



## SAFETY DATA SHEET

### Prestone Anti Freeze Concentrate

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

##### 1.1. Product identifier

Product name	Prestone Anti Freeze Concentrate
Product number	AF2000LD, AF2000LGB, AF2000LPL, PAFR0003A
UFI	UFI: NQT5-90JP-F00N-U0VS
EU REACH registration notes	This is a MIXTURE; no registration information contained in this document. Holts are classed as Downstream User.

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

Identified uses	Antifreeze liquid.
-----------------	--------------------

##### 1.3. Details of the supplier of the safety data sheet

Supplier	Holt Lloyd Services 52 Rue des 40 Mines, 60000 – Allonne, France Phone: +33 (0)3 64 99 00 32 info@holtsauto.com
Contact person	Contact email address: info@holtsauto.com
Manufacturer	Holt Lloyd International Ltd Barton Dock Road Stretford Manchester M32 0YQ - England, UK +44 (0) 161 866 4800 FAX +44 (0) 161 866 4854 www.holtsauto.com

##### 1.4. Emergency telephone number

Emergency telephone	UK - 00 44 (0) 161 866 4800 Office hrs = 0900 - 1700 hrs
---------------------	--

## Prestone Anti Freeze Concentrate

**National emergency telephone number** +43 1 31304 5620; chemikalien@umweltbundesamt.at (Austria)  
 +32022649636; info@poisoncentre.be (Belgium)  
 +359 2 9154 409; poison\_centre@mail.orbitel.bg (Bulgaria)  
 +38514686910; toksikologija@hzjz.hr (Croatia)  
 +35722405611; cy-chemregistry@dlm.msi.gov.cy (Cyprus)  
 +420267082257; biocidy@mzcr.cz (Czech Republic)  
 +45 72 54 40 00; mst@mst.dk (Denmark)  
 +372 794 3500; clp@terviseamet.ee, info@terviseamet.ee (Estonia)  
 +358 5052 000; kirjaamo@tukes.fi (Finland)  
 + 33 3 83 85 21 92; bnpc@chru-nancy.fr (France)  
 +49-30-18412-0; bfr@bfr.bund.de (Germany)  
 +302106479250; +302106479450; devxp.gcsf@aade.gr, environment.gcsf@aade.gr (Greece)  
 +36 (1) 476 1135; clp.ca@nnk.gov.hu (Hungary)  
 +354 543 22 22; eiturf@landspitali.is (Iceland)  
 +353 (1) 809 2166 / +353 (1) 809 2566; chemicalsinfo@beaumont.ie (Ireland)  
 +390649906140; inscweb@iss.it (Italy)  
 +371 67032600; lvgmc@lvgmc.lv (Latvia)  
 +370 70662008; aaa@aaa.am.lt (Lithuania)  
 +320 22649636; +352 24785551; info@poisoncentre.be; direction-sante@ms.etat.lu (Luxembourg)  
 +356 2395 2000; info@mccaa.org.mt (Malta)  
 +31 88 75 585 61; productnotificatie@umcutrecht.nl (The Netherlands)  
 +4573580500; produktregisteret@miljodir.no / +47 21 07 70 00; folkehelseinstituttet@fhi.no (Norway)  
 +48 42 2538 400; biuro@chemikalia.gov.pl (Poland)  
 +351 800 250 250; ciav.tox@inem.pt (Portugal)  
 +40213183606; infotox@insp.gov.ro (Romania)  
 +7 495 621 6885; +7 495 628 1687; rtiac@mail.ru; rtiac2003@yahoo.com (Russia)  
 +421 2 5465 2307; ntic@ntic.sk (Slovakia)  
 + 386 1 522 1293; gp.ukc@kclj.si (Slovenia)  
 +34 917689800; intcf.doc@justicia.es (Spain)  
 +46104566750; giftinformation@gic.se (Sweden)  
 +44 121 507 4123; allistervale@npis.org, sallybradberry@npis.org (UK)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (SI 2019 No. 720)

Physical hazards	Not Classified
Health hazards	Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT RE 2 - H373
Environmental hazards	Not Classified

