SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Revision date 07/05/2024 **Revision Number** 2

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

1.1. Product identifier

Product Code(s) C9716

Safety data sheet number 04957

Product Name Astonish Bathroom Cleaner

Formula 9716F5

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

Recommended use Cleaning baths and other hard surfaces in the bathroom.

Uses advised against Avoid contact with natural stone or acid sensitive surfaces.

Reason why uses advised against Mildly acidic product. May react with acid sensitive surfaces.

1.3. Details of the supplier of the safety data sheet

Manufacturer
The London Oil Refining Company Ltd
Astonish House
Unit 8 Thornbury Ind. Park.
Woodhall Road
Bradford BD3 7AF, UK
Tel: +44 1274 767440 (8am-4pm Mon-Fri)
www.astonish.co.uk

For further information, please contact

E-mail address info@astonish.co.uk

1.4. Emergency telephone number

Emergency Telephone UK - Emergency Telephone: +44 (0) 1274 767440 (8am-4pm Mon-Fri).

Alternatively in UK: Contact NHS 111 Telephone 111 (24 hours a day, 7days a week): Website 111.nhs.uk or a doctor

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Serious eye damage/eye irritation	Category 2 - (H319)

2.2. Label elements

Signal word
Warning

Hazard statements
H319 - Causes serious eye irritation
EUH208 - Chloromethylisothiazolinone & Methylisothiazolinone. May produce an allergic reaction.

Precautionary statements
P101 - If medical advice is needed, have product container or label at hand
P102 - Keep out of reach of children
P103 - Read label before use
P280 - Wear eye protection/ face protection
P264 - Wash face thoroughly after handling
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

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)

				amended)			
WATER -	50 - <100%	-	-	-	-	-	-
Citric Acid Monohydrate 5949-29-1	1 - <2.5%	201-069-1	-	Eye Irrit. 2 (H319)	-	-	-
Undecanol, branched and linear, ethoxylated (>5-15 EO) 68439-46-3	1 - <2.5%	-	-	Acute Tox. 4 (H302) Eye Dam. 1 (H318)	-	-	-
Ethanol 64-17-5	0.5 - <1%	200-578-6	-	Eye Irrit. 2 (H319) Flam. Liq. 2 (H225)	-	-	-
Coconut Diethanolamide 68603-42-9	0.25 - <0.5%	271-657-0	-	Aquatic Chronic 2 (H411) Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	-	-	-
Sodium Hydroxide 1310-73-2	0.025 - <0.25%	(011-002-00-6) 215-185-5	-	Skin Corr. 1A (H314) Met. Corr. 1 (H290)	Eye Irrit. 2 :: 0.5%<=C<2% Skin Corr. 1A :: C>=5% Skin Corr. 1B :: 2%<=C<5% Skin Irrit. 2 :: 0.5%<=C<2%	-	-
Pyroligneous Acids -	0.025 - <0.25%	-	-	Flam. Liq. 3 (H226) Eye Irrit. 2 (H319) Skin Irrit. 2 (H315) Acute Tox. 4 (H312) STOT SE 3 (H335)	-	-	-
methanol 67-56-1	0.025 - <0.25%	(603-001-00-X) 200-659-6	-	Acute Tox. 3 (H311) STOT SE 1 (H370) Acute Tox. 3 (H301) Flam. Liq. 2 (H225) Acute Tox. 3 (H331)	STOT SE 1 :: C>=10% STOT SE 2 :: 3%<=C<10%	-	-
Glycerol 56-81-5	0.025 - <0.25%	200-289-5	-	-	-	-	-
iso-Bornyl Acetate 125-12-2	0.025 - <0.25%	204-727-6	-	-	-	-	-
2,6-dimethyloct-7-en-2-ol 18479-58-8	0.025 - <0.25%	242-362-4	-	Eye Irrit. 2 (H319) Skin Irrit. 2 (H315)	-	-	-
2,2'-iminodiethanol 111-42-2	0.025 - <0.25%	(603-071-00-1) 203-868-0	-	Repr. 2 (H361) STOT RE 2 (H373) Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	-	-	-
Linalool 78-70-6	<0.025%	201-134-4	-	Eye Irrit. 2 (H319) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)	-	-	-
d-Limonene 5989-27-5	<0.025%	227-813-5	-	Asp. Tox. 1 (H304) Flam. Liq. 3 (H226) Aquatic Chronic 1 (H410) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)	-	-	-
Isoamyl salicylate 87-20-7	<0.025%	201-730-4	-	Aquatic Chronic 2 (H411)	-	-	-
Anthraquinone-Sodi	<0.025%	224-748-4	-	-	-	-	-

