

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Issue date: 5/20/2021 Revision date: 11/13/2024 Supersedes version of: 3/27/2024 Version: 3.0

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

1.1. Product identifier

| Product form | : | Mixture |
|---------------|---|------------------------|
| Product name | : | Habanolide Subst (Fir) |
| UFI | : | Y2J0-V0HD-C00P-SRJD |
| Product code | : | 23166 |
| Product group | : | Trade product |
| | | |

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

1.2.1. Relevant identified uses

Intended for general public Main use category Use of the substance/mixture

: Consumer use,Professional use : Fragrance raw material

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

De Hekserij Spoorstraat 57 8271 RG IJsselmuiden Nederland T +31 383 557 927 www.hekserij.nl

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

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

| Skin sensitisation, Category 1 | H317 |
|--|------|
| Hazardous to the aquatic environment – Chronic Hazard, | H411 |
| Category 2 | |
| Full text of LL and FLUL statements, and postion 40 | |

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

Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.

2.2. Label elements

| Labelling according to Regulation (EC) No. | 1272/2008 [CLP] | |
|--|---|--|
| Hazard pictograms (CLP) | | |
| | GHS07 GHS09 | |
| Signal word (CLP) | : Warning | |
| Hazard statements (CLP) | : H317 - May cause an allergic skin reaction. | |
| | H411 - Toxic to aquatic life with long lasting effects. | |
| Precautionary statements (CLP) | : P272 - Contaminated work clothing should not be allowed out of the workplace. | |
| | P273 - Avoid release to the environment. | |
| P280 - Wear protective gloves. | | |
| | P302+P352 - IF ON SKIN: Wash with plenty of soap and water. | |

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P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P391 - Collect spillage.
P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|--|-----------|--|
| Ethylene brassylate | CAS-No.: 105-95-3 EC-No.: 203-347-8 REACH-no: 01-2119976314- 33 | 60 – 70 | Aquatic Chronic 2, H411 |
| Oxacyclohexadec-12-en-2-one | CAS-No.: 34902-57-3 EC-No.: 422-320-3 EC Index-No.: 606-092-00-4 REACH-no: 01-0000016883- 62 | 15 – 20 | Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| Romandolide (Fir) | CAS-No.: 236391-76-7 EC-No.: 431-700-8 REACH-no: 01-0000017792- 64 | 10 – 15 | Aquatic Chronic 2, H411 |
| Dimethylcyclohexylethoxy isobutylpropanoate | CAS-No.: 141773-73-1 EC-No.: 415-490-5 EC Index-No.: 607-492-00-1 | 2.5 – 5 | Aquatic Chronic 2, H411 |
| omega-Pentadecalacton | CAS-No.: 106-02-5 EC-No.: 203-354-6 | 1 – 2.5 | Skin Sens. 1B, H317 Aquatic Chronic 2, H411 |
| Methylcyclopentadecenone | CAS-No.: 82356-51-2 EC-No.: 429-900-5 EC Index-No.: 606-119-00-X | 0.1 – 0.5 | Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |

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

SECTION 4: First aid measures

| 4.1. Description of first aid measures | |
|--|--|
| First-aid measures general | : If you feel unwell, seek medical advice. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Call a poison center or a doctor if you feel unwell. |
| First-aid measures for first aider | : First aid workers will be equipped with suitable personal protective equipment. |

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| 4.2. Most important symptoms and effects, both acute and delayed | | |
|--|---|--|
| Symptoms/effects after inhalation | : Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard. | |
| Symptoms/effects after skin contact | : May cause an allergic skin reaction. | |
| Symptoms/effects after eye contact Symptoms/effects after ingestion | None under normal conditions. None under normal conditions. | |

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

Treat symptomatically.

