



**Prestone**



## SAFETY DATA SHEET

### Prestone -40°C Trigger De-icer

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

##### 1.1. Product identifier

<b>Product name</b>	Prestone -40°C Trigger De-icer
<b>Product number</b>	PDEI0002A, PDEI0002B, PDE0005A, PDEI0007A, PDEI0101A, PDEI0101B
<b>UFI</b>	UFI: 2HH6-U0VH-800A-UQW5
<b>EU REACH registration notes</b>	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

<b>Identified uses</b>	De-Icer Car maintenance product.
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##### 1.3. Details of the supplier of the safety data sheet

<b>Supplier</b>	Holt Lloyd Services 52 Rue des 40 Mines, 60000 – Allonne, France Phone: +33 (0)3 64 99 00 32 info@holtsauto.com
<b>Contact person</b>	Contact email address: info@holtsauto.com
<b>Manufacturer</b>	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

<b>Emergency telephone</b>	UK - 00 44 (0) 161 866 4800 Office hrs = 0900 - 1700 hrs
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## Prestone -40°C Trigger De-icer

**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@dli.mlsi.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; eitur@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	Flam. Liq. 3 - H226
Health hazards	Eye Irrit. 2 - H319
Environmental hazards	Not Classified

#### 2.2. Label elements

##### Hazard pictograms



Signal word Warning

Hazard statements  
 H226 Flammable liquid and vapour.  
 H319 Causes serious eye irritation.

## Prestone -40°C Trigger De-icer

**Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.  
 P102 Keep out of reach of children.  
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337+P313 If eye irritation persists: Get medical advice/ attention.  
 P501 Dispose of contents/ container in accordance with national regulations.

**UFI** UFI: 2HH6-U0VH-800A-UQW5

**Supplementary precautionary statements**

P233 Keep container tightly closed.  
 P240 Ground and bond container and receiving equipment.  
 P241 Use explosion-proof electrical equipment.  
 P242 Use non-sparking tools.  
 P243 Take action to prevent static discharges.

### 2.3. Other hazards

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

##### 3.2. Mixtures

<b>ETHANOL</b>	<b>25-50%</b>
CAS number: 64-17-5	EC number: 200-578-6
<b>Classification</b>	
Flam. Liq. 2 - H225	
Eye Irrit. 2 - H319	
<b>Ethanediol</b>	<b>5-10%</b>
CAS number: 107-21-1	EC number: 203-473-3
<b>Classification</b>	
Acute Tox. 4 - H302	
STOT RE 2 - H373	
<b>PROPAN-2-OL</b>	<b>1-5%</b>
CAS number: 67-63-0	EC number: 200-661-7
<b>Classification</b>	
Flam. Liq. 2 - H225	
Eye Irrit. 2 - H319	
STOT SE 3 - H336	

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<b>METHANOL</b>	<b>&lt;0.6%</b>
CAS number: 67-56-1	EC number: 200-659-6
<b>Classification</b> Flam. Liq. 2 - H225 Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 3 - H331 STOT SE 1 - H370	

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.
<b>Ingestion</b>	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. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
<b>Skin contact</b>	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.
<b>Eye contact</b>	Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

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

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Vapours may cause headache, fatigue, dizziness and nausea.
<b>Ingestion</b>	May cause nausea, headache, dizziness and intoxication.
<b>Skin contact</b>	May be slightly irritating to skin. Prolonged or repeated exposure may cause severe irritation.
<b>Eye contact</b>	Causes serious eye irritation. Prolonged or repeated exposure may cause severe irritation.

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

<b>Notes for the doctor</b>	Treat symptomatically.
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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Extinguish with the following media: Alcohol-resistant foam. Dry chemicals. Water spray.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

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

<b>Specific hazards</b>	Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours.
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**Hazardous combustion products** Oxides of carbon. Oxides of nitrogen.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

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

**Personal precautions** For personal protection, see Section 8.

### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground.

