

SAFETY DATA SHEET Prestone Anti Freeze RTU (Corguard)

SECTION 1: Identification of the substance/mixture and of the company/undertaking		
1.1. Product identifier		
Product name	Prestone Anti Freeze RTU (Corguard)	
Product number	PAFR0201A, PAFR0401A, PAFR0035A, PAFR0038A, PAFR0041A, PAFR0052A, PAFR0051A, PAFR0036A, PAFR0039A, PAFR0037A, PAFR0040A, AF2100LD, AF2100LGBA, AF2100LPL/1, PAFR0055A, PAFR0057A, PAFR863529, PAFR863673	
Internal identification	NQA2398	
UFI	UFI: RVM6-K0T0-600N-N1MP	
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

National omorgonov telephone	+43 1 31304 5620; chemikalien@umweltbundesamt.at (Austria)
number	+31 31304 3020, chemikalen@uniweibundesamt.at (Austra) +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.gcsl@aade.gr, environment.gcsl@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.	

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: RYXW-M8EK-W005-MT2U
Contains	Ethanediol

2.3. Other hazards

Г

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients		
3.2. Mixtures		
Ethanediol		25-50%
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		
SODIUM HYDROXIDE		<1%
CAS number: 1310-73-2	EC number: 215-185-5	
Classification		
Skin Corr. 1A - H314		
Eye Dam. 1 - H318		
PHOSPHORIC ACID%		<1%
CAS number: 7664-38-2	EC number: 231-633-2	
Classification		
Skin Corr. 1B - H314		
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		

	iazolide	
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		
Polypropylene Glycol		<1%
CAS number: 25322-69-4	EC number: 500-039-8	
Classification		
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
STOT SE 3 - H335		
Denatonium Benzoate		<1%
CAS number: 3734-33-6	EC number: 223-095-2	
Classification		
Acute Tox. 4 - H302		
Acute Tox. 4 - H332		
Skin Irrit. 2 - H315		
Eye Dam. 1 - H318		
Aquatic Chronic 3 - H412		
ACRYLIC ACID		<1%
CAS number: 79-10-7	EC number: 201-177-9	
M factor (Acute) = 1		
Classification		
Flam. Liq. 3 - H226		
Acute Tox. 4 - H302		
Acute Tox. 4 - H312		
Acute Tox. 4 - H332		
Skin Corr. 1A - H314		
Eye Dam. 1 - H318		
STOT SE 3 - H335		
Aquatic Acute 1 - H400		
The full text for all hazard statemer	ts is displayed in Section 16.	
SECTION 4: First aid measures		

General informationTreat symptomatically.InhalationUnlikely route of exposure as the product does not contain volatile substances.

Prestone Anti Freeze RTU (Corguard)

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	Rinse immediately with plenty of water. Continue to rinse for at least 10 minutes. Remove any contact lenses and open eyelids wide apart.	
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.	
SECTION 5: Firefighting meas	ures	
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 fro	om 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.	
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.	
6.2. Environmental precautions	5	
Environmental precautions	Avoid release to the environment. Do not discharge into drains or watercourses or onto the	
	ground.	

Methods for cleaning upCollect 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 sto	race	
	-	
7.1. Precautions for safe hand	ling	
Usage precautions	Avoid spilling. Avoid contact with skin and eyes.	
7.2. Conditions for safe storage	e, 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		
Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ particulate Sk		
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		
SODIUM HYDROXIDE		
Long-term exposure limit (8-hour TWA): WEL Short-term exposure limit (15-minute): WEL 2 mg/m³		

PHOSPHORIC ACID ...%

Long-term exposure limit (8-hour TWA): WEL 1 mg/m³ Short-term exposure limit (15-minute): WEL 2 mg/m³

