SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: REACH Regulation (EC) No 1907/2006, as retained in UK law by (SI 2019/758 as amended)

Revision date 02-Jul-2025 **Revision Number** 1

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

1.1. Product identifier

Product Code(s) 530452

Product Name ThanaSorb

Synonyms None

Pure substance/mixture Mixture

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

Recommended use Embalming chemical

Uses advised against Use only for intended applications

1.3. Details of the supplier of the safety data sheet

Manufacturer
The MazWell Group Ltd.
Units 11/14-15 Ardglen
Industrial Estate,
Whitchurch, Hampshire,
RG28 7BB, United Kingdom
+44 (0)1256-893883
+44 (0)1256-893868
enquiries@themazwellgroup.com

For further information, please contact
E-mail address enquiries@themazwellgroup.com

1.4. Emergency telephone number

Emergency telephone +44 (0)1256 893883 (Mon- Fri 9:00 am - 4:30 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP (SI 2020/1567 as amended)

Not classified

2.2. Label elements

Hazard statements
Not classified.

2.3. Other hazards

Other hazards Causes mild skin irritation. Harmful to aquatic life.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	EC No. (Index No.)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
Quaternary ammonium compounds, C12-14-alkyl((ethylphenyl)methyl)dimethyl 85409-23-0	<0.25%	287-090-7	-	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Corr. 1B (H314) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	10	1	-
Alkyl dimethyl benzyl ammonium chloride (C12-18) 68391-01-5	<0.25%	269-919-4	-	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Aquatic Acute 1 (H400)	-	1	-	-

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

Acute Toxicity Estimate
In the absence of LD50/LC50 data, the conversion value (converted acute toxicity point estimate) may be indicated here; please note that these values do not represent test results

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Quaternary ammonium compounds, C12-14-alkyl((ethylphenyl)methyl)dimethyl 85409-23-0	No data available	2300	No data available	No data available	No data available
Alkyl dimethyl benzyl ammonium chloride (C12-18) 68391-01-5	850	2300	No data available	No data available	No data available

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, also under the eyelids.

Skin contact Wash with plenty of water.

Ingestion Rinse mouth.

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

Symptoms Prolonged contact may cause redness and irritation.

Effects of Exposure None known.

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

Note to doctors 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.

Unsuitable extinguishing media No information available.

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 Pick up and transfer to properly labelled containers.

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 Handle in accordance with good industrial hygiene and safety practice.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

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

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

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

Chemical name	Oral	Dermal	Inhalation
Quaternary ammonium compounds, C12-14-alkyl((ethylphenyl)methyl)dimethyl 85409-23-0			1 mg/m³ [5] [6]
Benzyl acetate 140-11-4		2.5 mg/kg bw/day [4] [6]	9 mg/m³ [4] [6]
Isopropyl alcohol 67-63-0		888 mg/kg bw/day [4] [6]	500 mg/m³ [4] [6] 1000 mg/m³ [4] [7]
Methyl 2-naphthyl ether 93-04-9		1.75 mg/kg bw/day [4] [6]	6.17 mg/m³ [4] [6]
2-Acetonaphthone 93-08-3		0.462 mg/kg bw/day [4] [6]	1.63 mg/m³ [4] [6]
Phenethyl alcohol 60-12-8		21.2 mg/kg bw/day [4] [6]	59.9 mg/m³ [4] [6]
Hexyl salicylate 6259-76-3		6.4 mg/kg bw/day [4] [6] 885 µg/cm2 [5] [6] 885 µg/cm2 [5] [7]	1.7 mg/m³ [4] [6]
2H-Pyran-4-ol,		41.7 mg/kg bw/day [4] [6]	44.1 mg/m³ [4] [6]

