



SAFETY DATA SHEET MELALEUCA ALTERNIFOLIA EXT

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

1.1. Product identifier

Product name	MELALEUCA ALTERNIFOLIA EXT
Product number	65469
Synonyms; trade names	TEA TREE OIL CHINA, TEA TREE OIL CN
REACH registration number	01-2120743651-57-XXXX
CAS number	85085-48-9
EC number	285-377-1

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

Identified uses	Flavouring Fragrance
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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
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1.4. Emergency telephone number

Emergency telephone	SGS - +32 (0)3 575 55 55 (24h)
Sds No.	65469

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

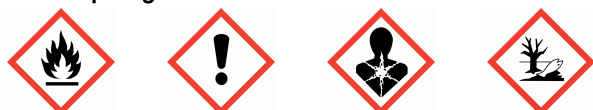
Classification (EC 1272/2008)

Physical hazards	Flam. Liq. 3 - H226
Health hazards	Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Asp. Tox. 1 - H304
Environmental hazards	Aquatic Chronic 2 - H411

2.2. Label elements

EC number	285-377-1
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Hazard pictograms



MELALEUCA ALTERNIFOLIA EXT

Signal word	Danger
Hazard statements	H226 Flammable liquid and vapour. H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. 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	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 Avoid release to the environment. P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell. 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	P-MENTH-1-EN-4-OL , P-MENTHA-1,4-DIENE, ALPHA-TERPINENE, LIMONENE, 2-PINENE, TERPINEOL, p-MENTHA-1,4(8)-DIENE, CARYOPHYLLENE, EUCALYPTOL TRT, PARA CYMENE, MYRCENE, 3,7,7-TRIMETHYLBICYCLO[4.1.0]HEPT-3-ENE

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

P-MENTH-1-EN-4-OL CAS number: 562-74-3 EC number: 209-235-5	10-30%
Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319	
ALPHA-TERPINENE CAS number: 99-86-5 EC number: 202-795-1	10-30%
Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	
P-MENTHA-1,4-DIENE CAS number: 99-85-4 EC number: 202-794-6	10-30%
Classification Flam. Liq. 3 - H226 Repr. 2 - H361d Asp. Tox. 1 - H304	

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CARYOPHYLLENE			5-10%
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			

LIMONENE			5-10%
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			

p-MENTHA-1,4(8)-DIENE			5-10%
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			

2-PINENE			5-10%
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			

MELALEUCA ALTERNIFOLIA EXT

TERPINEOL			5-10%
CAS number: 8000-41-7	EC number: 232-268-1	REACH registration number: 01-2119553062-49-XXXX	
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1B - H317 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411			

EUCALYPTOL TRT			1-5%
CAS number: 470-82-6	EC number: 207-431-5	REACH registration number: 01-2119967772-24-XXXX	
Acute Toxicity Estimate (oral): LD ₅₀ 2480 mg/kg, Oral, Rat			
Classification Flam. Liq. 3 - H226 Skin Sens. 1B - H317			

3,7,7-TRIMETHYLBICYCLO[4.1.0]HEPT-3-ENE			1-5%
CAS number: 13466-78-9	EC number: 236-719-3		
M factor (Acute) = 1	M factor (Chronic) = 1		
Classification Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410			

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			

MELALEUCA ALTERNIFOLIA EXT**PARA CYMENE****1-5%**

CAS number: 99-87-6

EC number: 202-796-7

Classification

Flam. Liq. 3 - H226

Acute Tox. 3 - H331

Repr. 2 - H361

Asp. Tox. 1 - H304

Aquatic Chronic 2 - H411

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

Product name MELALEUCA ALTERNIFOLIA EXT**REACH registration number** 01-2120743651-57-XXXX**CAS number** 85085-48-9**EC number** 285-377-1**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.
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	Harmful if swallowed. Ingestion of even small quantities may be fatal.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.

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
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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**

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Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
<u>5.3. Advice for firefighters</u>	
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.
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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.
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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.
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6.4. Reference to other sections

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.
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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.
Storage class	Flammable liquid storage.

7.3. Specific end use(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.
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SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

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/cm ²
	Workers - Inhalation; Long term : 33.3 mg/m ³
	General population - Dermal; Short term : 111 µg/cm ²
	General population - Inhalation; Long term : 8.33 mg/m ³
	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

TERPINEOL (CAS: 8000-41-7)

Ingredient comments	No exposure limits known for ingredient(s).
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p-MENTHA-1,4(8)-DIENE (CAS: 586-62-9)

DNEL	Workers - Inhalation; Long term systemic effects: 5.12 mg/m ³
	Workers - Dermal; Long term systemic effects: 1.45 mg/kg/day
	Consumer - Inhalation; Long term systemic effects: 1.26 mg/m ³
	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

EUCALYPTOL TRT (CAS: 470-82-6)

DNEL	Workers - Dermal; Long term systemic effects: 2 mg/kg
	Workers - Inhalation; Long term systemic effects: 7.05 mg/kg
	Consumer - Dermal; Long term systemic effects: 1 mg/kg/day
	Consumer - Inhalation; Long term systemic effects: 1.74 mg/m ³

PNEC	STP; 10 mg/l
	Soil; 0.2 mg/kg
	Fresh water; 0.057 mg/l
	marine water; 0.0057 mg/l
	Sediment (Freshwater); 0.06732 mg/kg
	Sediment (Marinewater); 0.00673 mg/kg

8.2. Exposure controls

Protective equipment



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.