#### 2.2. Label elements

##### Hazard pictograms



Signal word                      Warning

## Prestone Anti Freeze Concentrate

<b>Hazard statements</b>	<p>H302 Harmful if swallowed.</p> <p>H315 Causes skin irritation.</p> <p>H319 Causes serious eye irritation.</p> <p>H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.</p>
<b>Precautionary statements</b>	<p>P102 Keep out of reach of children.</p> <p>P101 If medical advice is needed, have product container or label at hand.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
<b>UFI</b>	UFI: NQT5-90JP-F00N-U0VS
<b>Contains</b>	ETHANEDIOL

### 2.3. Other hazards

#### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

<b>ETHANEDIOL</b>		<b>60-100%</b>
CAS number: 107-21-1	EC number: 203-473-3	
<b>Classification</b> Acute Tox. 4 - H302 STOT RE 2 - H373		
<b>2-Ethylhexanoic Acid</b>		<b>1-5%</b>
CAS number: 149-57-5	EC number: 205-743-6	
<b>Classification</b> Repr. 2 - H361d		
<b>SODIUM HYDROXIDE</b>		<b>&lt;1%</b>
CAS number: 1310-73-2	EC number: 215-185-5	
<b>Classification</b> Skin Corr. 1A - H314 Eye Dam. 1 - H318		
<b>sodium 4(or 5)-methyl-1H-benzotriazolid</b>		<b>&lt;1%</b>
CAS number: 64665-57-2	EC number: 265-004-9	
<b>Classification</b> Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Repr. 2 - H361d Aquatic Chronic 2 - H411		

## Prestone Anti Freeze Concentrate

<b>PROPAN-1-OL</b>		<b>&lt;1%</b>
CAS number: 71-23-8	EC number: 200-746-9	
<b>Classification</b> Flam. Liq. 2 - H225 Eye Dam. 1 - H318 STOT SE 3 - H336		
<b>Polypropylene Glycol</b>		<b>&lt;1%</b>
CAS number: 25322-69-4	EC number: 500-039-8	
<b>Classification</b> Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335		
<b>Denatonium Benzoate</b>		<b>&lt;1%</b>
CAS number: 3734-33-6	EC number: 223-095-2	
<b>Classification</b> Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Chronic 3 - H412		

The full text for all hazard statements is displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Do not induce vomiting. Never give anything by mouth to an unconscious person. Give plenty of water to drink. Get medical attention if any discomfort continues.
<b>Skin contact</b>	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Rinse with water. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

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

<b>Inhalation</b>	This is unlikely to occur but symptoms similar to those of ingestion may develop.
<b>Ingestion</b>	Harmful if swallowed. May cause liver and/or renal damage.
<b>Skin contact</b>	May be slightly irritating to skin. Prolonged and frequent contact may cause redness and irritation.
<b>Eye contact</b>	May be slightly irritating to eyes. Prolonged contact may cause redness and/or tearing.

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

## Prestone Anti Freeze Concentrate

**Notes for the doctor** Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media** The product is non-combustible. Use fire-extinguishing media suitable for the surrounding fire.

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

**Specific hazards** Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapours.

**Hazardous combustion products** Oxides of carbon. Oxides of nitrogen.

#### 5.3. Advice for firefighters

**Protective actions during firefighting** Control run-off water by containing and keeping it out of sewers and watercourses.

**Special protective equipment for firefighters** Use protective equipment appropriate for surrounding materials.

### SECTION 6: Accidental release measures

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

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet.

#### 6.2. Environmental precautions

**Environmental precautions** Avoid release to the environment. Do not discharge into drains or watercourses or onto the ground.

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

**Methods for cleaning up** Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. For waste disposal, see Section 13.

#### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions** Avoid spilling. Avoid contact with skin and eyes.

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

**Storage precautions** Keep away from food, drink and animal feeding stuffs. Store in a cool and well-ventilated place. Keep only in the original container.

**Storage class** Chemical storage.

#### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

### SECTION 8: Exposure controls/Personal protection

#### 8.1. Control parameters

##### Occupational exposure limits

ETHANEDIOL

## Prestone Anti Freeze Concentrate

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

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

Sk

Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup> particulate

Sk

### SODIUM HYDROXIDE

Long-term exposure limit (8-hour TWA): WEL

Short-term exposure limit (15-minute): WEL 2 mg/m<sup>3</sup>

### PROPAN-1-OL

Long-term exposure limit (8-hour TWA): WEL 200 ppm(Sk) 500 mg/m<sup>3</sup>(Sk)

Short-term exposure limit (15-minute): WEL 250 ppm(Sk) 625 mg/m<sup>3</sup>(Sk)

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through the skin.