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

**Methods for cleaning up** Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Absorb in vermiculite, dry sand or earth and place into containers.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Read and follow manufacturer's recommendations. Avoid spilling. Avoid inhalation of vapours and contact with skin and eyes.

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

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep only in the original container.

### 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

#### ETHANOL

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL

#### Ethanediol

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

Sk

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

#### PROPAN-2-OL

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m<sup>3</sup>

#### METHANOL

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Long-term exposure limit (8-hour TWA): WEL 200 ppm 266 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 250 ppm 333 mg/m<sup>3</sup>

Sk

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through the skin.

### ETHANOL (CAS: 64-17-5)

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 950 mg/m <sup>3</sup>
	Workers - Inhalation; Short term local effects: 1900 mg/m <sup>3</sup>
	Workers - Dermal; Long term systemic effects: 343 mg/kg bw/day
	General population - Inhalation; Long term systemic effects: 114 mg/m <sup>3</sup>
	General population - Dermal; Long term systemic effects: 206 mg/kg bw/day
	General population - Oral; Long term systemic effects: 87 mg/kg bw/day
	General population - Inhalation; Short term local effects: 950 mg/m <sup>3</sup>
<b>PNEC</b>	Fresh water; Long term 0.96 mg/l
	marine water; Long term 0.79 mg/l
	Intermittent release; Long term 2.75 mg/l
	STP; Long term 580 mg/l
	Sediment (Freshwater); Long term 3.6 mg/kg sediment dry weight
	Sediment (Marinewater); Long term 2.9 mg/kg sediment dry weight
Soil; Long term 0.63 mg/kg soil dry weight	

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

<b>DNEL</b>	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
<b>PNEC</b>	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	

### PROPAN-2-OL (CAS: 67-63-0)

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 500 mg/m <sup>3</sup>
	Workers - Dermal; Long term systemic effects: 888 mg/kg/day
	General population - Inhalation; Long term systemic effects: 89 mg/m <sup>3</sup>
	General population - Dermal; Long term systemic effects: 319 mg/kg/day
	General population - Oral; Long term systemic effects: 26 mg/kg/day
<b>PNEC</b>	Fresh water; Long term 140.9 mg/l
	marine water; Long term 140.9 mg/l
	Sediment (Freshwater); Long term 552 mg/kg sediment dry weight
	Sediment (Marinewater); Long term 552 mg/kg sediment dry weight
	Soil; Long term 28 mg/kg soil dry weight

### METHANOL (CAS: 67-56-1)

## Prestone -40°C Trigger De-icer

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 260 mg/m <sup>3</sup>
	Workers - Inhalation; Short term systemic effects: 260 mg/m <sup>3</sup>
	Workers - Inhalation; Long term local effects: 260 mg/m <sup>3</sup>
	Workers - Inhalation; Short term local effects: 260 mg/m <sup>3</sup>
	Workers - Dermal; Long term systemic effects: 40 mg/kg bw/day
	General population - Inhalation; Long term systemic effects: 50 mg/m <sup>3</sup>
	General population - Inhalation; Short term systemic effects: 50 mg/m <sup>3</sup>
	General population - Inhalation; Long term local effects: 50 mg/m <sup>3</sup>
	General population - Inhalation; Short term local effects: 50 mg/m <sup>3</sup>
	General population - Dermal; Long term systemic effects: 8 mg/kg bw/day
	General population - Dermal; Short term systemic effects: 8 mg/kg bw/day
	General population - Oral; Long term systemic effects: 8 mg/kg bw/day
	General population - Oral; Short term systemic effects: 8 mg/kg bw/day
<b>PNEC</b>	Fresh water; 20.8 mg/l
	marine water; 2.08 mg/l
	STP; 100 mg/l
	Intermittent release; 1540 mg/l
	Sediment (Freshwater); 77 mg/kg sediment dry weight
	Sediment (Marinewater); 7.7 mg/kg sediment dry weight
	Soil; 100 mg/kg soil dry weight

