



## Safety Data Sheet

revision n° 3/2022 drawn up on 24/3/2023 update on Reg.2020/878 & Reg.2022/692/CE - ATP 18

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**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**
**1.1. Product identifier**

Trade code:	FO42138
INCI:	parfum / fragrance (USA INCI: fragrance)
Product's type:	Blend of essential oils, natural and synthetic fragrances. Content of natural substances <90%. Natural Index is <0.5 (ISO 16128).
Flow chart:	production process made by cold mixing.
Origin:	Italy (EC)
CAS n°:	Exempt, it is a mixture.
EC n°:	Exempt, it is a mixture.
REACH n°:	Exempt, it is a mixture.
Tariff n°:	3302 9090
VAT n°:	IT03397030960
UFI n°	NR70-G0S6-800T-69VA (associated to a group of blends)

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

Identified use:	<ul style="list-style-type: none"> <li>for use into cosmetic products;</li> <li>for use into environmental deodorants;</li> <li>for use into detergency;</li> <li>for use into technical materials (leather, paper, plastic, rubber, fabrics, gasolines, paints, inks, glues).</li> </ul>
Uses advised against:	<ul style="list-style-type: none"> <li>use into repellents and attractive animals;</li> <li>use into products used in the food field;</li> <li>use into supplements;</li> <li>use into feeds.</li> </ul>

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**SECTION 2: HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture**

EC regulation criteria 1272/2008 (CLP)

- ⚠ Warning, Skin Irrit. 2, Causes skin irritation.
- ⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.
- ⚠ Warning, Skin Sens. 1B, May cause an allergic skin reaction.
- ☠ Warning, Aquatic Acute 1, Very toxic to aquatic life.
- ☠ Aquatic Chronic 2, Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

**2.2. Label elements**

Hazard pictograms:



Warning

Hazard statements:

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash your hands thoroughly after handling.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P391 Collect spillage.

Special Provisions:

None

Contains

Citronellol\*: May produce an allergic reaction.

Hexyl cinnamal\*: May produce an allergic reaction.

Methylundecanal, NNI: May produce an allergic reaction.

Coumarin\*: May produce an allergic reaction.

Cyclamen aldehyde, NNI: May produce an allergic reaction.

trans-Anethole, PPAI: May produce an allergic reaction.

Geraniol\*: May produce an allergic reaction.

Reaction mass of cis-4-(Isopropyl) cyclohexanemethanol and trans-4-(Isopropyl) cyclohexanemethanol, NNI: May produce an allergic reaction.

Undecenal, NNI: May produce an allergic reaction.

Nerol, NNI: May produce an allergic reaction.

3-p-Cumenyl propionaldehyde, NNI: May produce an allergic reaction.

2,4-Dimethyl-3-cyclohexene carboxaldehyde, NNI: May produce an allergic reaction.

Indole, NNI: May produce an allergic reaction.

Methyloctyl acetaldehyde, NNI: May produce an allergic reaction.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

### 2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

N.A.

### 3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

PPAI – Physical processed agroingredients or natural raw materials and solvents

CPAI – Chemically processed agroingredients or natural molecules

NNI – Nion natural ingredients (chemical origin)

\* - allergenic substances of synthetic origin (NNI) according to Reg. 1223/2009

N° of REACH registration:

yy-yyyyyyyyyy-yy->xxxx – registered substance

00-0000000000-00->1ty – exempt from registration (manufactured/imported <1ton/year)

00-0000000000-00-mixt - exempt from registration (blending product)






00-0000000000-00-food - exempt from registration (food additive/flavor)

00-0000000000-00-NCS\* - exempt from registration (substance content in low concentration in Natural complex product, essential oils, resins, absolute...)

Qty	Name	Ident. Number	Classification
>= 20% - < 25% (Reaction mass of 3a,4,5,6,7,7a-hexahydro-4,7-methanoinden-5-yl acetate and 3a,4,5,6,7,7a-hexahydro-4,7-methanoinden-6-yl acetate)	Tricyclodecanyl acetate, NNI CAS:	54830-99-8 EC: REACH No.:	3.3/2 Eye Irrit. 2 H319 911-369-0 01-2119488219-26-xxxx ⚠ 1/C3 Aquatic Chronic 3 H412
>= 15% - < 20%	4-tert-Butylcyclohexyl acetate, NNI	CAS: EC: REACH No.:	32210-23-4 250-954-9 01-2119976286-24- ⚠ 3.4.2/1B Skin Sens. 1B H317

			xxxx	
>= 10% - < 12,5%	Benzyl acetate	CAS: EC: REACH No.:	140-11-4 205-399-7 01-2119638272-42-xxxx	4.1/C3 Aquatic Chronic 3 H412
>= 5% - < 7%	Terpineol, CPAI	CAS: EC: REACH No.:	8000-41-7 701-188-3 01-2119553062-49-xxxx	⚠ 3.2/2 Skin Irrit. 2 H315 ⚠ 3.3/2 Eye Irrit. 2 H319
>= 5% - < 7%	Citronellol*	CAS: EC: REACH No.:	106-22-9 203-375-0 01-2119453995-23-xxxx	⚠ 3.2/2 Skin Irrit. 2 H315 ⚠ 3.4.2/1B Skin Sens. 1B H317 ⚠ 3.3/2 Eye Irrit. 2 H319
>= 3% - < 5%	Amyl salicylate, NNI	CAS: EC: REACH No.:	2050-08-0 911-280-7 01-2119969444-27-xxxx	⚠ 3.1/4/Oral Acute Tox. 4 H302 ⚠ 4.1/A1 Aquatic Acute 1 H400 M=1. ⚠ 4.1/C1 Aquatic Chronic 1 H410 M=1.
>= 3% - < 5%	Hexyl cinnamal*	CAS: EC: REACH No.:	165184-98-5 639-566-4 01-2119533092-50-xxxx	⚠ 3.4.2/1 Skin Sens. 1 H317 ⚠ 4.1/A1 Aquatic Acute 1 H400 M=1. ⚠ 4.1/C2 Aquatic Chronic 2 H411
>= 1% - < 3%	Methylundecanal, NNI	CAS: EC: REACH No.:	110-41-8 203-765-0 01-2119969443-29-xxxx	⚠ 3.2/2 Skin Irrit. 2 H315 ⚠ 3.4.2/1B Skin Sens. 1B H317 ⚠ 4.1/A1 Aquatic Acute 1 H400 M=1. ⚠ 4.1/C1 Aquatic Chronic 1 H410 M=1.
>= 1% - < 3%	Hexamethylindanopyran, NNI	CAS: EC: REACH No.:	1222-05-5 214-946-9 01-2119488227-29-xxxx	⚠ 4.1/A1 Aquatic Acute 1 H400 ⚠ 4.1/C1 Aquatic Chronic 1 H410
>= 1% - < 3%	Dimethyl benzyl carbonyl acetate, NNI	CAS: EC: REACH No.:	151-05-3 205-781-3 01-2120258394-51-xxxx	⚠ 3.2/2 Skin Irrit. 2 H315 4.1/C3 Aquatic Chronic 3 H412
>= 1% - < 3%	Anisaldehyde, NNI	CAS: EC: REACH No.:	123-11-5 204-602-6 01-2119977101-43-xxxx	4.1/C3 Aquatic Chronic 3 H412
>= 1% - < 3%	Triethyl citrate (E1505), CPAI	CAS: EC: REACH No.:	77-93-0 201-070-7 01-2119955435-32-xxxx	The product is not classified as hazardous according to Regulation EC 1272/2008 (CLP).
>= 1% - < 3%	Tetrahydro-methyl-(methylpropyl)-pyranol, NNI	CAS: EC: REACH No.:	63500-71-0 405-040-6 01-2119455547-30-xxxx	⚠ 3.3/2 Eye Irrit. 2 H319
>= 1% - < 3%	Trichloromethyl phenyl carbonyl acetate, NNI	CAS: EC:	90-17-5 201-972-0	⚠ 3.2/2 Skin Irrit. 2 H315 4.1/C3 Aquatic Chronic 3 H412

