**Trade name:** LINARI-LUCE

**Current version :** 4.0.0, issued: 26.05.2021 **Replaced version:** 3.0.0, issued: 07.05.2021 **Region:** GB

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

### 1.1 Product identifier

**Trade name**

**LINARI-LUCE**

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

**Relevant identified uses of the substance or mixture**
Fragrances

**Uses advised against**
No data available.

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

**Address**
LINARI GmbH
Jaffestrasse 12 | DOCK 2
21109 Hamburg
Germany

Telephone no. +49 40-7566850
Fax no. +49 40-7534505

**Advice on Safety Data Sheet**
sdb_info@umco.de

### 1.4 Emergency telephone number

Emergency CONTACT (24-Hour-Number) international:
GBK GmbH - Global Regulatory Compliance +49 (0)6132-84463

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**
Aquatic Chronic 2; H411
Eye Irrit. 2; H319
Flam. Liq. 3; H226
Skin Sens. 1; H317

**Classification information**
This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:
Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP
Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

### 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)**

**Hazard pictograms**


GHS02


GHS07


GHS09

**Signal word**
Warning

**Hazardous component(s) to be indicated on label:**
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1 one

**Hazard statement(s)**

| | |
|---|---|
| H226 | Flammable liquid and vapour. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H411 | Toxic to aquatic life with long lasting effects. |

**Hazard statements (EU)**

| | |
|---|---|
| EUH208 | Contains linalool, linalyl acetate, (R)-p-mentha-1,8-diene, [3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene, (2E)-2-(phenylmethylidene)octanal, alpha-methyl-1,3-benzodioxole-5-propionaldehyde. May produce an allergic reaction. |

**Precautionary statement(s)**

| | |
|---|---|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves. |
| P391 | Collect spillage. |
| P501 | Dispose of contents/container to a facility in accordance with local/regional/national/international regulations. |

### 2.3 Other hazards

PBT assessment
The components of this product are not considered to be PBT (PBT = persistent, bioaccumulative, toxic) according to Annex XIII of Regulation (EC) 1907/2006 (REACH).

vPvB assessment
The components of this product are not considered to be vPvB (vPvB = very persistent, very bioaccumulative) according to Annex XIII of Regulation (EC) 1907/2006 (REACH).

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable. The product is not a substance.

### 3.2 Mixtures

**Hazardous ingredients**

| No | Substance name | | Additional information | |
|---|---|---|---|---|
| | CAS / EC / Index / REACH no | Classification (EC) 1272/2008 (CLP) | Concentration | % |
| 1 | **ethanol** | | | |
| | 64-17-5<br>200-578-6<br>603-002-00-5<br>01-2119457610-43 | Flam. Liq. 2; H225<br>Eye Irrit. 2; H319 | >= 70.00 - < 90.00 | wt% |
| 2 | **1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one** | | | |
| | 54464-57-2<br>259-174-3<br>-<br>- | Aquatic Chronic 1; H410<br>Skin Sens. 1; H317<br>Skin Irrit. 2; H315 | < 2.50 | wt% |
| 3 | **linalool** | | | |
| | 78-70-6<br>201-134-4<br>603-235-00-2<br>- | Skin Irrit. 2; H315<br>Skin Sens. 1B; H317<br>Eye Irrit. 2; H319 | < 2.50 | wt% |
| 4 | **linalyl acetate** | | | |
| | 115-95-7<br>204-116-4<br>-<br>- | Skin Irrit. 2; H315<br>Eye Irrit. 2; H319<br>Skin Sens. 1B; H317 | < 2.50 | wt% |
| 5 | **A mixture of cis- and trans-cyclohexadec-8-en-1-one** | | | |

