



DE HEKSERIJ

# EO Rosemary CT cineol

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 1/31/2024 Revision date: 7/2/2025 Supersedes version of: 1/31/2024 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 Rosemary CT cineol
IUPAC name	: Rosemary, ext.
EC-No.	: 283-291-9
CAS-No.	: 84604-14-8
REACH registration No.	: 01-2120086955-39
Product code	: 20106
Product group	: Trade product
Other means of identification	: Essential oil of Rosmarinus officinalis L. (Lamiaceae) obtained from leaves, flowers and twigs by steam distillation

#### 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]

Flammable liquids, Category 3	H226
Serious eye damage/eye irritation, Category 2	H319
Skin sensitisation, category 1B	H317
Specific target organ toxicity – Single exposure, Category 2	H371
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410

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

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

Flammable liquid and vapour. May cause damage to organs. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May be fatal if swallowed and enters airways. Very toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

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

Hazard pictograms (CLP)



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Signal word (CLP)	: Danger
Hazard statements (CLP)	: H226 - Flammable liquid and vapour. H304 - May be fatal if swallowed and enters airways. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H371 - May cause damage to organs (central nervous system) (oral). H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P102 - Keep out of reach of children. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed. P270 - Do not eat, drink or smoke when using this product. P260 - Do not breathe vapours, fume. P273 - Avoid release to the environment. P280 - Wear eye protection, face protection, protective gloves, protective clothing. P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER, a doctor. 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. P308+P311 - IF exposed or concerned: Call doctor, a POISON CENTER. 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. P403+P235 - Store in a well-ventilated place. Keep cool. 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 BETA-CARYOPHYLLENE BETA-PINENES CAMPHOR CITRONELLOL COUMARIN EUGENOL GERANIOL GERANYL ACETATE LINALOOL LINALYL ACETATE NERAL PINENE TERPINOLENE.

### 2.3. Other hazards

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

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type	: UVCB
Name	: EO Rosemary CT cineol
CAS-No.	: 84604-14-8
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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
EO Rosemary CT cineol	CAS-No.: 84604-14-8 EC-No.: 283-291-9 REACH-no: 01-2120086955-39	100	See Section 2.1
alpha-Pinene	CAS-No.: 80-56-8 EC-No.: 201-291-9	10 – 15	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
Camphor	CAS-No.: 76-22-2 EC-No.: 200-945-0	10 – 15	Flam. Sol. 2, H228 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 STOT SE 2, H371
beta-Caryophyllene	CAS-No.: 87-44-5 EC-No.: 201-746-1	10 – 15	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	10 – 15	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
p-menth-1-en-8-ol	CAS-No.: 98-55-5 EC-No.: 202-680-6 REACH-no: 01-2119980717-23	5 – 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319
d-Limonene	CAS-No.: 5989-27-5 EC-No.: 227-813-5 EC Index-No.: 601-096-00-2	1 – 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
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
Terpinolene	CAS-No.: 586-62-9 EC-No.: 209-578-0	1 – 2	Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
alpha-Terpinene	CAS-No.: 99-86-5 EC-No.: 202-795-1 EC Index-No.: 601-095-00-7	1 – 2	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Coumarin	CAS-No.: 91-64-5 EC-No.: 202-086-7 REACH-no: 01-2119949300-45	0.1 – 1	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Sens. 1, H317 Aquatic Chronic 3, H412

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Linalyl acetate	CAS-No.: 115-95-7 EC-No.: 204-116-4 REACH-no: 01-2119454789-19	0.1 – 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Geraniol	CAS-No.: 106-24-1 EC-No.: 203-377-1	0.1 – 1	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
Eugenol	CAS-No.: 97-53-0 EC-No.: 202-589-1	0.1 – 1	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317
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

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	: Rinse skin with water/shower. Take off immediately all 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.

