

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 12/4/2020 Revision date: 7/20/2022 Supersedes version of: 12/4/2020 Version: 2.0

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

1.1. Product identifier

Product form : Substance

Substance name : Linalool thyme vulgaris essential oil, Organic, Spain

EC-No. : 284-535-7
CAS-No. : 8007-46-3
Product code : 11639
Type of product : Essential oil
Product group : Raw material

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

1.2.1. Relevant identified uses

Main use category : Industrial use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

SIRIUS SAS

57 Chemin de la Métairie Haute 81580 CAMBOUNET SUR LE SOR

France

T + 33 (0)5-32-09-11-72 contact@sirius-bio.com

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 2
H315
Serious eye damage/eye irritation, Category 1
H318
Skin sensitisation, Category 1
H317
Reproductive toxicity, Category 2
H361
Hazardous to the aquatic environment – Chronic Hazard, Category 2
H411

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

Adverse physicochemical, human health and environmental effects

Suspected of damaging fertility or the unborn child. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)









GHS05 GHS07

7

GHS08

GHS09

Signal word (CLP) : Danger

Contains : 1,8 Cineole, Alpha pinene, Alpha terpinene, Beta Caryophyllene, Beta Pinene, Camphor, Carvacrol, Citral (neral + geranial) *, Linalool *, Linalyl acetate, Gamma terpinene, Geraniol

*, Geranyl acetate, Limonene, Nerol, Paracymene, Terpinolene, Thymol

Hazard statements (CLP) : H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage.

H361 - Suspected of damaging fertility or the unborn child. H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P201 - Obtain special instructions before use.

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes.

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Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P391 - Collect spillage.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : Linalool thyme vulgaris essential oil, Organic, Spain

CAS-No. : 8007-46-3 EC-No. : 284-535-7

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Linalool *	CAS-No.: 78-70-6 EC-No.: 201-134-4 EC Index-No.: 603-235-00-2 REACH-no: 01-2119474016- 42	25 – 80	Skin Sens. 1B, H317
Terpinen-4-ol	CAS-No.: 562-74-3 EC-No.: 209-235-5	1 – 20	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319
Myrcene	CAS-No.: 123-35-3 EC-No.: 204-622-5	1 – 20	Asp. Tox. 1, H304 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 2, H411 Flam. Liq. 3, H226 Skin Irrit. 2, H315
Alpha pinene	CAS-No.: 80-56-8 EC-No.: 201-291-9 REACH-no: 01-2119519223-	1 – 10	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304
Gamma terpinene	CAS-No.: 99-85-4 EC-No.: 202-794-6	1 – 10	Repr. 2, H361 Flam. Liq. 3, H226 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Alpha terpinene	CAS-No.: 99-86-5 EC-No.: 202-795-1	< 5	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Thymol	CAS-No.: 89-83-8 EC-No.: 201-944-8 EC Index-No.: 604-032-00-1	< 5	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Aquatic Chronic 2, H411
Paracymene	CAS-No.: 99-87-6 EC-No.: 202-796-7 EC Index-No.: 601-094-00-1	1 – 5	Repr. 2, H361 Flam. Liq. 3, H226 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 Acute Tox. 3 (Inhalation), H331
Limonene	CAS-No.: 138-86-3 EC-No.: 227-813-5 EC Index-No.: 601-096-00-2 REACH-no: 01-2119529223- 47	1 – 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Borneol	CAS-No.: 507-70-0 EC-No.: 208-080-0	1 – 5	Skin Irrit. 2, H315 Flam. Sol. 1, H228 Aquatic Chronic 2, H411
1,8 Cineole	CAS-No.: 470-82-6 EC-No.: 207-431-5	0.1 – 5	Flam. Liq. 3, H226 Skin Sens. 1B, H317 Eye Irrit. 2, H319