Chemical name	Oral	Dermal	Inhalation
tetrahydro-4-methyl-2-(2-methylpropyl)- 63500-71-0			
3-Octanol, 3,7-dimethyl- 78-69-3		3.16 mg/kg bw/day [4] [6] 190 µg/cm2 [5] [6]	11.14 mg/m³ [4] [6]
ANISALDEHYDE 123-11-5		3.33 mg/kg bw/day [4] [6]	5.88 mg/m³ [4] [6]
Methyl anthranilate 134-20-3		14 mg/kg bw/day [4] [6]	49.3 mg/m³ [4] [6]
Benzyl salicylate 118-58-1		2.21 mg/kg bw/day [4] [6]	7.8 mg/m³ [4] [6]
Coumarin 91-64-5		0.79 mg/kg bw/day [4] [6]	6.78 mg/m³ [4] [6]
Linalool 78-70-6		3.5 mg/kg bw/day [4] [6] 3 mg/cm2 [5] [6] 3 mg/cm2 [5] [7]	24.58 mg/m³ [4] [6]
Citronellol 106-22-9		327.4 mg/kg bw/day [4] [6] 2950 µg/cm2 [5] [7]	161.6 mg/m³ [4] [6] 10 mg/m³ [5] [6] 10 mg/m³ [5] [7]
3-Decen-5-ol, 4-methyl- 81782-77-6		10 mg/kg bw/day [4] [6] 10 mg/kg bw/day [4] [7] 25 mg/cm2 [5] [6] 25 mg/cm2 [5] [7]	98.7 mg/m³ [4] [6] 35.26 mg/m³ [4] [7] 88.16 mg/m³ [5] [6] 88.16 mg/m³ [5] [7]
Acetic acid, (3-methylbutoxy)-, 2-propenyl ester 67634-00-8		1.4 mg/kg bw/day [4] [6]	4.93 mg/m³ [4] [6]
Undecanal, 2-methyl- 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/m³ [4] [6] 352.63 mg/m³ [4] [7] 92.21 mg/m³ [5] [6] 881.58 mg/m³ [5] [7]
Lauryl aldehyde 112-54-9		14.1 mg/kg bw/day [4] [6] 0.57 µg/cm2 [5] [6]	49.7 mg/m³ [4] [6]
Benzenepropanal, .alpha.-methyl-4-(1-methylethyl)- 103-95-7		0.35 mg/kg bw/day [4] [6]	1.23 mg/m³ [4] [6]
1,3-Benzodioxole-5-carboxaldehyde 120-57-0		0.75 mg/kg bw/day [4] [6]	5.29 mg/m³ [4] [6]
D-Limonene 5989-27-5		9.5 mg/kg bw/day [4] [6]	66.7 mg/m³ [4] [6]
Dimethylbenzylcarbinyl acetate 151-05-3		3.6 mg/kg bw/day [4] [6]	12.6948 mg/m³ [4] [6]
Lynalyl acetate (ex bois de rose, synthetic) 115-95-7		2.5 mg/kg bw/day [4] [6] 236.2 µg/cm2 [5] [6] 236.2 µg/cm2 [5] [7]	2.75 mg/m³ [4] [6]
Eugenol 97-53-0		6 mg/kg bw/day [4] [6]	21.2 mg/m³ [4] [6]
Citral 5392-40-5		1.7 mg/kg bw/day [4] [6] 140 µg/cm2 [5] [6]	9 mg/m³ [4] [6]
Camphor 76-22-2		10 mg/kg bw/day [4] [6]	17.6316 mg/m³ [4] [6]
Lavender, Lavandula hybrida, extract 91722-69-9		0.249 mg/kg bw/day [4] [6]	0.877 mg/m³ [4] [6]
.alpha.-Pinene 80-56-8		0.542 mg/kg bw/day [4] [6]	3.8 mg/m³ [4] [6]
Geraniol 106-24-1		4.2 mg/kg bw/day [4] [6] 11800 µg/cm2 [5] [6]	11.8 mg/m³ [4] [6]
Terpineol 8000-41-7		6.36 mg/kg bw/day [4] [6]	44.8 mg/m³ [4] [6]