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/m ³ Workers - Dermal; Long term systemic effects: 106 mg/kg/day General population - Inhalation; Long term local effects: 7 mg/m ³ 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 ³ Workers - Dermal; Long term systemic effects: 2 mg/kg bw/day General population - Inhalation; Long term systemic effects: 3.5 mg/m ³ 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 ³ General population - Dermal; Long term local effects: 1 mg/m ³
	PHOSPHORIC ACID% (CAS: 7664-38-2)
DNEL	Workers - Inhalation; Long term systemic effects: 10.7 mg/m ³ Workers - Inhalation; Long term local effects: 1 mg/m ³ Workers - Inhalation; Short term local effects: 2 mg/m ³ General population - Inhalation; Long term systemic effects: 4.57 mg/m ³ General population - Inhalation; Long term local effects: 0.36 mg/m ³ General population - Oral; Long term systemic effects: 0.1 mg/kg bw/day
	PROPAN-1-OL (CAS: 71-23-8)
DNEL	Workers - Inhalation; Long term systemic effects: 268 mg/m ³ Workers - Inhalation; Short term systemic effects: 1723 mg/m ³ Workers - Dermal; Long term systemic effects: 136 mg/kg/day General population - Inhalation; Long term systemic effects: 80 mg/m ³ 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-benzotriazolide (CAS: 64665-57-2)
DNEL	Workers - Inhalation; Long term systemic effects: 21.2 mg/m ³ 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/m ³ Workers - Dermal; Long term systemic effects: 84 mg/kg bw/day General population - Inhalation; Long term systemic effects: 10 mg/m ³ General population - Dermal; Long term systemic effects: 51 mg/kg bw/day General population - Oral; Long term systemic effects: 24 mg/kg bw/day
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/m ³ Workers - Dermal; Long term systemic effects: 1.43 mg/kg/day General population - Inhalation; Long term systemic effects: 0.768 mg/m ³ 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 - irritation (respiratory tract); Long term local effects: 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.
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.
Environmental exposure controls	Avoid release to the environment. Contain spillages.

SECTION 9: Physical and chemical properties

9.1. Information on basic phys	sical and chemical properties	
Appearance	Clear liquid.	
Colour	Yellow.	
Odour	Characteristic. Mild.	
рН	pH (diluted solution): 8.3	
Relative density	1.070 @ 20°C	
Solubility(ies)	Miscible with water.	
9.2. Other information		
Refractive index	1.38582	
Volatile organic compound	This product contains a maximum VOC content of 47.7 %.	
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.	
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	on 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.	
SECTION 11: Toxicological in	formation	
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∞)	Harmful if swallowed.	
ATE oral (mg/kg)	1,016.29	
Acute toxicity - dermal Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.	
Acute toxicity - inhalation Notes (inhalation LC₅₀)	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 -		
STOT - repeated exposure	Liver and/or kidney damage.	
Aspiration hazard Aspiration hazard	Not relevant.	

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.
Acute and chronic health hazards	No specific long-term effects known.

Ethanediol

Route of exposure Oral Dermal

Toxicological information on ingredients.

Acute toxicity - oral	
Notes (oral LD₅₀)	Harmful if swallowed.
ATE oral (mg/kg)	500.0
Acute toxicity - dermal	
Notes (dermal LD₅₀)	LD₅₀ > 3500 mg/kg, Dermal, Mouse
Acute toxicity - inhalation	
Notes (inhalation LC50)	LC50 > 2.5 mg/l, Inhalation, Rat
Skin corrosion/irritation	
Skin corrosion/irritation	Not irritating.
Serious eye damage/irritat	ion
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 toxici	ty - single exposure
STOT - single exposure	Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

opcome target organ texton	
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 LD₅₀)	LD₅₀ 2043 mg/kg, Oral, Rat
Acute toxicity - dermal	
Notes (dermal LD₅₀)	LD₅₀ > 2000 mg/kg, Dermal, Rat
Acute toxicity - inhalation	
Notes (inhalation LC ₅₀)	LC0 0.11 mg/m³, Inhalation, Rat
Skin corrosion/irritation	
Skin corrosion/irritation	Not irritating.
Serious eye damage/irritati	on
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 toxicit	y - single exposure
STOT - single exposure	Based on available data the classification criteria are not met.
Specific target organ toxicit	y - repeated exposure

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∞ mg/kg)	500.0
Species	Rat
Notes (oral LD₅₀)	Not applicable. REACH dossier information.
Acute toxicity - dermal	
Notes (dermal LD₅₀)	Not applicable. REACH dossier information.
Acute toxicity - inhalation	
Notes (inhalation LC ₅₀)	Not applicable. REACH dossier information.
Skin corrosion/irritation	
Skin corrosion/irritation	Causes severe burns.
Serious eye damage/irritat	ion
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 toxici	ty - single exposure
STOT - single exposure	Based on available data the classification criteria are not met.
Specific target organ toxici	ty - repeated exposure
STOT - repeated exposure	Based on available data the classification criteria are not met.
Aspiration hazard	
Aspiration hazard	Not relevant.