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

#### DNEL

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

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

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

General population - Dermal; Long term systemic effects: 53 mg/kg/day

#### PNEC

Fresh water; 10 mg/l

marine water; 1 mg/l

STP; 199.5 mg/l

Sediment (Freshwater); 37 mg/kg

Sediment (Marinewater); 3.7 mg/kg

Soil; 1.53 mg/kg

### 2-Ethylhexanoic Acid (CAS: 149-57-5)

#### DNEL

Workers - Inhalation; Long term systemic effects: 14 mg/m<sup>3</sup>

Workers - Dermal; Long term systemic effects: 2 mg/kg bw/day

General population - Inhalation; Long term systemic effects: 3.5 mg/m<sup>3</sup>

General population - Dermal; Long term systemic effects: 1 mg/kg bw/day

General population - Oral; Long term systemic effects: 1 mg/kg bw/day

#### PNEC

Fresh water; 0.4 mg/l

Intermittent release; 1 mg/l

marine water; 0.04 mg/l

STP; 71.7 mg/l

Sediment (Freshwater); 4.74 mg/kg sediment dry weight

Sediment (Marinewater); 0.74 mg/kg sediment dry weight

Soil; 0.712 mg/kg soil dry weight

### SODIUM HYDROXIDE (CAS: 1310-73-2)

#### DNEL

Workers - Inhalation; Long term local effects: 1 mg/m<sup>3</sup>

General population - Dermal; Long term local effects: 1 mg/m<sup>3</sup>

### sodium 4(or 5)-methyl-1H-benzotriazole (CAS: 64665-57-2)

## Prestone Anti Freeze Concentrate

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 21.2 mg/m <sup>3</sup>
	Workers - Dermal; Long term systemic effects: 0.3 mg/kg/day
	General population - Inhalation; Long term systemic effects: 350 µg/m <sup>3</sup>
	General population - Dermal; Long term systemic effects: 0.01 mg/kg/day
	General population - Oral; Long term systemic effects: 0.01 mg/kg/day

<b>PNEC</b>	Fresh water; 0.008 mg/l
	marine water; 20 µg/l
	STP; 39.4 mg/l
	Sediment (Freshwater); 0.117 mg/kg
	Sediment (Marinewater); 0.292 mg/kg
	Soil; 18.7 µg/kg

### PROPAN-1-OL (CAS: 71-23-8)

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 268 mg/m <sup>3</sup>
	Workers - Inhalation; Short term systemic effects: 1723 mg/m <sup>3</sup>
	Workers - Dermal; Long term systemic effects: 136 mg/kg/day
	General population - Inhalation; Long term systemic effects: 80 mg/m <sup>3</sup>
	General population - Dermal; Long term systemic effects: 81 mg/kg/day
	General population - Oral; Long term systemic effects: 61 mg/kg/day

<b>PNEC</b>	Fresh water; 6.83 mg/l
	marine water; 0.683 mg/l
	STP; 96 mg/l
	Sediment (Freshwater); 27.5 mg/kg
	Sediment (Marinewater); 2.75 mg/kg
	Soil; 1.49 mg/kg

### Polypropylene Glycol (CAS: 25322-69-4)

<b>DNEL</b>	Workers - Inhalation; Long term local effects: 10 mg/m <sup>3</sup>
	Workers - Dermal; Long term systemic effects: 84 mg/kg bw/day
	General population - Inhalation; Long term systemic effects: 10 mg/m <sup>3</sup>
	General population - Dermal; Long term systemic effects: 51 mg/kg bw/day
	General population - Oral; Long term systemic effects: 24 mg/kg bw/day

<b>PNEC</b>	Fresh water; 0.1 mg/l
	marine water; 0.01 mg/l
	Intermittent release; 1 mg/l
	STP; 100 mg/l
	Sediment (Freshwater); 0.765 mg/kg sediment dry weight
	Sediment (Marinewater); 0.0765 mg/kg sediment dry weight
	Soil; 0.109 mg/kg soil dry weight

