



DE HEKSERIJ

# EO Petitgrain Paraguay

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 5/15/2024 Revision date: 3/5/2026 Supersedes version of: 8/28/2024 Version: 3.0

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

#### 1.1. Product identifier

Product form	: Substance (UVCB)
Substance name	: EO Petitgrain Paraguay
IUPAC name	: Orange, sour, ext.
EC-No.	: 277-143-2
CAS-No.	: 72968-50-4
Product code	: 20112
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.

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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 vapours, spray, fume. P273 - Avoid release to the environment. P280 - Wear protective gloves, protective clothing, face protection, eye 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 0,05 BETA-CARYOPHYLLENE 0,8 CITRAL 0,2 GERANIOL 3,5 GERANYL ACETATE 4,1 LIMONENE 1,5 LINALOOL 25 LINALYL ACETATE 48 PINENE 1,4 TERPINEOL 6,2 TERPINOLENE 0,5.

### 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 Petitgrain Paraguay
CAS-No.	: 72968-50-4
EC-No.	: 277-143-2

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
EO Petitgrain Paraguay	CAS-No.: 72968-50-4 EC-No.: 277-143-2	100	See Section 2.1

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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	25 – 50	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Linalool	CAS-No.: 78-70-6 EC-No.: 201-134-4 EC Index-No.: 603-235-00-2	10 – 25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Terpineol	CAS-No.: 8000-41-7 EC-No.: 232-268-1 REACH-no: 01-2119553062-49	5 – 7.5	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Geranyl acetate	CAS-No.: 105-87-3 EC-No.: 203-341-5 REACH-no: 01-2119973480-35	3 – 5	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Geraniol	CAS-No.: 106-24-1 EC-No.: 203-377-1	3 – 5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
Myrcene	CAS-No.: 123-35-3 EC-No.: 204-622-5	1 – 3	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
trans-beta-Ocimene	CAS-No.: 3779-61-1 EC-No.: 223-241-5	1 – 3	Not classified
Neryl acetate	CAS-No.: 141-12-8 EC-No.: 205-459-2	1 – 3	Skin Sens. 1B, H317
l-Limonene	CAS-No.: 5989-54-8 EC-No.: 227-815-6	1 – 3	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Nerol	CAS-No.: 106-25-2 EC-No.: 203-378-7	1 – 3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
cis-beta-Ocimene	CAS-No.: 3338-55-4 EC-No.: 222-081-3	1 – 3	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
beta-Caryophyllene	CAS-No.: 87-44-5 EC-No.: 201-746-1	< 1	Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Terpinolene	CAS-No.: 586-62-9 EC-No.: 209-578-0	< 1	Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
delta-3-Carene	CAS-No.: 13466-78-9 EC-No.: 236-719-3	< 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
Citral	CAS-No.: 5392-40-5 EC-No.: 226-394-6 EC Index-No.: 605-019-00-3 REACH-no: 01-2119462829-23	< 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
4-Carvomenthenol	CAS-No.: 562-74-3 EC-No.: 209-235-5	≤ 1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412
Eucalyptol	CAS-No.: 470-82-6 EC-No.: 207-431-5	≤ 1	Flam. Liq. 3, H226 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	: 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.

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### 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.

## 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

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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	: light yellow.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 64 °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	: 191.8 Pa Temp.: 25 °C

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Vapour pressure at 50°C	: Not available
Density	: 0.888 g/cm <sup>3</sup>
Relative density	: 0.8504 Type: 'relative density' Temp.: 20 °C
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

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 Petitgrain Paraguay (72968-50-4)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat
LD50 dermal rabbit	8.5 mg/kg bodyweight Animal: rabbit
Linalyl acetate (115-95-7)	
LD50 oral rat	> 9000 mg/kg bodyweight Animal: rat
LD50 dermal rabbit	> 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

