



DE HEKSERIJ

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 2/14/2024 Revision date: 3/25/2026 Supersedes version of: 2/14/2024 Version: 2.0

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

#### 1.1. Product identifier

Product form	: Substance (UVCB)
Substance name	: EO Litsea cubeba
IUPAC name	: Litsea cubeba, ext.
EC-No.	: 290-018-7
CAS-No.	: 90063-59-5
Product code	: 20128
Product group	: Trade product

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

##### Relevant identified uses

Intended for general public	
Main use category	: Professional use, Consumer use
Use of the substance/mixture	: Fragrance raw material

#### 1.3. Details of the supplier of the safety data sheet

De Hekserij  
Sporstraat 57  
8271 RG IJsselmuiden  
Nederland  
T +31 383 557 927  
[hekserij@hekserij.nl](mailto:hekserij@hekserij.nl), [www.hekserij.nl](http://www.hekserij.nl)

#### 1.4. Emergency telephone number

No additional information available

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Skin sensitisation, Category 1	H317
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411

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

##### Adverse physicochemical, human health and environmental effects

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazard statements (CLP)

: H304 - May be fatal if swallowed and enters airways.  
H315 - Causes skin irritation.

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Precautionary statements (CLP)	: H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H411 - Toxic to aquatic life with long lasting effects. P102 - Keep out of reach of children. P261 - Avoid breathing spray, vapours, fume. P273 - Avoid release to the environment. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P301+P310 - IF SWALLOWED: Immediately call a doctor, a POISON CENTER. P302+P352 - IF ON SKIN: Wash with plenty of soap and 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. P331 - Do NOT induce vomiting. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P391 - Collect spillage. P405 - Store locked up. P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Extra phrases	: Fragrance allergens (Cosmetics): ALPHA-TERPINENE 0,027 BENZALDEHYDE 0,003 BENZYL ALCOHOL 0,004 BETA-CARYOPHYLLENE 0,205 BETA-PINENES 0,5 CAMPHOR 0,003 CITRAL 67,92 CITRONELLOL 0,459 GERANIOL 1,294 GERANYL ACETATE 0,01 ISOEUGENOL 0,003 LINALOOL 2,753 METHYL SALICYLATE 0,05 PINENE 0,705 TERPINEOL 0,287 TERPINOLENE 0,06.

### 2.3. Other hazards

Contains no PBT and/or vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

Component	
Substance(s) not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605	Geraniol (106-24-1)

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type	: UVCB
Name	: EO Litsea cubeba
CAS-No.	: 90063-59-5
EC-No.	: 290-018-7

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
EO Litsea cubeba	CAS-No.: 90063-59-5 EC-No.: 290-018-7	100	See Section 2.1
Citral	CAS-No.: 5392-40-5 EC-No.: 226-394-6 EC Index-No.: 605-019-00-3 REACH-no: 01-2119462829-23	50 – 100	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
d-Limonene	CAS-No.: 5989-27-5 EC-No.: 227-813-5 EC Index-No.: 601-096-00-2	10 – 20	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Citronellal	CAS-No.: 106-23-0 EC-No.: 203-376-6	1 – 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Linalool	CAS-No.: 78-70-6 EC-No.: 201-134-4 EC Index-No.: 603-235-00-2	1 – 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
4-Carvomenthenol	CAS-No.: 562-74-3 EC-No.: 209-235-5	1 – 5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412
Geraniol	CAS-No.: 106-24-1 EC-No.: 203-377-1	1 – 5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
Nerol	CAS-No.: 106-25-2 EC-No.: 203-378-7	1 – 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Eucalyptol	CAS-No.: 470-82-6 EC-No.: 207-431-5	0.1 – 1	Flam. Liq. 3, H226 Skin Sens. 1B, H317
alpha-Pinene	CAS-No.: 80-56-8 EC-No.: 201-291-9	0.1 – 1	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
beta-Pinene	CAS-No.: 127-91-3 EC-No.: 204-872-5	0.1 – 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
Citronellol	CAS-No.: 106-22-9 EC-No.: 203-375-0	0.1 – 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
beta-Caryophyllene	CAS-No.: 87-44-5 EC-No.: 201-746-1	0.1 – 1	Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Isoeugenol	CAS-No.: 97-54-1 EC-No.: 202-590-7	0.001 – 0.1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1A, H317 STOT SE 3, H335

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Do not induce vomiting. Call a physician immediately.
Self protection of the first-aider	: First aid workers will be equipped with suitable personal protective equipment.

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

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: Risk of lung oedema.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

### 5.3. Advice for firefighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.  
Absorb spillage to prevent material damage.

