



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006

Supersedes Date 15-12-2022

Revision date 07-02-2023

Revision Number 3

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

1.1. Product identifier

Product Name AXE MINI VENT AIR FRESHENER - ALASKA

Product Code(s) 71025

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

Recommended use Air freshener

Uses advised against None known

1.3. Details of the supplier of the safety data sheet

Supplier

Energizer France SAS
2 Rue Jacques Daguerre
92500 Rueil-Malmaison
France
Tel: +44(0)8000353376
ConsumerServiceEU@energizer.com

1.4. Emergency telephone number

Emergency Telephone 1-314-985-1511 Int'l: 1-800-526-4727
This number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM

National emergency telephone number	
Austria	Vergiftungsinformationszentrale Notruf-Telefon: +43 1 406 43 43
Belgium	Poison Control Centre, Belgique Tel: 070 245 245; Luxembourg Tel: (+352) 8002-5500
France	Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59
Germany	Poison Control Center - Charité - Universitätsmedizin Berlin, (+49) 30 30686700
Ireland	Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166
Italy	Roma – Tel: 06-68593726 (CAV "Osp. Pediatrico Bambino Gesù" Dip. Emergenza e Accettazione DEA) Roma – Tel: 06-3054343 (CAV Policlinico "A. Gemelli") Roma – Tel: 06-49978000 (CAV Policlinico "Umberto I") Foggia – Tel: 800183459 (Az. Osp. Univ. Foggia) Napoli – Tel: 081-5453333 (Az. Osp. "A. Cardarelli") Firenze – Tel: 055-7947819 (Az. Osp. "Careggi" U.O. Tossicologia Medica) Pavia – Tel: 0382-24444 (CAV Centro Nazionale di Informazione Tossicologica) Milano – Tel: 02-66101029 (Osp. Niguarda Ca' Granda)

	Bergamo – Tel: 800883300 (Azienda Ospedaliera Papa Giovanni XXII) Verona – Tel: 800011858 (Azienda Ospedaliera Integrata Verona)
Netherlands	Nationaal Vergiftigingen Informatie Centrum. Tel 030 274 88 88 (Uitsluitend bestemd om professionele hulpverleners te informeren bij acute vergiftigingen)
Poland	Bureau for Chemical Substances, Tel: +48 42 2538 400
Portugal	Centro de informação antivenenos. Tel 800 250 250
Spain	+34 91 562 04 20
Switzerland	Tox Info Suisse +41 44 251 51 51 (Emergency Number 145)
United Kingdom	Product information has been submitted to the UK National Poisons Information Service (NPIS) and is accessible to medical health professionals.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin sensitization	Category 1 - (H317)
Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements

Contains Coumarin, hexyl cinnamic aldehyde, Isomenthone, Isocyclemone E, Pentadecan-15-olide, Linalyl acetate, Linalool, Eucalyptol, Methyl 2,4-dihydroxy-3,6-dimethylbenzoate, d-Limonene, 2,2-dimethyl-3-(4(2)- ethylphenyl)propanal



Signal word

Warning

Hazard statements

H317 - May cause an allergic skin reaction.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statements - EU (§28, 1272/2008)

P102 - Keep out of reach of children.

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.

P501 - Dispose of contents/container in accordance with national regulations.