		REACH No.:	01-2119929625-31-xxxx	
>= 1% - < 3%	Dipropylene glycol, NNI	CAS: EC: REACH No.:	25265-71-8 246-770-3 01-2119456811-38-xxxx	The product is not classified as hazardous according to Regulation EC 1272/2008 (CLP).
>= 1% - < 3%	Coumarin*	CAS: EC: REACH No.:	91-64-5 202-086-7 01-2119949300-45-xxxx	⚠ 3.1/4/Oral Acute Tox. 4 H302 ⚠ 3.4.2/1 Skin Sens. 1 H317 4.1/C3 Aquatic Chronic 3 H412
>= 1% - < 3%	Cyclamen aldehyde, NNI	CAS: EC: REACH No.:	103-95-7 203-161-7 01-2119970582-32-xxxx	⚠ 3.2/2 Skin Irrit. 2 H315 ⚠ 3.4.2/1B Skin Sens. 1B H317 4.1/C3 Aquatic Chronic 3 H412
>= 1% - < 3%	Undecanal, NNI	CAS: EC: REACH No.:	112-44-7 203-972-6 01-2119529242-47-xxxx	⚠ 3.2/2 Skin Irrit. 2 H315 ⚠ 4.1/A1 Aquatic Acute 1 H400 ⚠ 4.1/C2 Aquatic Chronic 2 H411
>= 1% - < 3%	trans-Anethole, PPAI	CAS: EC: REACH No.:	4180-23-8 224-052-0 01-2119979097-22-xxxx	⚠ 3.4.2/1 Skin Sens. 1 H317
>= 1% - < 3%	Acetyl hexamethyl tetralin - AHTN, NNI	CAS: EC: REACH No.:	1506-02-1 216-133-4 01-2119539433-40-xxxx	Unst. Expl. ⚠ 3.1/4/Oral Acute Tox. 4 H302 ⚠ 4.1/A1 Aquatic Acute 1 H400 M=1. ⚠ 4.1/C1 Aquatic Chronic 1 H410 M=1.
>= 0,5% - < 1%	Reaction mass of cis-4-(Isopropyl) cyclohexanemethanol and trans-4-(Isopropyl) cyclohexanemethanol, NNI	CAS: EC: REACH No.:	5502-75-0 939-719-8 01-2119983532-32-xxxx	⚠ 3.2/2 Skin Irrit. 2 H315 ⚠ 3.4.2/1B Skin Sens. 1B H317
>= 0,5% - < 1%	Geraniol*	Index number: CAS: EC: REACH No.:	603-241-00-5 106-24-1 203-377-1 01-2119552430-49-xxxx	⚠ 3.4.2/1 Skin Sens. 1 H317
>= 0,5% - < 1%	Undecenal, NNI	CAS: EC: REACH No.:	1337-83-3 215-656-5 01-2120116228-63-xxxx	⚠ 3.2/2 Skin Irrit. 2 H315 ⚠ 3.4.2/1B Skin Sens. 1B H317 ⚠ 3.3/2 Eye Irrit. 2 H319
>= 0,25% - < 0,5%	Nerol, NNI	CAS: EC: REACH No.:	106-25-2 203-378-7 01-2119983244-33-xxxx	⚠ 3.2/2 Skin Irrit. 2 H315 ⚠ 3.4.2/1B Skin Sens. 1B H317 ⚠ 3.3/2 Eye Irrit. 2 H319
>= 0,1% - < 0,25%	BHT (Butyl hydroxytoluene), NNI	CAS: EC: REACH No.:	128-37-0 204-881-4 01-2119565113-46-xxxx	⚠ 4.1/A1 Aquatic Acute 1 H400 M=1. ⚠ 4.1/C1 Aquatic Chronic 1 H410 M=1.
>= 0,1% - < 0,25%	2,4-Dimethyl-3-cyclohexene	CAS:	68039-49-6	⚠ 3.2/2 Skin Irrit. 2 H315

	carboxaldehyde, NNI	EC: REACH No.:	943-728-2 01-2119982384-28- xxxx	 3.4.2/1B Skin Sens. 1B H317  4.1/C2 Aquatic Chronic 2 H411
>= 0,1% - < 0,25%	Methyloctyl acetaldehyde, NNI	CAS: EC: REACH No.:	19009-56-4 242-745-6 01-2120750382-59- xxxx	 3.2/2 Skin Irrit. 2 H315  3.4.2/1 Skin Sens. 1 H317  4.1/C2 Aquatic Chronic 2 H411

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**SECTION 4: FIRST AID MEASURES**
**4.1. Description of first aid measures**

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, remove contact lenses, if present and easy to do. Rinse with water with the eyelids open for a sufficient length of time. Following this, protect the eyes with sterile gauze or a clean, dry, handkerchief. Do not use eyewash or ointment of any kind before consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

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**SECTION 5: FIREFIGHTING MEASURES**
**5.1. Extinguishing media**

Suitable extinguishing media:

Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

None in particular.

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

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

**5.3. Advice for firefighters**

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**
**6.1 Daily individual protection:**

Safety glasses (EN 166:2001) and gloves.  
 Respiratory mask with filter ABEK (EN14387), if adoperate the product in powder form.  
 Remove all sources of ignition.  
 Wear breathing apparatus if exposed to vapours/dusts/aerosols.  
 Provide adequate ventilation.

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

For non emergency personnel:

Wear personal protection equipment.  
 Remove persons to safety.  
 See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

#### 6.3. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.  
 Retain contaminated washing water and dispose it.  
 In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.  
 Suitable material for taking up: absorbing material, organic, sand

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

Wash with plenty of water.

#### 6.5. Reference to other sections

See also section 8 and 13

### SECTION 7: HANDLING AND STORAGE

#### 7.2. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.  
 Don't use empty container before they have been cleaned.  
 Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.  
 Contaminated clothing should be changed before entering eating areas.  
 Do not eat or drink while working.  
 See also section 8 for recommended protective equipment.

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

INSTRUCTIONS AS REGARDS STORAGE PERMISES:

Dry, cool and well ventilated areas, not exposed to direct sunlight. Safety electric system.

CONSERVATION:

Keep this product not more than 12 months, in the containers tightly closed and full, from 4°C to 20°C. Avoid direct exposure to sunlight, in a well ventilated, dry place, away from unguarded flame and heat sources.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

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

Concentrated product only for industrial use.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

- OEL Type: ACGIH - TWA(8h): 10 ppm - Notes: A4 - URT irr

BHT (Butyl hydroxytoluene), NNI - CAS: 128-37-0

- OEL Type: ACGIH - TWA(8h): 2 mg/m<sup>3</sup> - Notes: (IFV), A4 - URT irr

#### DNEL Exposure Limit Values

Benzyl acetate - CAS: 140-11-4

Worker Industry: 9 mg/m<sup>3</sup> - Consumer: 2.2 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA

Worker Industry: 2.5 mg/kg - Consumer: 1.3 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 1.3 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

Terpineol, CPAI - CAS: 8000-41-7  
 Worker Industry: 44.8 mg/m<sup>3</sup> - Consumer: 7.96 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 6.36 mg/kg - Consumer: 2.69 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 2.69 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

Citronellol\* - CAS: 106-22-9  
 Worker Industry: 161.6 mg/m<sup>3</sup> - Consumer: 47.8 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 327.4 mg/kg - Consumer: 196.4 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 13.8 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

Amyl salicylate, NNI - CAS: 2050-08-0  
 Worker Industry: 3.17 mg/m<sup>3</sup> - Consumer: 0.780 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 0.900 mg/kg - Consumer: 0.450 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 0.450 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

Hexyl cinnamal\* - CAS: 165184-98-5  
 Worker Industry: 0.078 mg/m<sup>3</sup> - Consumer: 0.019 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 18.2 mg/kg - Consumer: 0.911 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 0.056 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

Methylundecanal, NNI - CAS: 110-41-8  
 Worker Industry: 36.89 mg/m<sup>3</sup> - Consumer: 9.1 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 10.46 mg/kg - Consumer: 5.23 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 5.23 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

Hexamethylindanopyran, NNI - CAS: 1222-05-5  
 Worker Industry: 13.5 mg/m<sup>3</sup> - Consumer: 4.0 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 36.37 mg/kg - Consumer: 22 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 2.3 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

Dimethyl benzyl carbonyl acetate, NNI - CAS: 151-05-3  
 Worker Industry: 12.695 mg/m<sup>3</sup> - Consumer: 3.13 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 3.6 mg/kg - Consumer: 1.8 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 1.8 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

Anisaldehyde, NNI - CAS: 123-11-5  
 Worker Industry: 5.88 mg/m<sup>3</sup> - Consumer: 1.74 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 3.33 mg/kg - Consumer: 2.0 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 1.0 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

Triethyl citrate (E1505), CPAI - CAS: 77-93-0  
 Worker Industry: 73.5 mg/m<sup>3</sup> - Consumer: 28.8 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 20.8 mg/kg - Consumer: 12.5 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 12.5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