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Alpha terpineol	CAS-No.: 98-55-5 EC-No.: 202-680-6	1 – 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Terpinolene	CAS-No.: 586-62-9 EC-No.: 209-578-0	0.1 – 5	Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Skin Sens. 1B, H317
Camphene	CAS-No.: 79-92-5 EC-No.: 201-234-8	0.1 – 5	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Camphor	CAS-No.: 76-22-2 EC-No.: 200-945-0	0.1 – 5	STOT SE 2, H371 Skin Irrit. 2, H315 Flam. Sol. 2, H228 Eye Dam. 1, H318 Aquatic Chronic 2, H411 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332
Sabinene	CAS-No.: 3387-41-5 EC-No.: 222-212-4	0.1 – 5	Acute Tox. 4 (Oral), H302
Linalyl acetate	CAS-No.: 115-95-7 EC-No.: 204-116-4	0.1 – 5	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1B, H317
Beta Caryophyllene	CAS-No.: 87-44-5 EC-No.: 201-746-1	0.1 – 5	Skin Sens. 1B, H317 Asp. Tox. 1, H304
Beta Phellandrene	CAS-No.: 555-10-2 EC-No.: 209-081-9	0.1 – 1	Asp. Tox. 1, H304 Flam. Liq. 3, H226
Octene-1-ol-3	CAS-No.: 3391-86-4 EC-No.: 222-226-0	0.1 – 1	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Inhalation:dust,mist), H332 Aquatic Chronic 2, H411
Alpha Phellandrene	CAS-No.: 99-83-2 EC-No.: 202-792-5	0.1 – 1	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Aquatic Chronic 1, H410 Aquatic Acute 1, H400
Geraniol *	CAS-No.: 106-24-1 EC-No.: 203-377-1 EC Index-No.: 603-241-00-5 REACH-no: 01-2119552430-	<1	Skin Sens. 1, H317 Aquatic Chronic 3, H412
Nerol	CAS-No.: 106-25-2 EC-No.: 203-378-7 REACH-no: 01-2119983244- 33	0.1 – 1	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Eye Irrit. 2, H319
Trans linalool oxide	CAS-No.: 34995-77-2 EC-No.: 252-312-3	0.1 – 1	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319
Beta Pinene	CAS-No.: 127-91-3 EC-No.: 204-872-5	< 1	Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317
Geranyl acetate	CAS-No.: 105-87-3 EC-No.: 203-341-5	0.1 – 1	Skin Sens. 1B, H317 Skin Irrit. 2, H315 Aquatic Chronic 3, H412
Citral (neral + geranial) *	CAS-No.: 5392-40-5 EC-No.: 226-394-6 EC Index-No.: 605-019-00-3 REACH-no: 01-2119462829- 23	< 1	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317
Terpenyl acetate	CAS-No.: 80-26-2 EC-No.: 201-265-7	0.1 – 1	Aquatic Chronic 2, H411

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Carvacrol	CAS-No.: 499-75-2 EC-No.: 207-889-6	< 1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Caryophyllene oxide	CAS-No.: 1139-30-6 EC-No.: 214-519-7	< 1	Aquatic Chronic 2, H411
3 Octanol	CAS-No.: 589-98-0 EC-No.: 209-667-4	< 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319
3 Octanone	CAS-No.: 106-68-3 EC-No.: 203-423-0	< 0.1	Flam. Liq. 3, H226
Citronellol *	CAS-No.: 106-22-9 EC-No.: 203-375-0 REACH-no: 01-2119453995- 23	< 0.1	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1B, H317
Eugenol	CAS-No.: 97-53-0 EC-No.: 202-589-1	< 0.1	Eye Irrit. 2, H319 Skin Sens. 1B, H317

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

3.2. Mixtures

Not established.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash

occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Serious damage to eyes.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing

dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

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Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or

public waters

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not

handle until all safety precautions have been read and understood. Wear personal

protective equipment. Avoid contact with skin and eyes. Avoid breathing

dust/fume/gas/mist/vapours/spray.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be

allowed out of the workplace. Do not eat, drink or smoke when using this product. Always

wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Camphor (76-22-2)		
France - Occupational Exposure Limits		
Local name	Camphre	
VME (OEL TWA)	12 mg/m³	
VME (OEL TWA) [ppm]	2 ppm	
Remark	Valeurs recommandées/admises	
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)	

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):







8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

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8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Colourless to pale yellow liquid.

