EarthOil
By Univar Solutions

SAFETY DATA SHEET
ORGANIC THYME VULGARIS OIL

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

1.1. Product identifier

Product name ORGANIC THYME VULGARIS OIL

Product number 55520

REACH registration number 01-2120769123-56-XXXX

CAS number 8007-46-3

EC number 284-535-7

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

Identified uses Cosmetics Industrial application

1.3. Details of the supplier of the safety data sheet

Supplier

Univar
Aquarius House
6 Mid Point Business Park
Bradford
BD3 7AY
+44 1274 267300
+44 1274 267306
SDS.EMEA@univarsolutions.com

1.4. Emergency telephone number

Emergency telephone SGS - +32 (0)3 575 55 55 (24h)

Sds No. 55520

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

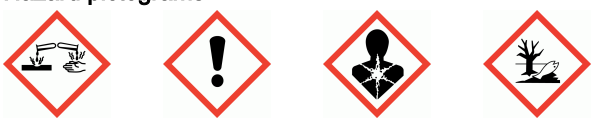
Health hazards Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Asp. Tox. 1 - H304

Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements

EC number 284-535-7

Hazard pictograms



Signal word Danger

ORGANIC THYME VULGARIS OIL

Hazard statements

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H304 May be fatal if swallowed and enters airways.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P261 Avoid breathing vapour/ spray.
P273 Avoid release to the environment.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 Dispose of contents/ container in accordance with national regulations.

Contains

THYMOL, PARA CYMENE, P-MENTHA-1,4-DIENE, CARVACROL, LINALOOL, CARYOPHYLLENE, MYRCENE, DL-BORNEOL, ALPHA-TERPINENE, 5-ISOPROPYL-2-METHYLANISOLE, 5-ISOPROPYL-2-METHYLBICYCLO[3.1.0]HEX-2-ENE, 2-PINENE, LIMONENE, PIN-2-(10) ENE, p-MENTHA-1,4(8)-DIENE

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.1. Substances

THYMOL **30-60%**

CAS number: 89-83-8 EC number: 201-944-8

Classification
Acute Tox. 4 - H302
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Aquatic Chronic 2 - H411

PARA CYMENE **10-30%**

CAS number: 99-87-6 EC number: 202-796-7

Classification
Flam. Liq. 3 - H226
Repr. 2 - H361
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

P-MENTHA-1,4-DIENE **5-10%**

CAS number: 99-85-4 EC number: 202-794-6

Classification
Flam. Liq. 3 - H226
Repr. 2 - H361d
Asp. Tox. 1 - H304

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CARVACROL **5-10%**

CAS number: 499-75-2 EC number: 207-889-6

Classification
Acute Tox. 4 - H302
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Skin Sens. 1 - H317
Aquatic Chronic 2 - H411

LINALOOL **1-5%**

CAS number: 78-70-6 EC number: 201-134-4 REACH registration number: 01-2119474016-42-XXXX

Classification
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Skin Sens. 1B - H317

CARYOPHYLLENE **1-5%**

CAS number: 87-44-5 EC number: 201-746-1 REACH registration number: 01-2120745237-53-XXXX

Classification
Skin Sens. 1 - H317
Asp. Tox. 1 - H304
Aquatic Chronic 4 - H413

MYRCENE **1-5%**

CAS number: 123-35-3 EC number: 204-622-5

Classification
Flam. Liq. 3 - H226
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Asp. Tox. 1 - H304

DL-BORNEOL **1-5%**

CAS number: 507-70-0 EC number: 208-080-0

Classification
Flam. Sol. 2 - H228
Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Dam. 1 - H318
STOT SE 2 - H371

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ALPHA-TERPINENE **1-5%**

CAS number: 99-86-5 EC number: 202-795-1

Classification
Flam. Liq. 3 - H226
Acute Tox. 4 - H302
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