Notes

[4]	Systemic health effects.
[5]	Local health effects.
[6]	Long term.
[7]	Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Quaternary ammonium compounds, C12-14-alkyl((ethylphenyl)methyl)dimethyl 85409-23-0			1 mg/m³ [5] [6]
Benzyl acetate 140-11-4	1.3 mg/kg bw/day [4] [6]		2.2 mg/m³ [4] [6]
Isopropyl alcohol 67-63-0	26 mg/kg bw/day [4] [6] 51 mg/kg bw/day [4] [7]		89 mg/m³ [4] [6] 178 mg/m³ [4] [7]
Methyl 2-naphthyl ether 93-04-9	0.625 mg/kg bw/day [4] [6]		1.09 mg/m³ [4] [6]
2-Acetonaphthone 93-08-3	0.165 mg/kg bw/day [4] [6]		0.287 mg/m³ [4] [6]
Phenethyl alcohol 60-12-8	5.1 mg/kg bw/day [4] [6] 5.1 mg/kg bw/day [4] [7]		17.7 mg/m³ [4] [6]
Hexyl salicylate 6259-76-3	0.3 mg/kg bw/day [4] [6]	442.5 µg/cm2 [5] [6] 442.5 µg/cm2 [5] [7]	0.4 mg/m³ [4] [6]
2H-Pyran-4-ol, tetrahydro-4-methyl-2-(2-methylpropyl)- 63500-71-0	7.5 mg/kg bw/day [4] [6]		13 mg/m³ [4] [6]
3-Octanol, 3,7-dimethyl- 78-69-3	1.58 mg/kg bw/day [4] [6]	190 µg/cm2 [5] [6]	2.75 mg/m³ [4] [6]
ANISALDEHYDE 123-11-5	1 mg/kg bw/day [4] [6]		1.74 mg/m³ [4] [6]
Methyl anthranilate 134-20-3	5 mg/kg bw/day [4] [6]		8.7 mg/m³ [4] [6]
Benzyl salicylate 118-58-1	0.79 mg/kg bw/day [4] [6]		1.37 mg/m³ [4] [6]
Coumarin 91-64-5	0.39 mg/kg bw/day [4] [6]		1.69 mg/m³ [4] [6]
Linalool 78-70-6	2.49 mg/kg bw/day [4] [6]	1.5 mg/cm2 [5] [6] 1.5 mg/cm2 [5] [7]	4.33 mg/m³ [4] [6]
Citronellol 106-22-9	13.8 mg/kg bw/day [4] [6]	2950 µg/cm2 [5] [7]	47.8 mg/m³ [4] [6] 10 mg/m³ [5] [6] 10 mg/m³ [5] [7]
3-Decen-5-ol, 4-methyl- 81782-77-6	10 mg/kg bw/day [4] [6] 5 mg/kg bw/day [4] [7]	5 mg/kg bw/day [4] [6] 5 mg/kg bw/day [4] [7] 12.5 mg/cm2 [5] [6] 12.5 mg/cm2 [5] [7]	14.38 mg/m³ [4] [6] 8.7 mg/m³ [4] [7] 21.74 mg/m³ [5] [6] 21.74 mg/m³ [5] [7]
Acetic acid, (3-methylbutoxy)-, 2-propenyl ester 67634-00-8	0.5 mg/kg bw/day [4] [6]		0.87 mg/m³ [4] [6]
Undecanal, 2-methyl- 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/m³ [4] [6] 86.96 mg/m³ [4] [7] 22.74 mg/m³ [5] [6] 217.39 mg/m³ [5] [7]
Lauryl aldehyde 112-54-9	7 mg/kg bw/day [4] [6]	0.28 µg/cm2 [5] [6]	12.3 mg/m³ [4] [6]
Benzenepropanal,	0.13 mg/kg bw/day [4] [6]		0.22 mg/m³ [4] [6]

Chemical name	Oral	Dermal	Inhalation
.alpha.-methyl-4-(1-methylethyl)- 103-95-7			
1,3-Benzodioxole-5-carboxaldehyde 120-57-0	0.375 mg/kg bw/day [4] [6]		1.3 mg/m³ [4] [6]
D-Limonene 5989-27-5	4.8 mg/kg bw/day [4] [6]		16.6 mg/m³ [4] [6]
Dimethylbenzylcarbinyl acetate 151-05-3	1.8 mg/kg bw/day [4] [6]		3.13 mg/m³ [4] [6]
Lynalyl acetate (ex bois de rose, synthetic) 115-95-7	0.2 mg/kg bw/day [4] [6]	236.2 µg/cm2 [5] [6] 236.2 µg/cm2 [5] [7]	0.68 mg/m³ [4] [6]
Eugenol 97-53-0	3 mg/kg bw/day [4] [6]		5.22 mg/m³ [4] [6]
Citral 5392-40-5	0.6 mg/kg bw/day [4] [6]	140 µg/cm2 [5] [6]	2.7 mg/m³ [4] [6]
Camphor 76-22-2	5 mg/kg bw/day [4] [6]		4.3478 mg/m³ [4] [6]
Lavender, Lavandula hybrida, extract 91722-69-9	88.9 µg/kg bw/day [4] [6]		0.132 mg/m³ [4] [6]
.alpha.-Pinene 80-56-8	0.225 mg/kg bw/day [4] [6]		0.674 mg/m³ [4] [6]
Geraniol 106-24-1	2 mg/kg bw/day [4] [6]	1180 µg/cm2 [5] [6]	3.5 mg/m³ [4] [6]
Terpineol 8000-41-7	2.69 mg/kg bw/day [4] [6]		7.96 mg/m³ [4] [6]

