



SAFETY DATA SHEET

Prestone Anti Freeze Concentrate (Corguard)/Prestone Konzentrat Kuhlerschutz

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

1.1. Product identifier

Product name	Prestone Anti Freeze Concentrate (Corguard)/Prestone Konzentrat Kuhlerschutz
Product number	PAFR0046A, PAFR0042A, PAFR0045A, PAFR0048A, PAFR0049A, PAFR0050A, PAFR0044A, PAFR0047A, PAFR0043A, PAFR0058A, PAFR0059A, PAFR0060A, PAFR0061A, PAFR0062A
Internal identification	NQA2397
UFI	2TM6-303K-W004-0Q1M
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.
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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
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Prestone Anti Freeze Concentrate (Corguard)/Prestone Konzentrat Kuhlerschutz

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.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	Not Classified
Health hazards	Acute Tox. 4 - H302 STOT RE 2 - H373
Environmental hazards	Not Classified

2.2. Label elements

Hazard pictograms



Signal word Warning

Hazard statements H302 Harmful if swallowed.
 H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.

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Precautionary statements	P101 If medical advice is needed, have product container or label at hand.
	P102 Keep out of reach of children.
	P264 Wash contaminated skin thoroughly after handling.
	P270 Do not eat, drink or smoke when using this product.
	P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.
	P330 Rinse mouth.
	P501 Dispose of contents/ container in accordance with national regulations.
UFI	UFI: 2TM6-303K-W004-0Q1M
Contains	ETHANEDIOL

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

ETHANEDIOL		90-100%
CAS number: 107-21-1	EC number: 203-473-3	
Classification Acute Tox. 4 - H302 STOT RE 2 - H373		
2-Ethylhexanoic Acid		1-5%
CAS number: 149-57-5	EC number: 205-743-6	
Classification Repr. 2 - H361d		
PROPAN-1-OL		<1%
CAS number: 71-23-8	EC number: 200-746-9	
Classification Flam. Liq. 2 - H225 Eye Dam. 1 - H318 STOT SE 3 - H336		
sodium 4(or 5)-methyl-1H-benzotriazole		<1%
CAS number: 64665-57-2	EC number: 265-004-9	
Classification Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Repr. 2 - H361d Aquatic Chronic 2 - H411		

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Treat symptomatically.
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Inhalation	Unlikely route of exposure as the product does not contain volatile substances.
Ingestion	Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 10 minutes. Get medical attention if any discomfort continues.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	This is unlikely to occur but symptoms similar to those of ingestion may develop.
Ingestion	Harmful if swallowed. May cause liver and/or renal damage.
Skin contact	May be slightly irritating to skin. Prolonged or repeated exposure may cause severe irritation.
Eye contact	May be slightly irritating to eyes. Prolonged or repeated exposure may cause severe irritation.

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

Notes for the doctor	Treat symptomatically.
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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.
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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	No specific firefighting precautions known.
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.
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6.2. Environmental precautions

Environmental precautions	Avoid release to the environment. Do not discharge into drains or watercourses or onto the ground.
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6.3. Methods and material for containment and cleaning up

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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 inhalation of vapours and 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. Non-flammable liquids that can not be assigned to any of the aforementioned LGK

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

Long-term exposure limit (8-hour TWA): WEL 20 ppm 52 mg/m³ vapour

Short-term exposure limit (15-minute): WEL 40 ppm 104 mg/m³ vapour

Sk

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ particulate

Sk

PROPAN-1-OL

Long-term exposure limit (8-hour TWA): WEL 200 ppm(Sk) 500 mg/m³(Sk)

Short-term exposure limit (15-minute): WEL 250 ppm(Sk) 625 mg/m³(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/m³

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

General population - Inhalation; Long term local effects: 7 mg/m³

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)

