



SAFETY DATA SHEET OIL OF CORIANDER

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

1.1. Product identifier

Product name OIL OF CORIANDER

Product number 65110

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

Identified uses Food / Feed additive Food industry

1.3. Details of the supplier of the safety data sheet

Supplier Univar Solutions UK Ltd
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. 65110

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards 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

Hazard pictograms



Signal word Danger

Hazard statements
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.

OIL OF CORIANDER

Precautionary statements	P202 Do not handle until all safety precautions have been read and understood.
	P273 Avoid release to the environment.
	P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
	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	2-PINENE, (±)-1-METHYL-4-(1-METHYLVINYL)CYCLOHEXENE, GERANYL ACETATE, GERANIOL, 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

3.2. Mixtures

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		
(±)-1-METHYL-4-(1-METHYLVINYL)CYCLOHEXENE		1-5%
CAS number: 7705-14-8	EC number: 231-732-0	
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		

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CAMPHENE			1-5%
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			
CAMPHOR			1-5%
CAS number: 76-22-2	EC number: 200-945-0	REACH registration number: 01-2119966156-31-XXXX	
Classification Flam. Sol. 2 - H228 Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT SE 2 - H371			
GERANYL ACETATE			1-5%
CAS number: 105-87-3	EC number: 203-341-5	REACH registration number: 01-2119973480-35-XXXX	
Classification Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412			
PARA CYMENE			<1%
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			

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GERANIOL <1%		
CAS number: 106-24-1	EC number: 203-377-1	REACH registration number: 01-2119552430-49-XXXX
Classification Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Skin Sens. 1 - H317		
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.

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	May be fatal if swallowed and enters airways.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.

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

Notes for the doctor	Treat symptomatically.
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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.
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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.

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

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. Store at temperatures above 8°C.

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

Occupational exposure limits

(±)-1-METHYL-4-(1-METHYLVINYL)CYCLOHEXENE

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Short-term exposure limit (15-minute): 50 ppm 300 mg/m³

CAMPHOR

Long-term exposure limit (8-hour TWA): WEL 2 ppm 13 mg/m³

Short-term exposure limit (15-minute): WEL 3 ppm 19 mg/m³

WEL = Workplace Exposure Limit.

CAMPHOR (CAS: 76-22-2)

DNEL

Workers - Inhalation; Long term systemic effects: 17.632 mg/m³
 Workers - Dermal; Long term systemic effects: 10 mg/kg/day
 General population, Consumer - Inhalation; Long term systemic effects: 4.348 mg/m³
 General population, Consumer - Dermal; Long term systemic effects: 5 mg/kg/day
 General population, Consumer - Oral; Long term systemic effects: 5 mg/kg/day
 General population - Inhalation; Long term systemic effects: 4.3478 mg/m³
 General population - Oral; Long term systemic effects: 5 mg/kg/day
 General population - Dermal; Long term systemic effects: 5 mg/kg/day
 Workers - Dermal; Long term systemic effects: 10 mg/kg/day
 Workers - Inhalation; Long term systemic effects: 17.6316 mg/m³

PNEC

Fresh water; 1.71 µg/l
 marine water; 0.171 µg/l
 STP; 1 mg/l
 Sediment (Freshwater); 0.139 mg/kg
 Sediment (Marinewater); 0.17 mg/kg
 Soil; 0.013 µg/kg

GERANYL ACETATE (CAS: 105-87-3)

DNEL

Workers - Inhalation; Long term systemic effects: 62.59 mg/m³
 Workers - Dermal; Long term systemic effects: 35.5 mg/kg
 Consumer - Inhalation; Long term systemic effects: 15.4 mg/m³
 Consumer - Dermal; : 17.75 mg/kg
 Consumer - Oral; : 8.9 mg/kg

PNEC

- Fresh water; 3.72 mg/l
 - marine water; 0.372 mg/l
 - STP; 8 mg/l
 - Sediment (Freshwater); 0.442 mg/kg
 - Sediment (Marinewater); 0.0442 mg/kg
 - Soil; 0.0859 mg/kg

GERANIOL (CAS: 106-24-1)

DNEL

Workers - Inhalation; Long term systemic effects: 161.6 mg/l
 Workers - Dermal; Long term systemic effects: 12.5 mg/kg
 Consumer - Oral; Long term systemic effects: 13.75 mg/kg
 Consumer - Inhalation; Long term systemic effects: 47.8 mg/m³
 Consumer - Dermal; Long term systemic effects: 7.5 mg/kg

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

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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

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.