### Denatonium Benzoate (CAS: 3734-33-6)

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 4.99 mg/m <sup>3</sup>
	Workers - Dermal; Long term systemic effects: 1.43 mg/kg/day
	General population - Inhalation; Long term systemic effects: 0.768 mg/m <sup>3</sup>
	General population - Dermal; Long term systemic effects: 0.51 mg/kg/day
	General population - Oral; Long term systemic effects: 0.51 mg/kg/day

## Prestone Anti Freeze Concentrate

### PNEC

Fresh water; 0.1 mg/l  
 marine water; 10 µg/l  
 Sediment (Freshwater); 25 mg/kg  
 Sediment (Marinewater); 2.5 mg/kg  
 Soil; 4.96 mg/kg

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

No specific ventilation requirements.

#### Eye/face protection

Wear chemical splash goggles.

#### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, wear gloves that are proven to be impervious to the chemical and resist degradation.

#### Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact.

#### Hygiene measures

Wash hands thoroughly after handling.

#### Respiratory protection

Respiratory protection not required.

### SECTION 9: Physical and chemical properties

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

Appearance	Clear liquid.
Colour	Colourless to pale yellow.
pH	pH (concentrated solution): 8.5 - 9.0
Flash point	> 100°C Closed cup.
Relative density	~1.114 @ 20°C
Solubility(ies)	Miscible with water.

#### 9.2. Other information

Volatile organic compound	This product contains a maximum VOC content of 97.6 %.
---------------------------	--

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

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

#### 10.2. Chemical stability

Stability	Stable under the prescribed storage conditions.
-----------	---

#### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not applicable. Will not polymerise.
------------------------------------	--------------------------------------

#### 10.4. Conditions to avoid

Conditions to avoid	Avoid heat. Avoid freezing.
---------------------	-----------------------------



## Prestone Anti Freeze Concentrate

### 10.5. Incompatible materials

**Materials to avoid** No specific material or group of materials is likely to react with the product to produce a hazardous situation.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Toxicological effects** Information given is based on data of the components and of similar products.

#### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Harmful if swallowed.

**ATE oral (mg/kg)** 534.71

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Skin corrosion/irritation

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

#### Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

#### Respiratory sensitisation

**Respiratory sensitisation** Based on available data the classification criteria are not met.

#### Skin sensitisation

**Skin sensitisation** Based on available data the classification criteria are not met.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

**Genotoxicity - in vivo** Based on available data the classification criteria are not met.

#### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.

#### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

**Reproductive toxicity - development** Contains an ingredient listed as: Repr. 2

#### Specific target organ toxicity - single exposure

**STOT - single exposure** Based on available data the classification criteria are not met.

#### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Prolonged or repeated exposure may cause the following adverse effects: Liver and/or kidney damage.

#### Aspiration hazard

## Prestone Anti Freeze Concentrate

<b>Aspiration hazard</b>	Not relevant.
<b>Inhalation</b>	This is unlikely to occur but symptoms similar to those of ingestion may develop.
<b>Ingestion</b>	Harmful if swallowed. May cause liver and/or renal damage.
<b>Skin contact</b>	May be slightly irritating to skin. Prolonged and frequent contact may cause redness and irritation.
<b>Eye contact</b>	May be slightly irritating to eyes. Prolonged contact may cause redness and/or tearing.

### Toxicological information on ingredients.

#### ETHANEDIOL

##### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Harmful if swallowed.

**ATE oral (mg/kg)** 500.0

##### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** LD<sub>50</sub> > 3500 mg/kg, Dermal, Mouse

##### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** LC50 > 2.5 mg/l, Inhalation, Rat

##### Skin corrosion/irritation

**Skin corrosion/irritation** Not irritating.

##### Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

##### Respiratory sensitisation

**Respiratory sensitisation** Based on available data the classification criteria are not met.

##### Skin sensitisation

**Skin sensitisation** Not sensitising.

##### Germ cell mutagenicity

**Genotoxicity - in vitro** Negative.

**Genotoxicity - in vivo** Negative.

##### Carcinogenicity

**Carcinogenicity** No evidence of carcinogenicity in animal studies. Based on available data the classification criteria are not met.