Tetrahydro-methyl-(methylpropyl)-pyranol, NNI - CAS: 63500-71-0  
 Worker Industry: 44.1 mg/m<sup>3</sup> - Consumer: 13 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 41.7 mg/kg - Consumer: 25 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 7.5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

Dipropylene glycol, NNI - CAS: 25265-71-8  
 Worker Industry: 238 mg/m<sup>3</sup> - Consumer: 70 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 84 mg/kg - Consumer: 51 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 24 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

Coumarin\* - CAS: 91-64-5  
 Worker Industry: 6.78 mg/m<sup>3</sup> - Consumer: 1.69 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 0.79 mg/kg - Consumer: 0.39 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 0.30 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

Cyclamen aldehyde, NNI - CAS: 103-95-7  
 Worker Industry: 5.83 mg/m<sup>3</sup> - Consumer: 1.45 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 1.67 mg/kg - Consumer: 0.83 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 0.83 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

trans-Anethole, PPAI - CAS: 4180-23-8  
 Worker Industry: 7 mg/m<sup>3</sup> - Consumer: 9.57 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 6.82 mg/kg - Consumer: 97.2 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA

Acetyl hexamethyl tetralin - AHTN, NNI - CAS: 1506-02-1  
 Worker Industry: 0.175 mg/m<sup>3</sup> - Consumer: 0.0435 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 0.610 mg/kg - Consumer: 0.305 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 0.0125 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA



Consumer: 1.2 mg/kg - Exposure: Eyes - Frequency: Long Term, systemic effects - Notes: ECHA  
 Reaction mass of cis-4-(Isopropyl) cyclohexanemethanol and trans-4-(Isopropyl) cyclohexanemethanol, NNI - CAS: 5502-75-0  
 Worker Industry: 6.63 mg/m<sup>3</sup> - Consumer: 1.63 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 1.88 mg/kg - Consumer: 0.940 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 0.940 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA  
 Geraniol\* - CAS: 106-24-1  
 Worker Industry: 161.60 mg/m<sup>3</sup> - Consumer: 47.8 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 12.5 mg/kg - Consumer: 7.5 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 13.75 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA  
 Nerol, NNI - CAS: 106-25-2  
 Worker Industry: 4.4 mg/m<sup>3</sup> - Consumer: 1.09 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 1.25 mg/kg - Consumer: 0.620 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 0.620 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA  
 2,4-Dimethyl-3-cyclohexene carboxaldehyde, NNI - CAS: 68039-49-6  
 Worker Industry: 1.837 mg/m<sup>3</sup> - Consumer: 0.543 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: ECHA  
 Worker Industry: 0.521 mg/kg - Consumer: 0.3125 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: ECHA  
 Consumer: 0.3125 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: ECHA

#### PNEC Exposure Limit Values

Tricyclodecyl acetate, NNI  
 (Reaction mass of 3a,4,5,6,7,7a-hexahydro-4,7-methanoiden-5-yl acetate and 3a,4,5,6,7,7a-hexahydro-4,7-methanoiden-6-yl acetate) - CAS: 54830-99-8  
 Target: Fresh Water - Value: 180 ug/l - Notes: ECHA  
 Target: Marine water - Value: 18 ug/l - Notes: ECHA  
 Target: Microorganisms in sewage treatments - Value: 5.3 mg/l - Notes: ECHA  
 Target: Freshwater sediments - Value: 8150 ug/l - Notes: ECHA  
 Target: Marine water sediments - Value: 815 ug/l - Notes: ECHA  
 Target: Predators - Value: 2.12 mg/kg - Notes: ECHA  
 4-tert-Butylcyclohexyl acetate, NNI - CAS: 32210-23-4  
 Target: Fresh Water - Value: 5.3 ug/l - Notes: ECHA  
 Target: Marine water - Value: 0.53 ug/l - Notes: ECHA  
 Target: Microorganisms in sewage treatments - Value: 12.2 mg/l - Notes: ECHA  
 Target: Freshwater sediments - Value: 2010 ug/kg - Notes: ECHA  
 Target: Marine water sediments - Value: 201 ug/kg - Notes: ECHA  
 Target: Soil (agricultural) - Value: 420 ug/kg - Notes: ECHA  
 Target: Predators - Value: 66.67 mg/kg - Notes: ECHA  
 Benzyl acetate - CAS: 140-11-4  
 Target: Fresh Water - Value: 18.4 ug/l - Notes: ECHA  
 Target: Marine water - Value: 1.84 ug/l - Notes: ECHA  
 Target: Microorganisms in sewage treatments - Value: 8.55 mg/l - Notes: ECHA  
 Target: Freshwater sediments - Value: 0.526 mg/kg - Notes: ECHA  
 Target: Marine water sediments - Value: 0.0526 mg/kg - Notes: ECHA  
 Target: Soil (agricultural) - Value: 0.09443 mg/kg - Notes: ECHA  
 Terpeneol, CPAI - CAS: 8000-41-7  
 Target: Fresh Water - Value: 12 ug/l - Notes: ECHA  
 Target: Marine water - Value: 1.2 ug/l - Notes: ECHA  
 Target: Microorganisms in sewage treatments - Value: 2.57 mg/l - Notes: ECHA  
 Target: Freshwater sediments - Value: 263 ug/l - Notes: ECHA  
 Target: Marine water sediments - Value: 26.3 ug/l - Notes: ECHA  
 Target: Soil (agricultural) - Value: 45.5 ug/l - Notes: ECHA  
 Target: Predators - Value: 16.6 mg/kg - Notes: ECHA  
 Citronellol\* - CAS: 106-22-9  
 Target: Fresh Water - Value: 2.4 ug/l - Notes: ECHA  
 Target: Marine water - Value: 0.24 ug/l - Notes: ECHA  
 Target: Microorganisms in sewage treatments - Value: 580 mg/l - Notes: ECHA  
 Target: Freshwater sediments - Value: 25.6 ug/l - Notes: ECHA  
 Target: Marine water sediments - Value: 2.56 ug/l - Notes: ECHA  
 Target: Soil (agricultural) - Value: 3.71 ug/l - Notes: ECHA  
 Target: Predators mg/kg - Notes: ECHA  
 Amyl salicylate, NNI - CAS: 2050-08-0  
 Target: Fresh Water - Value: 0.770 ug/l - Notes: ECHA

Target: Marine water - Value: 0.077 ug/l - Notes: ECHA  
Target: Microorganisms in sewage treatments - Value: 10 mg/l - Notes: ECHA  
Target: Freshwater sediments - Value: 389 ug/l - Notes: ECHA  
Target: Marine water sediments - Value: 38.9 ug/l - Notes: ECHA  
Target: Soil (agricultural) - Value: 1786 ug/kg - Notes: ECHA  
Target: Predators - Value: 80 mg/kg - Notes: ECHA

Hexyl cinnamal\* - CAS: 165184-98-5

Target: Fresh Water - Value: 1.26 ug/l - Notes: ECHA  
Target: Marine water - Value: 0.126 ug/l - Notes: ECHA  
Target: Microorganisms in sewage treatments - Value: 10 mg/l - Notes: ECHA  
Target: Freshwater sediments - Value: 3200 ug/l - Notes: ECHA  
Target: Marine water sediments - Value: 64 ug/l - Notes: ECHA  
Target: Soil (agricultural) - Value: 398 ug/l - Notes: ECHA  
Target: Predators - Value: 6.6 mg/kg - Notes: ECHA

Methylundecanal, NNI - CAS: 110-41-8

Target: Fresh Water - Value: 0.660 ug/l - Notes: ECHA  
Target: Marine water - Value: 0.066 ug/l - Notes: ECHA  
Target: Microorganisms in sewage treatments - Value: 10 mg/l - Notes: ECHA  
Target: Freshwater sediments - Value: 265 ug/l - Notes: ECHA  
Target: Marine water sediments - Value: 26.5 ug/l - Notes: ECHA  
Target: Soil (agricultural) - Value: 52.6 ug/l - Notes: ECHA  
Target: Predators - Value: 116 mg/kg - Notes: ECHA

Hexamethylindanopyran, NNI - CAS: 1222-05-5

Target: Fresh Water - Value: 6.8 ug/l - Notes: ECHA  
Target: Marine water - Value: 0.44 ug/l - Notes: ECHA  
Target: Microorganisms in sewage treatments - Value: 1 mg/l - Notes: ECHA  
Target: Freshwater sediments - Value: 2 ug/l - Notes: ECHA  
Target: Marine water sediments - Value: 0.394 ug/l - Notes: ECHA  
Target: Soil (agricultural) - Value: 1500 ug/l - Notes: ECHA  
Target: Predators - Value: 20.4 mg/l - Notes: ECHA