Appearance : Liquid.

Odour : Characteristic, aromatic, herbaceous, sweet.

Odour threshold : Not available
Melting point : Not applicable
Freezing point : Not available

Boiling point : 190 °C Source: Oxford University

Flammability : Non flammable.

Explosive limits : Not available

Lower explosion limit : Not available

Upper explosion limit : Not available

Flash point : 63 °C Source: Oxford University

Auto-ignition temperature : Not available
Decomposition temperature : Not available
pH : Not available
Viscosity, kinematic : Not available

Solubility : Water: 437.4 mg/l 25°C Source: Quantitative Structure Activity Relation

Partition coefficient n-octanol/water (Log Kow) : Not available

Partition coefficient n-octanol/water (Log Pow) : 3.52 Source: Quantitative Structure Activity Relation

Vapour pressure : Not available
Vapour pressure at 50 °C : Not available
Density : Not available
Relative density : 0.894
Relative vapour density at 20 °C : Not available
Particle characteristics : Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Refractive index : 1.45 – 1.48

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

: Not classified Acute toxicity (oral) Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) :	Not classified
Linalool thyme vulgaris essential oil, Organic	, Spain (8007-46-3)
LD50 oral rat	2840 mg/kg Source: National Library of Medicine
LD50 oral	2840 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg Source: National Library of Medicine
1,8 Cineole (470-82-6)	
LD50 oral	2480 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
3 Octanone (106-68-3)	
LD50 oral	5000 mg/kg bodyweight
Alpha pinene (80-56-8)	
LD50 oral	3700 mg/kg bodyweight
LD50 dermal	> 5000 mg/kg bodyweight
Alpha terpinene (99-86-5)	
LD50 oral	1680 mg/kg bodyweight
Alpha terpineol (98-55-5)	
LD50 oral rat	4300 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2900 - 5700
LD50 oral	4300 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	> 3000 mg/kg OECD 402
Beta Pinene (127-91-3)	
LD50 oral rat	300 – 2000 mg/kg OCDE 423
LD50 dermal rat	> 2000 mg/kg
Borneol (507-70-0)	
LD50 oral	2500 mg/kg bodyweight
Camphene (79-92-5)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: other:rat and mouse
LD50 oral	> 5000 mg/kg bodyweight Animal: mouse
LD50 dermal rat	> 2500 mg/kg bodyweight Animal:
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit
LC50 Inhalation - Rat	> 25 mg/l air Animal:
Camphor (76-22-2)	
LD50 oral	1500 mg/kg bodyweight