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. 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	Colourless to pale yellow.
Odour	Characteristic.
Odour threshold	No information available.
pH	No information available.
Melting point	No information available.
Pour Point	No information available.
Freezing Point	No information available.
Initial boiling point and range	No information available.

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Flash point	64°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	0.863 - 0.875 @ 25°C
Bulk density	No information available.
Solubility(ies)	No information available.
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.
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	1.462 - 1.472
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.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.
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10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials to avoid Not determined.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 9,121.29

Acute toxicity - inhalation

ATE inhalation (gases ppm) 450,000.0

ATE inhalation (vapours mg/l) 255.81

ATE inhalation (dusts/mists mg/l) 150.0

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

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 Suspected of damaging fertility.

Reproductive toxicity - development Suspected of damaging the unborn child.

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.

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Ingestion	May be fatal if swallowed and enters airways. Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.

Toxicological information on ingredients.

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.

CAMPHENE

Acute toxicity - oral

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

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >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.

CAMPHOR

Acute toxicity - oral

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Acute toxicity oral (LD₅₀ mg/kg) 1,310.0

Species Rat

ATE oral (mg/kg) 1,310.0

Acute toxicity - dermal

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

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Harmful if inhaled.

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

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.

Reproductive toxicity

Reproductive toxicity - fertility No information available.

Specific target organ toxicity - single exposure

STOT - single exposure May cause damage to organs (Lungs) if inhaled.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

Inhalation Harmful if inhaled. Dust in high concentrations may irritate the respiratory system.

Ingestion Harmful if swallowed.

Skin contact Causes skin irritation.

Eye contact Causes serious eye damage. Particles in the eyes may cause irritation and smarting.

Acute and chronic health hazards May cause damage to organs (Lungs) if inhaled.

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Route of exposure	Inhalation
Target organs	Lungs

GERANYL ACETATEAcute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 6,330.0

Species Rat

Notes (oral LD₅₀) LD₅₀ 6330 mg/kg, Oral, Rat

ATE oral (mg/kg) 6,330.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 5,460.0

Species Rabbit

Notes (dermal LD₅₀) LD₅₀ 5460 mg/kg, Dermal, Rabbit

ATE dermal (mg/kg) 5,460.0

Skin corrosion/irritation

Skin corrosion/irritation Irritating to skin. Rabbit

Skin sensitisation

Skin sensitisation Local Lymph Node Assay (LLNA) - Mouse: Sensitising.

PARA CYMENEAcute 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.

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GERANIOLAcute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 3,600.0

Species Rat

Notes (oral LD₅₀) LD₅₀ 3600 mg/kg, Oral, Rat

ATE oral (mg/kg) 3,600.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 5,001.0

Species Rabbit

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

ATE dermal (mg/kg) 5,001.0

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.
Severe skin irritation. Rabbit

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.
Severe irritation. Cornea score: 3.1 - Rabbit

Skin sensitisation

Skin sensitisation May cause an allergic skin reaction.
Local Lymph Node Assay (LLNA) - Mouse: Sensitising.

p-MENTHA-1,4(8)-DIENEAcute toxicity - oral

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.

SECTION 12: Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Ecological information on ingredients.

OIL OF CORIANDER

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.

CAMPHENE

Ecotoxicity Very toxic to aquatic life with long lasting effects.

CAMPHOR

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.

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

(±)-1-METHYL-4-(1-METHYL VINYL)CYCLOHEXENE

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Chronic aquatic toxicity

M factor (Chronic) 1

CAMPHENE

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 0.1-1 mg/l, Fish

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Chronic aquatic toxicity

M factor (Chronic) 1

CAMPHOR

Toxicity Not considered toxic to fish.