Dimethyl benzyl carbonyl acetate, NNI - CAS: 151-05-3

Target: Fresh Water - Value: 4.766 ug/l - Notes: ECHA  
Target: Marine water - Value: 0.4766 ug/l - Notes: ECHA  
Target: Microorganisms in sewage treatments - Value: 31.25 mg/l - Notes: ECHA  
Target: Freshwater sediments - Value: 189 ug/l - Notes: ECHA  
Target: Soil (agricultural) - Value: 103 ug/l - Notes: ECHA

Anisaldehyde, NNI - CAS: 123-11-5

Target: Fresh Water - Value: 13 ug/l - Notes: ECHA  
Target: Marine water - Value: 1.3 ug/l - Notes: ECHA  
Target: Microorganisms in sewage treatments - Value: 8.5 mg/l - Notes: ECHA  
Target: Freshwater sediments - Value: 59.8 ug/l - Notes: ECHA  
Target: Marine water sediments - Value: 5.98 ug/l - Notes: ECHA  
Target: Soil (agricultural) ug/l - Notes: ECHA

Triethyl citrate (E1505), CPAI - CAS: 77-93-0

Target: Fresh Water ug/l - Notes: ECHA  
Target: Marine water ug/l - Notes: ECHA  
Target: Microorganisms in sewage treatments mg/l - Notes: ECHA  
Target: Freshwater sediments - Value: 124 ug/l - Notes: ECHA  
Target: Marine water sediments - Value: 18 ug/l - Notes: ECHA  
Target: Soil (agricultural) - Value: 490 ug/l - Notes: ECHA  
Target: Predators - Value: 222.22 mg/kg - Notes: ECHA

Tetrahydro-methyl-(methylpropyl)-pyranol, NNI - CAS: 63500-71-0

Target: Fresh Water - Value: 94 ug/l - Notes: ECHA  
Target: Marine water - Value: 9.4 ug/l - Notes: ECHA  
Target: Microorganisms in sewage treatments - Value: 10 mg/l - Notes: ECHA  
Target: Freshwater sediments - Value: 412 ug/l - Notes: ECHA  
Target: Marine water sediments - Value: 41.2 ug/l - Notes: ECHA  
Target: Soil (agricultural) - Value: 90.2 ug/l - Notes: ECHA

Dipropylene glycol, NNI - CAS: 25265-71-8

Target: Fresh Water - Value: 100 ug/l - Notes: ECHA  
Target: Marine water - Value: 10 ug/l - Notes: ECHA

Target: Microorganisms in sewage treatments - Value: 1000 mg/l - Notes: ECHA

Target: Freshwater sediments - Value: 238 ug/l - Notes: ECHA

Target: Marine water sediments - Value: 23 ug/l - Notes: ECHA

Target: Soil (agricultural) - Value: 25.3 ug/l - Notes: ECHA

Target: Predators - Value: 313 mg/kg - Notes: ECHA

Coumarin\* - CAS: 91-64-5

Target: Fresh Water - Value: 19 ug/l - Notes: ECHA

Target: Marine water - Value: 1.9 ug/l - Notes: ECHA

Target: Microorganisms in sewage treatments - Value: 6.4 mg/l - Notes: ECHA

Target: Freshwater sediments - Value: 150 ug/kg - Notes: ECHA

Target: Marine water sediments - Value: 15 ug/kg - Notes: ECHA

Target: Soil (agricultural) - Value: 18 ug/kg - Notes: ECHA

Target: Predators - Value: 30.7 mg/kg - Notes: ECHA

Cyclamen aldehyde, NNI - CAS: 103-95-7

Target: Fresh Water - Value: 1.09 ug/l - Notes: ECHA

Target: Marine water - Value: 0.109 ug/l - Notes: ECHA

Target: Microorganisms in sewage treatments - Value: 1 mg/l - Notes: ECHA

Target: Freshwater sediments - Value: 126 ug/l - Notes: ECHA

Target: Marine water sediments - Value: 12.6 ug/l - Notes: ECHA

Target: Soil (agricultural) - Value: 24.5 ug/l - Notes: ECHA

Target: Predators - Value: 33.3 mg/l - Notes: ECHA

trans-Anethole, PPAI - CAS: 4180-23-8

Target: Fresh Water - Value: 21 ug/l - Notes: ECHA

Target: Marine water - Value: 2.1 ug/l - Notes: ECHA

Target: Microorganisms in sewage treatments - Value: 0.972 mg/l - Notes: ECHA

Target: Freshwater sediments - Value: 165.5 ug/l - Notes: ECHA

Target: Marine water sediments - Value: 16.55 ug/l - Notes: ECHA

Target: Soil (agricultural) - Value: 97.2 ug/l - Notes: ECHA

Acetyl hexamethyl tetralin - AHTN, NNI - CAS: 1506-02-1

Target: Fresh Water - Value: 2.2 ug/l - Notes: ECHA

Target: Marine water - Value: 0.22 ug/l - Notes: ECHA

Target: Microorganisms in sewage treatments - Value: 2.20 mg/l - Notes: ECHA

Target: Freshwater sediments - Value: 1720 ug/l - Notes: ECHA

Target: Marine water sediments - Value: 345 ug/l - Notes: ECHA

Target: Soil (agricultural) - Value: 9.9 ug/kg - Notes: ECHA

Target: Predators - Value: 1.1 mg/kg - Notes: ECHA

Reaction mass of cis-4-(Isopropyl) cyclohexanemethanol and trans-4-(Isopropyl) cyclohexanemethanol, NNI - CAS: 5502-75-0

Target: Fresh Water - Value: 4.4 ug/l - Notes: ECHA

Target: Marine water - Value: 0.44 ug/l - Notes: ECHA

Target: Microorganisms in sewage treatments - Value: 1.9 mg/l - Notes: ECHA

Target: Freshwater sediments - Value: 266 ug/l - Notes: ECHA

Target: Marine water sediments - Value: 26.6 ug/l - Notes: ECHA

Target: Soil (agricultural) - Value: 51 ug/l - Notes: ECHA

Geraniol\* - CAS: 106-24-1

Target: Fresh Water - Value: 10.8 ug/l - Notes: ECHA

Target: Marine water - Value: 1.08 ug/l - Notes: ECHA

Target: Microorganisms in sewage treatments - Value: 0.700 mg/l - Notes: ECHA

Target: Freshwater sediments - Value: 115 ug/kg - Notes: ECHA

Target: Marine water sediments - Value: 11.5 ug/kg - Notes: ECHA

Target: Soil (agricultural) - Value: 16.7 ug/kg - Notes: ECHA

Nerol, NNI - CAS: 106-25-2

Target: Fresh Water - Value: 7.45 ug/l - Notes: ECHA

Target: Marine water - Value: 0.745 ug/l - Notes: ECHA

Target: Microorganisms in sewage treatments - Value: 12.9 mg/l - Notes: ECHA

Target: Freshwater sediments - Value: 133 ug/l - Notes: ECHA

Target: Marine water sediments - Value: 13.3 ug/l - Notes: ECHA

Target: Soil (agricultural) - Value: 22.3 ug/l - Notes: ECHA

2,4-Dimethyl-3-cyclohexene carboxaldehyde, NNI - CAS: 68039-49-6

Target: Fresh Water - Value: 7.5 ug/l - Notes: ECHA

Target: Marine water - Value: 0.75 ug/l - Notes: ECHA

Target: Microorganisms in sewage treatments - Value: 10 mg/l - Notes: ECHA

Target: Freshwater sediments - Value: 10226 ug/l - Notes: ECHA

Target: Marine water sediments - Value: 22.6 ug/l - Notes: ECHA

Target: Soil (agricultural) - Value: 40.8 ug/l - Notes: ECHA

## 8.2. Exposure controls

Eye protection:

Use close fitting safety visor or safety glasses (EN 166:2001).

Protection for skin:

Use normal clothing that provides protection to the skin, e.g. cotton.

Protection for hands:

Use clothing that provides comprehensive protection to the skin, e.g. lactice, nitylic and ect.

Respiratory protection:

Not needed for normal use.

Use multi-purpose combination respirator cartridge (US), type ABEK (EN14387) respirator filter when use powder or cristals substances.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance:	clear liquid
Colour:	yellow
Odour:	flowery, fresh, green, , , , , , , .
Relative density:	0.980 - 1.000 g/ml (25°C)
Refractive Index:	1.475 - 1.495 nD (25°C)
Solubility:	liposoluble (ethanol, oils and fats)
Flash point:	>61 °C
Melting point / freezing point:	N.A.
Initial boiling point and boiling range:	N.A.
Autoignition temperature:	N.A.
Solid/gas flammability:	N.A.
Explosive properties:	N.A.
Oxidizing properties:	N.A.
Vapour pressure:	N.A.
Partition coefficient (n-octanol/water):	N.A.
Vapour density:	N.A.
Viscosity:	N.A.
pH:	7.0 (+/- 0.5)
Alcoholic grade:	N.A.
Optical rotation:	N.A.