2.3. Other hazards

The product does not contain any substance(s) classified as PBT or vPvB

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Sulfuric acid, calcium salt, hydrate (1:1:2) 10101-41-4	50 - <100%	-	-	[C]	-	-	-
2,6-dimethylheptan-2-ol 13254-34-7	2.5 - <5%	01-2120275178-48-0000	236-244-1	Eye Irrit. 2 (H319) Skin Irrit. 2 (H315)	-	-	-
3,5,5-Trimethylhexyl acetate 58430-94-7	1 - <2.5%	01-2119972325-34-0000	261-245-9	Aquatic Chronic 2 (H411) Skin Irrit. 2 (H315)	-	-	-
Pentadecan-15-olide 106-02-5	1 - <2.5%	01-2119987323-31-0000	203-354-6	Aquatic Chronic 2 (H411) Skin Sens. 1B (H317)	-	-	-
Linalyl acetate 115-95-7	1 - <2.5%	01-2119454789-19-0000	204-116-4	Eye Irrit. 2 (H319) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)	-	-	-
Linalool 78-70-6	1 - <2.5%	01-2119474016-42-0000	201-134-4	Eye Irrit. 2 (H319) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)	-	-	-
Coumarin 91-64-5	1 - <2.5%	01-2119949300-45-0000	202-086-7	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Aquatic Chronic 2 (H411) Skin Sens. 1 (H317)	-	-	-
Allyl (cyclohexyloxy)acetate 68901-15-5	1 - <2.5%	01-2120770514-54-0000	272-657-3	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	1	1
A mixture of: cis-tetrahydro-2-isobutyl-4-methylpyran-4-ol; trans-tetrahydro-2-isobutyl-4-methylpyran-4-ol 63500-71-0	1 - <2.5%	-	405-040-6	Eye Irrit. 2 (H319)	-	-	-
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate 4707-47-5	0.025 - <0.25%	01-2120762759-36-0000	225-193-0	Skin Sens. 1B (H317)	-	-	-
Isomenthone 491-07-6	0.025 - <0.25%	01-2119983786-15-0000	207-727-4	Skin Irrit. 2 (H315) Skin Sens. 1 (H317)	-	-	-
Isocyclemone E 54464-57-2	0.025 - <0.25%	01-2119489989-04-0000	259-174-3	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Skin Irrit. 2 (H315) Skin Sens. 1 (H317)	-	1	1
hexyl cinnamic aldehyde 101-86-0	0.025 - <0.25%	01-2119533092-50-0000	202-983-3	Skin Sens. 1 (H317)	-	-	-
Eucalyptol 470-82-6	0.025 - <0.25%	01-2119967772-24-0000	207-431-5	Flam. Liq. 3 (H226) Skin Sens. 1B (H317)	-	-	-
d-Limonene 5989-27-5	0.025 - <0.25%	01-2119529223-47-0000	227-813-5	Aquatic Acute 1 (H400) Aquatic Chronic 3	-	1	-

				(H412) Asp. Tox. 1 (H304) Flam. Liq. 3 (H226) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)			
2,2-dimethyl-3-(4(2)-ethylphenyl)propanal 67634-15-5	0.025 - <0.25%	01-2120758796-34-00 00	266-819-2	Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)	-	1	-

Classification according to Regulation (EC) No. 1272/2008 [CLP] - Notes

[C] - Components with occupational exposure limits and/or biological occupational exposure limits requiring monitoring

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

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Sulfuric acid, calcium salt, hydrate (1:1:2) 10101-41-4	3000	-	-	-	-
2,6-dimethylheptan-2-ol 13254-34-7	6800	-	-	-	-
3,5,5-Trimethylhexyl acetate 58430-94-7	4250	-	-	-	-
Linalyl acetate 115-95-7	14550	-	-	-	-
Linalool 78-70-6	2790	5610	-	-	-
Coumarin 91-64-5	293	293	0.5	-	-
Allyl (cyclohexyloxy)acetate 68901-15-5	620.42	-	-	-	-
hexyl cinnamic aldehyde 101-86-0	3100	3000	-	-	-
Eucalyptol 470-82-6	2480	-	-	-	-
d-Limonene 5989-27-5	5200	-	-	-	-

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

Inhalation

Remove person to fresh air and keep comfortable for breathing. Get medical attention if

symptoms occur.

Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Skin contact	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting without medical advice. Get medical attention if symptoms occur.

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

Symptoms Itching. Rashes. Hives. Prolonged contact may cause redness and irritation.

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

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Dry chemical, CO ₂ , alcohol-resistant foam or water spray. 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	Product is or contains a sensitizer. May cause sensitization by skin contact.
Hazardous combustion products	Thermal decomposition can lead to release of irritating gases and vapors.

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	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Prevent product from entering drains. 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	Use personal protective equipment as required. Do not touch or walk through spilled material. Cover liquid spill with sand, earth or other noncombustible absorbent material. Pick up and transfer to properly labeled 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. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Wash thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
Storage class (TRGS 510)	Storage class 11.

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	European Union	Austria	Belgium	Bulgaria	Croatia
Sulfuric acid, calcium salt, hydrate (1:1:2) 10101-41-4	-	TWA: 5 mg/m ³ STEL 10 mg/m ³	TWA: 10 mg/m ³	TWA: 6.0 mg/m ³ TWA: 10.0 mg/m ³	TWA: 4 mg/m ³ TWA: 10 mg/m ³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
d-Limonene 5989-27-5	-	-	-	TWA: 25 ppm TWA: 150 mg/m ³ STEL: 50 ppm STEL: 300 mg/m ³	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 50 ppm STEL: 280 mg/m ³
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Sulfuric acid, calcium salt,	TWA: 10 mg/m ³	TWA: 6 mg/m ³	-	TWA: 5 mg/m ³	TWA: 4 mg/m ³