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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. 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. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. 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.
Odour	Characteristic.
Odour threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	115 - 270°C
Flash point	57°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	0.885 - 0.906 @ 20°C
Bulk density	No information available.
Solubility(ies)	Insoluble in water.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	Not considered to be explosive.

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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.

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) 1,275.89

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 272.73

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation No information available.

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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 May be fatal if swallowed and enters airways.

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 skin irritation. May cause an allergic skin reaction.

Eye contact Causes serious eye irritation.

Toxicological information on ingredients.

P-MENTH-1-EN-4-OL

Acute toxicity - oral

ATE oral (mg/kg) 500.0

ALPHA-TERPINENE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 680.0

Species Rat

ATE oral (mg/kg) 680.0

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

CARYOPHYLLENE

Skin sensitisation

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity

Genotoxicity - in vitro Bacterial reverse mutation test: Negative.

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Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

Toxicokinetics

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

LIMONENE

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.

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

Acute toxicity - oral

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Notes (oral LD₅₀) LD₅₀ 3850 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 2000 mg/kg, Dermal, Rabbit

Skin sensitisation

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.

2-PINENE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 500.0

Species Rat

Notes (oral LD₅₀) LD₅₀ 3700 mg/kg, Oral, Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 5,000.0

Species Rat

Notes (dermal LD₅₀) LD₅₀ 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.

TERPINEOL

Acute toxicity - oral

Notes (oral LD₅₀) No specific test data are available.

Skin corrosion/irritation

Animal data Irritating to skin.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

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Respiratory sensitisation Data lacking.

Skin sensitisation

Skin sensitisation Sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Data lacking.

Carcinogenicity

Carcinogenicity Data lacking.

Reproductive toxicity

Reproductive toxicity - fertility Data lacking.

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.

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

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

Ingestion May be fatal if swallowed and enters airways. The product irritates mucous membranes and may cause abdominal discomfort if swallowed.

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

Eye contact Causes serious eye irritation.

EUCALYPTOL TRT

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,480.0

Species Rat

Notes (oral LD₅₀) LD₅₀ 2480 mg/kg, Oral, Rat

ATE oral (mg/kg) 2,480.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >5000 mg/kg, Dermal, Rabbit

Skin corrosion/irritation

Skin corrosion/irritation No information available.

Serious eye damage/irritation

Serious eye damage/irritation No information available.

Respiratory sensitisation

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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.

Toxicokinetics The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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 May cause an allergic skin reaction.

Eye contact May cause temporary eye irritation.

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

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 4,800.0

Species Rat

Notes (oral LD₅₀) LD₅₀ 4800 mg/kg, Oral, Rat

ATE oral (mg/kg) 4,800.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ 1.5 mg/kg, Inhalation, Dust/Mist, Rat

MYRCENE

MELALEUCA ALTERNIFOLIA EXT**Acute toxicity - oral**

Notes (oral LD₅₀) LD₅₀ > 5000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 5000 mg/kg, Dermal, Rabbit

PARA CYMENE**Acute toxicity - oral**

Acute toxicity oral (LD₅₀ mg/kg) 3,669.0

Species Rat

Notes (oral LD₅₀) LD₅₀ 3669 mg/kg, Oral, Rat

ATE oral (mg/kg) 3,669.0

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 3.0

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.

SECTION 12: Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Ecological information on ingredients.**CARYOPHYLLENE**

Ecotoxicity May cause long lasting harmful effects to aquatic life.

LIMONENE

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.

TERPINEOL

Ecotoxicity Toxic to aquatic life with long lasting effects.

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EUCALYPTOL TRT

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.

PARA CYMENE

Ecotoxicity Toxic to aquatic life with long lasting effects.

12.1. Toxicity

Toxicity Toxic to aquatic life.

Ecological information on ingredients.

ALPHA-TERPINENE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 1.48 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 1.85 mg/l, Daphnia magna

CARYOPHYLLENE

Toxicity May cause long lasting harmful effects to aquatic life.

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 LC₅₀, 96 hours: 0.702 - 0.720 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 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

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

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 LC₅₀, 96 hours: 0.72 - 6.104 mg/l, Fish

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Acute toxicity - aquatic invertebrates EC₅₀, 48 hour: 5.184 mg/kg, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hour: 5.4 mg/l, Algae
Chronic, NOEC, 72 hour: 3.47 mg/l, Algae

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 LC₅₀, 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

TERPINEOL**Acute aquatic toxicity**

Acute toxicity - fish No information available.