| SECTION 5: Firefighting measures | | | |
|---|---|--|--|
| 5.1. Extinguishing media | | | |
| Suitable extinguishing media Unsuitable extinguishing media | Water spray. Dry powder. Foam. Carbon dioxide.Do not use a heavy water stream. | | |
| 5.2. Special hazards arising from the substance or mixture | | | |
| Fire hazard Explosion hazard Hazardous decomposition products in case of fire | No fire hazard. No direct explosion hazard. Toxic fumes may be released. | | |
| 5.3. Advice for firefighters | | | |
| Firefighting instructions Protection during firefighting | Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. | | |

| SECTION 6: Accidental release measures | | |
|--|---|--|
| 6.1. Personal precautions, protective eq | uipment and emergency procedures | |
| General measures | : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage. | |
| 6.1.1. For non-emergency personnel | | |
| Protective equipment | : Wear recommended personal protective equipment. | |
| Emergency procedures | Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. | |
| 6.1.2. For emergency responders | | |
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". | |
| Emergency procedures | : Evacuate unnecessary personnel. Stop leak if safe to do so. | |
| 6.2. Environmental precautions | | |
| Avoid release to the environment. | | |

| 6.3. Methods and material for containment and cleaning up | | | |
|---|---|--|--|
| For containment | : Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible. | | |
| Methods for cleaning up | : Take up liquid spill into absorbent material. | | |
| Other information | : Dispose of materials or solid residues at an authorized site. | | |
| 6.4. Reference to other sections | | | |

For further information refer to section 13.

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| SECTION 7: Handling and storage | |
|--|--|
| 7.1. Precautions for safe handling | |
| Additional hazards when processed Precautions for safe handling | Not expected to present a significant hazard under anticipated conditions of normal use. Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear personal protective equipment. |
| Hygiene measures | : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |
| 7.2. Conditions for safe storage, inclue | ding any incompatibilities |
| Technical measures Storage conditions Packaging materials | Keep in a cool, well-ventilated place away from heat. Keep cool. Protect from sunlight. Store always product in container of same material as original container. |
| Switzerland Storage class (LK) | : LK 10/12 - Liquids |
| 7.3. Specific end use(s) | |

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment. Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection: Safety glasses

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8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state Colour Odour | : | Liquid No data available No data available |
|---|---|--|
| Odour threshold | : | No data available |
| pH | ÷ | No data available |
| Relative evaporation rate (butylacetate=1) | : | No data available |
| Melting point | : | Not applicable |
| Freezing point | : | No data available |
| Boiling point | : | > 40 °C |
| Flash point | : | > 100 °C |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Flammability (solid, gas) | : | Not applicable |
| Vapour pressure | : | No data available |
| Relative vapour density at 20°C | : | No data available |
| Relative density | : | 1.0196 |
| Solubility | : | Insoluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : | No data available |
| Viscosity, kinematic | : | No data available |
| Viscosity, dynamic | : | No data available |
| Explosive properties | : | No data available |
| Oxidising properties | : | No data available |
| Explosive limits | : | No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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| 10.4.0 | Conditions | to avoid |
|--------|------------|----------|
|--------|------------|----------|

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

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

| SECTION 11: Toxicological information | | |
|---|---|--|
| 11.1 Information on toxicological effects | | |
| Acute toxicity (oral) Acute toxicity (dermal) Acute toxicity (inhalation) | : Not classified : Not classified : Not classified | |
| Habanolide Subst (Fir) | | |
| LD50 oral rat | > 2000 mg/kg | |
| omega-Pentadecalacton (106-02-5) | | |
| LD50 oral rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method), Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method) | |
| LD50 dermal rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: OECD Guideline 402 (Acute Dermal Toxicity) | |
| Ethylene brassylate (105-95-3) | | |
| LD50 oral rat | > 5000 mg/kg bodyweight Animal: rat | |
| LD50 dermal rabbit | > 5000 mg/kg bodyweight Animal: rabbit | |
| Romandolide (Fir) (236391-76-7) | | |
| LD50 oral rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method) | |
| LD50 dermal rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)) | |
| Skin corrosion/irritation | : Not classified | |
| Serious eye damage/irritation | : Not classified | |
| Respiratory or skin sensitisation | : May cause an allergic skin reaction. | |
| Germ cell mutagenicity | : Not classified | |
| Carcinogenicity Reproductive toxicity | : Not classified : Not classified | |
| Romandolide (Fir) (236391-76-7) | | |
| NOAEL (animal/male, F0/P) | 698 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test) | |
| STOT-single exposure | : Not classified | |
| STOT-repeated exposure | : Not classified | |
| omega-Pentadecalacton (106-02-5) | | |
| NOAEL (oral, rat, 90 days) | ≥ 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) | |