##### For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.  
Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

##### For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".  
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

For containment : Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.  
Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.  
Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.  
Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.  
Storage conditions : Store locked up.  
Packaging materials : Always store product in container of same material as original container.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

##### Appropriate engineering controls

##### Appropriate engineering controls:

Ensure good ventilation of the work station.

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Personal protection equipment

#### Personal protective equipment:

Wear recommended personal protective equipment.

#### Personal protective equipment symbol(s):



### Eye and face protection

#### Eye protection:

Safety glasses

### Skin protection

#### Skin and body protection:

Wear suitable protective clothing

#### Hand protection:

Protective gloves

### Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

### Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: dark yellow. light yellow.
Odour	: Not available
Odour threshold	: Not available
Melting point	: < -20 °C
Freezing point	: Not available
Boiling point	: 232 °C
Flammability	: Non flammable.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 76 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 60.29 Pa Temp.: 25 °C
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 0.878 – 0.892
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

### 9.2. Other information

No additional information available

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

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

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

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

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

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

### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

EO Litsea cubeba (90063-59-5)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	4800 mg/kg bodyweight Animal: rabbit, Animal sex: female, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), 95% CL: 2400 - 9600
Citral (5392-40-5)	
LD50 oral rat	≈ 6800 mg/kg bodyweight Animal: rat
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat
d-Limonene (5989-27-5)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
Citronellal (106-23-0)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat
LD50 dermal rabbit	2500 – 5000 mg/kg bodyweight Animal: rabbit
Linalool (78-70-6)	
LD50 oral rat	2790 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2440 - 3180
LD50 oral	3120 mg/kg bodyweight Animal: mouse, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2620 - 3620
LD50 dermal rabbit	5610 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), 95% CL: 3578 - 8374

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

<b>4-Carvomenthenol (562-74-3)</b>	
LD50 oral rat	1300 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	2500 – 5000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Remarks on results: other:
<b>Geraniol (106-24-1)</b>	
LD50 oral rat	3600 mg/kg bodyweight Animal: rat, 95% CL: 2840 - 4570
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit
<b>Nerol (106-25-2)</b>	
LD50 oral rat	4500 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 3400 - 5600
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
<b>alpha-Pinene (80-56-8)</b>	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
<b>beta-Caryophyllene (87-44-5)</b>	
LD50 oral	> 5000 mg/kg bodyweight Animal: mouse, Animal sex: male, Remarks on results: not determinable due to absence of adverse toxic effects
<b>Isoeugenol (97-54-1)</b>	
LD50 oral	1500 mg/kg
LD50 dermal	1912 mg/kg
LC50 Inhalation - Rat (Vapours)	11 mg/l/4h
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
<b>Citral (5392-40-5)</b>	
NOAEL (chronic, oral, animal/male, 2 years)	60 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
<b>Citronellal (106-23-0)</b>	
NOAEL (chronic, oral, animal/male, 2 years)	60 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
<b>Geraniol (106-24-1)</b>	
NOAEL (chronic, oral, animal/male, 2 years)	60 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
<b>Isoeugenol (97-54-1)</b>	
NOAEL (chronic, oral, animal/male, 2 years)	300 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 451 (Carcinogenicity Studies)
NOAEL (chronic, oral, animal/female, 2 years)	150 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 451 (Carcinogenicity Studies)
Reproductive toxicity	: Not classified

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

<b>d-Limonene (5989-27-5)</b>	
NOAEL (animal/female, F0/P)	600 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: other:
STOT-single exposure	: Not classified
<b>Isoeugenol (97-54-1)</b>	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified.
<b>Citral (5392-40-5)</b>	
LOAEC (inhalation, rat, gas, 90 days)	68 ppm Animal: rat, Animal sex: female
NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEC (inhalation, rat, gas, 90 days)	34 ppm Animal: rat, Animal sex: female
NOAEL (subchronic, oral, animal/male, 90 days)	60 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
<b>Citronellal (106-23-0)</b>	
LOAEC (inhalation, rat, gas, 90 days)	68 ppm Animal: rat, Animal sex: female
NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEC (inhalation, rat, gas, 90 days)	34 ppm Animal: rat, Animal sex: female
NOAEL (subchronic, oral, animal/male, 90 days)	60 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
<b>Linalool (78-70-6)</b>	
NOAEL (dermal, rat/rabbit, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
<b>Geraniol (106-24-1)</b>	
NOAEL (dermal, rat/rabbit, 90 days)	300 mg/kg bodyweight Animal: rat, Guideline: other:, Guideline: other:
<b>Eucalyptol (470-82-6)</b>	
NOAEL (oral, rat, 90 days)	600 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: other:, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents), Guideline: EPA OPPTS 870.3150 (90-Day Oral Toxicity in Non-rodents)
<b>Citronellol (106-22-9)</b>	
NOAEL (oral, rat, 90 days)	2000 mg/kg bodyweight Animal: rat, Guideline: other:
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.063 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
<b>Isoeugenol (97-54-1)</b>	
NOAEL (subchronic, oral, animal/male, 90 days)	300 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (subchronic, oral, animal/female, 90 days)	600 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
Aspiration hazard	: May be fatal if swallowed and enters airways.