Notes

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Quaternary ammonium compounds, C12-14-alkyl((ethylphenyl) methyl)dimethyl 85409-23-0	0.415 µg/L	0.154 µg/L	0.0415 µg/L	0.154 µg/L	
3a,4,5,6,7,7a-hexahydro-4, 7- methano-1H-indenyl propionate 68912-13-0	91 µg/L		9.1 µg/L		
Benzyl acetate 140-11-4	0.0184 mg/L	0.04 mg/L	0.00184 mg/L		
Methyl 2-naphthyl ether 93-04-9	10.9 µg/L	49.3 µg/L	1.09 µg/L	4.93 µg/L	
2-Acetonaphthone 93-08-3	18 µg/L	61.9 µg/L	1.8 µg/L	6.19 µg/L	
Phenethyl alcohol 60-12-8	0.215 mg/L	2.15 mg/L	0.0215 mg/L		
Hexyl salicylate 6259-76-3	0.000357 mg/L	0.00357 mg/L	0.0000357 mg/L		
2H-Pyran-4-ol,	0.094 mg/L	0.94 mg/L	0.0094 mg/L		

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
tetrahydro-4-methyl-2-(2-methylpropyl)- 63500-71-0					
3-Octanol, 3,7-dimethyl- 78-69-3	0.0089 mg/L	0.089 mg/L	0.00089 mg/L		
4-tert-butylcyclohexyl acetate 32210-23-4	66.67 mg/kg food 5.3 µg/L	53 µg/L	66.67 mg/kg food 0.53 µg/L		
ANISALDEHYDE 123-11-5	13 µg/L	811.1 µg/L	1.3 µg/L		
Methyl anthranilate 134-20-3	87.2 µg/L	0.185 mg/L	8.72 µg/L	18.5 µg/L	
Benzyl salicylate 118-58-1	52.7 mg/kg food 0.00103 mg/L	0.0103 mg/L	52.7 mg/kg food 0.000103 mg/L		
Coumarin 91-64-5	30.7 mg/kg food 19 µg/L	14.2 µg/L	30.7 mg/kg food 1.9 µg/L		
Linalool 78-70-6	7.8 mg/kg food 0.2 mg/L	2 mg/L	7.8 mg/kg food 0.02 mg/L		
Citronellol 106-22-9	0.0024 mg/L	0.024 mg/L	0.00024 mg/L		
3-Decen-5-ol, 4-methyl- 81782-77-6	111.1 mg/kg food 0.76 µg/L	4 µg/L	111.1 mg/kg food 76 ng/L	0.4 µg/L	
Acetic acid, (3-methylbutoxy)-, 2-propenyl ester 67634-00-8	0.77 µg/L	7.7 µg/L	77 ng/L	0.77 µg/L	
Undecanal, 2-methyl- 110-41-8	116 mg/kg food 0.66 µg/L	1.8 µg/L	116 mg/kg food 66 ng/L	0.18 µg/L	
Lauryl aldehyde 112-54-9	313 mg/kg food 0.0035 mg/L	0.035 mg/L	313 mg/kg food 0.00035 mg/L		
Benzenepropanal, .alpha.-methyl-4-(1-methylethyl)- 103-95-7	8.8 µg/L 2 mg/kg food	14 µg/L	0.88 µg/L 2 mg/kg food		
1,3-Benzodioxole-5-carboxaldehyde 120-57-0	2.5 µg/L	25 µg/L	0.25 µg/L		
D-Limonene 5989-27-5	14 µg/L 133 mg/kg food		1.4 µg/L 133 mg/kg food		
Dimethylbenzylcarbinyl acetate 151-05-3	4.766 µg/L				
Lynalyl acetate (ex bois de rose, synthetic) 115-95-7	0.011 mg/L	0.11 mg/L	0.0011 mg/L		
Eugenol 97-53-0	0.2015 mg/L	11.3 µg/L	0.02015 mg/L		
Citral 5392-40-5	0.00678 mg/L	0.0678 mg/L	0.000678 mg/L		
Camphor 76-22-2	1.71 µg/L	17.1 µg/L	0.171 µg/L	1.71 µg/L	
.alpha.-Pinene 80-56-8	8.76 mg/kg food 0.606 µg/L	3.03 µg/L	8.76 mg/kg food 0.0606 µg/L	0.303 µg/L	
Geraniol 106-24-1	0.0108 mg/L	0.108 mg/L	0.00108 mg/L		
Terpineol	12 µg/L	120 µg/L	1.2 µg/L		