um 3,3-(9,10-dioxoanthracene-1,4-diyldimino)bis)2,4,6-trimethylbenzenesulphonate) 4474-24-3							
Citral 5392-40-5	<0.025%	(605-019-00-3) 226-394-6	-	Skin Sens. 1 (H317) Eye Irrit. 2 (H319) Skin Irrit. 2 (H315)	-	-	-
Chloromethylisothiazolinone & Methyllisothiazolinone 55965-84-9	<0.025%	(613-167-00-5) 611-341-5	-	Skin Corr. 1B (H314) Aquatic Chronic 1 (H410) Aquatic Acute 1 (H400) Skin Sens. 1A (H317) Acute Tox. 2 (H330) Acute Tox. 3 (H301) Acute Tox. 2 (H310)	Eye Irrit. 2 :: 0.06%<=C<0.6% Skin Corr. 1C :: C>=0.6% Skin Irrit. 2 :: 0.06%<=C<0.6% Skin Sens. 1A :: C>=0.0015% Eye Dam. 1 :: C>=0.6%	100	100
alpha-Pinene 80-56-8	<0.025%	201-291-9	-	Asp. Tox. 1 (H304) Flam. Liq. 3 (H226) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)	-	-	-
2-propenyl(3-methylbutoxy)acetate 67634-00-8	<0.025%	266-803-5	-	Acute Tox. 4 (H302) Skin Irrit. 2 (H315)	-	-	-
2-Methylundecanal 110-41-8	<0.025%	203-983-6	-	Aquatic Chronic 1 (H410) Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)	-	-	-
Coumarin 91-64-5	<0.025%	202-086-7	-	Acute Tox. 4 (H302) Skin Sens. 1B (H317)	-	-	-
2-Ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol 28219-61-6	<0.025%	248-908-8	-	Aquatic Chronic 1 (H410) Eye Irrit. 2 (H319) Skin Irrit. 2 (H315)	-	-	-
[1α(E),2β]-1-(2,6,6-trimethylcyclohex-3-en-1-yl)but-2-en-1-one 71048-82-3	<0.025%	275-156-8	-	Aquatic Chronic 1 (H410) Aquatic Acute 1 (H400) Skin Sens. 1A (H317) Acute Tox. 4 (H302) Skin Irrit. 2 (H315)	-	-	-
Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran 16409-43-1	<0.025%	240-457-5	-	Aquatic Chronic 3 (H412) Repr. 2 (H361) Eye Irrit. 2 (H319) Skin Irrit. 2 (H315)	-	-	-
Eugenol 97-53-0	<0.025%	202-589-1	-	Eye Irrit. 2 (H319) Skin Sens. 1B (H317)	-	-	-

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration >= 0.1% (UK REACH Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

Ingestion Rinse mouth.

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

Symptoms No information available.

Effects of Exposure See Section 11 for additional Toxicological Information.

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

Note to physicians Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	United Kingdom
Ethanol 64-17-5	TWA: 1000 ppm TWA: 1920 mg/m^3 STEL: 3000 ppm STEL: 5760 mg/m^3
Sodium Hydroxide 1310-73-2	STEL: 2 mg/m^3
methanol 67-56-1	TWA: 200 ppm TWA: 266 mg/m^3 STEL: 250 ppm STEL: 333 mg/m^3 Sk*

Glycerol 56-81-5	TWA: 10 mg/m^3 STEL: 30 mg/m^3

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers No information available