### Tartrazine (CAS: 1934-21-0)

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 372.52 mg/m <sup>3</sup>
	Workers - Dermal; Long term systemic effects: 52.82 mg/kg/day
	General population - Inhalation; Long term systemic effects: 91.86 mg/m <sup>3</sup>
	General population - Dermal; Long term systemic effects: 26.41 mg/kg/day
	General population - Oral; Long term systemic effects: 26.42 mg/kg/day
<b>PNEC</b>	Fresh water; 0.12 mg/l
	marine water; 0.012 mg/l
	STP; 10 mg/l
	Sediment (Freshwater); 0.47 mg/kg
	Sediment (Marinewater); 0.047 mg/kg
	Soil; 0.024 mg/kg

### 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
<b>PNEC</b>	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

### SECTION 9: Physical and chemical properties

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

**Appearance** Clear liquid.

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<b>Colour</b>	Yellow.
<b>Odour</b>	Alcoholic.
<b>pH</b>	pH (concentrated solution): 7.4
<b>Melting point</b>	-40°C
<b>Flash point</b>	27°C Closed cup.
<b>Relative density</b>	0.94 - 0.95 @ 20°C
<b>Solubility(ies)</b>	Soluble in water.

### 9.2. Other information

#### 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 at normal ambient temperatures.

##### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions**                      Will not polymerise.

##### 10.4. Conditions to avoid

**Conditions to avoid**                      Avoid heat, flames and other sources of ignition.

##### 10.5. Incompatible materials

**Materials to avoid**                      Strong acids. Strong oxidising agents.

##### 10.6. Hazardous decomposition products

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

#### SECTION 11: Toxicological information

##### 11.1. Information on toxicological effects

###### Acute toxicity - oral

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

**ATE oral (mg/kg)**                      6,243.56

###### Acute toxicity - dermal

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

**ATE dermal (mg/kg)**                      50,847.46

###### Acute toxicity - inhalation

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

**ATE inhalation (gases ppm)**                      118,644.07

**ATE inhalation (vapours mg/l)**                      508.47

**ATE inhalation (dusts/mists mg/l)**                      84.75

###### Skin corrosion/irritation



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<b>Skin corrosion/irritation</b>	Based on available data the classification criteria are not met.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Causes serious eye irritation.
<b><u>Respiratory sensitisation</u></b>	
<b>Respiratory sensitisation</b>	No information available.
<b><u>Skin sensitisation</u></b>	
<b>Skin sensitisation</b>	Based on available data the classification criteria are not met.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Based on available data the classification criteria are not met.
<b>Genotoxicity - in vivo</b>	Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Based on available data the classification criteria are not met.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
<b>Reproductive toxicity - development</b>	Does not contain any substances known to be toxic to reproduction.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Based on available data the classification criteria are not met.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Not relevant.
<b><u>Toxicological information on ingredients.</u></b>	

### ETHANOL

#### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 10,470.0

**Species** Rat

#### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 17,100.0

**Species** Rabbit

#### Acute toxicity - inhalation

**Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)** 124.7

**Species** Rat

#### Skin corrosion/irritation

**Skin corrosion/irritation** Not irritating.

#### Serious eye damage/irritation

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<b>Serious eye damage/irritation</b>	Causes serious eye irritation.
<b><u>Respiratory sensitisation</u></b>	
<b>Respiratory sensitisation</b>	Not sensitising.
<b><u>Skin sensitisation</u></b>	
<b>Skin sensitisation</b>	Not sensitising.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Does not contain any substances known to be mutagenic.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Does not contain any substances known to be carcinogenic.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
<b>Reproductive toxicity - development</b>	This substance has no evidence of toxicity to reproduction.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Based on available data the classification criteria are not met.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