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
8000-41-7	16.6 mg/kg food		16.6 mg/kg food		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Quaternary ammonium compounds, C12-14-alkyl((ethylphenyl) methyl)dimethyl 85409-23-0	6.81 mg/kg sediment dw	0.681 mg/kg sediment dw	210 µg/L	1.36 mg/kg soil dw	
3a,4,5,6,7,7a-hexahydro-4, 7- methano-1H-indenyl propionate 68912-13-0	12.2 mg/kg sediment dw	1.22 mg/kg sediment dw	4.8 mg/L	4.4 mg/kg soil dw	
Benzyl acetate 140-11-4	0.526 mg/kg sediment dw	0.0526 mg/kg sediment dw	8.55 mg/L	0.09443 mg/kg soil dw	
Methyl 2-naphthyl ether 93-04-9	2.12 mg/kg sediment dw	0.212 mg/kg sediment dw		3.6 µg/kg soil dw	
2-Acetonaphthone 93-08-3	1.29 mg/kg sediment dw	0.129 mg/kg sediment dw		0.248 mg/kg soil dw	
Phenethyl alcohol 60-12-8	1.454 mg/kg sediment dw	0.1454 mg/kg sediment dw	10 mg/L	0.164 mg/kg soil dw	
Hexyl salicylate 6259-76-3	0.272 mg/kg sediment dw	0.0272 mg/kg sediment dw	10 mg/L	0.0542 mg/kg soil dw	
2H-Pyran-4-ol, tetrahydro-4-methyl-2-(2-m ethylpropyl)- 63500-71-0	0.412 mg/kg sediment dw	0.0412 mg/kg sediment dw	10 mg/L	0.0902 mg/kg soil dw	
3-Octanol, 3,7-dimethyl- 78-69-3	0.0821 mg/kg sediment dw	0.00821 mg/kg sediment dw	450 mg/L	0.0112 mg/kg soil dw	
4-tert-butylcyclohexyl acetate 32210-23-4	2.01 mg/kg sediment dw	0.21 mg/kg sediment dw	12.2 mg/L	0.42 mg/kg soil dw	
ANISALDEHYDE 123-11-5	0.0598 mg/kg sediment dw	0.00598 mg/kg sediment dw	8.5 mg/L	0.00432 mg/kg soil dw	
Methyl anthranilate 134-20-3	0.968 mg/kg sediment dw	96.8 µg/kg sediment dw		0.142 mg/kg soil dw	
Benzyl salicylate 118-58-1	0.583 mg/kg sediment dw	0.0583 mg/kg sediment dw	10 mg/L	1.41 mg/kg soil dw	
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	
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	
Citronellol 106-22-9	0.0256 mg/kg sediment dw	0.00256 mg/kg sediment dw	580 mg/L	0.00371 mg/kg soil dw	
3-Decen-5-ol, 4-methyl- 81782-77-6	92 µg/kg sediment dw	9.2 µg/kg sediment dw	10 mg/L	18 µg/kg soil dw	
Acetic acid, (3-methylbutoxy)-, 2-propenyl ester 67634-00-8	8.93 µg/kg sediment dw	0.893 µg/kg sediment dw		1.33 µg/kg soil dw	
Undecanal, 2-methyl- 110-41-8	0.265 mg/kg sediment dw	26.5 µg/kg sediment dw	10 mg/L	52.6 µg/kg soil dw	
Lauryl aldehyde 112-54-9	1.41 mg/kg sediment dw	0.141 mg/kg sediment dw	10 mg/L	0.278 mg/kg soil dw	