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| Ethylene brassylate (105-95-3) | |
|----------------------------------|--|
| NOAEL (oral, rat, 90 days) | 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28- Day Oral Toxicity Study in Rodents) |
| Aspiration hazard : | Not classified |
| omega-Pentadecalacton (106-02-5) | |
| Viscosity, kinematic | Not applicable |
| Ethylene brassylate (105-95-3) | |
| Viscosity, kinematic | 129 mm²/s Temp.: 20 °C |
| Romandolide (Fir) (236391-76-7) | |
| Viscosity, kinematic | ≈ 26.25 mPa.s Temp.: 20 °C |

| SECTION 12: Ecological information | | | |
|--|---|--|--|
| 12.1. Toxicity | | | |
| Hazardous to the aquatic environment, short-term : (acute) | Toxic to aquatic life with long lasting effects. Not classified. Toxic to aquatic life with long lasting effects. | | |
| Habanolide Subst (Fir) | | | |
| EC50 72h - Algae [1] | 10 mg/l | | |
| omega-Pentadecalacton (106-02-5) | | | |
| LC50 - Fish [1] | > 0.797 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) | | |
| LC50 - Fish [2] | 2 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) | | |
| EC50 - Crustacea [1] | > 0.17 mg/l Test organisms (species): Daphnia magna | | |
| EC50 72h - Algae [1] | 0.4 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) | | |
| EC50 72h - Algae [2] | > 0.47 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) | | |
| LOEC (chronic) | 0.127 mg/l Test organisms (species): Daphnia magna Duration: '21 d' | | |
| NOEC (chronic) | 0.068 mg/l Test organisms (species): Daphnia magna Duration: '21 d' | | |
| NOEC chronic fish | 0.027 mg/l Test organisms (species): Pimephales promelas Duration: '33 d' | | |
| Ethylene brassylate (105-95-3) | | | |
| LC50 - Fish [1] | 1.23 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) | | |
| LC50 - Fish [2] | 2.13 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) | | |
| EC50 72h - Algae [1] | > 6.94 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) | | |
| EC50 72h - Algae [2] | 14.579 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) | | |
| EC50 96h - Algae [1] | 0.788 mg/l Test organisms (species): other: | | |
| Romandolide (Fir) (236391-76-7) | | | |
| LC50 - Fish [1] | 1.6 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) | | |

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| Romandolide (Fir) (236391-76-7) | |
|---------------------------------|---|
| EC50 - Crustacea [1] | > 3.16 mg/l Test organisms (species): Daphnia magna |
| EC50 72h - Algae [1] | > 4.19 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |
| EC50 96h - Algae [1] | > 3.73 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |

12.2. Persistence and degradability

| Hahanalida Cubat (Eix) | | |
|---|------------------------|--|
| Habanolide Subst (Fir) | | |
| Persistence and degradability | Not rapidly degradable | |
| Oxacyclohexadec-12-en-2-one (34902-57-3) | | |
| Persistence and degradability | Not rapidly degradable | |
| Dimethylcyclohexylethoxy isobutylpropanoat | e (141773-73-1) | |
| Persistence and degradability | Not rapidly degradable | |
| Methylcyclopentadecenone (82356-51-2) | | |
| Persistence and degradability | Not rapidly degradable | |
| omega-Pentadecalacton (106-02-5) | | |
| Persistence and degradability | Not rapidly degradable | |
| Ethylene brassylate (105-95-3) | | |
| Persistence and degradability | Not rapidly degradable | |
| Romandolide (Fir) (236391-76-7) | | |
| Persistence and degradability | Not rapidly degradable | |
| 12.3. Bioaccumulative potential | | |
| omega-Pentadecalacton (106-02-5) | | |
| Partition coefficient n-octanol/water (Log Pow) | 5.29 Temp.: at 25 °C | |
| Ethylene brassylate (105-95-3) | | |
| Partition coefficient n-octanol/water (Log Kow) | 3.83 | |
| Romandolide (Fir) (236391-76-7) | | |
| Partition coefficient n-octanol/water (Log Kow) | 4.46 | |
| 12.4. Mobility in soil | | |

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

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| SECTION 13: Disposal considerations | | |
|---|--|--|
| 13.1. Waste treatment methods | | |
| Regional waste regulation Waste treatment methods Sewage disposal recommendations Product/Packaging disposal recommendations Additional information | Disposal must be done according to official regulations. Dispose of contents/container in accordance with licensed collector's sorting instructions. Disposal must be done according to official regulations. Disposal must be done according to official regulations. Do not re-use empty containers. | |

SECTION 14: Transport information

| UN 3082 UN 3082 UN 3082 UN 3082 UN 3082 UN 3082 14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)) Environmentally hazardous substance, liquid, n.o.s. (Habanolide Subst (Fir)) Environmentally hazardous substance, liquid, n.o.s. (Habanolide Subst (Fir)) Environmentally hazardous substance, liquid, n.o.s. (Habanolide Subst (Fir)) Environmentally N.O.S. (Habanolide Subst (Fir)) Environmentally N.O.S. (Habanolide Subst (Fir)) UN 3082 UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Habanolide Substance, LiQUID, N.O.S. (Habanolide Subst (Fir)), 9, III, (-) UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Habanolide Subst (Fir)), 9, III UN 3082 Environmentally hazardous substance, LiQUID, N.O.S. (Habanolide Subst (Fir)), 9, III, MARINE Environmentally hazardous substance, LiQUID, N.O.S. (Habanolide Subst (Fir)), 9, III, MARINE Environmentally hazardous substance, LiQUID, N.O.S. (Habanolide Subst (Fir)), 9, III, MARINE Environmentally hazardous substance, LiQUID, N.O.S. (Habanolide Subst (Fir)), 9, III Environmental Hazardous substance, LiQUID, N.O.S. (Habanolide Subst (Fir)), 9, III Environmental Hazardous substance, LiQUID, N.O.S. (Habanolide Subst (Fir)), 9, III Environmental Hazardous 9 9 9 9 9 9 9 14.4. Packing group III III III III III 14.5. Environme | ADR | IMDG | ΙΑΤΑ | ADN | RID |
|---|--|--|--|--|---|
| 14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)) ENVIRONMENTALLY HAZARDOUS ENVIRONMENTALLY (Fir)) ENVIRONMENTALLY (Fir)) ENVIRONMENTALLY HAZARDOUS UN 3082 UN 3082 UN 3082 UN 3082 UN 3082 ENVIRONMENTALLY HAZARDOUS UN 3082 UN 3082 UN 3082 SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III UN 3082 UN 3082 UN 3082 UN 3082 SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III, (-) UN 3082 UN 3082 UN 3082 UN 3082 SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III, (-) UN 3082 UN 3082 UN 3082 UN 3082 9 9 9 9 9 9 UN 3082 UN 3082 9 | 14.1. UN number | | | · | · |