5-ISOPROPYL-2-METHYLANISOLE **1-5%**

CAS number: 6379-73-3 EC number: 228-959-2

Classification
Acute Tox. 4 - H302

5-ISOPROPYL-2-METHYLBICYCLO[3.1.0]HEX-2-ENE **1-5%**

CAS number: 2867-05-2 EC number: 220-686-7

Classification
Flam. Liq. 3 - H226
Skin Sens. 1 - H317

CAMPHENE **<1%**

CAS number: 79-92-5 EC number: 201-234-8

M factor (Acute) = 1 M factor (Chronic) = 1

Classification
Flam. Sol. 2 - H228
Eye Irrit. 2 - H319
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

2-PINENE **<1%**

CAS number: 80-56-8 EC number: 201-291-9

M factor (Acute) = 1 M factor (Chronic) = 1

Classification
Flam. Liq. 3 - H226
Acute Tox. 4 - H302
Skin Irrit. 2 - H315
Skin Sens. 1 - H317
Asp. Tox. 1 - H304
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

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LIMONENE		**<1%**
CAS number: 138-86-3	EC number: 205-341-0	
M factor (Acute) = 1	M factor (Chronic) = 1	

Classification
Flam. Liq. 3 - H226
Skin Irrit. 2 - H315
Skin Sens. 1 - H317
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

PIN-2-(10) ENE		**<1%**
CAS number: 127-91-3	EC number: 204-872-5	
M factor (Acute) = 1	M factor (Chronic) = 1	

Classification
Flam. Liq. 3 - H226
Skin Irrit. 2 - H315
Skin Sens. 1B - H317
Asp. Tox. 1 - H304
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

p-MENTHA-1,4(8)-DIENE		**<1%**
CAS number: 586-62-9	EC number: 209-578-0	REACH registration number: 01-2119982324-34-XXXX
M factor (Acute) = 1	M factor (Chronic) = 1	

Classification
Flam. Liq. 3 - H226
Skin Sens. 1B - H317
Asp. Tox. 1 - H304
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

The full text for all hazard statements is displayed in Section 16.

Product name ORGANIC THYME VULGARIS OIL

REACH registration number 01-2120769123-56-XXXX

CAS number 8007-46-3

EC number 284-535-7

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if symptoms are severe or persist.

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Ingestion Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if symptoms are severe or persist.

Skin contact Take off immediately all contaminated clothing. Wash skin thoroughly with soap and water. Continue to rinse. Get medical attention if symptoms are severe or persist.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist.

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

Ingestion May be fatal if swallowed and enters airways.

Skin contact Causes severe burns. May cause an allergic skin reaction.

Eye contact Causes severe burns.

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

Notes for the doctor Treat symptomatically. Contact specialist immediately poison treatment if large quantities have been ingested or inhaled

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon.

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with inert, damp, non-combustible material. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely. Provide adequate ventilation.

6.4. Reference to other sections

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Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. Collect and dispose of spillage as indicated in Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. In case of insufficient ventilation, wear suitable respiratory equipment. Provide adequate ventilation.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Avoid exposure to high temperatures or direct sunlight. Store at temperatures between 5°C and 35°C.

Storage class Corrosive storage.

7.3. Specific end use(s)

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

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

LINALOOL (CAS: 78-70-6)

Ingredient comments No exposure limits known for ingredient(s).

DNEL

Industry - Dermal; Short term systemic effects: 5 mg/kg/day
Industry - Inhalation; Short term systemic effects: 16.5 mg/m³
Industry - Dermal; Long term systemic effects: 2.5 mg/kg/day
Industry - Inhalation; Long term systemic effects: 2.8 mg/m³
Consumer - Dermal; Short term systemic effects: 2.5 mg/kg/day
Consumer - Inhalation; Short term systemic effects: 4.1 mg/m³
Consumer - Oral; Short term systemic effects: 1.2 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 0.7 mg/m³
Consumer - Oral; Long term systemic effects: 0.2 mg/kg/day
Consumer - Dermal; Short term local effects: 15 mg/cm²
Workers - Dermal; Long term local effects: 15 mg/cm²
Consumer - Dermal; Long term local effects: 15 mg/cm²

PNEC

- Fresh water; 0.2 mg/l
- marine water; 0.02 mg/l
- Sediment (Freshwater); 2.22 mg/kg
- Sediment (Marinewater); 0.222 mg/kg
- Soil; 0.327 mg/kg
- STP; > 10 mg/l

LIMONENE (CAS: 138-86-3)

Ingredient comments No exposure limits known for ingredient(s).