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Camphor (76-22-2)	
LC50 Inhalation - Rat	0.5 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
LC50 Inhalation - Rat (Dust/Mist)	1.5 mg/l/4h
Carvacrol (499-75-2)	
LD50 oral	810 mg/kg bodyweight
Citral (neral + geranial) * (5392-40-5)	
LD50 oral rat	≈ 6800 mg/kg bodyweight Animal: rat
LD50 oral	4960 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat
LD50 dermal	2250 mg/kg bodyweight
Citronellol * (106-22-9)	
LD50 oral	3450 mg/kg bodyweight
LD50 dermal	2650 mg/kg bodyweight
Linalool * (78-70-6)	
LD50 oral rat	2790 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2440 - 3180
LD50 oral	2790 mg/kg bodyweight
LD50 dermal rabbit	5610 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), 95% CL: 3578 - 8374
LD50 dermal	5610 mg/kg bodyweight
Eugenol (97-53-0)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 oral	1500 – 1500 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
Gamma terpinene (99-85-4)	
LD50 oral	3650 mg/kg bodyweight
Geraniol * (106-24-1)	
LD50 oral rat	3600 mg/kg bodyweight Animal: rat, 95% CL: 2840 - 4570
LD50 oral	2100 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit
LD50 dermal	> 5000 mg/kg bodyweight
Limonene (138-86-3)	
LD50 oral	4400 mg/kg bodyweight
LD50 dermal	> 2000 mg/kg bodyweight
Nerol (106-25-2)	
LD50 oral	4500 mg/kg bodyweight
LD50 dermal	> 5000 mg/kg bodyweight
Paracymene (99-87-6)	
LD50 oral	4750 mg/kg bodyweight
LC50 Inhalation - Rat (Vapours)	9.7 mg/l/4h
Terpinolene (586-62-9)	
LD50 oral	3775 mg/kg bodyweight
LD50 dermal rabbit	> 4300 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
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Thymol (89-83-8)	
LD50 oral	980 mg/kg bodyweight
Trans linalool oxide (34995-77-2)	
LD50 oral	1140 mg/kg bodyweight
LD50 dermal	2500 mg/kg bodyweight
Octene-1-ol-3 (3391-86-4)	1
LD50 oral rat	340 mg/kg Source: Registry of Toxic Effects of Chemical Substances
	175 mg/kg bodyweight
LD50 domest rabbit	
LD50 dermal rabbit	3300 mg/kg Source: Registry of Toxic Effects of Chemical Substances
LD50 dermal	3300 mg/kg bodyweight
LC50 Inhalation - Rat (Dust/Mist)	3.7 mg/l/4h
	Causes skin irritation.
, ,	Causes serious eye damage. May cause an allergic skin reaction.
	Not classified
9 ,	Not classified
	Thot diassilled
Citral (neral + geranial) * (5392-40-5)	T
NOAEL (chronic, oral, animal/male, 2 years)	60 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Remarks on results: other:Effect type: toxicity (migrated information)
Geraniol * (106-24-1)	
NOAEL (chronic, oral, animal/male, 2 years)	60 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Remarks on results: other:
Reproductive toxicity	Suspected of damaging fertility or the unborn child.
Alpha terpineol (98-55-5)	
NOAEL (animal/male, F0/P)	≥ 750 mg/kg OECD 422
NOAEL (animal/female, F0/P)	≥ 750 mg/kg OECD 422
Terpinolene (586-62-9)	
NOAEL (animal/male, F0/P)	294.6 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (animal/female, F0/P)	161.5 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
STOT-single exposure	Not classified
Camphor (76-22-2)	
STOT-single exposure	May cause damage to organs.
STOT-repeated exposure	Not classified
1,8 Cineole (470-82-6)	
NOAEL (oral, rat, 90 days)	600 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: other:japanese Ministry of Economy Trade and Industry Guideline for 28 day repeat oral dose toxicity study., Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents), Guideline: EPA OPPTS 870.3150 (90-Day Oral Toxicity in Nonrodents)
Alpha terpineol (98-55-5)	
NOAEL (oral, rat, 90 days)	≥ 314 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90- Day Oral Toxicity in Rodents)
Camphor (76-22-2)	
NOAEL (dermal, rat/rabbit, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: other:Food and Drug Administration (FDA) Good Laboratory Practice Regulations for Nonclinical Studies (GLP Guidelines)

