



DE HEKSERIJ

Tolu res type nat (Fir)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 6/12/2024 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Product name : Tolu res type nat (Fir)
UFI : XT20-U0XG-H00J-Y2TP
Product code : 22801
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 : Professional use, Consumer use
Use of the substance/mixture : 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
Sporstraat 57
8271 RG IJsselmuiden
Nederland
www.hekserij.nl

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation, Category 1 H318
Skin sensitisation, Category 1 H317
Specific target organ toxicity – Repeated exposure, Category 2 H373
Hazardous to the aquatic environment – Chronic Hazard, H412
Category 3
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause damage to organs through prolonged or repeated exposure. May cause an allergic skin reaction. Causes serious eye damage. Harmful to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

GHS07

GHS08

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H373 - May cause damage to organs through prolonged or repeated exposure.
H412 - Harmful to aquatic life with long lasting effects.

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Precautionary statements (CLP) : P260 - Do not breathe dust.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a doctor, a POISON CENTER.
P314 - Get medical advice/attention if you feel unwell.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
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 $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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] |
|-------------------|--|-----------|---|
| Benzyl cinnamate | CAS-No.: 103-41-3 EC-No.: 203-109-3 | 7.5 – 10 | Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411 |
| Benzoic acid | CAS-No.: 65-85-0 EC-No.: 200-618-2 | 7.5 – 10 | Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT RE 1, H372 |
| Benzyl benzoate | CAS-No.: 120-51-4 EC-No.: 204-402-9 EC Index-No.: 607-085-00-9 | 5 – 7.5 | Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 2, H411 |
| Vanillin | CAS-No.: 121-33-5 EC-No.: 204-465-2 REACH-no: 01-2119516040-60 | 1 – 2.5 | Eye Irrit. 2, H319 |
| Cinnamic alcohol | CAS-No.: 104-54-1 EC-No.: 203-212-3 REACH-no: 01-2119934496-29 | 0.1 – 0.5 | Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Skin Sens. 1B, H317 |
| Cinnamic aldehyde | CAS-No.: 104-55-2 EC-No.: 203-213-9 REACH-no: 01-2119935242-45 | 0 – 0.1 | Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412 |

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| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|------------|---|---------|---|
| Isoeugenol | CAS-No.: 5932-68-3; 97-54-1 EC-No.: 227-678-2; 202-590-7 | 0 – 0.1 | Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319 Skin Sens. 1A, H317 STOT SE 3, H335 |

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 : Get medical advice/attention if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
- First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

- Symptoms/effects after inhalation : Dust of the product, if present, may cause respiratory irritation after excessive inhalation exposure. 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 : Serious damage to eyes.
- Symptoms/effects after ingestion : 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 : Water spray. Dry powder. Foam.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : No fire hazard.
- Explosion hazard : No direct explosion hazard.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

- Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : 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. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

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.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Using a clean shovel, put the material in a dry container and cover without compressing it.
Methods for cleaning up : Mechanically recover the product.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. 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, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.
Storage conditions : Keep cool. Protect from sunlight.
Packaging materials : Store always product in container of same material as original container.

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

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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

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 | : Solid |
| Colour | : Not available |
| Odour | : Not available |
| Odour threshold | : Not available |
| Melting point | : Not available |
| Freezing point | : Not applicable |
| Boiling point | : > 40 °C |
| Flammability | : Non flammable. |
| Lower explosion limit | : Not applicable |
| Upper explosion limit | : Not applicable |
| Flash point | : > 100 °C |
| Auto-ignition temperature | : Not applicable |
| Decomposition temperature | : Not available |

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| | |
|---|-----------------------|
| pH | : Not available |
| pH solution | : Not available |
| Viscosity, kinematic | : Not applicable |
| Solubility | : Insoluble in water. |
| Partition coefficient n-octanol/water (Log Kow) | : Not available |
| Vapour pressure | : Not available |
| Vapour pressure at 50°C | : Not available |
| Density | : Not available |
| Relative density | : Not available |
| Relative vapour density at 20°C | : Not applicable |
| Particle size | : Not available |

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

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

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

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

| | |
|-----------------------------|------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

| Tolu res type nat (Fir) | |
|-----------------------------|--|
| LD50 oral | > 2000 mg/kg |
| Benzyl cinnamate (103-41-3) | |
| LD50 oral rat | 3280 mg/kg bodyweight Animal: rat, 95% CL: 2620 - 4100 |
| LD50 dermal rabbit | > 3000 mg/kg bodyweight Animal: rabbit |