### 9.2. Other information

Nutritional values

Energy value:	37 kJ/g = 9 kcal/g
Amino acids	0g
Ash:	0g
Carbohydrates:	0g
Fats:	0g
Fibers:	0g
Lipids:	0g
	Monounsaturated fats 0g
	Polyunsaturated fats 0g
	Protein: 0g
	Saturated fat: 0g
	Sugars: 0g
	Vitamins: 0mg

Minerals: 0mg Water: 0g

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## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Stable under normal conditions

### 10.2. Chemical stability

Stable under normal conditions

### 10.3. Possibility of hazardous reactions

None

### 10.4. Conditions to avoid

Stable under normal conditions.

### 10.5. Incompatible materials

None in particular.

### 10.6. Hazardous decomposition products

None.

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## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

Toxicological information of the product:

The toxicological data calculate based on the total formulation, taking into account the actual concentrations of the individual substances in order to assess toxicological effects resulting from exposure of human skin to the mix.

NOEL dermal (no observed effect level, human dermal): 1652 µg/cm<sup>2</sup>

Conversion info:

mg/kg=µg/cm<sup>2</sup> x 10/37 or 1µg/cm<sup>2</sup>=10mg/m<sup>2</sup>;

human: mg/kg x 37=mg/m<sup>2</sup>;

child: <20kg: mg/kg x 25=mg/m<sup>2</sup>

\*Date based on HED (human equivalent dose) U.S. Food & Drug Administration. Estimating the Safe Starting Dose in Clinical Trials for Therapeutics in Adult Healthy Volunteers.

#### Toxicological information of the main substances found in the product:

Tricyclodecyl acetate, NNI

(Reaction mass of 3a,4,5,6,7,7a-hexahydro-4,7-methanoinden-5-yl acetate and 3a,4,5,6,7,7a-hexahydro-4,7-methanoinden-6-yl acetate) - CAS: 54830-99-8

Oral toxicity acute (OECD Test Guideline 401) - LD50: 2750 mg/kg

Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 1000 mg/kg; LOAEL: n.a. mg/kg

Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 402):

NOEL (no observed effect level): >6000 µg/cm<sup>2</sup>

LOEL (lowest observed effect level): n.a. µg/cm<sup>2</sup>

NESIL (no expected sensitization induction level): n.a. µg/cm<sup>2</sup>

Inhalation toxicity (OECD Test Guideline 403): n.a. mg/m<sup>3</sup>

Developmental NOAEL maternal: 1000 mg/kg; NOAEL foetal: 1000 mg/kg

Reproductive Toxicity NOAEL: 1000 mg/kg

Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

4-tert-Butylcyclohexyl acetate, NNI - CAS: 32210-23-4

Oral toxicity acute (OECD Test Guideline 401) - LD50: 3370 mg/kg

Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 980 mg/kg; LOAEL: n/a mg/kg

Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 402):

NOEL (no observed effect level): 5541 µg/cm<sup>2</sup>

LOEL (lowest observed effect level): n/a µg/cm<sup>2</sup>

NESIL (no expected sensitization induction level): n/a µg/cm<sup>2</sup>

Skin corrosion/irritation (dermal)(HRIPT): not irritating

Skin sensitization (HRIPT): sensitizing

Eye: Irritation (ocular)(FHS): non irritating

Inhalation toxicity (OECD Test Guideline 403): n/a mg/m<sup>3</sup>

Developmental NOAEL maternal: 160 mg/kg; NOAEL foetal: 160 mg/kg

Reproductive Toxicity NOAEL: n/a mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

Benzyl acetate - CAS: 140-11-4

Oral toxicity acute (OECD Test Guideline 401) - LD50: 2000 mg/kg  
 Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 250 mg/kg; LOAEL: n.a. mg/kg  
 Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 407):  
 NOEL (no observed effect level): >6000 µg/cm<sup>2</sup>  
 LOEL (lowest observed effect level): n.a. µg/cm<sup>2</sup>  
 NESIL (no expected sensitization induction level): n.a. µg/cm<sup>2</sup>  
 Skin corrosion/irritation (dermal)(HRIPT): not irritating  
 Skin sensitization (HRIPT): non sensitizing  
 Eye: Irritation (ocular)(FHSA): non irritating  
 Inhalation toxicity (OECD Test Guideline 403): LC50 766 mg/m<sup>3</sup>  
 Developmental NOAEL maternal: 1000 mg/kg; NOAEL foetal: 500 mg/kg  
 Reproductive Toxicity NOAEL: n.a. mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

Terpineol, CPAI - CAS: 8000-41-7

Oral toxicity acute (OECD Test Guideline 401) - LD50: >2000 mg/kg  
 Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 250 mg/kg; LOAEL: n.a. mg/kg  
 Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 402):  
 NOEL (no observed effect level): 2400 µg/cm<sup>2</sup>  
 LOEL (lowest observed effect level): n.a. µg/cm<sup>2</sup>  
 NESIL (no expected sensitization induction level): n.a. µg/cm<sup>2</sup>  
 Skin corrosion/irritation (dermal)(HRIPT): irritating  
 Skin sensitization (HRIPT): non sensitizing  
 Eye: Irritation (ocular)(FHSA): irritating  
 Inhalation toxicity (OECD Test Guideline 403): 4.76. mg/m<sup>3</sup>  
 Developmental NOAEL maternal: 600 mg/kg; NOAEL foetal: 600 mg/kg  
 Reproductive Toxicity NOAEL: >250 mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

Citronellol\* - CAS: 106-22-9

Oral toxicity acute (OECD Test Guideline 401) - LD50: 3450 mg/kg  
 Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 2000 mg/kg; LOAEL: n/a mg/kg  
 Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 407):  
 NOEL (no observed effect level): 29528 µg/cm<sup>2</sup>  
 LOEL (lowest observed effect level): n.a. µg/cm<sup>2</sup>  
 NESIL (no expected sensitization induction level): 29500 µg/cm<sup>2</sup>  
 Skin corrosion/irritation (dermal)(HRIPT): irritating  
 Skin sensitization (HRIPT): sensitizing  
 Eye: Irritation (ocular)(FHSA): non irritating  
 Inhalation toxicity (OECD Test Guideline 403): LC50 n/a mg/m<sup>3</sup>  
 Developmental NOAEL maternal: 300 mg/kg; NOAEL foetal: 300 mg/kg  
 Reproductive Toxicity NOAEL: 300 mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

Amyl salicylate, NNI - CAS: 2050-08-0

Oral toxicity acute (OECD Test Guideline 401) - LD50: >2000 mg/kg  
 Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 360 mg/kg; LOAEL: n/a mg/kg  
 Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 402):  
 NOEL (no observed effect level): 2400 µg/cm<sup>2</sup>  
 LOEL (lowest observed effect level): n/a µg/cm<sup>2</sup>  
 NESIL (no expected sensitization induction level): n/a µg/cm<sup>2</sup>  
 Skin corrosion/irritation (dermal)(HRIPT): not irritating  
 Skin sensitization (HRIPT): non sensitizing  
 Eye: Irritation (ocular)(FHSA): non irritating  
 Inhalation toxicity (OECD Test Guideline 403): LC50 n/a mg/m<sup>3</sup>  
 Developmental NOAEL maternal: 360 mg/kg; NOAEL foetal: 360 mg/kg  
 Reproductive Toxicity NOAEL: 180 mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

Hexyl cinnamal\* - CAS: 165184-98-5

Oral toxicity acute for human (OECD Test Guideline 401) - LD50: 496 mg/kg  
 Oral sub-acute toxicity (OECD 407) - NOAEL: 0.074 mg/kg

Dermal toxicity (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 407):

NOEL (no observed effect level): 23622 mg/cm<sup>2</sup>

LOEL (lowest observed effect level): n/a mg/cm<sup>2</sup>

NESIL (no expected sensitization induction level): 23600 mg/cm<sup>2</sup>

Skin corrosion/irritation (dermal)(HRIPT): not irritating

Skin sensitization (HRIPT): sensitizing

Eye: Irritation (ocular)(FHSA): non irritating

Inhalation toxicity (OECD Test Guideline 403): LC50 n/a mg/m<sup>3</sup>

Developmental NOAEL maternal: n/a mg/kg; NOAEL foetal: n/a mg/kg

Reproductive Toxicity NOAEL: n/a mg/kg

Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

Methylundecanal, NNI - CAS: 110-41-8

Oral toxicity acute (OECD Test Guideline 401) - LD50: >5000 mg/kg

Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 2.0 mg/kg; LOAEL: n/a mg/kg

Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 402):

NOEL (no observed effect level): 10000 µg/cm<sup>2</sup>

LOEL (lowest observed effect level): n/a µg/cm<sup>2</sup>

NESIL (no expected sensitization induction level): n/a µg/cm<sup>2</sup>

Skin corrosion/irritation (dermal)(HRIPT): irritating

Skin sensitization (HRIPT): sensitizing

Eye: Irritation (ocular)(FHSA): non irritating

Inhalation toxicity (OECD Test Guideline 403): LC50 n/a mg/m<sup>3</sup>

Developmental NOAEL maternal: n/a mg/kg; NOAEL foetal: n/a mg/kg

Reproductive Toxicity NOAEL: 300 mg/kg

Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

Hexamethylindanopyran, NNI - CAS: 1222-05-5

Oral toxicity acute (OECD Test Guideline 401) - LD50: 4640 mg/kg

Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 150 mg/kg; LOAEL: 350 mg/kg

Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 402):

NOEL (no observed effect level): 11840 µg/cm<sup>2</sup>

LOEL (lowest observed effect level): n/a µg/cm<sup>2</sup>

NESIL (no expected sensitization induction level): 11800 µg/cm<sup>2</sup>

Skin corrosion/irritation (dermal)(HRIPT): not irritating

Skin sensitization (HRIPT): non sensitizing

Eye: Irritation (ocular)(FHSA): non irritating

Inhalation toxicity (OECD Test Guideline 403): LC50 n/a mg/m<sup>3</sup>

Developmental NOAEL maternal: 50 mg/kg; NOAEL foetal: 150 mg/kg

Reproductive Toxicity NOAEL: 20 mg/kg

Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

Dimethyl benzyl carbonyl acetate, NNI - CAS: 151-05-3

Oral toxicity acute (OECD Test Guideline 401) - LD50: 3300 mg/kg

Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 500 mg/kg; LOAEL: n/a mg/kg

Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 402):

NOEL (no observed effect level): >6000 µg/cm<sup>2</sup>

LOEL (lowest observed effect level): n/a µg/cm<sup>2</sup>

NESIL (no expected sensitization induction level): n/a µg/cm<sup>2</sup>

Skin corrosion/irritation (dermal)(HRIPT): irritating

Skin sensitization (HRIPT): non sensitizing

Eye: Irritation (ocular)(FHSA): non irritating

Inhalation toxicity (OECD Test Guideline 403): LC50 n/a mg/m<sup>3</sup>

Developmental NOAEL maternal: n/a mg/kg; NOAEL foetal: n/a mg/kg

Reproductive Toxicity NOAEL: n/a mg/kg

Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

Anisaldehyde, NNI - CAS: 123-11-5

Oral toxicity acute (OECD Test Guideline 401) - LD50: 1510 mg/kg

Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 20 mg/kg; LOAEL: n.a. mg/kg

Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 407):

NOEL (no observed effect level): 6000 µg/cm<sup>2</sup>

LOEL (lowest observed effect level): n.a. µg/cm<sup>2</sup>

NESIL (no expected sensitization induction level): 6000 µg/cm<sup>2</sup>

Skin corrosion/irritation (dermal)(HRIPT): not irritating



Skin sensitization (HRIPT): non sensitizing  
 Eye: Irritation (ocular)(FHSA): non irritating  
 Inhalation toxicity (OECD Test Guideline 403): LC50 n/a mg/m3  
 Developmental NOAEL maternal: 20 mg/kg; NOAEL foetal: 100 mg/kg  
 Reproductive Toxicity NOAEL: 20 mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

**Triethyl citrate (E1505), CPAI - CAS: 77-93-0**  
 Oral toxicity acute (OECD Test Guideline 401) - LD50: 4000 mg/kg  
 Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 1000 mg/kg; LOAEL: n/a mg/kg  
 Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 407):  
   NOEL (no observed effect level): 5920 µg/cm<sup>2</sup>  
   LOEL (lowest observed effect level): n/a µg/cm<sup>2</sup>  
   NESIL (no expected sensitization induction level): 5900 µg/cm<sup>2</sup>  
 Skin corrosion/irritation (dermal)(HRIPT): not irritating  
 Skin sensitization (HRIPT): sensitizing  
 Eye: Irritation (ocular)(FHSA): not irritating  
 Inhalation toxicity (OECD Test Guideline 403): 3500 mg/m3  
 Developmental NOAEL maternal: 50 mg/kg; NOAEL foetal: 250 mg/kg  
 Reproductive Toxicity NOAEL: 1000 mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

**Tetrahydro-methyl-(methylpropyl)-pyranol, NNI - CAS: 63500-71-0**  
 Oral toxicity acute (OECD Test Guideline 401) - LD50: 2000 mg/kg  
 Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 125 mg/kg; LOAEL: n.a. mg/kg  
 Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 402):  
   NOEL (no observed effect level): 2368 µg/cm<sup>2</sup>  
   LOEL (lowest observed effect level): n.a. µg/cm<sup>2</sup>  
   NESIL (no expected sensitization induction level): n.a. µg/cm<sup>2</sup>  
 Skin corrosion/irritation (dermal)(HRIPT): not irritating  
 Skin sensitization (HRIPT): non sensitizing @8%  
 Eye: Irritation (ocular)(FHSA): irritating (cat. 2A)  
 Inhalation toxicity (OECD Test Guideline 403): >1000 mg/m3  
 Developmental NOAEL maternal: n.a. mg/kg; NOAEL foetal: n.a. mg/kg  
 Reproductive Toxicity NOAEL: 1000 mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

**Trichloromethyl phenyl carbonyl acetate, NNI - CAS: 90-17-5**  
 Oral toxicity acute (OECD Test Guideline 401) - LD50: 6800 mg/kg  
 Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: n.a. mg/kg; LOAEL: 212 mg/kg  
 Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 402):  
   NOEL (no observed effect level): 2400 µg/cm<sup>2</sup>  
   LOEL (lowest observed effect level): n.a. µg/cm<sup>2</sup>  
   NESIL (no expected sensitization induction level): n.a. µg/cm<sup>2</sup>  
 Inhalation toxicity (OECD Test Guideline 403): 561 mg/m3  
 Developmental NOAEL maternal: n.a. mg/kg; NOAEL foetal: n.a. mg/kg  
 Reproductive Toxicity NOAEL: 67 mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

**Coumarin\* - CAS: 91-64-5**  
 Oral toxicity acute (OECD Test Guideline 401) - LD50: 680 mg/kg  
 Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 138.3 mg/kg; LOAEL: n/a mg/kg  
 Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 407):  
   NOEL (no observed effect level): 3543 µg/cm<sup>2</sup>  
   LOEL (lowest observed effect level): 8858 µg/cm<sup>2</sup>  
   NESIL (no expected sensitization induction level): 3500 µg/cm<sup>2</sup>  
 Skin corrosion/irritation (dermal)(HRIPT): not irritating  
 Skin sensitization (HRIPT): sensitizing  
 Eye: Irritation (ocular)(FHSA): midl irritating  
 Inhalation toxicity (OECD Test Guideline 403): LC50 n/a mg/m3  
 Developmental NOAEL maternal: n/a mg/kg; NOAEL foetal: >2000 mg/kg  
 Reproductive Toxicity NOAEL: n/a mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

**Phenoxyethyl isobutyrate, NNI - CAS: 103-60-6**  
 Oral toxicity acute (OECD Test Guideline 401) - LD50: 2060 mg/kg



Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 1000 mg/kg; LOAEL: n/a mg/kg  
 Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 402):  
 NOEL (no observed effect level): 2400 µg/cm<sup>2</sup>  
 LOEL (lowest observed effect level): n/a µg/cm<sup>2</sup>  
 NESIL (no expected sensitization induction level): n/a µg/cm<sup>2</sup>  
 Inhalation toxicity (OECD Test Guideline 403): n/a mg/m<sup>3</sup>  
 Developmental NOAEL maternal: 439 mg/kg; NOAEL foetal: 143 mg/kg  
 Reproductive Toxicity NOAEL: 400 mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