##### Reproductive toxicity

**Reproductive toxicity - fertility** Three-generation study - NOAEL > 1000 mg/kg bw/day, Oral, Rat F2 Fertility - NOEL 1000 mg/kg bw/day, Oral, Mouse F1

**Reproductive toxicity - development** No evidence of reproductive toxicity in animal studies.

##### Specific target organ toxicity - single exposure

**STOT - single exposure** Based on available data the classification criteria are not met.

## Prestone Anti Freeze Concentrate

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Prolonged or repeated exposure may cause the following adverse effects: Liver and/or kidney damage.

### Aspiration hazard

**Aspiration hazard** Not relevant.

**Inhalation** No specific health hazards known.

**Ingestion** Harmful if swallowed.

**Skin contact** May be slightly irritating to skin.

**Eye contact** May be slightly irritating to eyes.

### 2-Ethylhexanoic Acid

### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** LD<sub>50</sub> 2043 mg/kg, Oral, Rat

### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** LD<sub>50</sub> > 2000 mg/kg, Dermal, Rat

### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** LC0 0.11 mg/m<sup>3</sup>, Inhalation, Rat

### Skin corrosion/irritation

**Skin corrosion/irritation** Not irritating.

### Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

### Respiratory sensitisation

**Respiratory sensitisation** No information available.

### Skin sensitisation

**Skin sensitisation** Not sensitising.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Negative.

**Genotoxicity - in vivo** Negative.

### Carcinogenicity

**Carcinogenicity** No information available.

### Reproductive toxicity

**Reproductive toxicity - fertility** Fertility - NOAEL 800 mg/kg bw/day, Oral, Rat F2 Suspected of damaging fertility.

### Specific target organ toxicity - single exposure

**STOT - single exposure** Based on available data the classification criteria are not met.

### Specific target organ toxicity - repeated exposure

## Prestone Anti Freeze Concentrate

**STOT - repeated exposure** Based on available data the classification criteria are not met.

### Aspiration hazard

**Aspiration hazard** Not relevant.

## SODIUM HYDROXIDE

### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 500.0

**Species** Rat

**Notes (oral LD<sub>50</sub>)** Not applicable. REACH dossier information.

### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Not applicable. REACH dossier information.

### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Not applicable. REACH dossier information.

### Skin corrosion/irritation

**Skin corrosion/irritation** Causes severe burns.

### Serious eye damage/irritation

**Serious eye damage/irritation** Causes serious eye damage.

### Respiratory sensitisation

**Respiratory sensitisation** No information available.

### Skin sensitisation

**Skin sensitisation** Not sensitising.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Negative.

**Genotoxicity - in vivo** Negative.

### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.

### Reproductive toxicity

**Reproductive toxicity - fertility** Scientifically unjustified. REACH dossier information.

**Reproductive toxicity - development** This substance has no evidence of toxicity to reproduction.

### Specific target organ toxicity - single exposure

**STOT - single exposure** Based on available data the classification criteria are not met.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Based on available data the classification criteria are not met.

### Aspiration hazard

**Aspiration hazard** Not relevant.

## Prestone Anti Freeze Concentrate

### sodium 4(or 5)-methyl-1H-benzotriazole

#### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 800.0

Species Rat

Notes (oral LD<sub>50</sub>) LD<sub>50</sub> 735 mg/kg, Oral, Rat Harmful if swallowed.

ATE oral (mg/kg) 800.0

#### Acute toxicity - dermal

Notes (dermal LD<sub>50</sub>) LD<sub>50</sub> > 2000 mg/kg, Dermal, Rabbit

#### Acute toxicity - inhalation

Notes (inhalation LC<sub>50</sub>) No information available.

#### Skin corrosion/irritation

Skin corrosion/irritation Causes severe burns.

#### Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

#### Respiratory sensitisation

Respiratory sensitisation Not sensitising. REACH dossier information.

#### Skin sensitisation

Skin sensitisation Not sensitising.

#### Germ cell mutagenicity

Genotoxicity - in vitro Negative.

Genotoxicity - in vivo Negative.

#### Carcinogenicity

Carcinogenicity No information available.

#### Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met. REACH dossier information.