Chemical name	Oral	Dermal	Inhalation
Undecanol, branched and linear, ethoxylated (>5-15 EO) 68439-46-3		2080 mg/kg bw/day [4] [6]	294 mg/m^3 [4] [6]
Ethanol 64-17-5		343 mg/kg bw/day [4] [6]	950 mg/m^3 [4] [6] 1900 mg/m^3 [5] [7]
Sodium Hydroxide 1310-73-2			1 mg/m^3 [5] [6]
methanol 67-56-1		20 mg/kg bw/day [4] [6] 20 mg/kg bw/day [4] [7]	130 mg/m^3 [4] [6] 130 mg/m^3 [4] [7] 130 mg/m^3 [5] [6] 130 mg/m^3 [5] [7]
Glycerol 56-81-5			56 mg/m^3 [5] [6]
2,2'-iminodiethanol 111-42-2		0.13 mg/kg bw/day [4] [6]	0.75 mg/m^3 [4] [6] 0.5 mg/m^3 [5] [6]
iso-Bornyl Acetate 125-12-2		1.15 mg/kg bw/day [4] [6] 0.3 mg/kg bw/day [4] [7]	13.22 mg/m^3 [4] [6] 26.45 mg/m^3 [4] [7]
2,6-dimethyloct-7-en-2-ol 18479-58-8		20.8 mg/kg bw/day [4] [6]	73.5 mg/m^3 [4] [6]
Linalool 78-70-6		2.5 mg/kg bw/day [4] [6] 5 mg/kg bw/day [4] [7] 3 mg/cm2 [5] [6] 3 mg/cm2 [5] [7]	2.8 mg/m^3 [4] [6] 16.5 mg/m^3 [4] [7]
Citral 5392-40-5		1.7 mg/kg bw/day [4] [6] 140 µg/cm2 [5] [6]	9 mg/m^3 [4] [6]
Chloromethylisothiazolinone & Methyllisothiazolinone 55965-84-9			0.02 mg/m^3 [5] [6] 0.04 mg/m^3 [5] [7]
2-propenyl(3-methylbutoxy)acetate 67634-00-8		1.4 mg/kg bw/day [4] [6]	4.93 mg/m^3 [4] [6]
alpha-Pinene 80-56-8		0.542 mg/kg bw/day [4] [6]	3.8 mg/m^3 [4] [6]
2-Methylundecanal 110-41-8		10.46 mg/kg bw/day [4] [6] 100 mg/kg bw/day [4] [7] 35.7 mg/cm2 [5] [6] 71.43 mg/cm2 [5] [7]	36.89 mg/m^3 [4] [6] 352.63 mg/m^3 [4] [7] 92.21 mg/m^3 [5] [6] 881.58 mg/m^3 [5] [7]
Coumarin 91-64-5		0.79 mg/kg bw/day [4] [6]	6.78 mg/m^3 [4] [6]
[1α(E),2β]-1-(2,6,6-trimethylcyclohex-3-en-1-yl)but-2-en-1-one 71048-82-3		0.4 mg/kg bw/day [4] [6] 14 µg/cm2 [5] [7]	1.5 mg/m^3 [4] [6]
Tetrahydro-4-methyl-2-(2-methylprope n-1-yl)pyran 16409-43-1		0.3 mg/kg bw/day [4] [6]	1.2 mg/m^3 [4] [6]
Eugenol 97-53-0		6 mg/kg bw/day [4] [6]	21.2 mg/m^3 [4] [6]

Derived No Effect Level (DNEL) - General Public No information available.