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DNEL

Workers - Inhalation; Long term systemic effects: 14 mg/m³
 Workers - Dermal; Long term systemic effects: 2 mg/kg bw/day
 General population - Inhalation; Long term systemic effects: 3.5 mg/m³
 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

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

DNEL

Workers - Inhalation; Long term systemic effects: 268 mg/m³
 Workers - Inhalation; Short term systemic effects: 1723 mg/m³
 Workers - Dermal; Long term systemic effects: 136 mg/kg/day
 General population - Inhalation; Long term systemic effects: 80 mg/m³
 General population - Dermal; Long term systemic effects: 81 mg/kg/day
 General population - Oral; Long term systemic effects: 61 mg/kg/day

PNEC

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

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

DNEL

Workers - Inhalation; Long term systemic effects: 21.2 mg/m³
 Workers - Dermal; Long term systemic effects: 0.3 mg/kg/day
 General population - Inhalation; Long term systemic effects: 350 µg/m³
 General population - Dermal; Long term systemic effects: 0.01 mg/kg/day
 General population - Oral; Long term systemic effects: 0.01 mg/kg/day

PNEC

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

Polypropylene Glycol (CAS: 25322-69-4)

DNEL

Workers - Inhalation; Long term local effects: 10 mg/m³
 Workers - Dermal; Long term systemic effects: 84 mg/kg bw/day
 General population - Inhalation; Long term systemic effects: 10 mg/m³
 General population - Dermal; Long term systemic effects: 51 mg/kg bw/day
 General population - Oral; Long term systemic effects: 24 mg/kg bw/day

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PNEC

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)

DNEL

Workers - Inhalation; Long term systemic effects: 4.99 mg/m³
Workers - Dermal; Long term systemic effects: 1.43 mg/kg/day
General population - Inhalation; Long term systemic effects: 0.768 mg/m³
General population - Dermal; Long term systemic effects: 0.51 mg/kg/day
General population - Oral; Long term systemic effects: 0.51 mg/kg/day

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

ACRYLIC ACID (CAS: 79-10-7)

DNEL

Workers - irritation (respiratory tract); Long term systemic effects: 30 mg/m³
Workers - irritation (respiratory tract); Short term Acute: 30 mg/m³
Workers - irritation (respiratory tract); Long term local effects: 30 mg/m³
General population - irritation (respiratory tract); Long term systemic effects: 3.6 mg/m³
General population - irritation (respiratory tract); Short term Acute: 3.6 mg/m³
General population - irritation (respiratory tract); Long term local effects: 3.6 mg/m³
General population - Oral; Long term systemic effects: 0.4 mg/kg/day
General population - Oral; Short term Acute: 1.2 mg/kg/day

PNEC

Fresh water; 0.003 mg/l
marine water; 0.3 µg/l
STP; 0.9 mg/l
Sediment (Freshwater); 0.024 mg/kg
Sediment (Marinewater); 0.002 mg/kg
Soil; 1.0 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.

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Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	Wash hands thoroughly after handling.
Respiratory protection	No specific requirements are anticipated under normal conditions of use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Yellow.
Odour	Characteristic. Mild.
pH	pH (diluted solution): 8.3
Melting point	50% Dilution: -36.67°C
Relative density	1.117 @ 20°C
Solubility(ies)	Soluble in water.

9.2. Other information

Volatile organic compound	This product contains a maximum VOC content of ca.90 %.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable under the prescribed storage conditions.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not applicable. Will not polymerise.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat. Avoid freezing.
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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.
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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.
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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.
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Acute toxicity - oral

Notes (oral LD ₅₀)	Harmful if swallowed.
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ATE oral (mg/kg)	531.2
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Acute toxicity - dermal