hydrate (1:1:2) 10101-41-4				TWA: 10 mg/m ³	TWA: 1.5 mg/m ³
d-Limonene 5989-27-5	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	TWA: 5 ppm TWA: 28 mg/m ³ Sh+ H*	TWA: 5 ppm TWA: 28 mg/m ³ Peak: 20 ppm Peak: 112 mg/m ³ * skin sensitizer	-	-
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Sulfuric acid, calcium salt, hydrate (1:1:2) 10101-41-4	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³	-	TWA: 10 mg/m ³	TWA: 4 mg/m ³	-
d-Limonene 5989-27-5	-	-	-	-	J+ TWA: 25 ppm TWA: 150 mg/m ³ STEL: 50 ppm STEL: 300 mg/m ³
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Sulfuric acid, calcium salt, hydrate (1:1:2) 10101-41-4	-	-	-	-	TWA: 10 mg/m ³
d-Limonene 5989-27-5	-	-	-	TWA: 25 ppm TWA: 140 mg/m ³ A+ STEL: 37.5 ppm STEL: 175 mg/m ³	-
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Sulfuric acid, calcium salt, hydrate (1:1:2) 10101-41-4	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 1.5 mg/m ³	TWA: 6 mg/m ³	TWA: 10 mg/m ³
d-Limonene 5989-27-5	-	-	-	TWA: 28 mg/m ³ TWA: 5 ppm STEL: 20 ppm STEL: 112 mg/m ³ K*	TWA: 30 ppm TWA: 168 mg/m ³ via dérmica* Sen+
Chemical name	Sweden		Switzerland		United Kingdom
Sulfuric acid, calcium salt, hydrate (1:1:2) 10101-41-4	-		TWA: 3 mg/m ³		TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³
d-Limonene 5989-27-5	NGV: 25 ppm NGV: 150 mg/m ³ S+		S+ TWA: 7 ppm TWA: 40 mg/m ³ STEL: 14 ppm STEL: 80 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

Chemical name	Oral	Dermal	Inhalation
2,6-dimethylheptan-2-ol 13254-34-7	-	1.14 mg/kg bw/day [4] [6] 4.56 mg/kg bw/day [4] [7] 2.85 mg/cm ² [5] [6] 11.4 mg/cm ² [5] [7]	4.02 mg/m ³ [4] [6] 16.08 mg/m ³ [4] [7] 10.05 mg/m ³ [5] [6] 40.2 mg/m ³ [5] [7]

Chemical name	Oral	Dermal	Inhalation
3,5,5-Trimethylhexyl acetate 58430-94-7	-	0.8 mg/kg bw/day [4] [6]	5.64 mg/m ³ [4] [6]
Linalyl acetate 115-95-7	-	2.5 mg/kg bw/day [4] [6] 236.2 µg/cm ² [5] [6] 236.2 µg/cm ² [5] [7]	2.75 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/cm ² [5] [6] 3 mg/cm ² [5] [7]	2.8 mg/m ³ [4] [6] 16.5 mg/m ³ [4] [7]
Coumarin 91-64-5	-	0.79 mg/kg bw/day [4] [6]	6.78 mg/m ³ [4] [6]
Allyl (cyclohexyloxy)acetate 68901-15-5	-	0.448 mg/kg bw/day [4] [6]	3.16 mg/m ³ [4] [6]
A mixture of: cis-tetrahydro-2-isobutyl-4-methylpyra n-4-ol; trans-tetrahydro-2-isobutyl-4-methylpyr an-4-ol 63500-71-0	-	41.7 mg/kg bw/day [4] [6]	44.1 mg/m ³ [4] [6]
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate 4707-47-5	-	2500 µg/cm ² [5] [6]	-
Eucalyptol 470-82-6	-	2 mg/kg bw/day [4] [6]	7.05 mg/m ³ [4] [6]