Chemical name	Oral	Dermal	Inhalation
Undecanol, branched and linear, ethoxylated (>5-15 EO) 68439-46-3	25 mg/kg bw/day [4] [6]		87 mg/m^3 [4] [6]
Ethanol 64-17-5	87 mg/kg bw/day [4] [6]		114 mg/m^3 [4] [6] 950 mg/m^3 [5] [7]
Sodium Hydroxide 1310-73-2			1 mg/m^3 [5] [6]
methanol 67-56-1	4 mg/kg bw/day [4] [6] 4 mg/kg bw/day [4] [7]	4 mg/kg bw/day [4] [6] 4 mg/kg bw/day [4] [7]	26 mg/m^3 [4] [6] 26 mg/m^3 [4] [7] 26 mg/m^3 [5] [6] 26 mg/m^3 [5] [7]
Glycerol 56-81-5	229 mg/kg bw/day [4] [6]		33 mg/m^3 [5] [6]
2,2'-iminodiethanol 111-42-2	0.06 mg/kg bw/day [4] [6]		0.125 mg/m^3 [4] [6] 0.125 mg/m^3 [5] [6]
iso-Bornyl Acetate 125-12-2	0.075 mg/kg bw/day [4] [6] 0.152 mg/kg bw/day [4] [7]	0.15 mg/kg bw/day [4] [6] 0.15 mg/kg bw/day [4] [7]	13.04 mg/m^3 [4] [6] 13.04 mg/m^3 [4] [7]
2,6-dimethyloct-7-en-2-ol 18479-58-8	12.5 mg/kg bw/day [4] [6]		21.7 mg/m^3 [4] [6]
Linalool 78-70-6	0.2 mg/kg bw/day [4] [6] 1.2 mg/kg bw/day [4] [7]	2.5 mg/kg bw/day [4] [6] 2.5 mg/kg bw/day [4] [7] 1.5 mg/cm2 [5] [6] 1.5 mg/cm2 [5] [7]	0.7 mg/m^3 [4] [6] 4.1 mg/m^3 [4] [7]
Citral 5392-40-5	0.6 mg/kg bw/day [4] [6]	140 µg/cm2 [5] [6]	2.7 mg/m^3 [4] [6]
Chloromethylisothiazolinone & Methyllisothiazolinone 55965-84-9	0.09 mg/kg bw/day [4] [6] 0.11 mg/kg bw/day [4] [7]		0.02 mg/m^3 [5] [6] 0.04 mg/m^3 [5] [7]
2-propenyl(3-methylbutoxy)acetate 67634-00-8	0.5 mg/kg bw/day [4] [6]		0.87 mg/m^3 [4] [6]
alpha-Pinene 80-56-8	0.225 mg/kg bw/day [4] [6]		0.674 mg/m^3 [4] [6]
2-Methylundecanal 110-41-8	5.23 mg/kg bw/day [4] [6] 25 mg/kg bw/day [4] [7]	50 mg/kg bw/day [4] [6] 50 mg/kg bw/day [4] [7] 17.86 mg/cm2 [5] [6] 35.71 mg/cm2 [5] [7]	9.1 mg/m^3 [4] [6] 86.96 mg/m^3 [4] [7] 22.74 mg/m^3 [5] [6] 217.39 mg/m^3 [5] [7]
Coumarin 91-64-5	0.39 mg/kg bw/day [4] [6]		1.69 mg/m^3 [4] [6]
[1α(E),2β]-1-(2,6,6-trimethylcyclohex-3-en-1-yl)but-2-en-1-one 71048-82-3	0.25 mg/kg bw/day [4] [6]	8.6 µg/cm2 [5] [7]	0.43 mg/m^3 [4] [6]
Tetrahydro-4-methyl-2-(2-methylprope n-1-yl)pyran 16409-43-1	0.2 mg/kg bw/day [4] [6]		0.3 mg/m^3 [4] [6]
Eugenol 97-53-0	3 mg/kg bw/day [4] [6]		5.22 mg/m^3 [4] [6]

Predicted No Effect Concentration (PNEC) No information available.

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Undecanol, branched and	0.10379 mg/L	0.014 mg/L	0.10379 mg/L		

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
linear, ethoxylated (>5-15 EO) 68439-46-3					
methanol 67-56-1	20.8 mg/L	1540 mg/L	2.08 mg/L		
Glycerol 56-81-5	0.885 mg/L	8.85 mg/L	0.0885 mg/L		
2,2'-iminodiethanol 111-42-2	0.021 mg/L	0.095 mg/L	0.002 mg/L		
iso-Bornyl Acetate 125-12-2	10 µg/L		1 µg/L		
2,6-dimethyloct-7-en-2-ol 18479-58-8	27.8 µg/L	0.278 mg/L	2.78 µg/L		
Linalool 78-70-6	0.2 mg/L	2 mg/L	0.02 mg/L		
Citral 5392-40-5	0.00678 mg/L	0.0678 mg/L	0.000678 mg/L		
Chloromethylisothiazolinone & Methyllisothiazolinone 55965-84-9	3.39 µg/L	3.39 µg/L	3.39 µg/L	3.39 µg/L	
2-propenyl(3-methylbutoxy)acetate 67634-00-8	0.77 µg/L	7.7 µg/L	77 ng/L	0.77 µg/L	
alpha-Pinene 80-56-8	0.606 µg/L	3.03 µg/L	0.0606 µg/L	0.303 µg/L	
2-Methylundecanal 110-41-8	0.66 µg/L	1.8 µg/L	66 ng/L	0.18 µg/L	
Coumarin 91-64-5	19 µg/L	14.2 µg/L	1.9 µg/L		
[1α(E),2β]-1-(2,6,6-trimethylcyclohex-3-en-1-yl)but-2-en-1-one 71048-82-3	7 µg/L	3.5 µg/L	0.7 µg/L		
Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran 16409-43-1	33.2 µg/L	0.332 mg/L	3.32 µg/L		
Eugenol 97-53-0	1.13 µg/L	11.3 µg/L	0.113 µg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Undecanol, branched and linear, ethoxylated (>5-15 EO) 68439-46-3	13.7 mg/kg sediment dw	13.7 mg/kg sediment dw	1.4 mg/L	1 mg/kg soil dw	
methanol 67-56-1	77 mg/kg sediment dw	7.7 mg/kg sediment dw	100 mg/L	100 mg/kg soil dw	
Glycerol 56-81-5	3.3 mg/kg sediment dw	0.33 mg/kg sediment dw	1000 mg/L	0.141 mg/kg soil dw	
2,2'-iminodiethanol 111-42-2	0.092 mg/kg sediment dw	0.0092 mg/kg sediment dw	100 mg/L	1.63 mg/kg soil dw	1.04 mg/kg food
iso-Bornyl Acetate 125-12-2	460 µg/kg sediment dw	46 µg/kg sediment dw	2 mg/L	86.1 µg/kg soil dw	