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<b>Terpineol (8000-41-7)</b>	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 4.76 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
<b>Geranyl acetate (105-87-3)</b>	
LD50 oral rat	6330 mg/kg bodyweight Animal: rat, 95% CL: 5450 - 7340
<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>Myrcene (123-35-3)</b>	
LD50 oral rat	> 11390 mg/kg bodyweight Animal: rat
LD50 oral	> 3380 mg/kg bodyweight Animal: mouse
LD50 dermal rabbit	> 5000 mg/l Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
<b>Neryl acetate (141-12-8)</b>	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method)
<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>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>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>Citral (5392-40-5)</b>	
LD50 oral rat	≈ 6800 mg/kg bodyweight Animal: rat
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat
<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:

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

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Carcinogenicity : Not classified

### Geraniol (106-24-1)

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)
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### Citral (5392-40-5)

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)
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Reproductive toxicity : Not classified

### Terpineol (8000-41-7)

NOAEL (animal/male, F0/P)	250 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
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NOAEL (animal/female, F0/P)	> 250 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
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STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

### Linalyl acetate (115-95-7)

NOAEL (dermal, rat/rabbit, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
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### Linalool (78-70-6)

NOAEL (dermal, rat/rabbit, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
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### Terpineol (8000-41-7)

NOAEL (oral, rat, 90 days)	250 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
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### Geranyl acetate (105-87-3)

NOAEL (oral, rat, 90 days)	2000 mg/kg bodyweight Animal: rat, Guideline: other:
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### Geraniol (106-24-1)

NOAEL (dermal, rat/rabbit, 90 days)	300 mg/kg bodyweight Animal: rat, Guideline: other:, Guideline: other:
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### Myrcene (123-35-3)

LOAEL (oral, rat, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
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NOAEL (subchronic, oral, animal/male, 90 days)	500 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
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NOAEL (subchronic, oral, animal/female, 90 days)	250 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
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### Citral (5392-40-5)

LOAEC (inhalation, rat, gas, 90 days)	68 ppm Animal: rat, Animal sex: female
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NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
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NOAEC (inhalation, rat, gas, 90 days)	34 ppm Animal: rat, Animal sex: female
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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)
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### Eucalyptol (470-82-6)

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)
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Aspiration hazard : May be fatal if swallowed and enters airways.

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

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

### Linalyl acetate (115-95-7)

LC50 - Fish [1]	11 mg/l Test organisms (species): <i>Cyprinus carpio</i>
EC50 - Crustacea [1]	59 mg/l Test organisms (species): <i>Daphnia magna</i>
EC50 72h - Algae [1]	13.1 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i> )

### Linalool (78-70-6)

LC50 - Fish [1]	27.8 mg/l Test organisms (species): <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i> )
EC50 - Crustacea [1]	59 mg/l Test organisms (species): <i>Daphnia magna</i>
EC50 96h - Algae [1]	88.3 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i> )
EC50 96h - Algae [2]	156.7 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i> )

### Terpineol (8000-41-7)

LC50 - Fish [1]	62 – 80 mg/l Test organisms (species): <i>Danio rerio</i> (previous name: <i>Brachydanio rerio</i> )
EC50 72h - Algae [1]	≈ 68 mg/l Test organisms (species): <i>Raphidocelis subcapitata</i> (previous names: <i>Pseudokirchneriella subcapitata</i> , <i>Selenastrum capricornutum</i> )
EC50 72h - Algae [2]	≈ 17 mg/l Test organisms (species): <i>Raphidocelis subcapitata</i> (previous names: <i>Pseudokirchneriella subcapitata</i> , <i>Selenastrum capricornutum</i> )

### Geranyl acetate (105-87-3)

LC50 - Fish [1]	68.12 mg/l Test organisms (species): <i>Leuciscus idus</i>
EC50 - Crustacea [1]	14.1 mg/l Test organisms (species): <i>Daphnia magna</i>
EC50 72h - Algae [1]	3.72 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i> )

### Geraniol (106-24-1)

LC50 - Fish [1]	≈ 22 mg/l Test organisms (species): <i>Danio rerio</i> (previous name: <i>Brachydanio rerio</i> )
EC50 - Crustacea [1]	10.8 mg/l Test organisms (species): <i>Daphnia magna</i>
EC50 72h - Algae [1]	13.1 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i> )