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DNEL

Workers - Dermal; Short term : 222 µg/cm2
Workers - Inhalation; Long term : 33.3 mg/m³
General population - Dermal; Short term : 111 µg/cm2
General population - Inhalation; Long term : 8.33 mg/m³
General population - Oral; Long term : 4.76 mg/kg

PNEC

Fresh water; 5.4 µg/l
marine water; 0.54 µg/l
STP; 1.8 mg/l
Sediment (Freshwater); 1.649 mg/kg/day
Sediment (Marinewater); 0.165 mg/kg/day
Soil; 0.328 mg/kg

p-MENTHA-1,4(8)-DIENE (CAS: 586-62-9)

DNEL

Workers - Inhalation; Long term systemic effects: 5.12 mg/m³
Workers - Dermal; Long term systemic effects: 1.45 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 1.26 mg/m³
Consumer - Dermal; Long term systemic effects: 0.73 mg/kg/day
Consumer - Oral; Long term systemic effects: 0.73 mg/kg/day

PNEC

Fresh water; 5.2 µg/l
marine water; 0.52 µg/l
STP; 3 mg/l
Sediment (Freshwater); 0.581 mg/kg
Sediment (Marinewater); 58.1 mg/kg
Soil; 113 µg/l

HEXAN-1-OL (CAS: 111-27-3)

DNEL

Workers - Dermal; Short term systemic effects: 125 mg/kg
Workers - Inhalation; Short term systemic effects: 220 mg/m³
Workers - Dermal; Long term systemic effects: 125 mg/kg
Workers - Inhalation; Long term systemic effects: 220 mg/m³
Consumer - Dermal; Short term systemic effects: 75 mg/kg
Consumer - Inhalation; Short term systemic effects: 65 mg/m³
Consumer - Oral; Short term systemic effects: 75 mg/kg
Consumer - Dermal; Long term systemic effects: 75 mg/kg
Consumer - Inhalation; Long term systemic effects: 65 mg/m³
Consumer - Oral; Long term systemic effects: 75 mg/kg

PNEC

- Fresh water; 2.6 mg/l
- marine water; 0.256 mg/l
- STP; 63.2 mg/l
- Sediment (Freshwater); 5.08 mg/kg
- Sediment (Marinewater); 0.5 mg/kg
- Soil; 2.8 mg/kg

8.2. Exposure controls

Protective equipment

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Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The selected gloves should have a breakthrough time of at least 8 hours. Polyvinyl chloride (PVC). Protective gloves should have a minimum thickness of 0.35 mm. To protect hands from chemicals, gloves should comply with European Standard EN374.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. If ventilation is inadequate, suitable respiratory protection must be worn. EN 136/140/141/145/143/149

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Yellow. or Orange.
Odour	Characteristic.
Odour threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	65°C
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Other flammability	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	0.900 - 0.950
Bulk density	No information available.
Solubility(ies)	No information available.
Partition coefficient	No information available.

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Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	No information available.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Refractive index	No information available.
Particle size	No information available.
Molecular weight	No information available.
Volatility	No information available.
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No test data specifically related to reactivity available for this product or its ingredients.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Under normal conditions of storage and use, no hazardous reactions will occur.

10.4. Conditions to avoid

Conditions to avoid Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Oxidising agents. Acids. Alkalis.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 1,721.43

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 102.74

Skin corrosion/irritation

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Skin corrosion/irritation	Causes severe burns.

Serious eye damage/irritation

Serious eye damage/irritation	Causes severe burns.

Respiratory sensitisation

Respiratory sensitisation	No information available.

Skin sensitisation

Skin sensitisation	May cause an allergic skin reaction.

Germ cell mutagenicity

Genotoxicity - in vitro	No information available.

Carcinogenicity

Carcinogenicity	No information available.

Reproductive toxicity

Reproductive toxicity - fertility	No information available.
Reproductive toxicity - development	No information available.

Specific target organ toxicity - single exposure

STOT - single exposure	No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	No information available.

Aspiration hazard

Aspiration hazard	No information available.