| | | | | |
|---|---|---|---|---|
| | 3100-36-5<br>401-700-2<br>606-046-00-3<br>- | Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410 | < 2.50 | wt% |
| 6 | **(R)-p-mentha-1,8-diene** | | **pls. refer to footnote (1)** | |
| | 5989-27-5<br>227-813-5<br>601-029-00-7<br>- | Aquatic Acute 1; H400<br>Asp. Tox. 1; H304<br>Flam. Liq. 3; H226<br>Skin Irrit. 2; H315<br>Skin Sens. 1; H317<br>Aquatic Chronic 1; H410 | < 2.50 | wt% |
| 7 | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | | | |
| | 67874-81-1<br>267-510-5<br>-<br>01-2120228335-61 | Skin Sens. 1; H317<br>Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410 | < 2.50 | wt% |
| 8 | **(2E)-2-(phenylmethylidene)octanal** | | | |
| | 165184-98-5<br>639-566-4<br>-<br>- | Aquatic Acute 1; H400<br>Aquatic Chronic 2; H411<br>Skin Sens. 1; H317 | < 0.50 | wt% |
| 9 | **alpha-methyl-1,3-benzodioxole-5-propionaldehyde** | | | |
| | 1205-17-0<br>214-881-6<br>-<br>- | Aquatic Chronic 2; H411<br>Skin Sens. 1B; H317<br>Repr. 2; H361 | < 0.50 | wt% |
| 10 | **[3R-(3alpha,3abeta,7beta,8aalpha)]-2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulene** | | | |
| | 469-61-4<br>207-418-4<br>-<br>- | Aquatic Acute 1; H400<br>Asp. Tox. 1; H304<br>Aquatic Chronic 1; H410 | < 0.10 | wt% |

Full Text for all H-phrases and EUH-phrases: pls. see section 16
(1) Aberrant from/in addition to the classification set out in Annex VI, this substance is classified according to European Regulation (EC) No 1272/2008 (CLP), Article 4 (3), paragraph 2.

| No | Note | Specific concentration limits | M-factor (acute) | M-factor (chronic) |
|---|---|---|---|---|
| 1 | - | Eye Irrit. 2; H319: C >= 50% | - | - |
| 6 | C | - | - | - |
| 10 | - | - | M = 10 | M = 10 |

Full text for the notes: pls. see section 16 “Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)”.

| No | Route, target organ, concrete effect |
|---|---|
| 9 | H361<br>inhalational; -; - |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General information**
In case of persisting adverse effects, consult a physician.

**After inhalation**
Remove affected person from the immediate area. Ensure supply of fresh air. In case of persisting adverse effects consult a physician. If unconscious place in recovery position and seek medical advice.

**After skin contact**
In case of contact with skin wash off immediately with soap and water. Remove contaminated clothing. Consult a doctor if skin irritation persists.

**After eye contact**
Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes).

**After ingestion**
Rinse the mouth thoroughly with water. Do not induce vomiting. If swallowed drink plenty of water and seek medical treatment. Never give anything by mouth to an unconscious person.

### 4.2 Most important symptoms and effects, both acute and delayed
No data available.

### 4.3 Indication of any immediate medical attention and special treatment needed
No data available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media**
Foam; Extinguishing powder; Carbon dioxide; Water spray jet

**Unsuitable extinguishing media**
High power water jet

### 5.2 Special hazards arising from the substance or mixture
Formation of explosive mixtures with air is possible. Vapours are heavier than air and may spread near ground to sources of ignition. May travel considerable distance to source of ignition and flash back. In the event of fire, the following can be released: Carbon dioxide (CO2); Carbon monoxide (CO)

### 5.3 Advice for firefighters
Use self-contained breathing apparatus. Wear protective clothing. Cool endangered containers with water spray jet. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel**
Exclude sources of ignition and ventilate the area. Avoid contact with skin, eyes and clothing. Refer to protective measures listed in sections 7 and 8.

**For emergency responders**
Personal protective equipment (PPE) - see section 8.

### 6.2 Environmental precautions
Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. In case of entry into waterways, soil or drains, inform the responsible authorities.

### 6.3 Methods and material for containment and cleaning up
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).

### 6.4 Reference to other sections
Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

**Advice on safe handling**
Provide good ventilation at the work area (local exhaust ventilation, if necessary).

**General protective and hygiene measures**
Do not eat, drink or smoke during work time. Keep away from food, drink and animal feeding stuffs. After worktime and during work intervals the affected skin areas must be thoroughly cleaned. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately. Provide eye wash fountain in work area. Have emergency shower

available.

**Advice on protection against fire and explosion**
Keep away from sources of heat and ignition. Take precautionary measures against static charges.

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

**Technical measures and storage conditions**
Keep container tightly closed in a cool, well-ventilated place.

**Requirements for storage rooms and vessels**
Store product in closed containers. Always keep in containers of same material as the original.