[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
2,6-dimethylheptan-2-ol 13254-34-7	0.57 mg/kg bw/day [4] [6] 2.28 mg/kg bw/day [4] [7]	1.43 mg/cm ² [5] [6] 5.7 mg/cm ² [5] [7]	0.99 mg/m ³ [4] [6] 3.97 mg/m ³ [4] [7] 2.48 mg/m ³ [5] [6] 9.91 mg/m ³ [5] [7]
3,5,5-Trimethylhexyl acetate 58430-94-7	0.4 mg/kg bw/day [4] [6]	-	1.4 mg/m ³ [4] [6]
Linalyl acetate 115-95-7	0.2 mg/kg bw/day [4] [6]	236.2 µg/cm ² [5] [6] 236.2 µg/cm ² [5] [7]	0.68 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/cm ² [5] [6] 1.5 mg/cm ² [5] [7]	0.7 mg/m ³ [4] [6] 4.1 mg/m ³ [4] [7]
Coumarin 91-64-5	0.39 mg/kg bw/day [4] [6]	-	1.69 mg/m ³ [4] [6]
Allyl (cyclohexyloxy)acetate 68901-15-5	0.16 mg/kg bw/day [4] [6]	-	0.557 mg/m ³ [4] [6]
A mixture of: cis-tetrahydro-2-isobutyl-4-methylpyra n-4-ol; trans-tetrahydro-2-isobutyl-4-methylpyr an-4-ol 63500-71-0	7.5 mg/kg bw/day [4] [6]	-	13 mg/m ³ [4] [6]
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate	-	1250 µg/cm ² [5] [6]	-

Chemical name	Oral	Dermal	Inhalation
4707-47-5			
Eucalyptol 470-82-6	600 mg/kg bw/day [4] [6]	-	1.74 mg/m ³ [4] [6]

[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
2,6-dimethylheptan-2-ol 13254-34-7	0.02377 mg/L	0.2377 mg/L	0.00238 mg/L	0.2377 mg/L	-
3,5,5-Trimethylhexyl acetate 58430-94-7	7.7 µg/L	77 µg/L	0.77 µg/L	77 µg/L	-
Pentadecan-15-olide 106-02-5	2.7 µg/L	-	0.27 µg/L	-	-
Linalyl acetate 115-95-7	0.011 mg/L	0.11 mg/L	0.0011 mg/L	-	-
Linalool 78-70-6	0.2 mg/L	2 mg/L	0.02 mg/L	-	-
Coumarin 91-64-5	19 µg/L	14.2 µg/L	1.9 µg/L	-	-
Allyl (cyclohexyloxy)acetate 68901-15-5	2.05 µg/L	2.05 µg/L	0.205 µg/L	0.205 µg/L	-
A mixture of: cis-tetrahydro-2-isobutyl-4- methylpyran-4-ol; trans-tetrahydro-2-isobutyl- 4-methylpyran-4-ol 63500-71-0	0.094 mg/L	0.94 mg/L	0.0094 mg/L	-	-
Methyl 2,4-dihydroxy-3,6-dimethyl benzoate 4707-47-5	3.3 µg/L	-	0.33 µg/L	-	-
Eucalyptol 470-82-6	57 µg/L	0.57 mg/L	5.7 µg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
2,6-dimethylheptan-2-ol 13254-34-7	0.89 mg/kg sediment dw	0.089 mg/kg sediment dw	8 mg/L	0.177 mg/kg soil dw	-
3,5,5-Trimethylhexyl acetate 58430-94-7	2.895 mg/kg sediment dw	0.29 mg/kg sediment dw	10 mg/L	0.573 mg/kg soil dw	-
Pentadecan-15-olide 106-02-5	21 mg/kg sediment dw	4.2 mg/kg sediment dw	10 mg/L	5.44 mg/kg soil dw	-
Linalyl acetate 115-95-7	0.609 mg/kg sediment dw	0.0609 mg/kg sediment dw	1 mg/L	0.115 mg/kg soil dw	-
Linalool	2.22 mg/kg	0.222 mg/kg	10 mg/L	0.327 mg/kg soil dw	7.8 mg/kg food

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
78-70-6	sediment dw	sediment 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	30.7 mg/kg food
Allyl (cyclohexyloxy)acetate 68901-15-5	38.7 µg/kg sediment dw	3.87 µg/kg sediment dw	0.3 mg/L	0.375 mg/kg soil dw	-
A mixture of: cis-tetrahydro-2-isobutyl-4- methylpyran-4-ol; trans-tetrahydro-2-isobutyl- 4-methylpyran-4-ol 63500-71-0	0.412 mg/kg sediment dw	0.0412 mg/kg sediment dw	10 mg/L	0.0902 mg/kg soil dw	-
Methyl 2,4-dihydroxy-3,6-dimethyl benzoate 4707-47-5	89 µg/kg sediment dw	8.9 µg/kg sediment dw	10 mg/L	16 µg/kg soil dw	-
Eucalyptol 470-82-6	1.425 mg/kg sediment dw	0.1425 mg/kg sediment dw	10 mg/L	0.25 mg/kg soil dw	40 mg/kg food

8.2. Exposure controls

Engineering controls

Eyewash stations. Showers. Ventilation systems. Apply technical measures to comply with the occupational exposure limits.