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
2,6-dimethyloct-7-en-2-ol 18479-58-8	0.594 mg/kg sediment dw	0.0594 mg/kg sediment dw	10 mg/L	0.103 mg/kg soil dw	111 mg/kg food
Linalool 78-70-6	2.22 mg/kg sediment dw	0.222 mg/kg sediment dw	10 mg/L	0.327 mg/kg soil dw	7.8 mg/kg food
Citral 5392-40-5	0.125 mg/kg sediment dw	0.0125 mg/kg sediment dw	1.6 mg/L	0.0209 mg/kg soil dw	
Chloromethylisothiazolinone & Methylisothiazolinone 55965-84-9	0.027 mg/kg sediment dw	0.027 mg/kg sediment dw	0.23 mg/L	0.01 mg/kg soil dw	
2-propenyl(3-methylbutoxy)acetate 67634-00-8	8.93 µg/kg sediment dw	0.893 µg/kg sediment dw		1.33 µg/kg soil dw	
alpha-Pinene 80-56-8	157 µg/kg sediment dw	15.7 µg/kg sediment dw	0.2 mg/L	31.7 µg/kg soil dw	8.76 mg/kg food
2-Methylundecanal 110-41-8	0.265 mg/kg sediment dw	26.5 µg/kg sediment dw	10 mg/L	52.6 µg/kg soil dw	116 mg/kg food
Coumarin 91-64-5	0.15 mg/kg sediment dw	0.015 mg/kg sediment dw	6.4 mg/L	0.018 mg/kg soil dw	30.7 mg/kg food
[1α(E),2β]-1-(2,6,6-trimethylcyclohex-3-en-1-yl)but-2-en-1-one 71048-82-3	906 µg/kg sediment dw	90.6 µg/kg sediment dw	2.41 mg/L	177 µg/kg soil dw	0.0741 mg/kg food
Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran 16409-43-1	2.29 mg/kg sediment dw	0.229 mg/kg sediment dw	10 mg/L	0.437 mg/kg soil dw	
Eugenol 97-53-0	0.081 mg/kg sediment dw	0.0081 mg/kg sediment dw		0.0155 mg/kg soil dw	

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid
Appearance Clear colourless liquid
Color Colourless
Odor Fresh/Herbal.
Odor threshold Not applicable

Property	Values		Remarks • Method
Melting point / freezing point	No data available		None known
Initial boiling point and boiling range	> 100		Not measured (>100°C)
Flammability	No data available		Does not ignite
Flammability Limit in Air			None known
Upper flammability or explosive limits	No data available		
Lower flammability or explosive limits	No data available		
Flash point	No data available		None known
Autoignition temperature	No data available		None known
Decomposition temperature			None known
pH	No data available		pH (concentrated solution): 2.5 - 4.5
pH (as aqueous solution)	No data available		None known
Kinematic viscosity	No data available		None known
Dynamic viscosity	No data available		None known
Water solubility	No data available	Soluble in water	None known
Solubility(ies)	No data available		None known
Partition coefficient	No data available		None known
Vapor pressure	No data available		None known
Relative density	1.002 - 1.010 @ 20°C		None known
Bulk density	No data available		
Liquid Density	No data available		
Relative vapor density	> 1 (Air=1)		None known
Particle characteristics			
Particle Size			
Particle Size Distribution			
Explosive properties	None		
Oxidizing properties	No information available		

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation No known effect based on information supplied.

Eye contact Causes serious eye irritation. May cause redness, itching, and pain.

Skin contact No known effect based on information supplied.

Ingestion No known effect based on information supplied.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Irritating. May cause redness and tearing of the eyes.

Acute toxicity .

