jet as an extinguisher

### 5.2. Special hazards arising from the substance or mixture:

**Specific hazards:**

- Containers can burst violently or explode when heated, due to excessive pressure build-up.

**Hazardous combustion products**

- Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon.

### 5.3. Advice for firefighters

**Protective actions during firefighting:**

- Use water to keep fire exposed containers cool and disperse vapours. Keep up-wind to avoid fumes. Control run-off water by containing and keeping it out of sewers and watercourses.

**Protective equipment for fire-fighters:**

- Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## 6 Accidental Release Measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- Wear protective clothing as described in Section 8 of this safety data sheet.
- Provide adequate ventilation.
- Avoid inhalation of vapours and contact with skin and eyes.

### 6.2. Environmental precautions

- Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Avoid the spillage or runoff entering drains, sewers or watercourses

### 6.3. Methods and material for containment and cleaning up

- Stop leak if possible, without risk. No smoking, sparks, flames or other sources of ignition near spillage. Absorb in vermiculite, dry sand or earth and place into containers. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

### 6.4. Reference to other sections

- Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13

## 7 Handling and Storage

### 7.1. Precautions for safe handling

- Avoid inhalation of vapours/spray and contact with skin and eyes.
- Do not ingest
- Good personal hygiene procedures should be implemented: Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.
- Provide adequate ventilation.
- Do not eat, drink or smoke when using the product.

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## 7.2. Conditions for safe storage, including any incompatibilities

- Keep separate from food, feedstuffs, fertilisers and other sensitive material.
- Store in tightly closed, original container in a dry, cool and well-ventilated place.
- Keep containers upright.
- Store in a demarcated bunded area to prevent release to drains and/or watercourses.
- Protect from light.
- Store in closed original container at temperatures between 0°C and 50°C.

**Suitable container materials:** Mild steel. Stainless steel. Suitable container materials: Polyethylene.

**Unsuitable container materials:** Aluminium

## 7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2

## 8 Exposure controls/personal protection

### 8.1. Control parameters

- Long-term exposure limit (8-hour TWA): WEL 60 mg/m<sup>3</sup>
- Short-term exposure limit (15-minute): WEL 125 mg/m<sup>3</sup>

#### Mono Ethylene Glycol

Long-term exposure limit (8-hour TWA): WEL 20 ppm(Sk) 52 mg/m<sup>3</sup>(Sk)

Short-term exposure limit (15-minute): WEL 40 ppm(Sk) 104 mg/m<sup>3</sup>(Sk)

#### Disodium tetraborate pentahydrate

Long-term exposure limit (8-hour TWA): WEL 1 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

DNEL Industry - Inhalation; Long term local effects: 35 mg/m<sup>3</sup>

Industry - Dermal; Long term systemic effects: 106 mg/kg

Consumer - Inhalation; Long term local effects: 7 mg/m<sup>3</sup>

Consumer - Dermal; Long term systemic effects: 53 mg/m

PNEC Fresh water; 10 mg/l

Marine water; 1 mg/l

STP; 199.5 mg/l

Sediment Freshwater: 20.9 mg/kg

Soil: 1.53 mg/kg

Intermittent release; 10 mg

#### Mono Ethylene Glycol

DNEL Industry - Inhalation; Long term local effects: 35 mg/m<sup>3</sup>

Industry - Dermal; Long term systemic effects: 106 mg/kg

Consumer - Inhalation; Long term local effects: 7 mg/m<sup>3</sup>

Consumer - Dermal; Long term systemic effects: 53 mg/m

PNEC Fresh water: 10 mg/l

Marine water: 1 mg/l

STP: 199.5 mg/l

Sediment Freshwater: 20.9 mg/kg

Soil: 1.53 mg/kg

Intermittent release: 10 mg

#### Disodium tetraborate pentahydrate

DNEL Industry - Inhalation; Short term local effects: 17.04 mg/m<sup>3</sup>

Industry - Inhalation; Long term local effects: 17.04 mg/m<sup>3</sup>

Industry - Inhalation; Long term systemic effects: 9.8 mg/m<sup>3</sup>

Industry - Dermal; Long term systemic effects: 458.2 mg/kg/day

Consumer - Oral; Short term systemic effects: 1.15 mg/kg/day

Consumer - Inhalation; Short term local effects: 17.04 mg/m<sup>3</sup>

Consumer - Inhalation; Long term local effects: 17.04 mg/m<sup>3</sup>

Consumer - Inhalation; Long term systemic effects: 4.9 mg/m<sup>3</sup>

Consumer - Dermal; Long term systemic effects: 231.8 mg/kg/day

PNEC Fresh water: 2.02 mg

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Marine water: 2.02 mg/l  
Intermittent release: 13.7 mg/l  
Soil: 5.4 mg/kg  
STP: 10 mg

## 8.2. Exposure controls

### Protective equipment



### Engineering measures

- Provide adequate general and local exhaust ventilation

### Respiratory equipment

- If ventilation is inadequate, suitable respiratory protection must be worn.
- It is recommended to use respiratory equipment with combination filter, type A2/P2

### Hand protection

- Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.
- It is recommended that gloves are made of the following material: Butyl rubber.
- It is recommended that gloves are made of the following material: Neoprene.
- It is recommended that gloves are made of the following material: Nitrile rubber.
- It should be noted that liquid may penetrate the gloves. Frequent changes are recommended.
- It is recommended that gloves are made of the following material: Polyvinyl alcohol (PVA).
- The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

