



SAFETY DATA SHEET OIL OF CINNAMON LEAF CEYLON

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

1.1. Product identifier

Product name OIL OF CINNAMON LEAF CEYLON

Product number 64511

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
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. 64511

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 Muta. 2 - H341 Carc. 1B - H350
Repr. 2 - H361

Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements

Hazard pictograms



Signal word

Danger

OIL OF CINNAMON LEAF CEYLON

Hazard statements

H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H341 Suspected of causing genetic defects.
 H350 May cause cancer.
 H361 Suspected of damaging fertility or the unborn child.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P202 Do not handle until all safety precautions have been read and understood.
 P273 Avoid release to the environment.
 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

EUGENOL, LINALOOL, 2-PINENE, COUMARIN, PARA CYMENE, CINNAMALDEHYDE, 5 ALLYL 1 3 BENZODIOXOLE, (±)-1-METHYL-4-(1-METHYLVINYL)CYCLOHEXENE, 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

EUGENOL			60-100%
CAS number: 97-53-0	EC number: 202-589-1		
Classification Eye Irrit. 2 - H319 Skin Sens. 1 - H317			
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			
BENZYL BENZOATE			1-5%
CAS number: 120-51-4	EC number: 204-402-9		
M factor (Acute) = 1			
Classification Acute Tox. 4 - H302 Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411			

OIL OF CINNAMON LEAF CEYLON

COUMARIN			1-5%
CAS number: 91-64-5	EC number: 202-086-7	REACH registration number: 01-2119949300-45-XXXX	
Classification Acute Tox. 4 - H302 Skin Sens. 1 - H317			
5 ALLYL 1 3 BENZODIOXOLE			1-5%
CAS number: 94-59-7	EC number: 202-345-4		
Classification Acute Tox. 4 - H302 Muta. 2 - H341 Carc. 1B - H350			
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			
CINNAMALDEHYDE			1-5%
CAS number: 104-55-2	EC number: 203-213-9		
Classification Acute Tox. 4 - H312 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1A - H317			
2-PINENE			1-5%
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			

OIL OF CINNAMON LEAF CEYLON

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			

(±)-1-METHYL-4-(1-METHYLVINYL)CYCLOHEXENE			<1%
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 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.

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.

OIL OF CINNAMON LEAF CEYLON

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

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

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.

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

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.

OIL OF CINNAMON LEAF CEYLON

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

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

EUGENOL (CAS: 97-53-0)

DNEL	Workers - Inhalation; Long term systemic effects: 21.2 mg/m ³
	Workers - Dermal; Long term systemic effects: 6 mg/kg/day
	Consumer - Inhalation; Long term systemic effects: 5.22 mg/m ³
	Consumer - Dermal; Long term systemic effects: 3 mg/kg/day
	Consumer - Oral; Long term systemic effects: 3 mg/kg/day
PNEC	Fresh water; 1.13 µg/l
	marine water; 0.113 µg/l
	Sediment (Freshwater); 0.081 mg/kg
	Sediment (Marinewater); 0.008 mg/kg
	Soil; 0.015 mg/kg

BENZYL BENZOATE (CAS: 120-51-4)

DNEL	Workers - Inhalation; Long term systemic effects: 5.1 mg/m ³
	Workers - Dermal; Long term systemic effects: 2.6 mg/kg/day
	Consumer - Inhalation; Long term systemic effects: 1.25 mg/m ³
	Consumer - Dermal; Long term systemic effects: 1.3 mg/kg/day
	Consumer - Oral; Long term systemic effects: 0.4 mg/kg/day
PNEC	Fresh water; 0.017 mg/l
	marine water; 0.002 mg/l
	STP; 100 mg/l
	Sediment (Freshwater); 10.66 mg/kg
	Sediment (Marinewater); 1.07 mg/kg
	Soil; 2.12 mg/kg

LINALOOL (CAS: 78-70-6)

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

OIL OF CINNAMON LEAF CEYLON

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

CINNAMALDEHYDE (CAS: 104-55-2)

DNEL

Workers - Inhalation; Long term systemic effects: 13.6 mg/m³
 Workers - Oral; Long term systemic effects: 3.85 mg/kg/day
 Consumer - Inhalation; Long term systemic effects: 2.4 mg/m³
 Consumer - Oral; Long term systemic effects: 1.37 mg/kg/day

PNEC

Fresh water; 0.021 mg/l
 marine water; 0.002 mg/l
 STP; 7.1 mg/l
 Sediment (Freshwater); 0.021 mg/kg
 Sediment (Marinewater); 0.002 mg/kg
 Soil; 0.004 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

8.2. Exposure controls

Protective equipment



OIL OF CINNAMON LEAF CEYLON

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	Light (or pale). Brown. to Dark brown.
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	94°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	1.030 - 1.050 @ 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.