Numerical measures of toxicity
No information available

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Citric Acid Monohydrate	= 3 g/kg (Rat)	> 2000 mg/kg (Rat)	-
Undecanol, branched and linear, ethoxylated (>5-15 EO)	= 1400 mg/kg (Rat)	-	-
Ethanol	= 7060 mg/kg (Rat)	-	= 116.9 mg/L (Rat) 4 h = 133.8 mg/L (Rat) 4 h
Coconut Diethanolamide	> 5000 mg/kg (Rat)	> 2 g/kg (Rabbit)	-
Sodium Hydroxide	= 325 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	-
methanol	= 6200 mg/kg (Rat)	= 15840 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h
Glycerol	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 2.75 mg/L (Rat) 4 h
iso-Bornyl Acetate	= 9050 mg/kg (Rat)	> 20000 mg/kg (Rabbit)	-
2,6-dimethyloct-7-en-2-ol	= 3600 mg/kg (Rat)	> 5 g/kg (Rabbit)	-
2,2'-iminodiethanol	= 780 mg/kg (Rat)	= 11.9 mL/kg (Rabbit)	-
Linalool	= 2790 mg/kg (Rat)	= 5610 mg/kg (Rabbit)	-
d-Limonene	= 5200 mg/kg (Rat)	> 5 g/kg (Rabbit)	-

	= 4400 mg/kg (Rat)		
Isoamyl salicylate	= 3300 mg/kg (Rat)	-	-
Citral	= 4960 mg/kg (Rat)	= 2250 mg/kg (Rabbit)	-
Chloromethylisothiazolinone & Methyllisothiazolinone	= 53 mg/kg (Rat)	= 87.12 mg/kg (Rabbit)	-
alpha-Pinene	= 3700 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
2-propenyl(3-methylbutoxy)acetate	-	> 2000 mg/kg (Rat)	= 0.5 mg/L (Rat) 4 h = 0.43 mg/L (Rat) 4 h
2-Methylundecanal	> 5 g/kg (Rat)	> 10 mL/kg (Rabbit)	-
Coumarin	> 5000 mg/kg (Rat)	= 293 mg/kg (Rat)	-
Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran	= 4300 mg/kg (Rat)	-	-
Eugenol	= 1930 mg/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

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

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

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

Reproductive toxicity Based on available data, the classification criteria are not met.

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

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

Aspiration hazard Based on available data, the classification criteria are not met.

Other adverse effects No other adverse effects expected.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Not considered to be harmful to aquatic life.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Citric Acid Monohydrate	-	LC50: =1516mg/L (96h, Lepomis macrochirus)	-	-
Ethanol	-	LC50: 12.0 - 16.0mL/L (96h, Oncorhynchus mykiss) LC50: >100mg/L (96h, Pimephales promelas) LC50: 13400 - 15100mg/L (96h, Pimephales promelas)	-	LC50: 9268 - 14221mg/L (48h, Daphnia magna) EC50: =2mg/L (48h, Daphnia magna)
Coconut Diethanolamide	-	LC50: =3.6mg/L (96h, Brachydanio rerio)	-	-
Sodium Hydroxide	-	LC50: =45.4mg/L (96h, Oncorhynchus mykiss)	-	-
methanol	-	LC50: =28200mg/L (96h, Pimephales promelas) LC50: >100mg/L (96h, Pimephales promelas) LC50: 19500 - 20700mg/L (96h, Oncorhynchus mykiss) LC50: 18 - 20mL/L (96h, Oncorhynchus mykiss) LC50: 13500 - 17600mg/L (96h, Lepomis macrochirus)	-	-
Glycerol	-	LC50: 51 - 57mL/L (96h, Oncorhynchus mykiss)	-	-
iso-Bornyl Acetate	-	LC50: 10.0 - 18.0mg/L (96h, Brachydanio rerio)	-	-
2,2'-iminodiethanol	EC50: =7.8mg/L (72h, Desmodesmus subspicatus) EC50: 2.1 - 2.3mg/L (96h, Pseudokirchneriella subcapitata)	LC50: 4460 - 4980mg/L (96h, Pimephales promelas) LC50: 1200 - 1580mg/L (96h, Pimephales promelas) LC50: 600 - 1000mg/L (96h, Lepomis macrochirus)	-	EC50: =55mg/L (48h, Daphnia magna)
Linalool	EC50: =88.3mg/L (96h, Desmodesmus subspicatus)	LC50: =27.8mg/L (96h, Oncorhynchus mykiss)	-	EC50: =20mg/L (48h, Daphnia magna)
d-Limonene	-	LC50: 0.619 - 0.796mg/L (96h, Pimephales promelas) LC50: =35mg/L (96h, Oncorhynchus mykiss)	-	-
Citral	EC50: =16mg/L (72h, Desmodesmus subspicatus) EC50: =19mg/L (96h, Desmodesmus subspicatus)	-	-	EC50: =7mg/L (48h, Daphnia magna)
Chloromethylisothiazolino	EC50: 0.11 - 0.16mg/L	LC50: =1.6mg/L (96h,	-	EC50: =4.71mg/L (48h,