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Citral (neral + geranial) * (5392-40-5)		
LOAEC (inhalation, rat, gas, 90 days)	68 ppm Animal: rat, Animal sex: female	
NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)	
NOAEC (inhalation, rat, gas, 90 days)	34 ppm Animal: rat, Animal sex: female	
NOAEL (subchronic, oral, animal/male, 90 days)	60 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)	
Citronellol * (106-22-9)		
NOAEL (oral, rat, 90 days)	2000 mg/kg bodyweight Animal: rat, Guideline: other:Specifications for the Conduct of Studies to Evaluate the Toxic and Carcinogenic Potential of Chemical, Biological, and Physical Agents in Laboratory Animals for the National Toxicology Program (NTP)	
Linalool * (78-70-6)		
LOAEL (dermal, rat/rabbit, 90 days)	Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)	
Eugenol (97-53-0)		
NOAEL (subchronic, oral, animal/male, 90 days)	≥ 900 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: other:OECD Guideline 451 (Carcinogenicity Studies)	
NOAEL (subchronic, oral, animal/female, 90 days)	450 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: other:OECD Guideline 451 (Carcinogenicity Studies)	
Geraniol * (106-24-1)		
NOAEL (dermal, rat/rabbit, 90 days)	300 mg/kg bodyweight Animal: rat, Guideline: other:, Guideline: other:	
Aspiration hazard	: Not classified	
Linalool * (78-70-6)		
Viscosity, kinematic	5.192 mm²/s	
11.2 Information on other hazards		

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term

(acute)

: Not classified

Hazardous to the aquatic environment, long-term

(chronic)

: Toxic to aquatic life with long lasting effects.

Not rapidly degradable

Linalool thyme vulgaris essential oil, Organic, Spain (8007-46-3)			
LC50 - Fish [1]	16.1 mg/l Source: ECOTOX		
EC50 96h - Algae [1]	3.369 mg/l Source: Ecological Structure Activity Relationships		
1,8 Cineole (470-82-6)			
LC50 - Fish [1]	57 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)		
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna		
EC50 72h - Algae [1]	> 74 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)		
EC50 96h - Algae [1]	> 74 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)		
Alpha pinene (80-56-8)			
LC50 - Fish [1]	0.28 mg/l		
EC50 - Other aquatic organisms [1]	1.44 mg/l waterflea		
Alpha terpineol (98-55-5)			
LC50 - Fish [1]	70 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)		

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Alpha terpineol (98-55-5)	
EC50 - Crustacea [1]	73 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	≈ 68 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	≈ 17 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
Camphene (79-92-5)	
LC50 - Fish [1]	0.72 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	0.72 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	1.75 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
Camphor (76-22-2)	
LC50 - Fish [1]	35 – 50 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
LC50 - Fish [2]	110 mg/l Test organisms (species): Pimephales promelas
EC50 96h - Algae [1]	6.951 mg/l Test organisms (species):
Citral (neral + geranial) * (5392-40-5)	
LC50 - Fish [1]	6.78 mg/l Test organisms (species): Leuciscus idus
EC50 - Crustacea [1]	6.8 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	7 mg/l waterflea
EC50 - Other aquatic organisms [2]	5 mg/l
EC50 72h - Algae [1]	103.8 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
Citronellol * (106-22-9)	
LC50 - Fish [1]	10 mg/l
EC50 - Crustacea [1]	17.48 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	17.48 mg/l waterflea
EC50 - Other aquatic organisms [2]	2.38 mg/l
EC50 72h - Algae [1]	2.4 mg/l Test organisms (species):
Linalool * (78-70-6)	
LC50 - Fish [1]	27.8 mg/l
EC50 - Crustacea [1]	59 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	20 mg/l waterflea
EC50 - Other aquatic organisms [2]	88.3 mg/l
EC50 96h - Algae [1]	88.3 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 96h - Algae [2]	156.7 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
Eugenol (97-53-0)	
LC50 - Fish [1]	13 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	1.05 mg/l Test organisms (species): Daphnia magna
Geraniol * (106-24-1)	
LC50 - Fish [1]	≈ 22 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	10.8 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	10.8 mg/l waterflea
EC50 - Other aquatic organisms [2]	13.1 mg/l