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Benzenepropanal, .alpha.-methyl-4-(1-methyl ethyl)- 103-95-7	1.02 mg/kg sediment dw	0.102 mg/kg sediment dw	1 mg/L	0.199 mg/kg soil dw	
1,3-Benzodioxole-5-carboxaldehyde 120-57-0	11.95 µg/kg sediment dw	1.2 µg/kg sediment dw	10 mg/L	0.84 µg/kg soil dw	
D-Limonene 5989-27-5	3.85 mg/kg sediment dw	0.385 mg/kg sediment dw	1.8 mg/L	0.763 mg/kg soil dw	
Dimethylbenzylcarbinyl acetate 151-05-3	0.189 mg/kg sediment dw		31.25 mg/L	0.103 mg/kg soil dw	
Lynalyl acetate (ex bois de rose, synthetic) 115-95-7	0.609 mg/kg sediment dw	0.0609 mg/kg sediment dw	1 mg/L	0.115 mg/kg soil dw	
Eugenol 97-53-0	14.488 mg/kg sediment dw	1.4488 mg/kg sediment dw		0.0155 mg/kg soil dw	
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	
Camphor 76-22-2	0.139 mg/kg sediment dw	0.0174 mg/kg sediment dw	1 mg/L	0.01326 mg/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	
Geraniol 106-24-1	0.115 mg/kg sediment dw	0.0115 mg/kg sediment dw	0.7 mg/L	0.0167 mg/kg soil dw	
Terpineol 8000-41-7	0.263 mg/kg sediment dw	0.0263 mg/kg sediment dw	2.57 mg/L	0.0455 mg/kg soil dw	

8.2. Exposure controls

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Personal protective equipment

Eye/face protection

If splashes are likely to occur, wear safety glasses with side-shields. Eye protection must conform to standard EN 166.

Hand protection

Wear suitable gloves. Gloves must conform to standard EN 374.

Skin and body protection

Wear suitable protective clothing.

Respiratory protection

Use appropriate respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance White solid
Physical state Solid
Colour White
Odour Pleasant
Odour threshold No information available

Property	Values	Remarks • Method
pH		

pH (as aqueous solution)	No data available
Melting point / freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	Not applicable
Evaporation rate	No data available
Flammability	No data available
Flammability Limit in Air	
Upper flammability or explosive limits	No data available
Lower flammability or explosive limits	No data available
Vapour pressure	No data available
Relative vapour density	No data available
Relative density	No data available
Bulk density	No data available
Liquid Density	No data available
Solubility(ies)	No data available
Water solubility	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
SADT (°C)	No data available
Kinematic viscosity	No data available
Dynamic viscosity	No data available
Particle characteristics	
Particle Size	No data available
Particle Size Distribution	No data available

9.2. Other information

Molecular weight	No information available
VOC content	No information available
Softening point	No information available

Information with regards to physical hazard classes

Explosives	
Explosive properties	No information available.
Oxidising properties	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

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 Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available. Causes mild skin irritation.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Prolonged contact may cause redness and irritation.

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

Numerical measures of toxicity

The following ATE values have been calculated for the mixture

ATEmix (oral)	36,732.40 mg/kg
ATEmix (dermal)	2,091.40 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Quaternary ammonium compounds, C12-14-alkyl((ethylphenyl)methyl)dimethyl	-	= 2300 mg/kg (Rabbit)	-
Alkyl dimethyl benzyl ammonium chloride (C12-18)	= 850 mg/kg (Rat)	= 2300 mg/kg (Rabbit)	-

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

Skin corrosion/irritation Classification based on data available for ingredients. Causes mild skin irritation.

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

Respiratory or skin sensitisation 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 information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Harmful to aquatic life.

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

12.4. Mobility in soil

Mobility in soil No information available.

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.

Chemical name	PBT and vPvB assessment
Quaternary ammonium compounds, C12-14-alkyl((ethylphenyl)methyl)dimethyl	Not PBT/vPvB

12.6. Other adverse effects

Other adverse effects No information available.