Inhalation	Gas or vapour in high concentrations may irritate the respiratory system.
Ingestion	Harmful if swallowed. May be fatal if swallowed and enters airways.
Skin contact	Causes severe burns. May cause an allergic skin reaction.
Eye contact	Causes severe burns.

Toxicological information on ingredients.

THYMOL

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	980.0
Species	Rat
ATE oral (mg/kg)	980.0

PARA CYMENE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	3,669.0
Species	Rat

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Notes (oral LD_{50})	LD_{50} 3669 mg/kg, Oral, Rat
ATE oral (mg/kg)	3,669.0

Aspiration hazard

Aspiration hazard	May be fatal if swallowed and enters airways.
Inhalation	Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.
Ingestion	May be fatal if swallowed and enters airways.
Skin contact	Liquid may irritate skin. Repeated exposure may cause skin dryness or cracking.
Eye contact	Vapour or spray in the eyes may cause irritation and smarting.

CARVACROL

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	810.0
Species	Rat
ATE oral (mg/kg)	810.0

LINALOOL

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	2,790.0
Species	Rat
Notes (oral LD_{50})	LD_{50} 2790 mg/kg, Oral, Rat

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	5,610.0
Species	Rabbit
Notes (dermal LD_{50})	LD_{50} 5610 mg/kg, Dermal, Rabbit

Skin corrosion/irritation

Skin corrosion/irritation	Irritating to skin. Rabbit

Serious eye damage/irritation

Serious eye damage/irritation	Slightly irritating. Rabbit

Skin sensitisation

Skin sensitisation	May cause an allergic skin reaction. - Rabbit: Sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro	Bacterial reverse mutation test: Negative.

Carcinogenicity

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Carcinogenicity	No information available.

Reproductive toxicity

Reproductive toxicity - fertility	No information available.

Specific target organ toxicity - single exposure

STOT - single exposure	No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	NOAEL 117 mg/kg, Oral, Rat NOAEL 250 mg/kg, Dermal, Rat

Aspiration hazard

Aspiration hazard	No information available.

Inhalation	May cause respiratory irritation.
Ingestion	Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract.
Skin contact	Irritating to skin. May cause an allergic skin reaction.
Eye contact	Causes eye irritation.

CARYOPHYLLENE

Skin sensitisation

Skin sensitisation	May cause an allergic skin reaction.

Germ cell mutagenicity

Genotoxicity - in vitro	Bacterial reverse mutation test: Negative.

Aspiration hazard

Aspiration hazard	May be fatal if swallowed and enters airways.

MYRCENE

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} > 5000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} > 5000 mg/kg, Dermal, Rabbit

DL-BORNEOL

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l)	1.5

ALPHA-TERPINENE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	1,680.0
Species	Rat

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ATE oral (mg/kg)	1,680.0

Aspiration hazard

Aspiration hazard	May be fatal if swallowed and enters airways.

5-ISOPROPYL-2-METHYLANISOLE

Acute toxicity - oral

ATE oral (mg/kg)	500.0

CAMPHENE

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} >5000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} >2500 mg/kg, Dermal, Rabbit

Inhalation	May cause respiratory system irritation.
Ingestion	May cause stomach pain or vomiting.
Skin contact	Slightly irritating.
Eye contact	Irritating to eyes.

2-PINENE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	500.0
Species	Rat
Notes (oral LD_{50})	LD_{50} 3700 mg/kg, Oral, Rat
ATE oral (mg/kg)	500.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	5,000.0
Species	Rat
Notes (dermal LD_{50})	LD_{50} 5000 mg/kg, Dermal, Rat
ATE dermal (mg/kg)	5,000.0

Inhalation	May cause respiratory system irritation.
Ingestion	Harmful: may cause lung damage if swallowed.
Skin contact	May cause sensitisation by skin contact.
Eye contact	Irritating to eyes.

LIMONENE

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Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation No information available.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity

Genotoxicity - in vitro No information available.

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility No information available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

Inhalation Irritating to respiratory system. May cause damage to mucous membranes in nose, throat, lungs and bronchial system.

Ingestion Liquid irritates mucous membranes and may cause abdominal pain if swallowed.