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| HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir))HAZARDOUS substance, liquid, n.o.s. (Habanolide Subst (Fir))HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III, (-)UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III (Fir)), 9, III, (-)UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III (Fir)), 9, IIIUN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III (Fir)), 9, III (Fir)), 9, III (Fir)), 9, IIIUN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III (Fir)), 9, III (Fir)), 9, III (Fir)), 9, III (Fir)), 9, III <b< td=""><td>14.2. UN proper shippin</td><td>g name</td><td></td><td></td><td></td></b<> | 14.2. UN proper shippin | g name | | | |
| ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III, (-)ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III, (-)ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III, MARINE POLLUTANThazardous substance, liquid, n.o.s. (Habanolide Subst (Fir)), 9, IIIENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III 14.3. Transport hazard class(es) 9999 9 99999 14.4. Packing group IIIIIIIIIIIIIIIIIIIIIIIIIII 14.5. Environmental hazards Dangerous for the environment: YesDangerous for the environment: YesDangerous for the environment: YesDangerous for the environment: YesDangerous for the environment: Yes | HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst | HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst | substance, liquid, n.o.s. | HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subs (Fir)) |
| ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III, (-)ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III, (-)ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III, MARINE POLLUTANThazardous substance, liquid, n.o.s. (Habanolide Subst (Fir)), 9, IIIENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, IIIENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, IIIENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, IIIENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst | Fransport document descr | iption | | | |
| Image: constraint of the environment: Yes Dangerous for the environment: Yes | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst (Fir)), 9, III, MARINE | hazardous substance, liquid, n.o.s. (Habanolide | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subst | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Habanolide Subs |
| Image: constraint of the environment: Yes Dangerous for the environment: Yes | 14.3. Transport hazard o | class(es) | | | |
| III III III III III I4.5. Environmental hazards Dangerous for the environment: Yes | 9 | 9 | 9 | 9 | 9 |
| III III III III III 14.5. Environmental hazards Dangerous for the environment: Yes | | | | | |
| Instruction Dangerous for the environment: Yes | 14.4. Packing group | | | | |
| Dangerous for the environment: YesDangerous for the environment: YesDangerous for the environment: YesDangerous for the environment: YesDangerous for the environment: Yes | 111 | | III | III | |
| environment: Yes environment: Yes environment: Yes environment: Yes environment: Yes | 14.5. Environmental haz | zards | | | |
| | - | environment: Yes | - | - | Dangerous for the environment: Yes |
| No supplementary information available | No supplementary informatic | on available | | | |