PHOSPHORIC ACID ...%

Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	2,600.0
Species	Rat
Acute toxicity - dermal	
Acute toxicity dermal (LD _∞ mg/kg)	2,740.0
Species	Rabbit
Skin corrosion/irritation	
Skin corrosion/irritation	Causes severe burns.
Serious eye damage/irritation	on
Serious eye damage/irritation	Causes serious eye damage.
Skin sensitisation	
Skin sensitisation	Not sensitising.
Germ cell mutagenicity	
Genotoxicity - in vitro	Negative.
Carcinogenicity	
Carcinogenicity	There is no evidence that the product can cause cancer.
Reproductive toxicity	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Specific target organ toxicit	y - single exposure
STOT - single exposure	Based on available data the classification criteria are not met.
Specific target organ toxicit	y - 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 (LD₅o mg/kg)	4,032.0
Species	Rabbit

Acute toxicity - inhalation	
Acute toxicity inhalation (LC₅₀ vapours mg/l)	33.8
Species	Rat
Serious eye damage/irritat	ion
Serious eye damage/irritation	Causes serious eye damage.
	sodium 4(or 5)-methyl-1H-benzotriazolide
Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	800.0
Species	Rat
Notes (oral LD ₅₀)	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/irritat	ion
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 toxici	ty - single exposure

STOT - single exposure	Based on available data the classification criteria are not met.	
Specific target organ toxicit	ty - 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/irritati	on	
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	

ACRYLIC ACID

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/irritat	ion	
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 toxici	ty - repeated exposure	
STOT - repeated exposure	Based on available data the classification criteria are not met.	
Aspiration hazard		
Aspiration hazard	Not relevant.	
2: Ecological information		
The summer		

Ecotoxicity

SECTION

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

Ecological information on ingredients.

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

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	EC ₂₀ , 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	
	SODIUM HYDROXIDE	
Acute aquatic toxicity		
Acute toxicity - fish	LC₅₀, 33-189 hours: 96 mg/l, Fish LC₅₀, 45.5 hours: 96 mg/l, Oncorhynchus mykiss (Rainbow trout)	
Acute toxicity - aquatic invertebrates	LC₅₀, 48 hours: 30 - < 1000 mg/l, Daphnia magna	
Acute toxicity - aquatic plants	Scientifically unjustified.	
Acute toxicity - microorganisms	EC10, 2 minutes: 161 mg/l, Tetrahymena Thermophila EC₅₀, 15 minutes: 22 mg/l, Photobacterium phosphoreum luminescence inhibition study	
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 applicable.
	PHOSPHORIC ACID%
Acute aquatic toxicity	
Acute toxicity - fish	LC₅₀, 96 hours: 138 mg/l, Gambusia affinis LC₅₀, 96 hours: 3-3.25 mg/l, Lepomis macrochirus (Bluegill)
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: > 100 mg/l, Daphnia magna
Acute toxicity - aquatic plants	ErC50, 72 hours: > 100 mg/l, Desmodesmus subspicatus NOEC, 72 hours: 100 mg/l, Desmodesmus subspicatus
Acute toxicity - microorganisms	EC₅₀, : 270 mg/l, Activated sludge
	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-benzotriazolide
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)
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: 8.58 mg/l, Daphnia galeata LC₅₀, 48 hours: 55 mg/l, Acartia tonsa
Acute toxicity - aquatic plants	ErC50, 72 hours: 75 mg/l, Pseudokirchneriella subcapitata EC10, 72 hours: 1.18 - 2.86 mg/l, Desmodesmus subspicatus EC₅₀, 72 hours: 52 mg/l, Skeletonema costatum EC10, 72 hours: 36 mg/l, Skeletonema costatum EC90, 72 hours: 83 mg/l, Skeletonema costatum NOEC, 72 hours: 30 mg/l, Skeletonema costatum EC10, 7 days: 2.11 mg/l, Lemna minor
Acute toxicity - microorganisms	EC₅₀, 3 hours: 1060 mg/l, Activated sludge EC10, NOEC, 3 hours: 394 mg/l, Activated sludge
Chronic aquatic toxicity	

Chronic toxicity - aquatic	EC₅₀, 21 days: > 37.6 mg/l, Daphnia magna
invertebrates	NOEC, 21 days: 18.4 mg/l, Daphnia magna
	EC10, 21 days: 0.4 - 0.97 mg/l, Daphnia galeata