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Geraniol * (106-24-1)	
EC50 72h - Algae [1]	13.1 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
Limonene (138-86-3)	
LC50 - Fish [1]	0.72 mg/l
EC50 - Other aquatic organisms [1]	0.36 mg/l waterflea
Terpinolene (586-62-9)	
LC50 - Fish [1]	0.805 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	0.634 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	0.692 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	0.302 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
Octene-1-ol-3 (3391-86-4)	
LC50 - Fish [1]	2.245 mg/l Source: Ecological Structure Activity Relationships
EC50 96h - Algae [1]	10.566 mg/l Source: Ecological Structure Activity Relationships
12.2. Persistence and degradability No additional information available	
12.3. Bioaccumulative potential	
Linalool thyme vulgaris essential oil, Organic	, Spain (8007-46-3)
Partition coefficient n-octanol/water (Log Pow)	3.52 Source: Quantitative Structure Activity Relation
Alpha pinene (80-56-8)	
Partition coefficient n-octanol/water (Log Pow)	4.32
Citral (neral + geranial) * (5392-40-5)	
Partition coefficient n-octanol/water (Log Pow)	2.8
Citronellol * (106-22-9)	
Partition coefficient n-octanol/water (Log Pow)	3.1
Linalool * (78-70-6)	
Partition coefficient n-octanol/water (Log Pow)	2.84
Geraniol * (106-24-1)	
Partition coefficient n-octanol/water (Log Pow)	3.5
Limonene (138-86-3)	
Partition coefficient n-octanol/water (Log Pow)	4.38
Nerol (106-25-2)	
Partition coefficient n-octanol/water (Log Pow)	3.47
Octene-1-ol-3 (3391-86-4)	
Partition coefficient n-octanol/water (Log Pow)	2.6 Source: Quantitative Structure Activity Relation
12.4. Mobility in soil	
Octene-1-ol-3 (3391-86-4)	
Mobility in soil 12.5. Results of PBT and vPvB assessment	89.49 Source: Quantitative Structure Activity Relation
No additional information available	
12.6. Endocrine disrupting properties No additional information available	
12.7. Other adverse effects	
No additional information available	

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information
In accordance with ADR / IMDG / IATA / ADN / RID

In accordance with ADR / IMD	JG / IATA / ADIN / RID					
ADR	IMDG	IATA	ADN	RID		
14.1. UN number or ID number						
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082		
14.2. UN proper shipping	g name					
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Linalool thyme vulgaris essential oil, Organic, Spain)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Linalool thyme vulgaris essential oil, Organic, Spain)	Environmentally hazardous substance, liquid, n.o.s. (Linalool thyme vulgaris essential oil, Organic, Spain)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Linalool thyme vulgaris essential oil, Organic, Spain)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Linalool thyme vulgaris essential oil, Organic, Spain)		
Transport document descri	iption					
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Linalool thyme vulgaris essential oil, Organic, Spain), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Linalool thyme vulgaris essential oil, Organic, Spain), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Linalool thyme vulgaris essential oil, Organic, Spain), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Linalool thyme vulgaris essential oil, Organic, Spain), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Linalool thyme vulgaris essential oil, Organic, Spain), 9, III		
14.3. Transport hazard o	class(es)					
9	9	9	9	9		
14.4. Packing group	14.4. Packing group					
III	III	III	III	III		
14.5. Environmental hazards						
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes		

No supplementary information available 14.6. Special precautions for user

Overland transport

Classification code (ADR) : M6

Special provisions (ADR) : 274, 335, 375, 601

Limited quantities (ADR) Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Special packing provisions (ADR) : PP1 Mixed packing provisions (ADR) : MP19 Portable tank and bulk container instructions : T4 (ADR)

Portable tank and bulk container special provisions

(ADR)

: TP1, TP29

Tank code (ADR) : LGBV : AT Vehicle for tank carriage Transport category (ADR) : 3 Special provisions for carriage - Packages (ADR) : V12

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Special provisions for carriage - Loading,

unloading and handling (ADR)

: CV13

Hazard identification number (Kemler No.)