OIL OF CINNAMON LEAF CEYLON

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.
<u>9.2. Other information</u>	
Refractive index	1.529 - 1.537
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	No specific recommendations.
--------------------	------------------------------

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)	3,588.52
------------------	----------

Acute toxicity - dermal

ATE dermal (mg/kg)	26,829.27
--------------------	-----------

Acute toxicity - inhalation

ATE inhalation (vapours mg/l)	73.17
-------------------------------	-------

Skin corrosion/irritation

Skin corrosion/irritation	Causes skin irritation.
---------------------------	-------------------------

OIL OF CINNAMON LEAF CEYLON

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity

Genotoxicity - in vitro Suspected of causing genetic defects.

Carcinogenicity

Carcinogenicity May cause cancer.

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 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 Causes skin irritation. May cause an allergic skin reaction.

Eye contact Causes serious eye irritation.

Toxicological information on ingredients.

EUGENOL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,300.0

Species Rat

Notes (oral LD₅₀) LD₅₀ 2300 mg/kg, Oral, Rat

ATE oral (mg/kg) 2,300.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 2,580.0

Species Rat

Notes (inhalation LC₅₀) LC₅₀ 2580 mg/l, Dust/Mist, Inhalation, Rat

OIL OF CINNAMON LEAF CEYLON

ATE inhalation 2,580.0
(dusts/mists mg/l)

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Skin sensitisation

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

LINALOOLAcute toxicity - oral

Acute toxicity oral (LD₅₀ 2,790.0
mg/kg)

Species Rat

Notes (oral LD₅₀) LD₅₀ 2790 mg/kg, Oral, Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 5,610.0
mg/kg)

Species Rabbit

Notes (dermal LD₅₀) LD₅₀ 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

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.

OIL OF CINNAMON LEAF CEYLON

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.

BENZYL BENZOATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,500.0

Species Rat

Notes (oral LD₅₀) LD₅₀ 1500 mg/kg, Oral, Rat

ATE oral (mg/kg) 1,500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 4,000.0

Species Rabbit

Notes (dermal LD₅₀) LD₅₀ 4000 mg/kg, Dermal, Rabbit

Inhalation	Irritating to respiratory system.
Ingestion	Harmful if swallowed. Nausea, vomiting.
Skin contact	Slightly irritating.
Eye contact	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

COUMARIN

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 500.0

Species Rat

Notes (oral LD₅₀) LD₅₀ 500 mg/kg, Oral, Rat

ATE oral (mg/kg) 500.0

5 ALLYL 1 3 BENZODIOXOLE

Acute toxicity - oral

ATE oral (mg/kg) 500.0

PARA CYMENE

Acute toxicity - oral

OIL OF CINNAMON LEAF CEYLON

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.

CINNAMALDEHYDE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 2200 mg/kg, Oral, Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 1,100.0

Species Rabbit

Notes (dermal LD₅₀) Harmful in contact with skin.
LD₅₀ 1100 mg/kg, Dermal, Rabbit

ATE dermal (mg/kg) 1,100.0

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.
Irritating to eyes. Rabbit

Skin sensitisation

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity

Genotoxicity - in vitro Bacterial reverse mutation test: Negative.

2-PINENE

Acute toxicity - oral

OIL OF CINNAMON LEAF CEYLON

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.

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.

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

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.
-------------------------	--

OIL OF CINNAMON LEAF CEYLON

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.

LINALOOL

Ecotoxicity

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

BENZYL BENZOATE

Ecotoxicity

The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

PARA CYMENE

Ecotoxicity

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.