### Ethanediol

<b><u>Acute toxicity - oral</u></b>	
<b>Notes (oral LD<sub>50</sub>)</b>	Harmful if swallowed.
<b>ATE oral (mg/kg)</b>	500.0
<b><u>Acute toxicity - dermal</u></b>	
<b>Notes (dermal LD<sub>50</sub>)</b>	LD <sub>50</sub> > 3500 mg/kg, Dermal, Mouse
<b><u>Acute toxicity - inhalation</u></b>	
<b>Notes (inhalation LC<sub>50</sub>)</b>	LC50 > 2.5 mg/l, Inhalation, Rat
<b><u>Skin corrosion/irritation</u></b>	
<b>Skin corrosion/irritation</b>	Not irritating.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Based on available data the classification criteria are not met.
<b><u>Respiratory sensitisation</u></b>	
<b>Respiratory sensitisation</b>	Based on available data the classification criteria are not met.
<b><u>Skin sensitisation</u></b>	

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<b>Skin sensitisation</b>	Not sensitising.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Negative.
<b>Genotoxicity - in vivo</b>	Negative.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	No evidence of carcinogenicity in animal studies. Based on available data the classification criteria are not met.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Three-generation study - NOAEL > 1000 mg/kg bw/day, Oral, Rat F2 Fertility - NOEL 1000 mg/kg bw/day, Oral, Mouse F1
<b>Reproductive toxicity - development</b>	No evidence of reproductive toxicity in animal studies.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Prolonged or repeated exposure may cause the following adverse effects: Liver and/or kidney damage.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Not relevant.
<b><u>Inhalation</u></b>	
<b>Inhalation</b>	No specific health hazards known.
<b><u>Ingestion</u></b>	
<b>Ingestion</b>	Harmful if swallowed.
<b><u>Skin contact</u></b>	
<b>Skin contact</b>	May be slightly irritating to skin.
<b><u>Eye contact</u></b>	
<b>Eye contact</b>	May be slightly irritating to eyes.

### PROPAN-2-OL

<b><u>Acute toxicity - oral</u></b>	
<b>Acute toxicity oral (LD<sub>50</sub> mg/kg)</b>	5,045.0
<b>Species</b>	Rat
<b>ATE oral (mg/kg)</b>	5,045.0
<b><u>Acute toxicity - dermal</u></b>	
<b>Acute toxicity dermal (LD<sub>50</sub> mg/kg)</b>	12,800.0
<b>Species</b>	Rabbit
<b><u>Acute toxicity - inhalation</u></b>	
<b>Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)</b>	20.0
<b>Species</b>	Rat

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### Skin corrosion/irritation

**Skin corrosion/irritation** Not irritating.

### Serious eye damage/irritation

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

### Respiratory sensitisation

**Respiratory sensitisation** Not sensitising.

### Skin sensitisation

**Skin sensitisation** Not sensitising.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Does not contain any substances known to be mutagenic.