**Incompatible products**
Do not store together with fire promoting substances.

### 7.3 Specific end use(s)
No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limit values**

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| 1 | **ethanol** | **64-17-5** | **200-578-6** |
| | **List of approved workplace exposure limits (WELs) / EH40** | | |
| | Ethanol | | |
| | WEL long-term (8-hr TWA reference period) | 1920 mg/m³ | 1000 ppm |

**DNEL, DMEL and PNEC values**

**DNEL values (worker)**

| No | Substance name | | | CAS / EC no | |
|---|---|---|---|---|---|
| | Route of exposure | Exposure time | Effect | Value | |
| 1 | **ethanol** | | | **64-17-5 200-578-6** | |
| | dermal | Long term (chronic) | systemic | 343 | mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 950 | mg/m³ |
| 2 | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | | | **67874-81-1 267-510-5** | |
| | dermal | Long term (chronic) | systemic | 4.5 | mg/kg/day |
| | dermal | Long term (chronic) | local | 2.03 | mg/cm² |
| | inhalative | Long term (chronic) | systemic | 16.1 | mg/m³ |

**DNEL value (consumer)**

| No | Substance name | | | CAS / EC no | |
|---|---|---|---|---|---|
| | Route of exposure | Exposure time | Effect | Value | |
| 1 | **ethanol** | | | **64-17-5 200-578-6** | |
| | oral | Long term (chronic) | systemic | 87 | mg/kg/day |
| | dermal | Long term (chronic) | systemic | 206 | mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 114 | mg/m³ |
| 2 | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | | | **67874-81-1 267-510-5** | |
| | oral | Long term (chronic) | systemic | 2.7 | mg/kg/day |
| | dermal | Long term (chronic) | systemic | 2.7 | mg/kg/day |
| | dermal | Long term (chronic) | local | 1.22 | mg/cm² |
| | inhalative | Long term (chronic) | systemic | 4.7 | mg/m³ |

**PNEC values**

| No | Substance name | | CAS / EC no |
|---|---|---|---|
| | ecological compartment | Type | Value |
| 1 | **ethanol** | | **64-17-5** |

| | | | | |
|---|---|---|---|---|
| | | | **200-578-6** | |
| | water | fresh water | 0.96 | mg/L |
| | water | Aqua intermittent | 2.75 | mg/L |
| | water | marine water | 0.79 | mg/L |
| | water | fresh water sediment | 3.6 | mg/kg dry weight |
| | water | marine water sediment | 2.9 | mg/L |
| | soil | - | 0.63 | mg/kg dry weight |
| | sewage treatment plant | - | 580 | mg/L |
| | secondary poisoning | - | 0.38 | mg/kg food |
| 2 | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | | **67874-81-1 267-510-5** | |
| | water | fresh water | 0.43 | µg/L |
| | water | marine water | 0.043 | µg/L |
| | water | fresh water sediment | 1.29 | mg/kg dry weight |
| | water | marine water sediment | 0.129 | mg/kg dry weight |
| | soil | - | 0.257 | mg/kg dry weight |
| | sewage treatment plant | - | 100 | mg/L |

### 8.2 Exposure controls

**Appropriate engineering controls**
Ensure adequate ventilation, local exhaust at the work station if necessary.

**Personal protective equipment**

**Respiratory protection**
If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. Combination filter (EN 14387), filter type A - brown; In case of aerosol, vapour and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

**Eye / face protection**
Tightly fitting safety glasses (EN 166).

**Hand protection**
In case of intensive contact, wear protective gloves (EN 374). Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

| | | | |
|---|---|---|---|
| Appropriate Material | butyl rubber | | |
| Material thickness | | 0.5 | mm |
| Breakthrough time | > | 480 | min |

**Other**
Normal chemical work clothing.

**Environmental exposure controls**
No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| **State of aggregation** |
|---|
| liquid |

| **Form/Colour** |
|---|
| liquid |
| colourless |

| **Odour** |
|---|

| |
|---|
| perfumed-like |

| **pH value** | | |
|---|---|---|
| Value | 5.4 | |

| **Boiling point / boiling range** | | |
|---|---|---|
| Value | 78 | °C |
| Reference substance | Ethanol | |

| **Melting point/freezing point** | | |
|---|---|---|
| Value | -114 | °C |
| Reference substance | Ethanol | |