EUCALYPTOL TRT

Toxicity Not considered toxic to fish.

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 102 mg/l, Fish

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 EC₅₀, 48 hour: 10 - 100 mg/l, Daphnia magna

Chronic aquatic toxicity

M factor (Chronic) 1

PARA CYMENE

Toxicity Toxic to aquatic life.

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hour: 48 ppm, Fish

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Acute toxicity - aquatic
invertebrates

LC₅₀, 48 hour: 6500 µg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability The product is readily biodegradable.

Ecological information on ingredients.

LIMONENE

**Persistence and
degradability**

The product is not expected to be biodegradable.

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

**Persistence and
degradability**

The product is readily biodegradable.

Biodegradation

- Degradation 72%: 28 day
OECD 301D

2-PINENE

**Persistence and
degradability**

The product is readily biodegradable.

TERPINEOL

**Persistence and
degradability**

There are no data on the degradability of this product.

EUCALYPTOL TRT

**Persistence and
degradability**

The substance is readily biodegradable.

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

**Persistence and
degradability**

The product is readily biodegradable.

PARA CYMENE

**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.

CARYOPHYLLENE

Bioaccumulative potential Potentially bioaccumulating.

Partition coefficient log Pow: 6.23

MELALEUCA ALTERNIFOLIA EXT**LIMONENE****Bioaccumulative potential** BCF: 490 - 1460,**Partition coefficient** log Pow: 4.59**p-MENTHA-1,4(8)-DIENE****Bioaccumulative potential** Bioaccumulation is unlikely.**Partition coefficient** log Pow: 3.7**TERPINEOL****Bioaccumulative potential** No data available on bioaccumulation.**EUCALYPTOL TRT****Bioaccumulative potential** No data available on bioaccumulation.**Partition coefficient** log Pow: 2.97**PARA CYMENE****Bioaccumulative potential** No data available on bioaccumulation.**12.4. Mobility in soil****Mobility** Insoluble in water.**Ecological information on ingredients.****LIMONENE****Mobility** The product is insoluble in water.**2-PINENE****Mobility** The product is insoluble in water.**TERPINEOL****Mobility** No information available.**EUCALYPTOL TRT****Mobility** The product is insoluble in water.**PARA CYMENE****Mobility** Not determined.**12.5. Results of PBT and vPvB assessment****Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.**Ecological information on ingredients.****LIMONENE**

MELALEUCA ALTERNIFOLIA EXT

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

TERPINEOL

Results of PBT and vPvB assessment Not applicable.

EUCALYPTOL TRT

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

PARA CYMENE

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

12.6. Other adverse effects

Other adverse effects None known.

Ecological information on ingredients.

CARYOPHYLLENE

Other adverse effects The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

LIMONENE

Other adverse effects No information available.

TERPINEOL

Other adverse effects No information available.

EUCALYPTOL TRT

Other adverse effects The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

PARA CYMENE

Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Do not puncture or incinerate, even when empty. Empty containers or liners may retain some product residues and hence be potentially hazardous.

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

MELALEUCA ALTERNIFOLIA EXT

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)	1197
UN No. (IMDG)	1197
UN No. (ICAO)	1197
UN No. (ADN)	1197

14.2. UN proper shipping name

Proper shipping name (ADR/RID) EXTRACTS, FLAVOURING, LIQUID

Proper shipping name (IMDG) EXTRACTS, FLAVOURING, LIQUID (CONTAINS ALPHA-TERPINENE, LIMONENE)

Proper shipping name (ICAO) EXTRACTS, FLAVOURING, LIQUID

Proper shipping name (ADN) EXTRACTS, FLAVOURING, LIQUID

14.3. Transport hazard class(es)

ADR/RID class	3
ADR/RID classification code	F1
ADR/RID label	3
IMDG class	3
ICAO class/division	3
ADN class	3

Transport labels



14.4. Packing group

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-E, S-D
ADR transport category	3

MELALEUCA ALTERNIFOLIA EXT**Emergency Action Code** 3Y**Hazard Identification Number (ADR/RID)** 30**Tunnel restriction code** (D/E)**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code****Transport in bulk according to** Not applicable.**Annex II of MARPOL 73/78 and the IBC Code****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.

Seveso Directive - Control of major accident hazards P5c E2**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.

Inventories**EU - EINECS/ELINCS**

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

Australia - AICS

All the ingredients are listed or exempt.

Korea - KECI

Not listed.

China - IECSC

All the ingredients are listed or exempt.

Philippines – PICCS

All the ingredients are listed or exempt.

SECTION 16: Other information

MELALEUCA ALTERNIFOLIA EXT

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.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: 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.
 EC₅₀: 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

20/04/2023

Version number

1.000

SDS number

65469

SDS status

Approved.

MELALEUCA ALTERNIFOLIA EXT

Hazard statements in full

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H361 Suspected of damaging fertility or the unborn child.
H361d Suspected of damaging the unborn child.
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

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