### 11.2. Information on other hazards

No additional information available

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 12: Ecological information

#### 12.1. Toxicity

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

Hazardous to the aquatic environment, short-term : Not classified

(acute)

Hazardous to the aquatic environment, long-term : Toxic to aquatic life with long lasting effects.

(chronic)

<b>EO Litsea cubeba (90063-59-5)</b>	
LC50 - Fish [1]	29.173 mg/l
EC50 - Crustacea [1]	21.995 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	13 mg/l
<b>Citral (5392-40-5)</b>	
LC50 - Fish [1]	6.78 mg/l Test organisms (species): Leuciscus idus
EC50 - Crustacea [1]	6.8 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	103.8 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
<b>d-Limonene (5989-27-5)</b>	
LC50 - Fish [1]	720 µg/l Test organisms (species): Pimephales promelas
LC50 - Fish [2]	702 µg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	0.307 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	0.51 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	0.32 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	0.214 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
<b>Citronellal (106-23-0)</b>	
LC50 - Fish [1]	≈ 22 mg/l Test organisms (species): Leuciscus idus
EC50 - Crustacea [1]	8.7 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	13.33 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	6.74 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
<b>Linalool (78-70-6)</b>	
LC50 - Fish [1]	27.8 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	59 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	88.3 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 96h - Algae [2]	156.7 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
<b>4-Carvomenthenol (562-74-3)</b>	
LC50 - Fish [1]	15.6 mg/l Test organisms (species):
EC50 - Other aquatic organisms [1]	26.6 mg/l Test organisms (species):

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

<b>Geraniol (106-24-1)</b>	
LC50 - Fish [1]	≈ 22 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	10.8 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	13.1 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
<b>Nerol (106-25-2)</b>	
LC50 - Fish [1]	20.3 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	32.4 mg/l Test organisms (species): Daphnia magna
<b>Eucalyptol (470-82-6)</b>	
LC50 - Fish [1]	57 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 74 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	> 74 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
<b>alpha-Pinene (80-56-8)</b>	
LC50 - Fish [1]	0.303 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	0.475 mg/l Test organisms (species): Daphnia magna
<b>Citronellol (106-22-9)</b>	
LC50 - Fish [1]	14.66 mg/l Test organisms (species): Leuciscus idus
EC50 - Crustacea [1]	17.48 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	2.4 mg/l Test organisms (species):
<b>beta-Caryophyllene (87-44-5)</b>	
EC50 - Crustacea [1]	> 0.17 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 0.033 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
<b>Isoeugenol (97-54-1)</b>	
LC50 - Fish [1]	3.6 mg/l Test organisms (species): other:
EC50 - Other aquatic organisms [1]	3 mg/l Test organisms (species): other:
EC50 72h - Algae [1]	5.6 mg/l Test organisms (species): other:
<b>12.2. Persistence and degradability</b>	
<b>EO Litsea cubeba (90063-59-5)</b>	
Persistence and degradability	Not rapidly degradable
<b>Citral (5392-40-5)</b>	
Persistence and degradability	Not rapidly degradable
<b>d-Limonene (5989-27-5)</b>	
Persistence and degradability	Not rapidly degradable

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

<b>Citronellal (106-23-0)</b>	
Persistence and degradability	Not rapidly degradable
<b>Linalool (78-70-6)</b>	
Persistence and degradability	Not rapidly degradable
<b>4-Carvomenthenol (562-74-3)</b>	
Persistence and degradability	Not rapidly degradable
<b>Geraniol (106-24-1)</b>	
Persistence and degradability	Not rapidly degradable
<b>Nerol (106-25-2)</b>	
Persistence and degradability	Not rapidly degradable
<b>Eucalyptol (470-82-6)</b>	
Persistence and degradability	Not rapidly degradable
<b>alpha-Pinene (80-56-8)</b>	
Persistence and degradability	Not rapidly degradable
<b>beta-Pinene (127-91-3)</b>	
Persistence and degradability	Not rapidly degradable
<b>Citronellol (106-22-9)</b>	
Persistence and degradability	Not rapidly degradable
<b>beta-Caryophyllene (87-44-5)</b>	
Persistence and degradability	Not rapidly degradable
<b>Isoeugenol (97-54-1)</b>	
Persistence and degradability	Not rapidly degradable

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

- Regional waste regulation : Disposal must be done according to official regulations.  
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

# EO Litsea cubeba






## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Sewage disposal recommendations : Disposal must be done according to official regulations.  
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.  
Additional information : Do not re-use empty containers.

### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
<b>14.2. UN proper shipping name</b>				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Litsea cubeba)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Litsea cubeba)	Environmentally hazardous substance, liquid, n.o.s. (EO Litsea cubeba)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Litsea cubeba)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Litsea cubeba)
<b>Transport document description</b>				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Litsea cubeba), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Litsea cubeba), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (EO Litsea cubeba), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Litsea cubeba), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Litsea cubeba), 9, III
<b>14.3. Transport hazard class(es)</b>				
9	9	9	9	9
				
<b>14.4. Packing group</b>				
III	III	III	III	III
<b>14.5. Environmental hazards</b>				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes EmS-No. (Fire): F-A EmS-No. (Spillage): S-F	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Classification code (ADR) : M6  
Special provisions (ADR) : 274, 335, 375, 601  
Limited quantities (ADR) : 5I  
Excepted quantities (ADR) : E1  
Packing instructions (ADR) : P001, IBC03, LP01, R001  
Special packing provisions (ADR) : PP1  
Mixed packing provisions (ADR) : MP19  
Portable tank and bulk container instructions (ADR) : T4  
Portable tank and bulk container special provisions (ADR) : TP1, TP29  
Tank code (ADR) : LGBV

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Vehicle for tank carriage : AT  
Transport category (ADR) : 3  
Special provisions for carriage - Packages (ADR) : V12  
Special provisions for carriage - Loading, unloading and handling (ADR) : CV13  
Hazard identification number (Kemler No.) : 90  
Orange plates :



Tunnel restriction code (ADR) : -

### Transport by sea

Special provisions (IMDG) : 274, 335, 969  
Limited quantities (IMDG) : 5 L  
Excepted quantities (IMDG) : E1  
Packing instructions (IMDG) : LP01, P001  
Special packing provisions (IMDG) : PP1  
IBC packing instructions (IMDG) : IBC03  
Tank instructions (IMDG) : T4  
Tank special provisions (IMDG) : TP1, TP29  
Stowage category (IMDG) : A

### Air transport

PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y964  
PCA limited quantity max net quantity (IATA) : 30kgG  
PCA packing instructions (IATA) : 964  
PCA max net quantity (IATA) : 450L  
CAO packing instructions (IATA) : 964  
CAO max net quantity (IATA) : 450L  
Special provisions (IATA) : A97, A158, A197, A215  
ERG code (IATA) : 9L

### Inland waterway transport

Classification code (ADN) : M6  
Special provisions (ADN) : 274, 335, 375, 601  
Limited quantities (ADN) : 5 L  
Excepted quantities (ADN) : E1  
Carriage permitted (ADN) : T  
Equipment required (ADN) : PP  
Number of blue cones/lights (ADN) : 0

### Rail transport

Classification code (RID) : M6  
Special provisions (RID) : 274, 335, 375, 601  
Limited quantities (RID) : 5L  
Excepted quantities (RID) : E1  
Packing instructions (RID) : P001, IBC03, LP01, R001  
Special packing provisions (RID) : PP1  
Mixed packing provisions (RID) : MP19  
Portable tank and bulk container instructions (RID) : T4  
Portable tank and bulk container special provisions (RID) : TP1, TP29  
Tank codes for RID tanks (RID) : LGBV  
Transport category (RID) : 3  
Special provisions for carriage – Packages (RID) : W12  
Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW31  
Colis express (express parcels) (RID) : CE8  
Hazard identification number (RID) : 90

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### EU-Regulations

##### REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(a)	d-Limonene ; Eucalyptol ; alpha-Pinene ; beta-Pinene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	EO Litsea cubeba ; Citral ; d-Limonene ; Citronellal ; Linalool ; 4-Carvomenthenol ; Geraniol ; Nerol ; Eucalyptol ; alpha-Pinene ; beta-Pinene ; Citronellol ; beta-Caryophyllene ; Isoeugenol	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	EO Litsea cubeba ; d-Limonene ; 4-Carvomenthenol ; alpha-Pinene ; beta-Caryophyllene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

##### REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

##### Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

##### Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

##### Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### National regulations

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SZW-lijst van mutagene stoffen	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: The substance is not listed

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Abbreviations and acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS-No.	Chemical Abstracts Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disruptor
EN	European Standard
EWC	European waste catalogue
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:	
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TF	Technical function
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TWA	Time Weighted Average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
UFI	Unique Formula Identifier

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
Skin Sens. 1B	Skin sensitisation, category 1B
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.

# EO Litsea cubeba

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Full text of H- and EUH-statements:	
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
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.

Safety Data Sheet (SDS), EU

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