### Carcinogenicity

**Carcinogenicity** Does not contain any substances known to be carcinogenic.

**IARC carcinogenicity** IARC Group 3 Not classifiable as to its carcinogenicity to humans.

### Reproductive toxicity

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

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

### Specific target organ toxicity - single exposure

**STOT - single exposure** Brain damage. Central and/or peripheral nervous system damage.

### Specific target organ toxicity - repeated exposure

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

### Aspiration hazard

**Aspiration hazard** Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

## METHANOL

### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 300.0

**Species** Human

**ATE oral (mg/kg)** 100.0

### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 300.0

**Species** Human

**ATE dermal (mg/kg)** 300.0

### Acute toxicity - inhalation

## Prestone -40°C Trigger De-icer

<b>Acute toxicity inhalation (LC<sub>50</sub> gases ppmV)</b>	700.0
<b>Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)</b>	3.0
<b>Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l)</b>	0.5
<b>ATE inhalation (gases ppm)</b>	700.0
<b>ATE inhalation (vapours mg/l)</b>	3.0
<b>ATE inhalation (dusts/mists mg/l)</b>	0.5
<b><u>Skin corrosion/irritation</u></b>	
<b>Skin corrosion/irritation</b>	Not irritating.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Based on available data the classification criteria are not met.
<b><u>Respiratory sensitisation</u></b>	
<b>Respiratory sensitisation</b>	No information available.
<b><u>Skin sensitisation</u></b>	
<b>Skin sensitisation</b>	Not sensitising.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Negative.
<b>Genotoxicity - in vivo</b>	Negative.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	NOAEL 466 mg/kg bw/day, Oral, Rat
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	No information available.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Central and/or peripheral nervous system damage. Eyes
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	LOAEL 2340 mg/kg, Oral, Monkey NOAEL 1.06 mg/l, Inhalation, Rat
<b>Target organs</b>	Central nervous system Eyes
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Not relevant.
<b><u>Inhalation</u></b>	
<b>Inhalation</b>	Toxic by inhalation. Drowsiness. Dizziness.
<b><u>Ingestion</u></b>	
<b>Ingestion</b>	Toxic if swallowed. Unconsciousness, possibly death.

## Prestone -40°C Trigger De-icer

<b>Skin contact</b>	Toxic in contact with skin.
<b>Eye contact</b>	May cause temporary eye irritation.
<b>Target organs</b>	Kidneys Liver Heart and cardiovascular system
<b>Medical considerations</b>	Liver and/or kidney damage.

### Tartrazine

#### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** LD<sub>50</sub> > 2000 mg/kg, Oral, Mouse

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Conclusive data but not sufficient for classification. REACH dossier information.

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Scientifically unjustified.

#### 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** No adverse effects observed (negative)

**Genotoxicity - in vivo** No adverse effects observed (negative)

#### Carcinogenicity

**Carcinogenicity** NOAEL 2641 mg/kg/day, Oral, Rat No evidence of carcinogenicity in animal studies.

#### Reproductive toxicity

**Reproductive toxicity - fertility** Two-generation study - NOAEL , Oral, Rat P

**Reproductive toxicity - development** Developmental toxicity: - NOAEL: 1000 mg/kg/day, Oral, Rat 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 -40°C Trigger De-icer

### 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>)** LC<sub>50</sub> 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.

#### 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 is not expected to be hazardous to the environment.

#### 12.1. Toxicity

##### Acute aquatic toxicity

**Acute toxicity - fish** No information available.

**Acute toxicity - aquatic invertebrates** Not available.

**Acute toxicity - aquatic plants** Not available.

## Prestone -40°C Trigger De-icer

**Acute toxicity - microorganisms** Not available.

**Acute toxicity - terrestrial** Not available.

### Chronic aquatic toxicity

**Chronic toxicity - fish early life stage** Not available.

**Short term toxicity - embryo and sac fry stages** Not available.

**Chronic toxicity - aquatic invertebrates** Not available.

### Ecological information on ingredients.

#### ETHANOL

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 13000 mg/l, Oncorhynchus mykiss (Rainbow trout)

**Acute toxicity - aquatic invertebrates** LC<sub>50</sub>, 48 hours: 12340 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 48 hours: 12900 mg/l, Selenastrum capricornutum

**Acute toxicity - microorganisms** EC<sub>50</sub>, 4 hours: 5800 mg/l, Activated sludge

##### Chronic aquatic toxicity

**Chronic toxicity - fish early life stage** NOEC, 24 days: 0.08 mg/l, Pimephales promelas (Fat-head Minnow)

**Chronic toxicity - aquatic invertebrates** NOEC, 10 days: 9.6 mg/l, Daphnia magna

#### 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

#### PROPAN-2-OL



## Prestone -40°C Trigger De-icer

### Acute aquatic toxicity

<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: 9640 mg/l, Pimephales promelas (Fat-head Minnow)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 24 hours: > 10000 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	EC <sub>50</sub> , 7 days: 180 mg/l, Selenastrum capricornutum