CAMPHENE

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

12.1. Toxicity

Toxicity

Toxic to aquatic life.

Ecological information on ingredients.

EUGENOL

Acute aquatic toxicity

Acute toxicity - fish

LC₅₀, 96 hour: 13 mg/l, Fish
OECD 203

Acute toxicity - aquatic invertebrates

EC₅₀, 48 hour: 1.3 mg/l, Daphnia magna
OECD 202

Acute toxicity - aquatic plants

IC₅₀, 72 hours: 24 mg/l, Algae
NOEC, 72 hours: 23 mg/l, Algae

LINALOOL

Toxicity

Not considered toxic to fish.

Acute aquatic toxicity

Acute toxicity - fish

LC₅₀, 96 hours: 27.8 mg/l, Fish
OECD 203

OIL OF CINNAMON LEAF CEYLON

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 59 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: 156.7 mg/l, Algae

BENZYL BENZOATE

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 2.3 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hour: 3.09 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hour: 0.475 mg/l, Algae
NOEC, 72 hour: 0.247 mg/l, Algae

COUMARIN

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hour: 56 mg/l, Fish

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

CINNAMALDEHYDE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hour: 4.5 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hour: 3.21 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hour: 16.09 mg/l, Algae

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

OIL OF CINNAMON LEAF CEYLON

Degradability Non-rapidly degradable

M factor (Chronic) 1

CAMPHENEAcute 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

Chronic aquatic toxicity

M factor (Chronic) 1

(±)-1-METHYL-4-(1-METHYL VINYL)CYCLOHEXENEAcute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Chronic aquatic toxicity

M factor (Chronic) 1

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

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.EUGENOL

Persistence and degradability The product is readily biodegradable.

LINALOOL

Persistence and degradability The product is readily biodegradable.

OIL OF CINNAMON LEAF CEYLON

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

BENZYL BENZOATE

Persistence and degradability The product is readily biodegradable.

Biodegradation - Degradation 94%: 28 day

COUMARIN

Persistence and degradability The product is readily biodegradable.

PARA CYMENE

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

CINNAMALDEHYDE

Persistence and degradability The product is readily biodegradable.

Biodegradation - Degradation 88%: 28 day

2-PINENE

Persistence and degradability The product is readily biodegradable.

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.

LINALOOL

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient log Kow: 2.7

BENZYL BENZOATE

Bioaccumulative potential Potentially bioaccumulating.

OIL OF CINNAMON LEAF CEYLON

Partition coefficient log Pow: 3.54 - 3.97

PARA CYMENE

Bioaccumulative potential No data available on bioaccumulation.

CINNAMALDEHYDE

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient log Pow: 2.1

CAMPHENE

Bioaccumulative potential Potentially bioaccumulating.

Partition coefficient log Pow: 4.5

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.

LINALOOL

Mobility The product is insoluble in water.

BENZYL BENZOATE

Mobility The product has poor water-solubility.

PARA CYMENE

Mobility Not determined.

2-PINENE

Mobility The product is insoluble in water.

CAMPHENE

Mobility The product is insoluble in water.

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.

LINALOOL

OIL OF CINNAMON LEAF CEYLON

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.

LINALOOL

Other adverse effects Not determined.

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. 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 The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

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 BENZYL BENZOATE, 2-PINENE)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS BENZYL BENZOATE, 2-PINENE)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS BENZYL BENZOATE, 2-PINENE)

Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS BENZYL BENZOATE, 2-PINENE)

14.3. Transport hazard class(es)

ADR/RID class 9

ADR/RID classification code M6

OIL OF CINNAMON LEAF CEYLON

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 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.
----------------	---

OIL OF CINNAMON LEAF CEYLON

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

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

OIL OF CINNAMON LEAF CEYLON

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	Skin Irrit. 2 - H315: Calculation method. Skin Sens. 1 - H317: Calculation method. Eye Irrit. 2 - H319: Calculation method. Muta. 2 - H341: Calculation method. Carc. 1B - H350: 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	19/01/2022
Version number	1.000
SDS number	64511
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. H312 Harmful in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H331 Toxic if inhaled. H341 Suspected of causing genetic defects. H350 May cause cancer. H361 Suspected of damaging fertility or 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.
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.