Reproductive toxicity - development Repr. 2

#### Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

#### Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

#### Aspiration hazard

Aspiration hazard Not relevant.

### PROPAN-1-OL

#### Acute toxicity - oral

## Prestone Anti Freeze Concentrate

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 5,400.0

**Species** Rat

### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 4,032.0

**Species** Rabbit

### Acute toxicity - inhalation

**Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)** 33.8

**Species** Rat

### Serious eye damage/irritation

**Serious eye damage/irritation** Causes serious eye damage.

## Denatonium Benzoate

### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** LD<sub>50</sub> 749 mg/kg, Oral, Rat

### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** LD<sub>50</sub> > 2000 mg/kg, Dermal, Rat

### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** LC50 0.2 mg/l, Inhalation, Rat

### Skin corrosion/irritation

**Skin corrosion/irritation** Causes skin irritation.

### Serious eye damage/irritation

**Serious eye damage/irritation** Causes serious eye damage.

### Respiratory sensitisation

**Respiratory sensitisation** No information available.

### Skin sensitisation

**Skin sensitisation** Not sensitising.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Negative.

**Genotoxicity - in vivo** Negative.

### Carcinogenicity

**Carcinogenicity** NOAEL 16 mg/kg/day, Oral, Rat No evidence of carcinogenicity in animal studies.

### Reproductive toxicity

**Reproductive toxicity - fertility** Two-generation study - NOAEL 60 mg/kg/day, Oral, Rat P, F1 No evidence of reproductive toxicity in animal studies.

## Prestone Anti Freeze Concentrate

### Specific target organ toxicity - single exposure

**STOT - single exposure** Based on available data the classification criteria are not met.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Based on available data the classification criteria are not met.

### Aspiration hazard

**Aspiration hazard** Not relevant.

## SECTION 12: Ecological information

**Ecotoxicity** The product contains a substance which is toxic to aquatic organisms.

### Ecological information on ingredients.

#### sodium 4(or 5)-methyl-1H-benzotriazole

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

### 12.1. Toxicity

#### Ecological information on ingredients.

#### ETHANEDIOL

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 72860 mg/l, Pimephales promelas (Fat-head Minnow)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: > 100 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** IC<sub>50</sub>, 96 hours: 10940 mg/l, Pseudokirchneriella subcapitata

**Acute toxicity - microorganisms** EC<sub>20</sub>, 30 minutes: 1995 mg/l, Activated sludge  
Read-across data.

##### Chronic aquatic toxicity

**Chronic toxicity - fish early life stage** LC<sub>50</sub>, 28 days: > 1500 mg/l, Menidia peninsulae (Tidewater silverside)

**Chronic toxicity - aquatic invertebrates** EC<sub>50</sub>, 21 days: > 100 mg/l, Daphnia magna

#### 2-Ethylhexanoic Acid

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: > 100 mg/l, Oryzias latipes (Red killifish)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 85.4 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 485.1 mg/l, Pseudokirchneriella subcapitata

##### Chronic aquatic toxicity

**Chronic toxicity - aquatic invertebrates** EC<sub>10</sub>, LC<sub>10</sub>, NOEC, 21 days: 19.9 mg/l, Daphnia magna

#### SODIUM HYDROXIDE

## Prestone Anti Freeze Concentrate

### Acute aquatic toxicity

<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 33-189 hours: 96 mg/l, Fish LC <sub>50</sub> , 45.5 hours: 96 mg/l, Oncorhynchus mykiss (Rainbow trout)
<b>Acute toxicity - aquatic invertebrates</b>	LC <sub>50</sub> , 48 hours: 30 - < 1000 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	Scientifically unjustified.
<b>Acute toxicity - microorganisms</b>	EC <sub>10</sub> , 2 minutes: 161 mg/l, Tetrahymena Thermophila EC <sub>50</sub> , 15 minutes: 22 mg/l, Photobacterium phosphoreum luminescence inhibition study

### Chronic aquatic toxicity

<b>Chronic toxicity - fish early life stage</b>	Not available.
<b>Short term toxicity - embryo and sac fry stages</b>	Not available.
<b>Chronic toxicity - aquatic invertebrates</b>	Not applicable.