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Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	Based on available data the classification criteria are not met.
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Based on available data the classification criteria are not met.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Based on available data the classification criteria are not met.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Based on available data the classification criteria are not met.
<u>Skin sensitisation</u>	
Skin sensitisation	Based on available data the classification criteria are not met.
<u>Germ cell mutagenicity</u>	
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.
<u>Carcinogenicity</u>	
Carcinogenicity	Based on available data the classification criteria are not met.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Contains an ingredient listed as: Repr. 2
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Prolonged or repeated exposure may cause the following adverse effects: Liver and/or kidney damage.
Target organs	Kidneys
<u>Aspiration hazard</u>	
Aspiration hazard	Not relevant.
<u>Inhalation</u>	
Inhalation	This is unlikely to occur but symptoms similar to those of ingestion may develop.
<u>Ingestion</u>	
Ingestion	Harmful if swallowed. May cause liver and/or renal damage.
<u>Skin contact</u>	
Skin contact	May be slightly irritating to skin. Prolonged or repeated exposure may cause severe irritation.
<u>Eye contact</u>	
Eye contact	May be slightly irritating to eyes. Prolonged or repeated exposure may cause severe irritation.
<u>Acute and chronic health hazards</u>	
Acute and chronic health hazards	No specific long-term effects known.
Route of exposure	Dermal
<u>Toxicological information on ingredients.</u>	

ETHANEDIOL

Acute toxicity - oral

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Notes (oral LD₅₀)	Harmful if swallowed.
ATE oral (mg/kg)	500.0
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	LD ₅₀ > 3500 mg/kg, Dermal, Mouse
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	LC50 > 2.5 mg/l, Inhalation, Rat
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Not irritating.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Based on available data the classification criteria are not met.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Based on available data the classification criteria are not met.
<u>Skin sensitisation</u>	
Skin sensitisation	Not sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Negative.
Genotoxicity - in vivo	Negative.
<u>Carcinogenicity</u>	
Carcinogenicity	No evidence of carcinogenicity in animal studies. Based on available data the classification criteria are not met.
<u>Reproductive toxicity</u>	
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.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Prolonged or repeated exposure may cause the following adverse effects: Liver and/or kidney damage.
<u>Aspiration hazard</u>	
Aspiration hazard	Not relevant.
<u>Inhalation</u>	
Inhalation	No specific health hazards known.
<u>Ingestion</u>	
Ingestion	Harmful if swallowed.
<u>Skin contact</u>	
Skin contact	May be slightly irritating to skin.
<u>Eye contact</u>	
Eye contact	May be slightly irritating to eyes.

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2-Ethylhexanoic Acid

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 2043 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 2000 mg/kg, Dermal, Rat

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC0 0.11 mg/m³, 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

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

Acute toxicity oral (LD₅₀ mg/kg) 5,400.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 4,032.0

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Species Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation 33.8
(LC₅₀ vapours mg/l)

Species Rat

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

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

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 800.0
mg/kg)

Species Rat

Notes (oral LD₅₀) LD₅₀ 735 mg/kg, Oral, Rat Harmful if swallowed.

ATE oral (mg/kg) 800.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 2000 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) 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

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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.

Denatonium Benzoate

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 749 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 2000 mg/kg, Dermal, Rat

Acute toxicity - inhalation

Notes (inhalation LC₅₀) 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.

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.

ACRYLIC ACID

Prestone Anti Freeze Concentrate (Corguard)/Prestone Konzentrat Kuhlerschutz

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 1000 - 2000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 2000 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC50 5.1 mg/l, Inhalation, Rat

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 NOAEL ≥ 78 mg/kg/day, Oral, Rat LOAEL 2 ppm, Inhalation, Mouse NOAEC 478 mg/m³, Inhalation, Rat NOAEL > 52 mg/kg/day, Dermal, Mouse No evidence of carcinogenicity in animal studies. REACH dossier information.