Skin contact Irritating to skin. May cause an allergic skin reaction.

Eye contact May cause temporary eye irritation.

PIN-2-(10) ENE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg) 5,000.0

Species Rat

Notes (oral LD_{50}) LD_{50} 5000 mg/kg, Oral, Rat

ATE oral (mg/kg) 5,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg) 5,000.0

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Species	Rabbit
Notes (dermal LD_{50})	LD_{50} 5000 mg/kg, Dermal, Rabbit
ATE dermal (mg/kg)	5,000.0

Aspiration hazard

Aspiration hazard	May be fatal if swallowed and enters airways. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

Inhalation	Irritating to respiratory system.
Ingestion	Gastrointestinal symptoms, including upset stomach.
Skin contact	Irritating to skin.
Eye contact	Irritating to eyes.

1-METHYL 4-ISO PROPYL-1-CYCLOHEXEN-8-OL

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	4,300.0
Species	Rat
Notes (oral LD_{50})	LD_{50} 4300 mg/kg, Oral, Rat
ATE oral (mg/kg)	4,300.0

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} > 3000 mg/kg, Dermal, Rabbit

Skin corrosion/irritation

Skin corrosion/irritation	Irritating to skin. Rabbit

Serious eye damage/irritation

Serious eye damage/irritation	Irritating to eyes. Rabbit

Skin sensitisation

Skin sensitisation	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro	Bacterial reverse mutation test: Negative.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	NOAEL 314 mg/kg, Oral, Rat (90 days ; 7 days/week)

p-MENTHA-1,4(8)-DIENE

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} 3850 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} > 2000 mg/kg, Dermal, Rabbit

Skin sensitisation

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Skin sensitisation	May cause an allergic skin reaction. Guinea pig maximization test (GPMT) - Guinea pig: Sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro	Bacterial reverse mutation test: Negative.

Aspiration hazard

Aspiration hazard	May be fatal if swallowed and enters airways.

3,7,7-TRIMETHYLBICYCLO[4.1.0]HEPT-3-ENE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	4,800.0
Species	Rat
Notes (oral LD_{50})	LD_{50} 4800 mg/kg, Oral, Rat
ATE oral (mg/kg)	4,800.0

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} 1.5 mg/kg, Inhalation, Dust/Mist, Rat

HEXAN-1-OL

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} >300-2000 mg/kg, Oral, Rat
ATE oral (mg/kg)	500.0

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} >1000-2000 mg/kg, Dermal, Rabbit
ATE dermal (mg/kg)	1,100.0

Acute toxicity - inhalation

Notes (inhalation LC_{50})	LD_{50} >21 mg/l, Inhalation, Rat

Skin corrosion/irritation

Animal data	Slightly irritating. Rabbit OECD 404

Serious eye damage/irritation

Serious eye damage/irritation	Causes serious eye irritation. Rabbit OECD 405

Respiratory sensitisation

Respiratory sensitisation	No information available.

Skin sensitisation

Skin sensitisation	Not sensitising. Draize test Guinea pig

Germ cell mutagenicity

Genotoxicity - in vitro	Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity	No information available.

ORGANIC THYME VULGARIS OIL

Reproductive toxicity

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

Specific target organ toxicity - single exposure

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

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	Based on available data the classification criteria are not met. NOAEL 1127 mg/kg, Dermal, Rat

Aspiration hazard

Aspiration hazard	No information available.

Inhalation	Gas or vapour in high concentrations may irritate the respiratory system.
Ingestion	Harmful if swallowed. Liquid irritates mucous membranes and may cause abdominal pain if swallowed.
Skin contact	Harmful in contact with skin.
Eye contact	Causes serious eye irritation.

CIS-HEX-3-EN-1-OL

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	4,700.0
Species	Rat
Notes (oral LD_{50})	LD_{50} 4700 mg/kg, Oral, Rat
ATE oral (mg/kg)	4,700.0

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} > 5000 mg/kg, Dermal, Rabbit

Skin corrosion/irritation

Skin corrosion/irritation	No information available.

Serious eye damage/irritation

Serious eye damage/irritation	Causes eye irritation.