### sodium 4(or 5)-methyl-1H-benzotriazole

### Acute aquatic toxicity

<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: 180 mg/l, Brachydanio rerio (Zebra Fish) LC <sub>50</sub> , 96 hours: 55 mg/l, Cyprinodon variegatus (Sheepshead minnow)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: 8.58 mg/l, Daphnia galeata LC <sub>50</sub> , 48 hours: 55 mg/l, Acartia tonsa
<b>Acute toxicity - aquatic plants</b>	ErC <sub>50</sub> , 72 hours: 75 mg/l, Pseudokirchneriella subcapitata EC <sub>10</sub> , 72 hours: 1.18 - 2.86 mg/l, Desmodesmus subspicatus EC <sub>50</sub> , 72 hours: 52 mg/l, Skeletonema costatum EC <sub>10</sub> , 72 hours: 36 mg/l, Skeletonema costatum EC <sub>90</sub> , 72 hours: 83 mg/l, Skeletonema costatum NOEC, 72 hours: 30 mg/l, Skeletonema costatum EC <sub>10</sub> , 7 days: 2.11 mg/l, Lemna minor
<b>Acute toxicity - microorganisms</b>	EC <sub>50</sub> , 3 hours: 1060 mg/l, Activated sludge EC <sub>10</sub> , NOEC, 3 hours: 394 mg/l, Activated sludge

### Chronic aquatic toxicity

<b>Chronic toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 21 days: > 37.6 mg/l, Daphnia magna NOEC, 21 days: 18.4 mg/l, Daphnia magna EC <sub>10</sub> , 21 days: 0.4 - 0.97 mg/l, Daphnia galeata
---	---

### PROPAN-1-OL

### Acute aquatic toxicity

<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: 4555 mg/l, Pimephales promelas (Fat-head Minnow)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: 3644 mg/l, Daphnia magna NOEC, 21 days: > 100 mg/l, Daphnia magna



## Prestone Anti Freeze Concentrate

**Acute toxicity - aquatic plants**

IC<sub>50</sub>, 72 hours: > 1000 mg/l, Algae

### Denatonium Benzoate

**Acute aquatic toxicity**

**Acute toxicity - fish**

LC<sub>50</sub>, 96 hours: > 100 mg/l, Brachydanio rerio (Zebra Fish)

**Acute toxicity - aquatic invertebrates**

EC<sub>50</sub>, 48 hours: > 500 mg/l, Daphnia magna

**Acute toxicity - aquatic plants**

EC<sub>50</sub>, 72 hours: 281.556 mg/l, Chlorella vulgaris

**Acute toxicity - microorganisms**

EC<sub>50</sub>, 15 minutes: 511.58 mg/l, Vibrio fischeri

## 12.2. Persistence and degradability

### Ecological information on ingredients.

#### ETHANEDIOL

**Persistence and degradability**

10 days 90-100% Rapidly degradable

#### SODIUM HYDROXIDE

**Persistence and degradability**

No data available.

**Stability (hydrolysis)**

Scientifically unjustified.  
REACH dossier information.

#### sodium 4(or 5)-methyl-1H-benzotriazole

**Persistence and degradability**

Not readily biodegradable.

**Phototransformation**

Air - Half-life : 3.9 days

**Stability (hydrolysis)**

pH4, pH7, pH9 - Degradation 0: 5 days @ 50 +/- 0.5°C

**Biodegradation**

Soil - Half-life : 180 days

#### PROPAN-1-OL

**Persistence and degradability**

The substance is readily biodegradable. 83%; 28 days

### Denatonium Benzoate

**Persistence and degradability**

Not readily biodegradable.

**Stability (hydrolysis)**

pH4, pH7, pH9 - Degradation 10%: ~ 5 days @ 50°C  
pH 5, pH7, pH9 - Degradation 10%: ~ 5 days @ 25°C  
pH 5 -10 - Half-life : ~ 1 year @ 25-50°C