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

Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
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	: Flammable liquid and vapour.
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.
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Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### 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. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

##### 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. Notify authorities if product enters sewers or public waters.  
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. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.  
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 : Ground/bond container and receiving equipment.  
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.  
Packaging materials : Store always product in container of same material as original container.

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

No additional information available

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### 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.

##### 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	: colourless to pale yellow.
Odour	: Not available
Odour threshold	: Not available
Melting point	: < -20 °C
Freezing point	: Not available
Boiling point	: 158 – 210 °C Atm. press.: 1034 hPa
Flammability	: Flammable liquid and vapour.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 47.3 °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	: Not available

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Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Flammable liquid and vapour.

### 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

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 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

alpha-Pinene (80-56-8)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
Camphor (76-22-2)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 10 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
beta-Caryophyllene (87-44-5)	
LD50 oral	> 5000 mg/kg bodyweight Animal: mouse, Animal sex: male, Remarks on results: not determinable due to absence of adverse toxic effects
p-menth-1-en-8-ol (98-55-5)	
LD50 oral rat	4300 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2900 - 5700
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

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<b>d-Limonene (5989-27-5)</b>	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
<b>Linalool (78-70-6)</b>	
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
<b>Terpinolene (586-62-9)</b>	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
<b>alpha-Terpinene (99-86-5)</b>	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
<b>Coumarin (91-64-5)</b>	
LD50 oral rat	293 mg/kg bodyweight Animal: rat, Guideline: other:
LD50 dermal rat	293 mg/kg bodyweight Animal: rat, Guideline: other:
<b>Linalyl acetate (115-95-7)</b>	
LD50 oral rat	> 9000 mg/kg bodyweight Animal: rat
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit
<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>Eugenol (97-53-0)</b>	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 oral	1500 – 1500 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
Skin corrosion/irritation	: Not classified.
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>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)
Reproductive toxicity	: Not classified
<b>d-Limonene (5989-27-5)</b>	
NOAEL (animal/female, F0/P)	600 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: other:



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<b>Coumarin (91-64-5)</b>	
NOAEL (animal/female, F0/P)	> 333 mg/kg bodyweight Animal: rat, Animal sex: female
STOT-single exposure	: May cause damage to organs (central nervous system) (oral).
<b>Camphor (76-22-2)</b>	
STOT-single exposure	May cause damage to organs.
STOT-repeated exposure	: Not classified
<b>Camphor (76-22-2)</b>	
NOAEL (oral, rat, 90 days)	3.2 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (dermal, rat/rabbit, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: other:
<b>p-menth-1-en-8-ol (98-55-5)</b>	
NOAEL (oral, rat, 90 days)	≥ 314 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
<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>Coumarin (91-64-5)</b>	
NOAEL (subchronic, oral, animal/female, 90 days)	> 138.3 mg/kg bodyweight Animal: mouse, Animal sex: female
<b>Linalyl acetate (115-95-7)</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>Eugenol (97-53-0)</b>	
NOAEL (subchronic, oral, animal/male, 90 days)	≥ 900 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: other:
NOAEL (subchronic, oral, animal/female, 90 days)	450 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: other:
<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)
Aspiration hazard	: May be fatal if swallowed and enters airways.
<b>Linalyl acetate (115-95-7)</b>	
Viscosity, kinematic	2.772 mm²/s

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.  
Hazardous to the aquatic environment, short-term : Not classified.  
(acute)

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Hazardous to the aquatic environment, long-term : Very toxic to aquatic life with long lasting effects.  
(chronic)

alpha-Pinene (80-56-8)	
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
Camphor (76-22-2)	
LC50 - Fish [1]	33.25 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	4.23 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	0.3 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	1.71 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
beta-Caryophyllene (87-44-5)	
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)
p-menth-1-en-8-ol (98-55-5)	
LC50 - Fish [1]	70 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	73 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	≈ 68 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	≈ 17 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
d-Limonene (5989-27-5)	
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)
Linalool (78-70-6)	
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)
Terpinolene (586-62-9)	
LC50 - Fish [1]	0.805 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	0.634 mg/l Test organisms (species): Daphnia magna