Respiratory sensitisation

Respiratory sensitisation	No information available.

Skin sensitisation

Skin sensitisation	No information available.

Germ cell mutagenicity

Genotoxicity - in vitro	No information available.

Carcinogenicity

Carcinogenicity	No information available.

ORGANIC THYME VULGARIS OIL

Reproductive toxicity

Reproductive toxicity - fertility No information available.

Reproductive toxicity - development No information available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system.

Ingestion Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract.

Skin contact Slightly irritating.

Eye contact Causes serious eye irritation.

SECTION 12: Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Ecological information on ingredients.

PARA CYMENE

Ecotoxicity Toxic to aquatic life with long lasting effects.

LINALOOL

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

CARYOPHYLLENE

Ecotoxicity May cause long lasting harmful effects to aquatic life.

CAMPHENE

Ecotoxicity Very toxic to aquatic life with long lasting effects.

2-PINENE

Ecotoxicity The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

LIMONENE

Ecotoxicity Very toxic to aquatic life with long lasting effects.

ORGANIC THYME VULGARIS OIL

PIN-2-(10) ENE

Ecotoxicity Very toxic to aquatic life with long lasting effects.

HEXAN-1-OL

Ecotoxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

CIS-HEX-3-EN-1-OL

Ecotoxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.1. Toxicity

Toxicity Toxic to aquatic life.

Ecological information on ingredients.

PARA CYMENE

Toxicity Toxic to aquatic life.

Acute aquatic toxicity

Acute toxicity - fish LC_{50}, 96 hour: 48 ppm, Fish

Acute toxicity - aquatic invertebrates LC_{50}, 48 hour: 6500 µg/l, Daphnia magna

LINALOOL

Toxicity Not considered toxic to fish.

Acute aquatic toxicity

Acute toxicity - fish LC_{50}, 96 hours: 27.8 mg/l, Fish
OECD 203

Acute toxicity - aquatic invertebrates EC_{50}, 48 hours: 59 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC_{50}, 72 hours: 156.7 mg/l, Algae

CARYOPHYLLENE

Toxicity May cause long lasting harmful effects to aquatic life.

DL-BORNEOL

Acute aquatic toxicity

Acute toxicity - fish Chronic, NOEC, 21 day: 0.011 mg/l, Fish

Acute toxicity - aquatic plants Chronic, NOEC, 72 hour: 0.011 mg/l, Algae

Chronic aquatic toxicity

ORGANIC THYME VULGARIS OIL

Chronic toxicity - aquatic invertebrates	Chronic, NOEC, 21 day: 0.011 mg/l, Daphnia magna

ALPHA-TERPINENE

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 1.48 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 1.85 mg/l, Daphnia magna

CAMPHENE

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC_{50}, 96 hours: 0.1-1 mg/l, Fish

Chronic aquatic toxicity

M factor (Chronic)	1

2-PINENE

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - aquatic invertebrates	LC_{50}, 48 hour: 6.74 mg/l, Daphnia magna

Chronic aquatic toxicity

NOEC	0.01 < NOEC ≤ 0.1
Degradability	Non-rapidly degradable
M factor (Chronic)	1

LIMONENE

Toxicity	Very toxic to aquatic organisms.

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC_{50}, 96 hours: 0.702 - 0.720 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 70 mg/l, Daphnia magna
Acute toxicity - aquatic plants	ErC50, 72 hours: 8 mg/l, Algae

Chronic aquatic toxicity

M factor (Chronic)	1

ORGANIC THYME VULGARIS OIL

Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 0.27 mg/l, Daphnia magna

PIN-2-(10) ENE

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - aquatic invertebrates	LC_{50}, 48 hour: 2.2 mg/l, Daphnia magna

Chronic aquatic toxicity

M factor (Chronic)	1

1-METHYL 4-ISO PROPYL-1-CYCLOHEXEN-8-OL

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hour: 70 mg/l, Fish OECD 203
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 73 mg/l, Daphnia magna OECD 202
Acute toxicity - aquatic plants	EC_{50}, 72 hour: 68 mg/l, Algae OECD 201 Chronic, NOEC, 72 hour: 3.9 mg/l, Algae OECD 201

p-MENTHA-1,4(8)-DIENE

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC_{50}, 96 hours: 0.72 - 6.104 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 5.184 mg/kg, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hour: 5.4 mg/l, Algae Chronic, NOEC, 72 hour: 3.47 mg/l, Algae