Orange plates

90 90 3082

Tunnel restriction code (ADR)

Transport by sea

Special provisions (IMDG) : 274, 335, 969

Limited quantities (IMDG) : 5 L

Excepted quantities (IMDG) : E1

Packing instructions (IMDG) : LP01, P001

Special packing provisions (IMDG) : PP1

IBC packing instructions (IMDG) : IBC03

Tank instructions (IMDG) : T4

Tank special provisions (IMDG) : TP1, TP29

EmS-No. (Fire) : F-A EmS-No. (Spillage) : S-F Stowage category (IMDG) : A

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 450L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L

Special provisions (IATA) : A97, A158, A197, A215

ERG code (IATA) : 9L

Inland waterway transport

Classification code (ADN) : M6

Special provisions (ADN) : 274, 335, 375, 601

Limited quantities (ADN) : 5 L

Excepted quantities (ADN) : E1

Carriage permitted (ADN) : T

Equipment required (ADN) : PP

Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : M6

Special provisions (RID) : 274, 335, 375, 601

Limited quantities (RID) : 5L Excepted quantities (RID) : E1

Packing instructions (RID) : P001, IBC03, LP01, R001

Special packing provisions (RID) : PP1

Mixed packing provisions (RID) : MP19

Portable tank and bulk container instructions (RID) : T4

Portable tank and bulk container special provisions : TP1, TP29

(RID)

Tank codes for RID tanks (RID) : LGBV
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W12

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Special provisions for carriage - Loading,

: CW13, CW31

unloading and handling (RID)

Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 90

14.7. Maritime transport in bulk according to IMO instruments

Not established.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

No REACH Annex XVII restrictions

REACH Annex XIV (Authorisation List)

Linalool thyme vulgaris essential oil, Organic, Spain is not on the REACH Annex XIV List

REACH Candidate List (SVHC)

Linalool thyme vulgaris essential oil, Organic, Spain is not on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Linalool thyme vulgaris essential oil, Organic, Spain is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 july 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

Linalool thyme vulgaris essential oil, Organic, Spain is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

Linalool thyme vulgaris essential oil, Organic, Spain is not subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information Abbreviations and acronyms: ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways ADR European Agreement concerning the International Carriage of Dangerous Goods by Road ATE Acute Toxicity Estimate **BCF** Bioconcentration factor BI V Biological limit value BOD Biochemical oxygen demand (BOD) COD Chemical oxygen demand (COD) **DMEL Derived Minimal Effect level** DNEL Derived-No Effect Level EC-No. European Community number EC50 Median effective concentration ΕN European Standard **IARC** International Agency for Research on Cancer

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Abbreviations and acronyms:		
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	
N.O.S.	Not Otherwise Specified	
vPvB	Very Persistent and Very Bioaccumulative	
ED	Endocrine disrupting properties	

Full text of H- and EUH-statements:		
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3	
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1	
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1	
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3	
Asp. Tox. 1	Aspiration hazard, Category 1	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Flam. Liq. 3	Flammable liquids, Category 3	
Flam. Sol. 1	Flammable solids, Category 1	
Flam. Sol. 2	Flammable solids, Category 2	
H226	Flammable liquid and vapour.	
H228	Flammable solid.	
H301	Toxic if swallowed.	
H302	Harmful if swallowed.	

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Full text of H- and EUH-statements:		
H304	May be fatal if swallowed and enters airways.	
H314	Causes severe skin burns and eye damage.	
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H318	Causes serious eye damage.	
H319	Causes serious eye irritation.	
H331	Toxic if inhaled.	
H332	Harmful if inhaled.	
H361	Suspected of damaging fertility or the unborn child.	
H371	May cause damage to organs.	
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.	
Repr. 2	Reproductive toxicity, Category 2	
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
Skin Sens. 1	Skin sensitisation, Category 1	
Skin Sens. 1B	Skin sensitisation, category 1B	
STOT SE 2	Specific target organ toxicity – Single exposure, Category 2	

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.