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<b>Terpinolene (586-62-9)</b>	
EC50 72h - Algae [1]	11.69 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
<b>alpha-Terpinene (99-86-5)</b>	
LC50 - Fish [1]	3150 µg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	1.7 mg/l Test organisms (species): Daphnia magna
<b>Coumarin (91-64-5)</b>	
LC50 - Fish [1]	2.94 mg/l Test organisms (species):
LC50 - Fish [2]	1.324 mg/l Test organisms (species):
EC50 - Crustacea [1]	8.012 mg/l Test organisms (species): Daphnia sp.
EC50 96h - Algae [1]	1.452 mg/l Test organisms (species):
NOEC (chronic)	0.5 mg/l Test organisms (species): Duration: '21 d'
NOEC chronic fish	0.191 mg/l Test organisms (species): Duration: '30 d'
<b>Linalyl acetate (115-95-7)</b>	
LC50 - Fish [1]	11 mg/l Test organisms (species): Cyprinus carpio
EC50 - Crustacea [1]	59 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>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>Eugenol (97-53-0)</b>	
LC50 - Fish [1]	13 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	1.05 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>12.2. Persistence and degradability</b>	
<b>EO Rosemary CT cineol (84604-14-8)</b>	
Persistence and degradability	Not rapidly degradable
<b>alpha-Pinene (80-56-8)</b>	
Persistence and degradability	Not rapidly degradable
<b>Camphor (76-22-2)</b>	
Persistence and degradability	Not rapidly degradable
<b>beta-Caryophyllene (87-44-5)</b>	
Persistence and degradability	Not rapidly degradable

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<b>beta-Pinene (127-91-3)</b>	
Persistence and degradability	Not rapidly degradable
<b>p-menth-1-en-8-ol (98-55-5)</b>	
Persistence and degradability	Not rapidly degradable
<b>d-Limonene (5989-27-5)</b>	
Persistence and degradability	Not rapidly degradable
<b>Linalool (78-70-6)</b>	
Persistence and degradability	Not rapidly degradable
<b>Terpinolene (586-62-9)</b>	
Persistence and degradability	Not rapidly degradable
<b>alpha-Terpinene (99-86-5)</b>	
Persistence and degradability	Not rapidly degradable
<b>Coumarin (91-64-5)</b>	
Persistence and degradability	Not rapidly degradable
<b>Linalyl acetate (115-95-7)</b>	
Persistence and degradability	Not rapidly degradable
<b>Geraniol (106-24-1)</b>	
Persistence and degradability	Not rapidly degradable
<b>Eugenol (97-53-0)</b>	
Persistence and degradability	Not rapidly degradable
<b>Citronellol (106-22-9)</b>	
Persistence and degradability	Not rapidly degradable

### 12.3. Bioaccumulative potential

<b>Linalyl acetate (115-95-7)</b>	
Partition coefficient n-octanol/water (Log Pow)	3.9

### 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

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### 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.
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	: Flammable vapours may accumulate in the container. 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 1197	UN 1197	UN 1197	UN 1197	UN 1197
<b>14.2. UN proper shipping name</b>				
EXTRACTS, LIQUID (EO Rosemary CT cineol)	EXTRACTS, LIQUID (EO Rosemary CT cineol)	Extracts, liquid (EO Rosemary CT cineol)	EXTRACTS, LIQUID (EO Rosemary CT cineol)	EXTRACTS, LIQUID (EO Rosemary CT cineol)
<b>Transport document description</b>				
UN 1197 EXTRACTS, LIQUID (EO Rosemary CT cineol), 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1197 EXTRACTS, LIQUID (EO Rosemary CT cineol), 3, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1197 Extracts, liquid (EO Rosemary CT cineol), 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1197 EXTRACTS, LIQUID (EO Rosemary CT cineol), 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1197 EXTRACTS, LIQUID (EO Rosemary CT cineol), 3, III, ENVIRONMENTALLY HAZARDOUS
<b>14.3. Transport hazard class(es)</b>				
3	3	3	3	3
<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-E EmS-No. (Spillage): S-D	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