Personal protective equipment

Eye/face protection

Eye protection must conform to standard EN 166. Wear safety glasses with side shields (or goggles).

Hand protection

Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374. Wear suitable gloves.

Skin and body protection

Wear suitable protective clothing.

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.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Wash thoroughly after handling.

Environmental exposure controls

Keep container closed when not in use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	solid
Color	No information available
Odor	Characteristic
Odor threshold	No data available

Property

Values

Remarks • Method

Melting point / freezing point	No data available
Initial boiling point and boiling range	No data available
Flammability	No data available
Flammability Limit in Air	No data available
Upper flammability or explosive limits	No data available
Lower flammability or explosive limits	No data available
Flash point	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
pH	No data available
pH (as aqueous solution)	No data available
Kinematic viscosity	No data available
Dynamic viscosity	No data available
Water solubility	No data available
Solubility(ies)	No data available
Partition coefficient	No data available
Vapor pressure	No data available
Relative density	No data available
Bulk density	No data available
Liquid Density	No data available
Relative vapor density	No data available
Particle characteristics	
Particle Size	No data available
Particle Size Distribution	No data available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not applicable

9.2.2. Other safety characteristics

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity None under normal use conditions.

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 Excessive heat.

10.5. Incompatible materials

Incompatible materials None known.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****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	May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components).
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives. Prolonged contact may cause redness and irritation.

Acute toxicity**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	2,473.40 mg/kg
ATEmix (dermal)	3,379.80 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-dust/mist)	37.40 mg/l
ATEmix (inhalation-vapor)	22.30 mg/l

Unknown acute toxicity**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sulfuric acid, calcium salt, hydrate (1:1:2)	> 3000 mg/kg (Rat)	-	> 3.26 mg/L (Rat) 4 h
2,6-dimethylheptan-2-ol	= 6800 mg/kg (Rat)	-	-
3,5,5-Trimethylhexyl acetate	= 4250 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-
Pentadecan-15-olide	> 5 g/kg (Rat)	-	-
Linalyl acetate	= 14550 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-
Linalool	= 2790 mg/kg (Rat)	= 5610 mg/kg (Rabbit)	-
Coumarin	> 5000 mg/kg (Rat)	= 293 mg/kg (Rat)	-
Allyl (cyclohexyloxy)acetate	-	> 2000 mg/kg (Rat)	-

A mixture of: cis-tetrahydro-2-isobutyl-4-methylpyran-4-ol; trans-tetrahydro-2-isobutyl-4-methylpyran-4-ol	-	> 2000 mg/kg (Rabbit)	-
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate	-	> 5000 mg/kg (Rat)	-
hexyl cinnamic aldehyde	= 3100 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	> 5 mg/L (Rat) 4 h
Eucalyptol	= 2480 mg/kg (Rat)	-	-
d-Limonene	= 5200 mg/kg (Rat) = 4400 mg/kg (Rat)	> 5 g/kg (Rabbit)	-

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

Respiratory or skin sensitization May cause an allergic skin reaction.

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.