| : M6 |
|---------------------------|
| : 274, 335, 375, 601 |
| : 51 |
| : E1 |
| : P001, IBC03, LP01, R001 |
| : PP1 |
| |

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| according to Regulation (EC) No. 1907/2006 (REACH) with i | ts amendment Regulation (EU) 2 |
|---|--------------------------------|
| Mixed packing provisions (ADR) | : MP19 |
| Portable tank and bulk container instructions (ADR) | |
| Portable tank and bulk container special provisions | TP1, TP29 |
| (ADR) | , |
| Tank code (ADR) | : LGBV |
| Vehicle for tank carriage | : AT |
| Transport category (ADR) | : 3 |
| Special provisions for carriage - Packages (ADR) | : V12 |
| Special provisions for carriage - Loading, unloading | : CV13 |
| and handling (ADR) | |
| Hazard identification number (Kemler No.) | : 90 |
| Orange plates | 00 |
| | 90 |
| | 3082 |
| | 5002 |
| Tunnel restriction code (ADR) | : - |
| EAC code | : •3Z |
| | |
| Transport by sea | |
| Special provisions (IMDG) | : 274, 335, 969 |
| Limited quantities (IMDG) | : 5 L |
| Excepted quantities (IMDG) | : E1 |
| Packing instructions (IMDG) | : LP01, P001 |
| Special packing provisions (IMDG) | : PP1 |
| IBC packing instructions (IMDG) | : IBC03 |
| Tank instructions (IMDG) | : T4 |
| Tank special provisions (IMDG) | : TP1, TP29 |
| EmS-No. (Fire) | : F-A |
| EmS-No. (Spillage) | : S-F |
| Stowage category (IMDG) | : A |
| Air transport | |
| Air transport | |
| PCA Excepted quantities (IATA) | : E1 : Y964 |
| PCA Limited quantities (IATA) PCA limited quantity max net quantity (IATA) | |
| PCA packing instructions (IATA) | : 30kgG : 964 |
| PCA max net quantity (IATA) | : 450L |
| CAO packing instructions (IATA) | : 964 |
| CAO max net quantity (IATA) | : 450L |
| Special provisions (IATA) | : A97, A158, A197, A215 |
| ERG code (IATA) | : 9L |
| | |
| Inland waterway transport | |
| Classification code (ADN) | : M6 |
| Special provisions (ADN) | : 274, 335, 375, 601 |
| Limited quantities (ADN) | : 5L |
| Excepted quantities (ADN) | : E1 |
| Carriage permitted (ADN) | : T |
| Equipment required (ADN) | : PP |
| Number of blue cones/lights (ADN) | : 0 |
| | |
| Rail transport | |
| Classification code (RID) | : M6 |
| Special provisions (RID) | : 274, 335, 375, 601 |
| Limited quantities (RID) | : 5L |
| Excepted quantities (RID) | : E1 |
| Packing instructions (RID) | : P001, IBC03, LP01, R00 |
| Special packing provisions (RID) | : PP1 |
| Mixed packing provisions (RID) | : MP19 |
| Portable tank and bulk container instructions (RID) | : T4 |
| Portable tank and bulk container special provisions | : TP1, TP29 |
| (RID) | |
| | |

R001

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| Tank codes for RID tanks (RID) | : | LGBV |
|---|---|------------|
| Transport category (RID) | : | 3 |
| Special provisions for carriage – Packages (RID) | : | W12 |
| Special provisions for carriage - Loading, unloading and handling (RID) | : | CW13, CW31 |
| Colis express (express parcels) (RID) | : | CE8 |
| Hazard identification number (RID) | : | 90 |
| | | |

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

| EU restriction list (REACH Annex XVII) | | |
|--|--|---|
| Reference code | Applicable on | Entry title or description |
| 3(b) | Habanolide Subst (Fir) ; Methylcyclopentadecenon e | Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10 |
| 3(c) | Habanolide Subst (Fir) ; Oxacyclohexadec-12-en- 2-one ; Dimethylcyclohexylethoxy isobutylpropanoate ; Methylcyclopentadecenon e ; Ethylene brassylate ; Romandolide (Fir) | Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1 |

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

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

PIC Regulation (Prior Informed Consent)

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

POP Regulation (Persistent Organic Pollutants)

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

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

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

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

Explosives Precursors Regulation (2019/1148)

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

Drug Precursors Regulation (273/2004)

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

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15.1.2. National regulations