Cyclamen aldehyde, NNI - CAS: 103-95-7  
 Oral toxicity acute (OECD Test Guideline 401) - LD50: 3810 mg/kg  
 Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 300 mg/kg; LOAEL: n.a. mg/kg  
 Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 402):  
 NOEL (no observed effect level): 5905 µg/cm<sup>2</sup>  
 LOEL (lowest observed effect level): n.a. µg/cm<sup>2</sup>  
 NESIL (no expected sensitization induction level): 5900 µg/cm<sup>2</sup>  
 Skin corrosion/irritation (dermal)(HRIPT): irritating  
 Skin sensitization (HRIPT): sensitizing  
 Eye: Irritation (ocular)(FHSA): non irritating  
 Inhalation toxicity (OECD Test Guideline 403): n.a. mg/m<sup>3</sup>  
 Developmental NOAEL maternal: n.a. mg/kg; NOAEL foetal: n.a. mg/kg  
 Reproductive Toxicity NOAEL: 75 mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

Undecanal, NNI - CAS: 112-44-7  
 Oral toxicity acute (OECD Test Guideline 401) - LD50: >5000 mg/kg  
 Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 1000 mg/kg; LOAEL: n/a mg/kg  
 Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 402):  
 NOEL (no observed effect level): >6000 µg/cm<sup>2</sup>  
 LOEL (lowest observed effect level): n/a µg/cm<sup>2</sup>  
 NESIL (no expected sensitization induction level): n/a µg/cm<sup>2</sup>  
 Skin corrosion/irritation (dermal)(HRIPT): irritating  
 Skin sensitization (HRIPT): non sensitizing @5%  
 Eye: Irritation (ocular)(FHSA): non irritating @5%  
 Inhalation toxicity (OECD Test Guideline 403): LC50 n/a mg/m<sup>3</sup>  
 Developmental NOAEL maternal: 1000 mg/kg; NOAEL foetal: 1000 mg/kg  
 Reproductive Toxicity NOAEL: 1000 mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

trans-Anethole, PPAI - CAS: 4180-23-8  
 Oral toxicity acute (OECD Test Guideline 401) - LD50: 3070 mg/kg  
 Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 300 mg/kg; LOAEL: n.a. mg/kg  
 Dermal toxicity - human (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 407):  
 NOEL (no observed effect level): 6000 µg/cm<sup>2</sup>  
 LOEL (lowest observed effect level): n.a. µg/cm<sup>2</sup>  
 NESIL (no expected sensitization induction level): 6000 µg/cm<sup>2</sup>  
 Skin corrosion/irritation (dermal)(HRIPT): not irritating  
 Skin sensitization (HRIPT): sensitizing  
 Eye: Irritation (ocular)(FHSA): non irritating  
 Inhalation toxicity (OECD Test Guideline 403) - LC50: >5.1 mg/m<sup>3</sup>  
 Developmental NOAEL maternal: 35 mg/kg; NOAEL foetal: 175 mg/kg  
 Reproductive Toxicity NOAEL: 1300 mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): negative

Acetyl hexamethyl tetralin - AHTN, NNI - CAS: 1506-02-1  
 Oral toxicity acute - rat (OECD Test Guideline 401) - LD50: 964 mg/kg  
 Repeated dose toxicity (OECD Test Guideline 407) - NOAEL: 15 mg/kg; LOAEL: n/a mg/kg  
 Dermal toxicity (RIFM-Research Institute for Fragrance Materials or OECD Test Guideline 402):  
 NOEL (no observed effect level): 8763 µg/cm<sup>2</sup>  
 LOEL (lowest observed effect level): n/a µg/cm<sup>2</sup>  
 NESIL (no expected sensitization induction level): 8700 µg/cm<sup>2</sup>  
 Skin corrosion/irritation (dermal)(HRIPT): not irritating  
 Skin sensitization (HRIPT): non sensitizing @10%  
 Eye: Irritation (ocular)(FHSA): slightly irritating

Inhalation toxicity (OECD Test Guideline 403): LC50 n/a mg/m<sup>3</sup>  
 Developmental NOAEL maternal: 5 mg/kg; NOAEL foetal: 50 mg/kg  
 Reproductive Toxicity NOAEL: n/a mg/kg  
 Genotoxicity (in vivo): negative. Genotoxicity (in vitro): n/a

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Tricyclodecyl acetate, NNI

(Reaction mass of 3a,4,5,6,7,7a-hexahydro-4,7-methanoinden-5-yl acetate and 3a,4,5,6,7,7a-hexahydro-4,7-methanoinden-6-yl acetate) - CAS: 54830-99-8

- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 15.8 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 25 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 6.4 mg/l - Duration h: 72 - Notes: ECHA
- c) Bacteria toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 245 mg/l - Duration h: 3 - Notes: ECHA

4-tert-Butylcyclohexyl acetate, NNI - CAS: 32210-23-4

- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 8.6 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 5.3 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 22 mg/l - Duration h: 72 - Notes: ECHA
- c) Bacteria toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 302 mg/l - Duration h: 3 - Notes: ECHA

Benzyl acetate - CAS: 140-11-4

- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 4 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 17 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 92 mg/l - Duration h: 72 - Notes: ECHA
- c) Bacteria toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 855 mg/l - Duration h: 3 - Notes: ECHA

Terpineol, CPAI - CAS: 8000-41-7

- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 12 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 12 mg/l - Duration h: 42 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 17 mg/l - Duration h: 72 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 499 mg/l - Duration h: 3 - Notes: ECHA

Citronellol\* - CAS: 106-22-9

- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 14.66 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 17.48 mg/l - Duration h: 42 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 2.4 mg/l - Duration h: 72 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 10000 mg/l - Duration h: 3 - Notes: ECHA

Amyl salicylate, NNI - CAS: 2050-08-0

- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 1.34 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 0.880 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 0.770 mg/l - Duration h: 72 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 100 mg/l - Duration h: 3 - Notes: ECHA

Hexyl cinnamal\* - CAS: 165184-98-5

- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 1.7 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 0.247 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 0.065 mg/l - Duration h: 72 - Notes: ECHA
- Methylundecanal, NNI - CAS: 110-41-8
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 0.350 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 0.210 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 0.180 mg/l - Duration h: 72 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 100 mg/l - Duration h: 3 - Notes: ECHA
- Hexamethylindanopyran, NNI - CAS: 1222-05-5
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 0.950 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 0.194 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 0.201 mg/l - Duration h: 72 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 10.0 mg/l - Duration h: 3 - Notes: ECHA
- Dimethyl benzyl carbonyl acetate, NNI - CAS: 151-05-3
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 8.901 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 15.4 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 637 mg/l - Duration h: 3 - Notes: ECHA
- Anisaldehyde, NNI - CAS: 123-11-5
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 148.32 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 82.8 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 68.4 mg/l - Duration h: 72 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 850 mg/l - Duration h: 3 - Notes: ECHA
- Triethyl citrate (E1505), CPAI - CAS: 77-93-0
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 112.02 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 100 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 100 mg/l - Duration h: 72 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 5.48 mg/l - Duration h: 3 - Notes: ECHA
- Tetrahydro-methyl-(methylpropyl)-pyranol, NNI - CAS: 63500-71-0
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 320 mg/l - Duration h: 72 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 100 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 1000 mg/l - Duration h: 3 - Notes: ECHA
- Dipropylene glycol, NNI - CAS: 25265-71-8
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 46.5 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 100 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 100 mg/l - Duration h: 72 - Notes: ECHA
- c) Bacteria toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 1000 mg/l - Duration h: 3 - Notes: ECHA
- Coumarin\* - CAS: 91-64-5
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 1.329 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 24.3 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 1.452 mg/l - Duration h: 72 - Notes: ECHA
- c) Bacteria toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 640 mg/l - Duration h: 3 - Notes: ECHA
- Cyclamen aldehyde, NNI - CAS: 103-95-7
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 1.092 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 1.4 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 3.8 mg/l - Duration h: 72 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 100 mg/l - Duration h: 3 - Notes: ECHA
- trans-Anethole, PPAI - CAS: 4180-23-8
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 7 mg/l - Duration h: 96 - Notes: ECHA

- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 6.82 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 9.57 mg/l - Duration h: 72 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 97.2 mg/l - Duration h: 3 - Notes: ECHA
- Acetyl hexamethyl tetralin - AHTN, NNI - CAS: 1506-02-1
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 0.035 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 0.610 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 0.835 mg/l - Duration h: 72 - Notes: ECHA
- c) Bacteria toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 22 mg/l - Duration h: 3 - Notes: ECHA
- Reaction mass of cis-4-(Isopropyl) cyclohexanemethanol and trans-4-(Isopropyl) cyclohexanemethanol, NNI - CAS: 5502-75-0
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 4.2 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 13 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 10 mg/l - Duration h: 72 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 190 mg/l - Duration h: 3 - Notes: ECHA
- Geraniol\* - CAS: 106-24-1
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 22 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 10.8 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 13.1 mg/l - Duration h: 72 - Notes: ECHA
- c) Bacteria toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 70 mg/l - Duration h: 3 - Notes: ECHA
- Undecenal, NNI - CAS: 1337-83-3
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 6.446 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 7.594 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 25.002 mg/l - Duration h: 72 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 4000 mg/l - Duration h: 3 - Notes: ECHA
- Nerol, NNI - CAS: 106-25-2
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 20.3 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 32.4 mg/l - Duration h: 42 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 7.45 mg/l - Duration h: 72 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Microorganisms (Bacterial Reverse Mutation Test: OECD 471) 241 mg/l - Duration h: 3 - Notes: ECHA
- 2,4-Dimethyl-3-cyclohexene carboxaldehyde, NNI - CAS: 68039-49-6
- a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish (Daphnia sp. Acute Immobilisation Test: OECD 202) 7.5 mg/l - Duration h: 96 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia (Daphnia sp. Acute Immobilisation Test: OECD 202) 22.4 mg/l - Duration h: 48 - Notes: ECHA
- a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae (Freshwater Alga&Cyanobacteria, Grow. Inhib.Test: OECD 201) 28 mg/l - Duration h: 72 - Notes: ECHA

## 12.2. Persistence and degradability

According to theoretical calculations based on QSAR (Quantitative Structure Assessment Relationships) the biodegradability of concentrate products is <60% / 28d. The products is INHERENTLY BIODEGRADABLE. The biodegradability increases if the product is diluted.

## 12.3. Bioaccumulative potential

N.A.

## 12.4. Mobility in soil

N.A.

## 12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

## 12.6. Other adverse effects

None

## 12.7. German Water Hazard Class.

WGK 2: hazard to waters

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**SECTION 13: DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods**

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

Avoid release to the environment.

CER code:

- 070608 - "other sill bottoms and reaction residues"

Properties of wastes which render them hazardous:

- HP4 - "Irritant" non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation.

- HP5 "Harmful": substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks.

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**14. TRANSPORT INFORMATION****14.1 UN Number:**

N° ONU: UN3082 - Environmentally hazardous substance, liquid, n.o.s.

**14.2 UN proper shipping name:**

Name ONU: Amyl salicylate

**14.3 Indications for ADR transport:**

ADR - Classe: 9-M6

ADR - Label: 9

ADR - Packing Group: III

ADR - Gallery code: (-)

**14.4 Indications for IATA transport:**

IATA - Class: 9-M6

IATA - Passenger Aircraft: 914

IATA - Cargo Aircraft: 914

IATA - Label: 9

IATA - Packing group: III

**14.5 Indications for IMO transport:**

IMO - Class: 9-M6

IMO - EmS: F-A, S-F

IMO - Label: 9

IMO - Packing group: III

**14.6 Special pre-orders for users**

None

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

The substance / mixture is not intended to be transported in bulk, IBC code not required.

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**SECTION 15: REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) 2020/878

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restriction 40

Restrictions related to the substances contained:

Restriction 75

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

Product belongs to category: E1, E2

**15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out for the mixture.

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**SECTION 16: OTHER INFORMATION**

Full text of phrases referred to in Section 3:

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

H317 May cause an allergic skin reaction.

H315 Causes skin irritation.

H302 Harmful if swallowed.

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.

Hazard class and hazard category	Code	Description
Unst. Expl.		
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1	3.4.2/1	Skin Sensitisation, Category 1
Skin Sens. 1B	3.4.2/1B	Skin Sensitisation, Category 1B
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

Paragraphs modified from the previous revision: 1; 2; 3;14

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1B, H317	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 2, H411	Calculation method

This document was prepared by a competent person who has received appropriate training.

#### Main bibliographic sources:

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

#### ACRONIMEX

ADN: Accord européen relative au transport international des marchandises dangereuses par voies de navigation intérieures (accordo europeo relativo al trasporto internazionale delle merci pericolose per vie navigabili interne)

ADR: Accord européen relative au transport international des marchandises dangereuses par route (accordo europeo relativo al trasporto internazionale



delle merci pericolose su strada)

BCF: BioConcentration Factor (Fattore di BioConcentrazione)

C&L: Classification and Labelling (Classificazione ed Etichettatura)

CAS- EINECS: European CAS number only for vegetal products

CAS: Chemical Abstracts Service

Chemicals Agency (Agenzia Europea delle Sostanze Chimiche)

CITES: The Convention on International Trade in Endangered Species of Wild Fauna and Flora

CLP: Classification, Labelling and Packaging (Classificazione, Etichettatura e Imballaggio) CMR: Carcinogenic, Mutagenic Reprotoxic (Cancerogenico–Mutagenico–Reprotossico)

COSING: European Commission database for information on cosmetic substances and ingredients

CSA: Chemical Safety Assessment (Valutazione del Rischio Chimico)

CSR: Chemical Safety Report (Relazione sulla Sicurezza Chimica)

DNEL: Derived no effect level (Livello derivato senza effetto)

EC Numbers: European Community number (replace the outmoded "EINECS/ELINCS number" )

EFFA: European Flavour and Fragrance Association

EINECS: European Inventory of Existing Commercial Chemical Substances (Registro Europeo delle Sostanze chimiche in Commercio)

ELINCS: European List of Notified Chemical Substances

EMA: The European Agency for the Evaluation of Medicinal Products

GefStoffVO: Gefahrstoffverordnung (Ordinanza sulle sostanze pericolose in Germania)

GHS: Globally Harmonised System (Sistema Globale Armonizzato)

IATA: International Air Transport Association (Associazione Internazionale del Trasporto Aereo)

IATA-DGR: IATA Dangerous Goods Regulations (Regolamento sulle merci pericolose della IATA)

ICAO: International Civil Aviation Organization (Organizzazione Internazionale dell'Aviazione Civile)

ICAO-TI: International Civil Aviation Organization - Technical Instructions for the Safe Transport of Dangerous Goods by Air (Istruzioni tecniche della "Organizzazione internazionale per l'aviazione civile" (ICAO)

IFRA: The International Fragrance Association

IMDG: International Maritime Dangerous Goods code (Codice sul Regolamento del Trasporto Marittimo)

IOFI: International Organization of the Flavor Industry

ISS: Istituto Superiore di Sanità

KSt: Explosion Constant (explosion risk), coefficiente d'esplosione.

LC50: Lethal Concentration 50 (concentration in water having 50% chance of causing death to aquatic life), (concentrazione letale per il 50 per cento della popolazione di test)

LD50: Lethal Dose 50 (median concentration of a toxicant that will kill 50% of the test animals within a designated period), (dose letale per il 50 per cento della popolazione di test)

LOAEL: Lowest Observed Adverse Effect Level (La più piccola dose senza effetto avverso osservabile)

LOEL: Lowest Observed Effect Level (La più bassa dose al quale si riscontra un effetto biologico)

Log Kow: Partition coefficient (Coefficiente di ripartizione ottanolo – acqua)

MOAEL: Maximun Observed adverse effect level (Dose massima alla quale tutti i soggetti manifestano un determinato effetto)

MSDS- Material Safety Data Sheet (SDS Scheda di Sicurezza)

NLP: No-Longer Polymers

NOAEL: No Observed Adverse Effect Level (Dose senza effetto avverso osservabile)

NOEL: No Observed Effect Level (Dose priva di qualsiasi effetto biologico)

OR: Only Representative (Rappresentante Esclusivo)

PBT: Persistent, bioaccumulative and toxic (sostanze persistenti bioaccumulabili e tossiche)

Ph. Eur.: European Pharmacopoeia

PNEC: Predicted no effect concentration (Concentrazione prevedibile priva di effetti)

REACH: Registration Evaluation Authorisation and Restriction of Chemicals

RID: Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regolamento concernente il trasporto internazionale di merci pericolose per ferrovia)

STA: Stima della tossicità acuta

STAmix: Stima della tossicità acuta (Miscela)

STEL: Short Term Exposure Limit (Limite d'esposizione a corto termine)

STOT: Specific Target Organ Toxicity (Tossicità organo-specifica)

TLV-STEL: Threshold Limit Value - Short-Term Exposure Limit (valore massimo consentito per esposizioni brevi)

TLV-TWA: Threshold Limit Values - Time Weighted Average (Valore limite di soglia media ponderata nel tempo)

WGK: Wassergefährdungsklasse (Classe di pericolo per le acque (Germania))