Reproductive toxicity

Reproductive toxicity - fertility Two-generation study - NOAEL 460 mg/kg/day, Oral, Rat F0, F1, F2

Reproductive toxicity - development Maternal toxicity: - NOAEC: 0.075 mg/l, Oral, Rat Developmental toxicity: - NOAEC: 0.673 mg/l, Oral, Rat This substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure May cause respiratory irritation

Target organs Respiratory tract

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

Prestone Anti Freeze Concentrate (Corguard)/Prestone Konzentrat Kuhlerschutz

Ecotoxicity

Toxic to aquatic life with long lasting effects.

12.1. Toxicity

Ecological information on ingredients.

ETHANEDIOL

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 72860 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: > 100 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 96 hours: 10940 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms EC₂₀, 30 minutes: 1995 mg/l, Activated sludge
Read-across data.

Chronic aquatic toxicity

Chronic toxicity - fish early life stage LC₅₀, 28 days: > 1500 mg/l, Menidia peninsulae (Tidewater silverside)

Chronic toxicity - aquatic invertebrates EC₅₀, 21 days: > 100 mg/l, Daphnia magna

2-Ethylhexanoic Acid

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: > 100 mg/l, Oryzias latipes (Red killifish)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 85.4 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 485.1 mg/l, Pseudokirchneriella subcapitata

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates EC₁₀, LC₁₀, NOEC, 21 days: 19.9 mg/l, Daphnia magna

PROPAN-1-OL

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 4555 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 3644 mg/l, Daphnia magna
NOEC, 21 days: > 100 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: > 1000 mg/l, Algae

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

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 180 mg/l, Brachydanio rerio (Zebra Fish)
LC₅₀, 96 hours: 55 mg/l, Cyprinodon variegatus (Sheepshead minnow)

Prestone Anti Freeze Concentrate (Corguard)/Prestone Konzentrat Kuhlerschutz

Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 8.58 mg/l, <i>Daphnia galeata</i> LC ₅₀ , 48 hours: 55 mg/l, <i>Acartia tonsa</i>
Acute toxicity - aquatic plants	ErC ₅₀ , 72 hours: 75 mg/l, <i>Pseudokirchneriella subcapitata</i> EC ₁₀ , 72 hours: 1.18 - 2.86 mg/l, <i>Desmodesmus subspicatus</i> EC ₅₀ , 72 hours: 52 mg/l, <i>Skeletonema costatum</i> EC ₁₀ , 72 hours: 36 mg/l, <i>Skeletonema costatum</i> EC ₉₀ , 72 hours: 83 mg/l, <i>Skeletonema costatum</i> NOEC, 72 hours: 30 mg/l, <i>Skeletonema costatum</i> EC ₁₀ , 7 days: 2.11 mg/l, <i>Lemna minor</i>
Acute toxicity - microorganisms	EC ₅₀ , 3 hours: 1060 mg/l, Activated sludge EC ₁₀ , NOEC, 3 hours: 394 mg/l, Activated sludge
<u>Chronic aquatic toxicity</u>	
Chronic toxicity - aquatic invertebrates	EC ₅₀ , 21 days: > 37.6 mg/l, <i>Daphnia magna</i> NOEC, 21 days: 18.4 mg/l, <i>Daphnia magna</i> EC ₁₀ , 21 days: 0.4 - 0.97 mg/l, <i>Daphnia galeata</i>