## 12.3. Bioaccumulative potential

## Prestone Anti Freeze Concentrate

### Ecological information on ingredients.

#### ETHANEDIOL

**Partition coefficient** log Pow: -1.36 QSAR data.

#### SODIUM HYDROXIDE

**Bioaccumulative potential** No potential for bioaccumulation.

**Partition coefficient** No information required. REACH dossier information.

#### sodium 4(or 5)-methyl-1H-benzotriazole

**Bioaccumulative potential** BCF: 2.422 L/kg, QSAR Bioaccumulation is unlikely. REACH dossier information.

**Partition coefficient** log Pow: 1.087

#### PROPAN-1-OL

**Partition coefficient** log Pow: 0.25

### 12.4. Mobility in soil

**Mobility** The product is miscible with water and may spread in water systems.

### Ecological information on ingredients.

#### sodium 4(or 5)-methyl-1H-benzotriazole

**Adsorption/desorption coefficient** - Koc: 110 @ 20°C

#### Denatonium Benzoate

**Adsorption/desorption coefficient** Soil - Koc: 2466.04 @ 20°C

### 12.5. Results of PBT and vPvB assessment

### Ecological information on ingredients.

#### ETHANEDIOL

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current UK criteria.

#### 2-Ethylhexanoic Acid

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current UK criteria.

#### SODIUM HYDROXIDE

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current UK criteria.

#### sodium 4(or 5)-methyl-1H-benzotriazole

## Prestone Anti Freeze Concentrate

### Results of PBT and vPvB assessment

This substance is not classified as PBT or vPvB according to current UK criteria.

### Denatonium Benzoate

### Results of PBT and vPvB assessment

This substance is not classified as PBT or vPvB according to current UK criteria.

#### 12.6. Other adverse effects

Other adverse effects      None known.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

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

### SECTION 14: Transport information

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

#### 14.1. UN number

Not applicable.

#### 14.2. UN proper shipping name

Not applicable.

#### 14.3. Transport hazard class(es)

No transport warning sign required.

#### 14.4. Packing group

Not applicable.

#### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

#### 14.6. Special precautions for user

Not applicable.

#### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code      Not applicable.

### SECTION 15: Regulatory information

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

National regulations      The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## Prestone Anti Freeze Concentrate

### SECTION 16: Other information

<b>Abbreviations and acronyms used in the safety data sheet</b>	<p>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</p> <p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>ATE: Acute Toxicity Estimate.</p> <p>BCF: Bioconcentration Factor.</p> <p>BOD: Biochemical Oxygen Demand.</p> <p>CAS: Chemical Abstracts Service.</p> <p>DNEL: Derived No Effect Level.</p> <p>EC<sub>50</sub>: 50% of maximal Effective Concentration.</p> <p>GHS: Globally Harmonized System.</p> <p>IARC: International Agency for Research on Cancer.</p> <p>IATA: International Air Transport Association.</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>LC50: Lethal Concentration to 50 % of a test population.</p> <p>LD50: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>NOAEC: No Observed Adverse Effect Concentration.</p> <p>NOAEL: No Observed Adverse Effect Level.</p> <p>NOEC: No Observed Effect Concentration.</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>PNEC: Predicted No Effect Concentration.</p> <p>REACH: The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577.</p> <p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>SVHC: Substances of Very High Concern.</p> <p>UVCB - Unknown or variable composition, complex reaction products or Biological materials.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p>
<b>Classification procedures according to SI 2019 No. 720</b>	<p>Acute Tox. 4 - H302: Calculation method. Skin Irrit. 2 - H315: Calculation method. Eye Irrit. 2 - H319: Calculation method. STOT RE 2 - H373: Calculation method.</p>
<b>Revision date</b>	18/03/2022
<b>Revision</b>	8
<b>Supersedes date</b>	06/01/2022
<b>SDS number</b>	14406
<b>Hazard statements in full</b>	<p>H225 Highly flammable liquid and vapour.</p> <p>H302 Harmful if swallowed.</p> <p>H314 Causes severe skin burns and eye damage.</p> <p>H315 Causes skin irritation.</p> <p>H318 Causes serious eye damage.</p> <p>H319 Causes serious eye irritation.</p> <p>H332 Harmful if inhaled.</p> <p>H335 May cause respiratory irritation.</p> <p>H336 May cause drowsiness or dizziness.</p> <p>H361d Suspected of damaging the unborn child.</p> <p>H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.</p> <p>H411 Toxic to aquatic life with long lasting effects.</p> <p>H412 Harmful to aquatic life with long lasting effects.</p>

## **Prestone Anti Freeze Concentrate**

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.