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: ~ 17 mg/l, Pimephales promelas (Fat-head Minnow)
LC₅₀, 96 hour: 33.25 mg/l, Fish

GERANYL ACETATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 68.12 mg/l, Fish
OECD 203

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 14.1 mg/l, Daphnia magna
OECD 202

Acute toxicity - aquatic plants IC₅₀, 72 hours: 3.72 mg/l,
OECD 201
NOEC, 72 hour: 0.585 mg/l, Algae
OECD 201

PARA CYMENE

Toxicity Toxic to aquatic life.

Acute aquatic toxicity

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

Acute toxicity - aquatic invertebrates LC₅₀, 48 hour: 6500 µg/l, Daphnia magna

GERANIOL

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hour: 14 - 22 mg/l, Fish
OECD 203

Acute toxicity - aquatic invertebrates EC₅₀, 48 hour: 10.8 mg/l, Daphnia magna
OECD 202

Acute toxicity - aquatic plants IC₅₀, 72 hour: 13.1 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 LC₅₀, 96 hours: 0.72 - 6.104 mg/l, Fish

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

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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

12.2. Persistence and degradability

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

Ecological information on ingredients.

2-PINENE

Persistence and degradability

The product is readily biodegradable.

CAMPHOR

Persistence and degradability

Expected to be readily biodegradable.

GERANYL ACETATE

Persistence and degradability

The substance is readily biodegradable.

Biodegradation

- Degradation > 70%: 28 days
OECD 301F

PARA CYMENE

Persistence and degradability

There are no data on the degradability of this product.

GERANIOL

Persistence and degradability

The product is readily biodegradable.

Biodegradation

- Degradation 90 - 100%: 28 day
OECD 301A
- Degradation 82%: 28 day
OECD 301D

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

Persistence and degradability

The product is readily biodegradable.

Biodegradation

- Degradation 72%: 28 day
OECD 301D

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient No information available.

Ecological information on ingredients.

OIL OF CORIANDER

CAMPHENE

Bioaccumulative potential Potentially bioaccumulating.

Partition coefficient log Pow: 4.5

CAMPHOR

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient log Pow: 3.04

GERANYL ACETATE

Bioaccumulative potential Potentially bioaccumulating.

Partition coefficient log Pow: 4.5

PARA CYMENE

Bioaccumulative potential No data available on bioaccumulation.

GERANIOL

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient log Pow: 2.6

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

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient log Pow: 3.7

12.4. Mobility in soil

Mobility No information available.

Ecological information on ingredients.

2-PINENE

Mobility The product is insoluble in water.

CAMPHENE

Mobility The product is insoluble in water.

CAMPHOR

Mobility The product is partly soluble in water and may spread in the aquatic environment.

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.

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Ecological information on ingredients.

CAMPHOR

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

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.

CAMPHOR

Other adverse effects No information available.

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.

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)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS 2-PINENE, (±)-1-METHYL-4-(1-METHYLVINYL)CYCLOHEXENE)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS 2-PINENE, (±)-1-METHYL-4-(1-METHYLVINYL)CYCLOHEXENE)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS 2-PINENE, (±)-1-METHYL-4-(1-METHYLVINYL)CYCLOHEXENE)
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS 2-PINENE, (±)-1-METHYL-4-(1-METHYLVINYL)CYCLOHEXENE)

14.3. Transport hazard class(es)

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ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9

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-A, S-F
ADR transport category	3
Emergency Action Code	•3Z
Hazard Identification Number (ADR/RID)	90
Tunnel restriction code	(-)

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

OIL OF CORIANDER

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

No chemical safety assessment has been carried out.

SECTION 16: Other information

OIL OF CORIANDER

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.

Classification procedures according to Regulation (EC) 1272/2008

Asp. Tox. 1 - H304: Calculation method. Skin Irrit. 2 - H315: Calculation method. Skin Sens. 1 - H317: Calculation method. Eye Dam. 1 - H318: Calculation method. Repr. 2 - H361: Calculation method. Aquatic Chronic 2 - H411: Calculation method.

Revision comments

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

Revision date

14/02/2023

OIL OF CORIANDER

Version number	1.000
SDS number	65110
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. 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 if inhaled. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.
Signature	Jitendra Panchal

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.