Chronic aquatic toxicity

M factor (Chronic)	1

3,7,7-TRIMETHYLBICYCLO[4.1.0]HEPT-3-ENE

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 10 - 100 mg/l, Daphnia magna

Chronic aquatic toxicity

ORGANIC THYME VULGARIS OIL

M factor (Chronic)	1

HEXAN-1-OL

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: >10-100 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC_0, 24 hours: >100 mg/l, Daphnia magna OECD 202
Acute toxicity - aquatic plants	EC_{50}, 48 hours: >10-100 mg/l, Pseudokirchneriella subcapitata OECD 201

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates	NOEC, 21 days: >1-10 mg/l, Daphnia magna

CIS-HEX-3-EN-1-OL

Toxicity	Not considered toxic to fish.

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

Ecological information on ingredients.

PARA CYMENE

Persistence and degradability	There are no data on the degradability of this product.

LINALOOL

Persistence and degradability	The product is readily biodegradable.
Biodegradation	The substance is readily biodegradable. - Degradation (%) 64.2%: 28 days OECD 301D

DL-BORNEOL

Persistence and degradability	The product is readily biodegradable.

2-PINENE

Persistence and degradability	The product is readily biodegradable.

LIMONENE

Persistence and degradability	The product is not expected to be biodegradable.

PIN-2-(10) ENE

ORGANIC THYME VULGARIS OIL

Persistence and degradability The product is readily biodegradable.

1-METHYL 4-ISO PROPYL-1-CYCLOHEXEN-8-OL

Persistence and degradability The product is readily biodegradable.

Biodegradation - Degradation 80%: 28 day

p-MENTHA-1,4(8)-DIENE

Persistence and degradability The product is readily biodegradable.

Biodegradation - Degradation 72%: 28 day
OECD 301D

3,7,7-TRIMETHYLBICYCLO[4.1.0]HEPT-3-ENE

Persistence and degradability The product is readily biodegradable.

HEXAN-1-OL

Persistence and degradability The product is readily biodegradable.

Biodegradation - Degradation >60: 30 days
OECD 301D

CIS-HEX-3-EN-1-OL

Persistence and degradability There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient No information available.

Ecological information on ingredients.

PARA CYMENE

Bioaccumulative potential No data available on bioaccumulation.

LINALOOL

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient log Kow: 2.7

CARYOPHYLLENE

Bioaccumulative potential Potentially bioaccumulating.

Partition coefficient log Pow: 6.23

ORGANIC THYME VULGARIS OIL

CAMPHENE

Bioaccumulative potential Potentially bioaccumulating.

Partition coefficient log Pow: 4.5

LIMONENE

Bioaccumulative potential BCF: 490 - 1460,

Partition coefficient log Pow: 4.59

1-METHYL 4-ISO PROPYL-1-CYCLOHEXEN-8-OL

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient log Pow: 2.67

p-MENTHA-1,4(8)-DIENE

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient log Pow: 3.7

HEXAN-1-OL

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient log Pow: 1.8

CIS-HEX-3-EN-1-OL

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient log Pow: 1.697

12.4. Mobility in soil

Mobility No information available.

Ecological information on ingredients.

PARA CYMENE

Mobility Not determined.

LINALOOL

Mobility The product is insoluble in water.

CAMPHENE

Mobility The product is insoluble in water.

2-PINENE

Mobility The product is insoluble in water.

LIMONENE

ORGANIC THYME VULGARIS OIL

Mobility The product is insoluble in water.

PIN-2-(10) ENE

Mobility The product is insoluble in water.

HEXAN-1-OL

Mobility No information available.

CIS-HEX-3-EN-1-OL

Mobility No information available.

12.5. Results of PBT and vPvB assessment

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

Ecological information on ingredients.