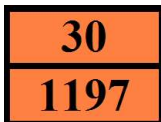
Classification code (ADR)	: F1
Special provisions (ADR)	: 601
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T2
Portable tank and bulk container special provisions (ADR)	: TP1

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Tank code (ADR) : LGBF  
Vehicle for tank carriage : FL  
Transport category (ADR) : 3  
Special provisions for carriage - Packages (ADR) : V12  
Special provisions for carriage - Operation (ADR) : S2  
Hazard identification number (Kemler No.) : 30  
Orange plates :



Tunnel restriction code (ADR) : D/E

### Transport by sea

Special provisions (IMDG) : 223, 955  
Limited quantities (IMDG) : 5 L  
Excepted quantities (IMDG) : E1  
Packing instructions (IMDG) : P001, LP01  
IBC packing instructions (IMDG) : IBC03  
Tank instructions (IMDG) : T2  
Tank special provisions (IMDG) : TP1  
Stowage category (IMDG) : A  
Properties and observations (IMDG) : Usually consist of alcoholic solutions. Miscibility with water depends upon the composition.

### Air transport

PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y344  
PCA limited quantity max net quantity (IATA) : 10L  
PCA packing instructions (IATA) : 355  
PCA max net quantity (IATA) : 60L  
CAO packing instructions (IATA) : 366  
CAO max net quantity (IATA) : 220L  
Special provisions (IATA) : A3  
ERG code (IATA) : 3L

### Inland waterway transport

Classification code (ADN) : F1  
Special provisions (ADN) : 601  
Limited quantities (ADN) : 5 L  
Excepted quantities (ADN) : E1  
Equipment required (ADN) : PP, EX, A  
Ventilation (ADN) : VE01  
Number of blue cones/lights (ADN) : 0

### Rail transport

Classification code (RID) : F1  
Special provisions (RID) : 601  
Limited quantities (RID) : 5L  
Excepted quantities (RID) : E1  
Packing instructions (RID) : P001, IBC03, LP01, R001  
Mixed packing provisions (RID) : MP19  
Portable tank and bulk container instructions (RID) : T2  
Portable tank and bulk container special provisions (RID) : TP1  
Tank codes for RID tanks (RID) : LGBF  
Transport category (RID) : 3  
Special provisions for carriage – Packages (RID) : W12  
Colis express (express parcels) (RID) : CE4  
Hazard identification number (RID) : 30

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

Not applicable

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### 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)	EO Rosemary CT cineol ; alpha-Terpinene ; d- Limonene ; 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 Rosemary CT cineol ; alpha-Terpinene ; beta- Caryophyllene ; Citronellol ; Eugenol ; Geraniol ; d- Limonene ; Linalool ; Linalyl acetate ; alpha- Pinene ; beta-Pinene ; Terpinolene ; p-menth-1- en-8-ol	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 Rosemary CT cineol ; alpha-Terpinene ; beta- Caryophyllene ; d- Limonene ; alpha-Pinene ; Terpinolene	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)

Not listed on the PIC list (Regulation EU 649/2012)

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

Not listed on the POP list (Regulation EU 2019/1021)

##### 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	:	EO Rosemary CT cineol is listed
SZW-lijst van mutagene stoffen	:	EO Rosemary CT cineol is 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

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### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### SECTION 16: Other information

#### Abbreviations and acronyms:

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)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
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
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor



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Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
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
Flam. Sol. 2	Flammable solids, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
STOT SE 2	Specific target organ toxicity – Single exposure, Category 2
H226	Flammable liquid and vapour.
H228	Flammable solid.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H371	May cause damage to organs (central nervous system) (oral).
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.