### METHANOL

### Acute aquatic toxicity

<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: 15400 mg/l, Lepomis macrochirus (Bluegill) NOEC, 200 hours: 15800 mg/l, Oryzias latipes (Red killifish)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: > 10000 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	EC <sub>50</sub> , 96 hours: 22000 mg/l, Selenastrum capricornutum
<b>Acute toxicity - microorganisms</b>	IC <sub>50</sub> , 3 hours: > 1000 mg/l, IC <sub>50</sub> , 15 hours: 20000 mg/l,

### Tartrazine

### Acute aquatic toxicity

<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: > 125 mg/l, Leuciscus idus (Golden orfe)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: > 125 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	EC <sub>50</sub> , 72 hours: > 125 mg/l, Desmodemus subspicatus
<b>Acute toxicity - microorganisms</b>	EC <sub>50</sub> , 3 hours: > 1000 mg/l, Activated sludge

### Denatonium Benzoate

### Acute aquatic toxicity

<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: > 100 mg/l, Brachydanio rerio (Zebra Fish)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: > 500 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	EC <sub>50</sub> , 72 hours: 281.556 mg/l, Chlorella vulgaris
<b>Acute toxicity - microorganisms</b>	EC <sub>50</sub> , 15 minutes: 511.58 mg/l, Vibrio fischeri

## 12.2. Persistence and degradability

**Persistence and degradability** Expected to be readily biodegradable.

## Ecological information on ingredients.

### ETHANOL

## Prestone -40°C Trigger De-icer

**Persistence and degradability** Rapidly degradable

**Biological oxygen demand** 1000 mg/g

**Chemical oxygen demand** 1900 mg/g

### Ethenediol

**Persistence and degradability** 10 days 90-100% Rapidly degradable

### PROPAN-2-OL

**Persistence and degradability** Rapidly degradable

### METHANOL

**Persistence and degradability** Rapidly degradable 71.5% 5 days 95% 20 days

### Tartrazine

**Persistence and degradability** Not readily biodegradable.

**Stability (hydrolysis)** Scientifically unjustified.  
REACH dossier information.

### 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

**Bioaccumulative potential** Bioaccumulation is unlikely.

### Ecological information on ingredients.

### ETHANOL

**Partition coefficient** log Pow: -0.35

### Ethenediol

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

### PROPAN-2-OL

**Bioaccumulative potential** No potential for bioaccumulation.

**Partition coefficient** log Pow: 0.05

## Prestone -40°C Trigger De-icer

### METHANOL

**Bioaccumulative potential** The product is not bioaccumulating.

**Partition coefficient** log Pow: - 0.82 log Pow: - 0.66

### Tartrazine

**Bioaccumulative potential** No information available.

#### 12.4. Mobility in soil

##### Ecological information on ingredients.

### ETHANOL

**Mobility** Mobile.

**Henry's law constant** 3.3 x 10E-6 atm m<sup>3</sup>/mol @ °C

**Surface tension** 24.5 mN/m @ 20°C

### PROPAN-2-OL

**Mobility** Mobile.

**Surface tension** 22.7 mN/m @ 20°C

### Tartrazine

**Adsorption/desorption coefficient** Calculation method. log Koc -4.228 @ 20 deg C Expected to have a low potential for adsorption.

### Denatonium Benzoate

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

#### 12.5. Results of PBT and vPvB assessment

##### Ecological information on ingredients.

### Ethenediol

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

### PROPAN-2-OL

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

### METHANOL

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

### Tartrazine

## Prestone -40°C Trigger De-icer

**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

**General information** Dispose of waste product or used containers in accordance with local regulations

### SECTION 14: Transport information

**General** Refer to the Dangerous Goods List for information on any Special Provisions 274, 601.

#### 14.1. UN number

<b>UN No. (ADR/RID)</b>	1987
<b>UN No. (IMDG)</b>	1987
<b>UN No. (ICAO)</b>	1987
<b>UN No. (ADN)</b>	1987