### Eye / Face protection

- Chemical splash goggles or face shield should be worn. EN 166 recommended

### Other Protection

- Provide eyewash station and safety shower.
- Wear suitable protective clothing as protection against splashing or contamination

### Hygiene measures

- Wash hands at the end of each work shift and before eating, smoking and using the toilet.
- When using do not eat, drink or smoke. Wash contaminated clothing before reuse

### Environmental exposure controls

- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels

## 9 Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

- Appearance: Liquid
- Colour: Blue
- Odour: Odourless
- Melting point -12°C
- Initial boiling point and range 165°C @ 760 mm Hg
- Flash point 111°C CC (Closed cup).
- Lower flammable/explosive limit: 3.2
- Vapour pressure 0.05 kPa @ °C
- Vapour density 2.14
- Relative density 1.13 @ @ 20°C

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- Solubility(ies) Miscible with water. Miscible with the following materials: acetone Alcohols.
- Partition coefficient log Pow: -1.93
- Auto-ignition temperature 400°C
- Viscosity 21 cP @ 20°C

## 10 Stability and Reactivity

**10.1. Reactivity** - There are no known reactivity hazards associated with this product.

**10.2. Chemical stability** - Stable under normal ambient temperature conditions and recommended use.

**10.3. Possibility of hazardous reactions** - Hazardous Polymerisation Will not polymerise.

**10.4. Conditions to avoid** - Avoid heat, flames and other sources of ignition. Avoid contact with strong oxidising agents

**10.5. Incompatible materials / Materials to Avoid** - Strong oxidising substances. Strong acids. Strong alkalis.

### 10.6. Hazardous decomposition products

- Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon.

## 11 Toxicological Information

### 11.1. Information on toxicological effects

Information given is applicable to the major ingredient.

#### Toxicological information on ingredients.

##### Acute toxicity:

Acute Toxicity (Oral LD50) 7712 mg/kg Rat ATE oral (mg/kg) 528.32

Acute Toxicity (Dermal LD50) > 3,500 mg/kg Mouse

Acute Toxicity (Inhalation LC50) > 2.5 mg/l (vapours) Rat Notes (inhalation LC<sub>50</sub>) 6 hrs

**Skin Corrosion/Irritation:** Animal data Not irritating

**Serious eye damage/irritation:** Not irritating

**Respiratory or skin sensitisation:** Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising

**Germ cell mutagenicity:** Negative. Not mutagenic.

**Carcinogenicity:** Not available.

**Reproductive Toxicity – Development:** Not available

Fertility: - >1000 mg/kg, Oral, Rat Not expected to be a reproductive toxicant

##### Specific target organ toxicity

**Single exposure:** Not available.

**Repeated exposure:** NOAEL 200 mg/kg, Oral, Rat

**Notes (STOT-RE)** Not available

**Ingestion:** Harmful if swallowed

## 12 Ecological Information

### 12.1 Ecological information on ingredients. Ecotoxicity

#### ETHANEDIOL (CAS: 107-21-1)

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Information given is applicable to the major ingredient.

#### Toxicity

**Acute Toxicity: Fish:** LC50, 96 hours, 96 hours: 72860 mg/l, Pimephales promelas (Fat-head Minnow)

**Acute Toxicity - Aquatic Invertebrates:** EC<sub>50</sub>, 48 hours, 48 hours: > 100 mg/l, Daphnia magna

**Acute Toxicity - Aquatic Plants** EC50 96 hours 6500 - 13000 mg/l Selenastrum capricornutum

**Acute Toxicity – Microorganisms:** EC20, >: > 1995 mg/l, Activated sludge 30 Mins

**Chronic toxicity - fish early life stage** NOEC: 15380 mg/l, Pimephales promelas (Fat-head Minnow) 7 days

### 12.2. Persistence and degradability:

The substance is readily biodegradable. Biodegradation: Degradation (90%%) > 10 days OECD 301A

Stability (hydrolysis): Hydrolysis is not expected / probable.

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## 12.3. Bioaccumulative potential

- Bioconcentration potential is low.
- Partition coefficient: - 1.93

## 12.4. Mobility in soil:

- This material has low volatility and is water soluble hence the potential for mobility is high. Soil - Koc: 1 @ °C
- Henry's law constant: 0.1327 atm m<sup>3</sup>/mol @ °C

**12.5. Results of PBT and vPvB assessment** - Not Classified as PBT/vPvB by current EU criteria.

**12.6. Other adverse effects** - Not determined.

## 13 Disposal Considerations

### 13 General information

- Waste is suitable for incineration. Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
- Waste Code: 07 01 04

### 13.1. Waste treatment methods

- Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

## 14 Transport Information

### General

- The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

**14.1. UN number** - No information required.

**14.2. UN proper shipping name** - No information required.

**14.3. Transport hazard class(es)** - No information required.

## 15 Regulatory Information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### National Statutory Instruments:

Health and Safety at Work etc. Act 1974 (as amended).

The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).

#### EU Legislation

Dangerous Substances Directive 67/548/EEC.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Dangerous Preparations Directive 1999/45/EC

**15.2. Chemical Safety Assessment:** A chemical safety assessment has been carried out.

**15.3. Water Hazard Classification:** WGK 1

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## 16 Other Information

### Risk Phrases in Full

R22 Harmful if swallowed.

R36 Irritating to eyes.

R60 May impair fertility.

R61 May cause harm to the unborn child.

### Hazard Statements in Full:

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H360FD May damage fertility. May damage the unborn child.

H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.