ne & Methyllisothiazolinone	(72h, Pseudokirchneriella subcapitata) EC50: 0.03 - 0.13mg/L (96h, Pseudokirchneriella subcapitata)	Oncorhynchus mykiss)		Daphnia magna) EC50: 0.12 - 0.3mg/L (48h, Daphnia magna) EC50: 0.71 - 0.99mg/L (48h, Daphnia magna)
alpha-Pinene	-	LC50: =0.28mg/L (96h, Pimephales promelas)	-	LC50: =41mg/L (48h, Daphnia magna)
2-Methylundecanal	-	LC50: =0.35mg/L (96h, Oncorhynchus mykiss)	-	-
Eugenol	-	LC50: =13mg/L (96h, Danio rerio)	-	-

12.2. Persistence and degradability

Persistence and degradability None known.

12.3. Bioaccumulative potential

Bioaccumulation Not likely to bioaccumulate.

Chemical name	Partition coefficient
Citric Acid Monohydrate	-1.72
Ethanol	-0.35
methanol	-0.77
Glycerol	-1.75
iso-Bornyl Acetate	3.5
2,6-dimethyloct-7-en-2-ol	3.25
2,2'-iminodiethanol	-2.46
Linalool	2.9
d-Limonene	4.38
Isoamyl salicylate	4.78
Citral	2.76
Chloromethylisothiazolinone & Methyllisothiazolinone	0.7
alpha-Pinene	4.1
2-propenyl(3-methylbutoxy)acetate	1.96
2-Methylundecanal	4.9
[1α(E),2β]-1-(2,6,6-trimethylcyclohex-3-en-1-yl)but-2-en-1-one	4.2
Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran	3.3
Eugenol	1.83

12.4. Mobility in soil

Mobility in soil Not determined.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration.

Chemical name	PBT and vPvB assessment
Citric Acid Monohydrate	The substance is not PBT / vPvB
Undecanol, branched and linear, ethoxylated (>5-15 EO)	The substance is not PBT / vPvB
Ethanol	The substance is not PBT / vPvB
Sodium Hydroxide	The substance is not PBT / vPvB
methanol	The substance is not PBT / vPvB
Glycerol	The substance is not PBT / vPvB
iso-Bornyl Acetate	The substance is not PBT / vPvB

2,6-dimethyloct-7-en-2-ol	The substance is not PBT / vPvB
2,2'-iminodiethanol	The substance is not PBT / vPvB
Linalool	The substance is not PBT / vPvB
d-Limonene	The substance is not PBT / vPvB
Citral	The substance is not PBT / vPvB
Chloromethylisothiazolinone & Methyllisothiazolinone	The substance is not PBT / vPvB
alpha-Pinene	The substance is not PBT / vPvB
2-propenyl(3-methylbutoxy)acetate	The substance is not PBT / vPvB
2-Methylundecanal	The substance is not PBT / vPvB
Coumarin	The substance is not PBT / vPvB
[1α(E),2β]-1-(2,6,6-trimethylcyclohex-3-en-1-yl)but-2-en-1-one	The substance is not PBT / vPvB
Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran	The substance is not PBT / vPvB
Eugenol	The substance is not PBT / vPvB

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user Special Provisions None

IMDG

14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user Special Provisions None
14.7 Maritime transport in bulk according to IMO instruments Not regulated

RID

14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable

14.6 Special precautions for user
Special Provisions None

ADR

14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None

SECTION 15: Regulatory information

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

Authorizations and/or restrictions on use:
This product does not contain substances subject to authorization (UK REACH - Annex XIV). This product does not contain substances subject to restriction (UK REACH - Annex XVII).