| **Decomposition temperature** |
|---|
| No data available |

| **Flash point** | | |
|---|---|---|
| Value | 26 | °C |
| Method | Cleveland open cup | |

| **Ignition temperature** |
|---|
| No data available |

| **Auto-ignition temperature** | | |
|---|---|---|
| Value | 425 | °C |
| Reference substance | Ethanol | |

| **Explosive properties** |
|---|
| This product is not explosive. In and after use danger of production of inflammable compounds. |

| **Flammability** |
|---|
| No data available |

| **Lower explosion limit** | | |
|---|---|---|
| Value | 3.5 | % vol |
| Reference substance | Ethanol | |

| **Upper explosion limit** | | |
|---|---|---|
| Value | 15 | % vol |
| Reference substance | Ethanol | |

| **Vapour pressure** | | |
|---|---|---|
| Value | 57 | mbar |
| Reference temperature | 20 | °C |
| Reference substance | Ethanol | |

| **Relative vapour density** | |
|---|---|
| Comments | Air = 1 |
| Comments | Heavier than air. |

| **Relative density** |
|---|
| No data available |

| **Density** |
|---|
| No data available |

| **Solubility** |
|---|
| No data available |

| **Partition coefficient n-octanol/water (log value)** | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **ethanol** | **64-17-5** | **200-578-6** |
| log Pow | | -0.35 | |
| Reference temperature | | 24 | °C |
| with reference to | | pH 7,4 | |
| Method | | OECD 107 | |
| Source | | ECHA | |

| 2 | [3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene | 67874-81-1 | 267-510-5 |
|---|---|---|---|

| | | | |
|---|---|---|---|
| log Pow | | 5.1 | |
| Reference temperature | | 25 | °C |
| Method | OECD 117 | | |
| Source | ECHA | | |

| Viscosity |
|---|
| No data available |

| Particle characteristics |
|---|

### 9.2 Other information

| Other information |
|---|
| No data available. |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity
No data available.

### 10.2 Chemical stability
Stable under recommended storage and handling conditions (See section 7).

### 10.3 Possibility of hazardous reactions
Dangerous reactions are not to be expected when handling product according to its intended use. Generation of flammable vapor-air mixtures possible.

### 10.4 Conditions to avoid
Heat, naked flames and other ignition sources. Static discharges.

### 10.5 Incompatible materials
Reactions with strong oxidising agents. Reactions with strong acids. Alkali metals; Halogenated compounds

### 10.6 Hazardous decomposition products
None, if handled according to intended use.

## SECTION 11: Toxicological information

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

| Acute oral toxicity | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **ethanol** | **64-17-5** | **200-578-6** |

| | | | |
|---|---|---|---|
| LD50 | | 10470 | mg/kg bodyweight |
| Species | rat | | |
| with reference to | 95% ethanol in water | | |
| Method | OECD 401 | | |
| Source | ECHA | | |

| 2 | [3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene | 67874-81-1 | 267-510-5 |
|---|---|---|---|

| | | | |
|---|---|---|---|
| LD50 | > | 5000 | mg/kg bodyweight |
| Species | rat | | |
| Method | OECD 401 | | |
| Source | ECHA | | |

| Acute dermal toxicity | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | **67874-81-1** | **267-510-5** |

| | | | |
|---|---|---|---|
| LD50 | > | 5000 | mg/kg bodyweight |

| | |
|---|---|
| Species | rabbit |
| Method | OECD 402 |
| Source | ECHA |

| **Acute inhalational toxicity** | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **ethanol** | **64-17-5** | **200-578-6** |
| LC50 | | 124.7 | mg/l |
| Duration of exposure | | 4 | h |
| State of aggregation | Vapour | | |
| Species | rat | | |
| Method | OECD 403 | | |
| Source | ECHA | | |

| **Skin corrosion/irritation** | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **ethanol** | **64-17-5** | **200-578-6** |
| Species | rabbit | | |
| Method | OECD 404 | | |
| Source | ECHA | | |
| Evaluation | non-irritant | | |
| **2** | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | **67874-81-1** | **267-510-5** |
| Method | OECD 439 | | |
| Source | ECHA | | |
| Evaluation | non-irritant | | |