~

| Germany | |
|--|--|
| Employment restrictions | Observe restrictions according Act on the Protection of Working Mothers (MuSchG). Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG). |
| Water hazard class (WGK) Hazardous Incident Ordinance (12. BImSchV) | WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1). Is not subject to the Hazardous Incident Ordinance (12. BImSchV) |
| Netherlands | |
| SZW-lijst van kankerverwekkende stoffen SZW-lijst van mutagene stoffen SZW-lijst van reprotoxische stoffen – Borstvoeding SZW-lijst van reprotoxische stoffen – Vruchtbaarheid SZW-lijst van reprotoxische stoffen – Ontwikkeling | None of the components are listed |
| Denmark | |
| Danish National Regulations | : Young people below the age of 18 years are not allowed to use the product |
| Poland | |
| Polish National Regulations | Act of 25 February 2011 on chemical substances and their mixtures (J. o L. No. 63, item 322 as amended; consolidated text J. o L. 2019, item 1225). Act of 14 December 2012 on waste (J. o L. 2013, item 322 as amended; consolidated text J. o L. 2020, item 797). The announcement of Marshal of the Sejm of the Republic of Poland dated 19 October 2016 concerning the consolidated text announcement of the decree on the management of packaging and packaging waste (J. o L. 2016, item 1863 as amended). Decree of the Minister of Environment of 14 December 2014 on the catalogue of waste (J. o L. 2014, item 1923). Act of 19 August 2011 on the Carriage of Dangerous Goods (J. o L. 2011 No. 227, item 1367 as amended; consolidated text J. o L. 2020, item 154). Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the highest permissible concentration and intensity of noxious agents for health at work environment (J. o L. item 1286 as amended). The announcement of Minister of Health dated 9 September 2016 concerning the consolidated text announcement of the decree of the Minister of Health of 30 December 2004 on health and safety at work related to exposure to chemical agents at work (J. o L. of 16 September 2016, item 1488) Regulation of the Minister of Health of 2 February 2011 on tests and measurements of the noxious agents for health at work environment (J. o L. No. 33, item 166 as amended). Regulation of the Minister of Environment of 9 December 2003 on particularly hazardous substances to the environment (J. o L. No. 217, item 2141). ADR Agreement: Government Statement of 13 March 2023 on the entry into force of amendments to Annexes A and B to the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), signed in Geneva on 30 September 1957 (J. o. L. 2023, item 891) |
| 15.2. Chemical safety assessment | |

No chemical safety assessment has been carried out

SECTION 16: Other information Abbreviations and acronyms: ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways ADR European Agreement concerning the International Carriage of Dangerous Goods by Road ATE Acute Toxicity Estimate BCF **Bioconcentration factor**

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| Abbreviations and acronyms: | | |
|-----------------------------|--|--|
| BLV | Biological limit value | |
| BOD | Biochemical oxygen demand (BOD) | |
| COD | Chemical oxygen demand (COD) | |
| DMEL | Derived Minimal Effect level | |
| DNEL | Derived-No Effect Level | |
| EC-No. | European Community number | |
| EC50 | Median effective concentration | |
| EN | European Standard | |
| IARC | International Agency for Research on Cancer | |
| ΙΑΤΑ | International Air Transport Association | |
| IMDG | International Maritime Dangerous Goods | |
| LC50 | Median lethal concentration | |
| LD50 | Median lethal dose | |
| LOAEL | Lowest Observed Adverse Effect Level | |
| NOAEC | No-Observed Adverse Effect Concentration | |
| NOAEL | No-Observed Adverse Effect Level | |
| NOEC | No-Observed Effect Concentration | |
| OECD | Organisation for Economic Co-operation and Development | |
| OEL | Occupational Exposure Limit | |
| РВТ | Persistent Bioaccumulative Toxic | |
| PNEC | Predicted No-Effect Concentration | |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail | |
| SDS | Safety Data Sheet | |
| STP | Sewage treatment plant | |
| ThOD | Theoretical oxygen demand (ThOD) | |
| TLM | Median Tolerance Limit | |
| VOC | Volatile Organic Compounds | |
| CAS-No. | Chemical Abstract Service number | |
| N.O.S. | Not Otherwise Specified | |
| vPvB | Very Persistent and Very Bioaccumulative | |
| ED | Endocrine disruptor | |

| Full text of H- and EUH-statements: | |
|-------------------------------------|---|
| Aquatic Acute 1 | Hazardous to the aquatic environment – Acute Hazard, Category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment – Chronic Hazard, Category 1 |
| Aquatic Chronic 2 | Hazardous to the aquatic environment – Chronic Hazard, Category 2 |
| H317 | May cause an allergic skin reaction. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

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| Full text of H- and EUH-statements: | |
|-------------------------------------|--|
| H411 | Toxic to aquatic life with long lasting effects. |
| Skin Sens. 1 | Skin sensitisation, Category 1 |
| Skin Sens. 1B | Skin sensitisation, category 1B |

Safety Data Sheet (SDS), EU

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