11.2. Information on other hazards**11.2.1. Endocrine disrupting properties**

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity**Ecotoxicity**

Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sulfuric acid, calcium salt, hydrate (1:1:2)	-	LC50: =2980mg/L (96h, <i>Lepomis macrochirus</i>) LC50: >1970mg/L (96h, <i>Pimephales promelas</i>)	-	-
2,6-dimethylheptan-2-ol	EC50: =8.38mg/L (72h, <i>Desmodesmus subspicatus</i>) EC50: =9.31mg/L (96h, <i>Desmodesmus subspicatus</i>) EC50: =2.7mg/L (96h, <i>Pseudokirchneriella subcapitata</i>) EC50: =6.2mg/L (96h, <i>Desmodesmus subspicatus</i>)	LC50: =5.77mg/L (96h, <i>Pimephales promelas</i>) LC50: =1.04mg/L (96h, <i>Pimephales promelas</i>) LC50: =5.7mg/L (96h, <i>Pimephales promelas</i>) LC50: =1.8mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: 4.78 - 8.85mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: 3.6 - 5.1mg/L (96h, <i>Lepomis macrochirus</i>)	-	EC50: =17.1mg/L (48h, <i>Daphnia magna</i>) EC50: =3mg/L (48h, <i>Daphnia magna</i>) EC50: =320mg/L (48h, <i>Daphnia magna</i>) EC50: =8.5mg/L (48h, <i>Daphnia magna</i>) EC50: 4.78 - 8.87mg/L (48h, <i>Daphnia magna</i>)
3,5,5-Trimethylhexyl acetate	-	LC50: =7.7mg/L (96h, <i>Pimephales promelas</i>)	-	-
Linalyl acetate	-	LC50: =11mg/L (96h, <i>Cyprinus carpio</i>)	-	-
Linalool	EC50: =88.3mg/L (96h, <i>Desmodesmus subspicatus</i>)	LC50: =27.8mg/L (96h, <i>Oncorhynchus mykiss</i>)	-	EC50: =20mg/L (48h, <i>Daphnia magna</i>)
Eucalyptol	-	LC50: 95.4 - 109mg/L (96h, <i>Pimephales promelas</i>)	-	-
d-Limonene	-	LC50: 0.619 - 0.796mg/L (96h, <i>Pimephales promelas</i>) LC50: =35mg/L (96h, <i>Oncorhynchus mykiss</i>)	-	-

12.2. Persistence and degradability**Persistence and degradability** No information available.**12.3. Bioaccumulative potential****Bioaccumulation****Component Information**

Chemical name	Partition coefficient
2,6-dimethylheptan-2-ol	3
3,5,5-Trimethylhexyl acetate	4.6
Pentadecan-15-olide	5.79
Linalyl acetate	3.9
Linalool	2.9
Allyl (cyclohexyloxy)acetate	2.8
A mixture of: cis-tetrahydro-2-isobutyl-4-methylpyran-4-ol; trans-tetrahydro-2-isobutyl-4-methylpyran-4-ol	1.65
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate	2.6
Isomenthone	3.05

Isocyclemone E	5.7
Eucalyptol	3.4
d-Limonene	4.38

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
2,6-dimethylheptan-2-ol	The substance is not PBT / vPvB
3,5,5-Trimethylhexyl acetate	The substance is not PBT / vPvB
Pentadecan-15-olide	The substance is not PBT / vPvB
Linalyl acetate	The substance is not PBT / vPvB
Linalool	The substance is not PBT / vPvB
Coumarin	The substance is not PBT / vPvB
Allyl (cyclohexyloxy)acetate	The substance is not PBT / vPvB
A mixture of: cis-tetrahydro-2-isobutyl-4-methylpyran-4-ol; trans-tetrahydro-2-isobutyl-4-methylpyran-4-ol	The substance is not PBT / vPvB
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate	The substance is not PBT / vPvB
Eucalyptol	The substance is not PBT / vPvB
d-Limonene	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. 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.
Waste codes / waste designations according to EWC	According to the European Waste Catalog, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

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 No information available

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****National regulations****France****Occupational Illnesses (R-463-3, France)**

Chemical name	French RG number
d-Limonene 5989-27-5	RG 84

Germany

Water hazard class (WGK) obviously hazardous to water (WGK 2)

European Union

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.

Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Linalool - 78-70-6	75.	-

A mixture of: cis-tetrahydro-2-isobutyl-4-methylpyran-4-ol; trans-tetrahydro-2-isobutyl-4-methylpyran-4-ol - 63500-71-0	75.	-
d-Limonene - 5989-27-5	75.	-

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

EU - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)
Eucalyptol - 470-82-6	Plant protection agent
d-Limonene - 5989-27-5	Plant protection agent

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 H-Statements referred to under section 3**

H226 - Flammable liquid and vapor
 H301 - Toxic if swallowed
 H302 - Harmful if swallowed
 H304 - May be fatal if swallowed and enters airways
 H311 - Toxic in contact with skin
 H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H319 - Causes serious eye irritation
 H331 - Toxic if inhaled
 H400 - Very toxic to aquatic life
 H410 - Very toxic to aquatic life with long lasting effects
 H411 - Toxic to aquatic life with long lasting effects
 H412 - Harmful to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorization:
 PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
 vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals

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

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 - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic 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. Environmental Protection Agency ChemView Database
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
 European Chemicals Agency (ECHA) (ECHA_API)
 EPA (Environmental Protection Agency)
 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 Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
 World Health Organization

Supersedes Date 15-12-2022

Revision date 07-02-2023

Revision Number 3

Reason for revision Section 2.2

Further information This safety data sheet was created pursuant to the requirements of: Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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