Denatonium Benzoate

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

ACRYLIC ACID

<u>Acute aquatic toxicity</u>	
LE(C)₅₀	0.1 < L(E)C ₅₀ ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC ₅₀ , 96 hours: 27 mg/l, <i>Salmo gairdneri</i> LC ₅₀ , 96 hours: 222 mg/l, <i>Brachydanio rerio</i> (Zebra Fish) LC ₅₀ , 96 hours: 236 mg/l, <i>Cyprinodon variegatus</i> (Sheepshead minnow)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 95 mg/l, <i>Daphnia magna</i> EC ₅₀ , 48 hours: 47 mg/l, <i>Daphnia magna</i> LC ₅₀ , 96 hours: 97 mg/l, <i>Mysidopsis bahia</i>
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 0.13 mg/l, <i>Scenedesmus subspicatus</i> EC ₅₀ , 72 hours: 0.205 mg/l, <i>Scenedesmus subspicatus</i> EC ₅₀ , 96 hours: 0.17 mg/l, <i>Selenastrum capricornutum</i> EC ₁₀ , 72 hours: 0.03 mg/l, <i>Scenedesmus subspicatus</i> EC ₁₀ , 72 hours: 0.031 mg/l, <i>Scenedesmus subspicatus</i>
Acute toxicity - microorganisms	EC ₂₀ , 30 minutes: 900 mg/l, Activated sludge NOEC, 30 minutes: 100 mg/l, Activated sludge TTC (2,3,5,-triphenyltetrazolium chloride), : 0.9 mg/l, <i>Chilomonas paramecium</i> , cell multiplication inhibition test

Prestone Anti Freeze Concentrate (Corguard)/Prestone Konzentrat Kuhlerschutz

Acute toxicity - terrestrial LC₅₀, 14 days: 1000 mg/kg, Eisenia Fetida (Earthworm)
EC₀, : 100 mg/kg, Soil micro-organisms

Chronic aquatic toxicity

Chronic toxicity - fish early life stage NOEC, 45 days: > 10.1 mg/l, Oryzias latipes (Red killifish)

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 19 mg/l, Daphnia magna

12.2. Persistence and degradability

Ecological information on ingredients.

ETHANEDIOL

Persistence and degradability 10 days 90-100% Rapidly degradable

PROPAN-1-OL

Persistence and degradability The substance is readily biodegradable. 83%; 28 days

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

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

ACRYLIC ACID

Persistence and degradability Rapidly degradable

Stability (hydrolysis) pH = 3, 7, 11 - Degradation 0: 28 days @ 25°C

12.3. Bioaccumulative potential

Ecological information on ingredients.

ETHANEDIOL

Partition coefficient log Pow: -1.36 QSAR data.

PROPAN-1-OL

Prestone Anti Freeze Concentrate (Corguard)/Prestone Konzentrat Kuhlerschutz

Partition coefficient log Pow: 0.25

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

ACRYLIC ACID

Bioaccumulative potential BCF: 3.16, Bioaccumulation is unlikely.

Partition coefficient log Pow: 0.46

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

ACRYLIC ACID

Adsorption/desorption coefficient Soil, Water and sediment - Koc: 42.8 (av) @ 26 +/- 1°C

Henry's law constant 0.029 Pa m³/mol @ 25°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 4(or 5)-methyl-1H-benzotriazole

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.

Prestone Anti Freeze Concentrate (Corguard)/Prestone Konzentrat Kuhlerschutz

ACRYLIC ACID

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 Not applicable.

Annex II of MARPOL 73/78 and the IBC Code

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).

Health and environmental listings None of the ingredients are listed.

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.

Prestone Anti Freeze Concentrate (Corguard)/Prestone Konzentrat Kuhlerschutz

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

Not applicable.

Australia - AIC

All the ingredients are listed or exempt.

Japan - ENCS

All the ingredients are listed or exempt.

Korea - KECI

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

Philippines – PICCS

All the ingredients are listed or exempt.

New Zealand - NZIOC

All the ingredients are listed or exempt.

Taiwan - TCSI

All the ingredients are listed or exempt.

SECTION 16: Other information

Prestone Anti Freeze Concentrate (Corguard)/Prestone Konzentrat Kuhlerschutz

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 ₅₀ : 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.
	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.
Classification procedures according to SI 2019 No. 720	Acute Tox. 4 - H302: Calculation method. STOT RE 2 - H373: Calculation method.
Issued by	Regulatory Specialist
Revision date	13/01/2022
Revision	5
Supersedes date	03/03/2021
SDS number	21689
Hazard statements in full	<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>H318 Causes serious eye damage.</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>

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.