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<b>Myrcene (123-35-3)</b>	
EC50 - Crustacea [1]	1.47 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	0.342 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	0.31 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
<b>Neryl acetate (141-12-8)</b>	
LC50 - Fish [1]	6 mg/l Test organisms (species): other:
EC50 - Crustacea [1]	9.97 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	9.06 mg/l Test organisms (species): Daphnia magna
<b>I-Limonene (5989-54-8)</b>	
EC50 - Crustacea [1]	0.36 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	0.36 mg/l Test organisms (species):
EC50 72h - Algae [1]	≈ 8 mg/l Test organisms (species): Desmodemus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	≈ 8 mg/l Test organisms (species):
EC50 96h - Algae [1]	0.904 mg/l Test organisms (species): other:
<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>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>Terpinolene (586-62-9)</b>	
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
EC50 72h - Algae [1]	11.69 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
<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): Desmodemus 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):
<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

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<b>Eucalyptol (470-82-6)</b>	
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>12.2. Persistence and degradability</b>	
<b>EO Petitgrain Paraguay (72968-50-4)</b>	
Persistence and degradability	Not rapidly degradable
<b>Linalyl acetate (115-95-7)</b>	
Persistence and degradability	Not rapidly degradable
<b>Linalool (78-70-6)</b>	
Persistence and degradability	Not rapidly degradable
<b>Terpineol (8000-41-7)</b>	
Persistence and degradability	Not rapidly degradable
<b>Geranyl acetate (105-87-3)</b>	
Persistence and degradability	Not rapidly degradable
<b>Geraniol (106-24-1)</b>	
Persistence and degradability	Not rapidly degradable
<b>Myrcene (123-35-3)</b>	
Persistence and degradability	Not rapidly degradable
<b>trans-beta-Ocimene (3779-61-1)</b>	
Persistence and degradability	Not rapidly degradable
<b>Neryl acetate (141-12-8)</b>	
Persistence and degradability	Not rapidly degradable
<b>I-Limonene (5989-54-8)</b>	
Persistence and degradability	Not rapidly degradable
<b>Nerol (106-25-2)</b>	
Persistence and degradability	Not rapidly degradable
<b>cis-beta-Ocimene (3338-55-4)</b>	
Persistence and degradability	Not rapidly degradable
<b>beta-Caryophyllene (87-44-5)</b>	
Persistence and degradability	Not rapidly degradable
<b>Terpinolene (586-62-9)</b>	
Persistence and degradability	Not rapidly degradable
<b>delta-3-Carene (13466-78-9)</b>	
Persistence and degradability	Not rapidly degradable

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### Citral (5392-40-5)

Persistence and degradability | Not rapidly degradable

### 4-Carvomenthenol (562-74-3)

Persistence and degradability | Not rapidly degradable

### Eucalyptol (470-82-6)

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.  
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				
<b>14.2. UN proper shipping name</b>				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Petitgrain Paraguay)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Petitgrain Paraguay)	Environmentally hazardous substance, liquid, n.o.s. (EO Petitgrain Paraguay)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Petitgrain Paraguay)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Petitgrain Paraguay)

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ADR	IMDG	IATA	ADN	RID
<b>Transport document description</b>				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Petitgrain Paraguay), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Petitgrain Paraguay), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (EO Petitgrain Paraguay), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Petitgrain Paraguay), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EO Petitgrain Paraguay), 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
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

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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

### 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)	Myrcene ; l-Limonene ; cis-beta-Ocimene ; delta-3-Carene ; Eucalyptol	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 Petitgrain Paraguay ; Linalyl acetate ; Linalool ; Terpineol ; Geranyl acetate ; Geraniol ; Myrcene ; Neryl acetate ; l-Limonene ; Nerol ; cis-beta-Ocimene ; beta-Caryophyllene ; Terpinolene ; delta-3-Carene ; Citral ; 4-Carvomenthenol ; Eucalyptol	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 Petitgrain Paraguay ; Geranyl acetate ; Myrcene ; l-Limonene ; cis-beta-Ocimene ; beta-Caryophyllene ; Terpinolene ; 4-Carvomenthenol	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 : EO Petitgrain Paraguay is listed

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SZW-lijst van mutagene stoffen	: EO Petitgrain Paraguay 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

### 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

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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 (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. 1B	Skin sensitisation, category 1B
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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### Full text of H- and EUH-statements:

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.