PARA CYMENE

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

LINALOOL

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

LIMONENE

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

HEXAN-1-OL

Results of PBT and vPvB assessment Based on available data the classification criteria are not met.

CIS-HEX-3-EN-1-OL

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

Ecological information on ingredients.

PARA CYMENE

Other adverse effects No information available.

LINALOOL

Other adverse effects Not determined.

ORGANIC THYME VULGARIS OIL

LIMONENE

Other adverse effects No information available.

HEXAN-1-OL

Other adverse effects Not determined.

CIS-HEX-3-EN-1-OL

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Do not puncture or incinerate, even when empty. Waste is classified as hazardous waste.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General Wear protective clothing as described in Section 8 of this safety data sheet.

14.1. UN number

UN No. (ADR/RID) 1760

UN No. (IMDG) 1760

UN No. (ICAO) 1760

UN No. (ADN) 1760

14.2. UN proper shipping name

Proper shipping name (ADR/RID) CORROSIVE LIQUID, N.O.S. (CONTAINS THYMOL, PARA CYMENE)

Proper shipping name (IMDG) CORROSIVE LIQUID, N.O.S. (CONTAINS THYMOL, PARA CYMENE, CARVACROL, ALPHA-TERPINENE)

Proper shipping name (ICAO) CORROSIVE LIQUID, N.O.S. (CONTAINS THYMOL, PARA CYMENE)

Proper shipping name (ADN) CORROSIVE LIQUID, N.O.S. (CONTAINS THYMOL, PARA CYMENE)

14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID classification code C9

ADR/RID label 8

IMDG class 8

ICAO class/division 8

ADN class 8

Transport labels

ORGANIC THYME VULGARIS OIL

14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ICAO packing group	II
ADN packing group	II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS	F-A, S-B
ADR transport category	2
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

SECTION 15: Regulatory information

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

EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. This product may impact SEVESO storage regulations.
Restrictions (Annex XVII Regulation 1907/2006)	This product is/contains a substance that is included in REGULATION (EC) No 1907/2006 (REACH) ANNEX XVII - RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES. Entry number: 3
Seveso Directive - Control of major accident hazards	E2

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

ORGANIC THYME VULGARIS OIL

Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
CAS: Chemical Abstracts Service.
DNEL: Derived No Effect Level.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
Kow: Octanol-water partition coefficient.
LC_{50}: Lethal Concentration to 50 % of a test population.
LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose).
PBT: Persistent, Bioaccumulative and Toxic substance.
PNEC: Predicted No Effect Concentration.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
vPvB: Very Persistent and Very Bioaccumulative.
IARC: International Agency for Research on Cancer.
MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
cATpE: Converted Acute Toxicity Point Estimate.
BCF: Bioconcentration Factor.
BOD: Biochemical Oxygen Demand.
EC_{50}: 50% of maximal Effective Concentration.
LOAEC: Lowest Observed Adverse Effect Concentration.
LOAEL: Lowest Observed Adverse Effect Level.
NOAEC: No Observed Adverse Effect Concentration.
NOAEL: No Observed Adverse Effect Level.
NOEC: No Observed Effect Concentration.
LOEC: Lowest Observed Effect Concentration.
DMEL: Derived Minimal Effect Level.
EL50: Exposure Limit 50
hPa: Hectopascal
LL50: Lethal Loading fifty
OECD: Organisation for Economic Co-operation and Development
POW: Octanol-water partition coefficient
SCBA: self-contained breathing apparatus
STP: Sewage Treatment Plant
VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
Aquatic Acute = Hazardous to the aquatic environment (acute)
Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Key literature references and sources for data

Supplier's information.

Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date

17/12/2020

Version number

2.000

Supersedes date

22/08/2018

SDS number

55520

ORGANIC THYME VULGARIS OIL

SDS status Approved.

Hazard statements in full

H226 Flammable liquid and vapour.
H228 Flammable solid.
H302 Harmful if swallowed.
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.
H332 Harmful if inhaled.
H361 Suspected of damaging fertility or the unborn child.
H361d Suspected of damaging the unborn child.
H371 May cause damage to organs (Lungs) 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.
H413 May cause long lasting harmful effects to aquatic life.

Signature Jitendra Panchal