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
methanol - 67-56-1	Use restricted. See item 69.	-

Persistent Organic Pollutants
Not applicable

Export Notification requirements
Not applicable

Named dangerous substances per COMAH Regulations 2015 (as amended)
Not applicable

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
methanol - 67-56-1	500	5000

The Ozone-Depleting Substances Regulations 2015
Not applicable

The Biocidal Products Regulations 2001 (as amended)
Not applicable

Chemical name	The Biocidal Products Regulations 2001 (as amended)
Ethanol - 64-17-5	Product-type 2: Disinfectants and algaecides not intended for direct application to humans or animals Product-type 4: Food and feed area Product-type 1: Human hygiene
Chloromethylisothiazolinone & Methyllisothiazolinone - 55965-84-9	Product-type 2: Disinfectants and algaecides not intended for direct application to humans or animals Product-type 4: Food and feed area Product-type 6: Preservatives for products during storage Product-type 11: Preservatives for liquid-cooling and processing systems Product-type 12: Slimicides Product-type 13: Working or cutting fluid preservatives

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)
Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)
Not applicable

Chemical name	Poisons and Explosive Precursors
Sodium Hydroxide	Poison, Reportable 12 % of total caustic alkalinity

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report A Chemical Safety Assessment has not been carried out for this mixture

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend
SVHC: Substances of Very High Concern for Authorization:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitizers		

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 07/05/2024

This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended) Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

End of Safety Data Sheet

UK SDS version information - XGHS
UL release:
GHS Revision 7
2022 Q1

Chemical name	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)
Citric Acid Monohydrate	Eye Irrit. 2 (H319)	
Undecanol, branched and linear, ethoxylated (>5-15 EO)	Acute Tox. 4 (H302) Eye Dam. 1 (H318)	
Ethanol	Eye Irrit. 2 (H319) Flam. Liq. 2 (H225)	
Coconut Diethanolamide	Aquatic Chronic 2 (H411) Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	
Sodium Hydroxide	Skin Corr. 1A (H314) Met. Corr. 1 (H290)	Eye Irrit. 2 :: 0.5%<=C<2% Skin Corr. 1A :: C>=5% Skin Corr. 1B :: 2%<=C<5% Skin Irrit. 2 :: 0.5%<=C<2%
Pyroligneous Acids	Flam. Liq. 3 (H226) Eye Irrit. 2 (H319) Skin Irrit. 2 (H315) Acute Tox. 4 (H312) STOT SE 3 (H335)	
methanol	Acute Tox. 3 (H311) STOT SE 1 (H370) Acute Tox. 3 (H301) Flam. Liq. 2 (H225) Acute Tox. 3 (H331)	STOT SE 1 :: C>=10% STOT SE 2 :: 3%<=C<10%
2,6-dimethyloct-7-en-2-ol	Eye Irrit. 2 (H319) Skin Irrit. 2 (H315)	

2,2'-iminodiethanol	Repr. 2 (H361) STOT RE 2 (H373) Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	
Linalool	Eye Irrit. 2 (H319) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)	
d-Limonene	Asp. Tox. 1 (H304) Flam. Liq. 3 (H226) Aquatic Chronic 1 (H410) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)	
Isoamyl salicylate	Aquatic Chronic 2 (H411)	
Citral	Skin Sens. 1 (H317) Eye Irrit. 2 (H319) Skin Irrit. 2 (H315)	
Chloromethylisothiazolinone & Methyllisothiazolinone	Skin Corr. 1B (H314) Aquatic Chronic 1 (H410) Aquatic Acute 1 (H400) Skin Sens. 1A (H317) Acute Tox. 2 (H330) Acute Tox. 3 (H301) Acute Tox. 2 (H310)	Eye Irrit. 2 :: 0.06%<=C<0.6% Skin Corr. 1C :: C>=0.6% Skin Irrit. 2 :: 0.06%<=C<0.6% Skin Sens. 1A :: C>=0.0015% Eye Dam. 1 :: C>=0.6%
alpha-Pinene	Asp. Tox. 1 (H304) Flam. Liq. 3 (H226) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)	
2-propenyl(3-methylbutoxy)acetate	Acute Tox. 4 (H302) Skin Irrit. 2 (H315)	
2-Methylundecanal	Aquatic Chronic 1 (H410) Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)	
Coumarin	Acute Tox. 4 (H302) Skin Sens. 1B (H317)	
2-Ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol	Aquatic Chronic 1 (H410) Eye Irrit. 2 (H319) Skin Irrit. 2 (H315)	
[1α(E),2β]-1-(2,6,6-trimethylcyclohex-3-en-1-yl)but-2-en-1-one	Aquatic Chronic 1 (H410) Aquatic Acute 1 (H400) Skin Sens. 1A (H317) Acute Tox. 4 (H302) Skin Irrit. 2 (H315)	
Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran	Aquatic Chronic 3 (H412) Repr. 2 (H361) Eye Irrit. 2 (H319) Skin Irrit. 2 (H315)	
Eugenol	Eye Irrit. 2 (H319) Skin Sens. 1B (H317)	