| **Serious eye damage/irritation** | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **ethanol** | **64-17-5** | **200-578-6** |
| Species | rabbit | | |
| Method | OECD 405 | | |
| Source | ECHA | | |
| Evaluation | irritant | | |
| **2** | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | **67874-81-1** | **267-510-5** |
| Method | OECD 438 | | |
| Source | ECHA | | |
| Evaluation | non-irritant | | |

| **Respiratory or skin sensitisation** | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **ethanol** | **64-17-5** | **200-578-6** |
| Route of exposure | Skin | | |
| Species | mouse | | |
| Source | ECHA | | |
| Evaluation | non-sensitizing | | |
| **2** | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | **67874-81-1** | **267-510-5** |
| Route of exposure | Skin | | |
| Method | OECD 429 | | |
| Source | ECHA | | |
| Evaluation | sensitizing | | |

| **Germ cell mutagenicity** | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **ethanol** | **64-17-5** | **200-578-6** |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |

| Reproduction toxicity | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **ethanol** | **64-17-5** | **200-578-6** |
| Route of exposure | oral | | |
| NOAEL | | | |
| Type of examination | 2 generation study | | |
| Species | mouse | | |
| Method | OECD 416 | | |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |
| Route of exposure | inhalational | | |
| NOAEL | | | |
| Type of examination | Prenatal Developmental Toxicity Study | | |
| Species | rat | | |
| Method | OECD 414 | | |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |
| **2** | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | **67874-81-1** | **267-510-5** |
| Method | OECD 422 | | |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |

| Carcinogenicity | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **ethanol** | **64-17-5** | **200-578-6** |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |

| STOT - single exposure |
|---|
| No data available |

| STOT - repeated exposure | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **ethanol** | **64-17-5** | **200-578-6** |
| Route of exposure | oral | | |
| Duration of exposure | 14 | week/s | |
| Species | rat | | |
| Target organ | kidneys | | |
| Method | OECD 408 | | |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |
| **2** | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | **67874-81-1** | **267-510-5** |
| Method | OECD 422 | | |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |

| Aspiration hazard |
|---|
| No data available |

### 11.2 Information on other hazards

**Endocrine disrupting properties**
No data available.

**Other information**
No data available.

## SECTION 12: Ecological information

### 12.1 Toxicity

| **Toxicity to fish (acute)** | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **ethanol** | **64-17-5** | **200-578-6** |
| LC50 | | 14200 | mg/l |
| Duration of exposure | | 96 | h |
| Species | Pimephales promelas | | |
| Method | EPA | | |
| Source | ECHA | | |
| **2** | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | **67874-81-1** | **267-510-5** |
| LC50 | | 0.43 | mg/l |
| Duration of exposure | | 96 | h |
| Species | Cyprinus carpio | | |
| Method | OECD 203 | | |
| Source | ECHA | | |

| **Toxicity to fish (chronic)** |
|---|
| No data available |

| **Toxicity to Daphnia (acute)** | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **ethanol** | **64-17-5** | **200-578-6** |
| EC50 | | 5012 | mg/l |
| Duration of exposure | | 48 | h |
| Species | Ceriodaphnia dubia | | |
| Method | ASTM Standard E 729-80 | | |
| Source | ECHA | | |
| **2** | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | **67874-81-1** | **267-510-5** |
| EC50 | | 0.48 | mg/l |
| Duration of exposure | | 48 | h |
| Species | Daphnia magna | | |
| Method | OECD 202 | | |
| Source | ECHA | | |

| **Toxicity to Daphnia (chronic)** | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **ethanol** | **64-17-5** | **200-578-6** |
| NOEC | | 9.6 | mg/l |
| Duration of exposure | | 9 | day(s) |
| Species | Daphnia magna | | |
| Source | ECHA | | |

| **Toxicity to algae (acute)** | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **ethanol** | **64-17-5** | **200-578-6** |
| EC50 | | 275 | mg/l |
| Duration of exposure | | 72 | h |
| Species | Chlorella vulgaris | | |
| Method | OECD 201 | | |
| Source | ECHA | | |
| **2** | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | **67874-81-1** | **267-510-5** |
| ErC50 | > | 1.80 | mg/l |
| Duration of exposure | | 72 | h |
| Species | Pseudokirchneriella subcapitata | | |
| Method | OECD 201 | | |

| | |
|---|---|
| Source | ECHA |

| **Toxicity to algae (chronic)** |
|---|
| No data available |

| **Bacteria toxicity** | | | | |
|---|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | | **EC no.** |
| **1** | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | **67874-81-1** | | **267-510-5** |
| EL50 | > | 1000 | | mg/l |
| Species | activated sludge | | | |
| Method | OECD 209 | | | |
| Source | ECHA | | | |