Denatonium Benzoate

Acute aquatic toxicity	
Acute toxicity - fish	LC₅₀, 96 hours: > 100 mg/l, Brachydanio rerio (Zebra Fish)
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: > 500 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC₅₀, 72 hours: 281.556 mg/l, Chlorella vulgaris
Acute toxicity - microorganisms	EC₅₀, 15 minutes: 511.58 mg/l, Vibrio fischeri

ACRYLIC ACID

	Acute aquatic toxicity	
	LE(C) ₅₀	$0.1 < L(E)C50 \le 1$
	M factor (Acute)	1
	Acute toxicity - fish	LC₅₀, 96 hours: 27 mg/l, Salmo gairdneri LC₅₀, 96 hours: 222 mg/l, Brachydanio rerio (Zebra Fish) LC₅₀, 96 hours: 236 mg/l, Cyprinodon variegatus (Sheepshead minnow)
	Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: 95 mg/l, Daphnia magna EC₅₀, 48 hours: 47 mg/l, Daphnia magna LC₅₀, 96 hours: 97 mg/l, Mysidopsis bahia
	Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 0.13 mg/l, Scenedesmus subspicatus EC ₅₀ , 72 hours: 0.205 mg/l, Scenedesmus subspicatus EC ₅₀ , 96 hours: 0.17 mg/l, Selenastrum capricornutum EC10, 72 hours: 0.03 mg/l, Scenedesmus subspicatus EC10, 72 hours: 0.031 mg/l, Scenedesmus subspicatus
	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, Chilomonas paramaecium, cell multiplication inhibition test
	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. Persist	2.2. Persistence and degradability	
Foolegiest information on ingradiante		

Ecological information on ingredients.

Ethanediol

Persistence and	10 days 90-100% Rapidly degradable
degradability	
	SODIUM HYDROXIDE
Persistence and degradability	No data available.
Stability (hydrolysis)	Scientifically unjustified. REACH dossier information.
	PROPAN-1-OL
Persistence and degradability	The substance is readily biodegradable. 83%; 28 days
	sodium 4(or 5)-methyl-1H-benzotriazolide
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.
	SODIUM HYDROXIDE
Bioaccumulative potential	No potential for bioaccumulation.
Partition coefficient	No information required. REACH dossier information.
	PHOSPHORIC ACID %

PHOSPHORIC ACID ...%

	Bioaccumulative potential	Not relevant.
		PROPAN-1-OL
	Partition coefficient	log Pow: 0.25
		sodium 4(or 5)-methyl-1H-benzotriazolide
	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. Mobili	ty in soil	
Mobility	The proc	duct is miscible with water and may spread in water systems.
Ecological i	nformation on ingredients.	
		sodium 4(or 5)-methyl-1H-benzotriazolide
	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
	ts of PBT and vPvB assessm	nent
Ecological i	nformation 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.

PHOSPHORIC ACID ...%

Results of PBT and vPvB	Not relevant.
assessment	

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

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

Denatonium Benzoate

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

ACRYLIC ACID

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

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

	ronmental 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.
15.2. Chemical safety assess	sment
No chemical safety assessm	ent 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 Not	ification
Not applicable.	
Australia - AIIC	
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.
T · T00	
Taiwan - TCSI	

All the ingredients are listed or exempt.

SECTION 16: Other information

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. ECo: 50% of maximal Effective Concentration. GHS: Globally Harmonized System. IARC: International Agency for Research on Cancer. IATA: International Maritime Dangerous Goods. LCGO: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. LCGO: Lethal Concentration to 50 % of a test population. LD4EC: Lowest Observed Adverse Effect Concentration. LOAEC: Lowest Observed Adverse Effect Level. NOAEC: 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	11/11/2022
Revision	3
Supersedes date	19/10/2021
SDS number	21690

Hazard statements in full	H225 Highly flammable liquid and vapour.
	H226 Flammable liquid and vapour.
	H302 Harmful if swallowed.
	H312 Harmful in contact with skin.
	H314 Causes severe skin burns and eye damage.
	H315 Causes skin irritation.
	H318 Causes serious eye damage.
	H319 Causes serious eye irritation.
	H332 Harmful if inhaled.
	H335 May cause respiratory irritation.
	H336 May cause drowsiness or dizziness.
	H361d Suspected of damaging the unborn child.
	H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure.
	H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.
	H400 Very toxic to aquatic life.
	H411 Toxic to aquatic life with long lasting effects.
	H412 Harmful to aquatic life with long lasting effects.

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.