#### 14.2. UN proper shipping name

<b>Proper shipping name (ADR/RID)</b>	ALCOHOLS, N.O.S. (CONTAINS ETHANOL, ISOPROPANOL)
<b>Proper shipping name (IMDG)</b>	ALCOHOLS, N.O.S. (CONTAINS ETHANOL, ISOPROPANOL)
<b>Proper shipping name (ICAO)</b>	ALCOHOLS, N.O.S. (CONTAINS ETHANOL, ISOPROPANOL)
<b>Proper shipping name (ADN)</b>	ALCOHOLS, N.O.S. (CONTAINS ETHANOL, ISOPROPANOL)

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

<b>ADR/RID class</b>	3
<b>ADR/RID classification code</b>	F1
<b>ADR/RID label</b>	3
<b>IMDG class</b>	3
<b>ICAO class/division</b>	3
<b>ADN class</b>	3

#### Transport labels



#### 14.4. Packing group

<b>ADR/RID packing group</b>	III
<b>IMDG packing group</b>	III

## Prestone -40°C Trigger De-icer

ICAO packing group III

ADN packing group III

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

### 14.6. Special precautions for user

EmS F-E, S-D

ADR transport category 3

Emergency Action Code •3Y

Hazard Identification Number 30  
(ADR/RID)

Tunnel restriction code (D/E)

### 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.

Not applicable.

## SECTION 15: Regulatory information

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

National regulations EH40/2005 Workplace exposure limits.

Authorisations (SI 2020 No. 1577 Annex XIV) No specific authorisations are known for this product.

Restrictions (SI 2020 No. 1577 Annex XVII) No specific restrictions on use are known for this product.

### 15.2. Chemical safety assessment

## SECTION 16: Other information

## Prestone -40°C Trigger De-icer

### Abbreviations and acronyms used in the safety data sheet

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.  
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
 ATE: Acute Toxicity Estimate.  
 BOD: Biochemical Oxygen Demand.  
 CAS: Chemical Abstracts Service.  
 DNEL: Derived No Effect Level.  
 EC<sub>50</sub>: 50% of maximal Effective Concentration.  
 GHS: Globally Harmonized System.  
 IARC: International Agency for Research on Cancer.  
 IATA: International Air Transport Association.  
 ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.  
 IMDG: International Maritime Dangerous Goods.  
 LC50: Lethal Concentration to 50 % of a test population.  
 LD50: Lethal Dose to 50% of a test population (Median Lethal Dose).  
 LOAEC: Lowest Observed Adverse Effect Concentration.  
 LOAEL: Lowest Observed Adverse Effect Level.  
 LOEC: Lowest Observed Effect Concentration.  
 NOAEC: No Observed Adverse Effect Concentration.  
 NOAEL: No Observed Adverse Effect Level.  
 NOEC: No Observed Effect Concentration.  
 PBT: Persistent, Bioaccumulative and Toxic substance.  
 PNEC: Predicted No Effect Concentration.  
 REACH: The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577.  
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.  
 SVHC: Substances of Very High Concern.  
 UVCB - Unknown or variable composition, complex reaction products or Biological materials.  
 vPvB: Very Persistent and Very Bioaccumulative.

**Revision date** 03/08/2022

**Revision** 5

**Supersedes date** 21/11/2018

**SDS number** 21384

**Hazard statements in full** H225 Highly flammable liquid and vapour.  
 H226 Flammable liquid and vapour.  
 H301 Toxic if swallowed.  
 H302 Harmful if swallowed.  
 H311 Toxic in contact with skin.  
 H319 Causes serious eye irritation.  
 H331 Toxic if inhaled.  
 H336 May cause drowsiness or dizziness.  
 H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.  
 H370 Causes damage to organs (Central nervous system, Optic nerve (nervus opticus)) if swallowed or in contact with skin.