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	Not regulated
14.1 UN number or ID number	Not regulated
14.2	
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	Not regulated
14.1 UN number or ID number	Not regulated
14.2	
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	No information available

RID	Not regulated
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 applicable
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADR	Not regulated
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 applicable
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

National regulations

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

Persistent Organic Pollutants
Not applicable

Export Notification requirements
Not applicable

Named dangerous substances per COMAH (SI 2015/483 as amended)
Not applicable

The Ozone-Depleting Substances Regulations 2015
Not applicable

The Biocidal Products Regulations 2001 (as amended)

Chemical name	The Biocidal Products Regulations 2001 (as amended)
Quaternary ammonium compounds, C12-14-alkyl((ethylphenyl)methyl)dimethyl 85409-23-0	Product-type 2: Disinfectants and algaecides not intended for direct application to humans or animals Product-type 4: Food and feed area
Alkyl dimethyl benzyl ammonium chloride (C12-18) 68391-01-5	Product-type 2: Disinfectants and algaecides not intended for direct application to humans or animals Product-type 3: Veterinary hygiene Product-type 4: Food and feed area Product-type 12: Slimicides

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

Poisons and Explosives Precursor per Poisons Act 1972
Not applicable.

International Inventories
Contact supplier for inventory compliance status

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

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

Full text of any hazard and/or precautionary statements referred to under Sections 2-15
H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Legend

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Europe)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
ATE	Acute Toxicity Estimate
ASTM	American Society for the Testing of Materials
bar	Biological Reference Values for Chemical Compounds in the Work Area
BAT	Biological tolerance values for occupational exposure
BEL	Biological exposure limits
bw	Body weight
Ceiling	Maximum limit value
CLP	Classification, Labelling and Packaging Regulation; Regulation (EC) No 1272/2008
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DOT	Department of Transportation (United States)
DSL	Domestic Substances List (Canada)

EC Number	European Community number
EmS	Emergency Schedule
ENCS	Existing and New Chemical Substances (Japan)
EPA	U.S. Environmental Protection Agency
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO	International Civil Aviation Organisation
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organisation for Standardisation
KECI	Korean Existing Chemicals Inventory
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MARPOL	International Convention for the Prevention of Pollution from Ships
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOELR	No Observable Effect Loading Rate
NZIoC	New Zealand Inventory of Chemicals
OECD	Organization for Economic Cooperation and Development
OEL	Occupational exposure limits
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	Philippines Inventory of Chemicals and Chemical Substances
PMT	Persistent, Mobile and Toxic
PPE	Personal protective equipment
QSAR	Quantitative Structure Activity Relationship
REACH	Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SDS	Safety Data Sheet
SL	Surface Limit
STEL	Short Term Exposure Limit
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
SVHC	Substance of very high concern
TCSI	Taiwan Chemical Substance Inventory
TDG	Transport of Dangerous Goods (Canada)
TSCA	Toxic Substances Control Act (United States)
TWA	Time-Weighted Average
UN	United Nations
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
vPvM	Very Persistent and Very Mobile
As	Allergenic substance
DS	Dermal Sensitizer
Ot	Ototoxicant
pOt	Ototoxicant - potential to cause hearing disorders
PS	Photosensitiser
RS	Respiratory Sensitiser
S	Sensitiser

poS	Sensitizer - capable of causing occupational asthma
Sa	Simple asphyxiant
Sd	Skin designation
pSd	Skin designation - potential for cutaneous absorption
Sdv	Skin designation - vacated
Sk	Skin notation
dSk	Skin notation - danger of cutaneous absorption
pSk	Skin notation - potential for cutaneous absorption

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Chronic aquatic toxicity	Calculation method
Acute aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS
U.S. 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)
U.S. 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)
Japan National Institute of Technology and Evaluation (NITE)
Australian 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)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
International Organization for Economic Co-operation and Development (OECD) Environment, Health, and Safety Publications
International Organization for Economic Co-operation and Development (OECD) High Production Volume Chemicals Program
International Organization for Economic Co-operation and Development (OECD) Screening Information Data Set
United Nations World Health Organization (WHO)

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Revision Note Initial Release

This SDS 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
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End of Safety Data Sheet