### 12.2 Persistence and degradability

| **Biodegradability** | | | | |
|---|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | | **EC no.** |
| **1** | **ethanol** | **64-17-5** | | **200-578-6** |
| Type | aerobic biodegradation | | | |
| Value | appr. | 84 | | % |
| Duration | | 20 | | day(s) |
| Method | OECD | | | |
| Source | ECHA | | | |
| Evaluation | readily biodegradable | | | |
| Value | | | | % |

### 12.3 Bioaccumulative potential

| **Partition coefficient n-octanol/water (log value)** | | | | |
|---|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | | **EC no.** |
| **1** | **ethanol** | **64-17-5** | | **200-578-6** |
| log Pow | | -0.35 | | |
| Reference temperature | | 24 | | °C |
| with reference to | pH 7,4 | | | |
| Method | OECD 107 | | | |
| Source | ECHA | | | |
| **2** | **[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene** | **67874-81-1** | | **267-510-5** |
| log Pow | | 5.1 | | |
| Reference temperature | | 25 | | °C |
| Method | OECD 117 | | | |
| Source | ECHA | | | |

### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

| **Results of PBT and vPvB assessment** | |
|---|---|
| PBT assessment | The components of this product are not considered to be PBT (PBT = persistent, bioaccumulative, toxic) according to Annex XIII of Regulation (EC) 1907/2006 (REACH). |
| vPvB assessment | The components of this product are not considered to be vPvB (vPvB = very persistent, very bioaccumulative) according to Annex XIII of Regulation (EC) 1907/2006 (REACH). |

### 12.6 Endocrine disrupting properties

No data available.

### 12.7 Other adverse effects

No data available.

### 12.8 Other information

| Other information |
|---|
| Do not discharge product unmonitored into the environment. |

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Product**
In accordance with regulations for special waste, must be taken to a special waste disposal.

**Packaging**
Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

## SECTION 14: Transport information

### 14.1 Transport ADR/RID/ADN

| | |
|---|---|
| Class | 3 |
| Classification code | F1 |
| Packing group | III |
| Hazard identification no. | 30 |
| UN number | UN1266 |
| Proper shipping name | PERFUMERY PRODUCTS |
| Tunnel restriction code | D/E |
| Label | 3 |
| Environmentally hazardous substance mark | Symbol "fish and tree" |

### 14.2 Transport IMDG

| | |
|---|---|
| Class | 3 |
| Packing group | III |
| UN number | UN1266 |
| Proper shipping name | PERFUMERY PRODUCTS |
| Technical name | 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1 one |
| EmS | F-E, S-D |
| Label | 3 |
| Marine pollutant mark | Symbol "fish and tree" |

### 14.3 Transport ICAO-TI / IATA

| | |
|---|---|
| Class | 3 |
| Packing group | III |
| UN number | UN1266 |
| Proper shipping name | Perfumery products |
| Label | 3 |

### 14.4 Other information

No data available.

### 14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

### 14.6 Special precautions for user

No data available.

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

Not relevant

## SECTION 15: Regulatory information

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

**EU regulations**

| **Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)** |
|---|
| According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006. |

| **REACH candidate list of substances of very high concern (SVHC) for authorisation** |
|---|
| According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006. |

| **Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES** | |
|---|---|
| The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII. | No 3, 40 |

| **Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances** | |
|---|---|
| This product is subject to Part I of Annex I, risk category: | E2, P5c |
| If the properties of the substance/product give rise to more than one classification, for the purposes of 2012/18/UE, the lowest qualifying quantities set out in Part 1 and Part 2 of Annex I shall apply. | |

### 15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

## SECTION 16: Other information

**Sources of key data used to compile the data sheet:**
Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.
Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.
National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.
The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

**Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

**Notes relating to the identification, classification and labelling of substances and mixtures ((EC) No 1272/2008, Annex VI)**

| | |
|---|---|
| C | Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers. |

**Creation of the safety data sheet**
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This information is based on our present knowledge and experience.
The safety data sheet describes products with a view to safety requirements.
It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.


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