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| Benzoic acid (65-85-0) | |
|---|---|
| LD50 oral | 2250 mg/kg bodyweight Animal: mouse, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1875 - 2700 |
| LD50 dermal rabbit | > 2000 mg/kg bodyweight Animal: rabbit |
| LC50 Inhalation - Rat | > 12.2 mg/l air Animal: rat |
| Benzyl benzoate (120-51-4) | |
| LD50 oral rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity) |
| Vanillin (121-33-5) | |
| LD50 dermal rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| Cinnamic alcohol (104-54-1) | |
| LD50 oral rat | 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method) |
| LD50 dermal rat | > 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| Cinnamic aldehyde (104-55-2) | |
| LD50 oral rat | 2220 mg/kg bodyweight Animal: rat, Guideline: other., 95% CL: 1910 - 2600 |
| LD50 oral | 3400 mg/kg bodyweight Animal: guinea pig, Guideline: other: |
| LD50 dermal rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| LD50 dermal rabbit | 1260 mg/kg bodyweight Animal: rabbit, Guideline: other: |
| LC50 Inhalation - Rat [ppm] | 68.88871 ppm Animal: rat, Guideline: other: |
| Skin corrosion/irritation | : Not classified |
| Benzoic acid (65-85-0) | |
| pH | 2.8 Temp.: 25 °C |
| Cinnamic alcohol (104-54-1) | |
| pH | 4.71 Temp.: 26,5 °C Concentration: 1 vol% |
| Serious eye damage/irritation | : Causes serious eye damage. |
| Benzoic acid (65-85-0) | |
| pH | 2.8 Temp.: 25 °C |
| Cinnamic alcohol (104-54-1) | |
| pH | 4.71 Temp.: 26,5 °C Concentration: 1 vol% |
| Respiratory or skin sensitisation | : May cause an allergic skin reaction. |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Isoeugenol (5932-68-3; 97-54-1) | |
| NOAEL (chronic, oral, animal/male, 2 years) | 300 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 451 (Carcinogenicity Studies) |
| NOAEL (chronic, oral, animal/female, 2 years) | 150 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 451 (Carcinogenicity Studies) |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |

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| Isoeugenol (5932-68-3; 97-54-1) | |
|--|--|
| STOT-single exposure | May cause respiratory irritation. |
| STOT-repeated exposure | : May cause damage to organs through prolonged or repeated exposure. |
| Benzyl cinnamate (103-41-3) | |
| NOAEL (oral, rat, 90 days) | 600 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| Benzoic acid (65-85-0) | |
| NOAEL (oral, rat, 90 days) | 1000 mg/kg bodyweight Animal: rat |
| NOAEL (dermal, rat/rabbit, 90 days) | > 2500 mg/kg bodyweight Animal: rabbit, Guideline: EPA OPP 82-2 (Repeated Dose Dermal Toxicity -21/28 Days) |
| NOAEC (inhalation, rat, dust/mist/fume, 90 days) | ≤ 0.025 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study) |
| STOT-repeated exposure | Causes damage to organs (lungs) through prolonged or repeated exposure (inhalation). |
| Benzyl benzoate (120-51-4) | |
| NOAEL (dermal, rat/rabbit, 90 days) | 781 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study) |
| Cinnamic alcohol (104-54-1) | |
| NOAEL (oral, rat, 90 days) | 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents), Remarks on results: not determinable due to absence of adverse toxic effects |
| Cinnamic aldehyde (104-55-2) | |
| NOAEL (oral, rat, 90 days) | 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents) |
| Isoeugenol (5932-68-3; 97-54-1) | |
| NOAEL (subchronic, oral, animal/male, 90 days) | 300 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) |
| NOAEL (subchronic, oral, animal/female, 90 days) | 600 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) |
| Aspiration hazard | : Not classified |
| Tolu res type nat (Fir) | |
| Viscosity, kinematic | Not applicable |
| Vanillin (121-33-5) | |
| Viscosity, kinematic | Not applicable |
| Cinnamic alcohol (104-54-1) | |
| Viscosity, kinematic | Not applicable |

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

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Hazardous to the aquatic environment, short-term (acute) : Not classified

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

BenzyI cinnamate (103-41-3)

| | |
|----------------------|--|
| LC50 - Fish [1] | > 0.643 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) |
| EC50 - Crustacea [1] | 2.8 mg/l Test organisms (species): Daphnia magna |
| EC50 72h - Algae [1] | 0.386 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum) |
| EC50 72h - Algae [2] | 0.158 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum) |

Benzoic acid (65-85-0)

| | |
|----------------------|---|
| LC50 - Fish [1] | 47.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) |
| LC50 - Fish [2] | 44.6 mg/l Test organisms (species): Lepomis macrochirus |
| EC50 72h - Algae [1] | > 33.1 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum) |
| NOEC (chronic) | ≥ 25 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC chronic fish | > 120 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '28 d' |

Benzyl benzoate (120-51-4)

| | |
|----------------------|--|
| LC50 - Fish [1] | 2.32 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) |
| EC50 - Crustacea [1] | 3.09 mg/l Test organisms (species): Daphnia magna |

Vanillin (121-33-5)

| | |
|----------------------|--|
| LC50 - Fish [1] | 57 mg/l Test organisms (species): Pimephales promelas |
| LC50 - Fish [2] | 123 mg/l Test organisms (species): Pimephales promelas |
| EC50 - Crustacea [1] | 36.79 mg/l Test organisms (species): Daphnia magna |
| EC50 72h - Algae [1] | 120 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum) |
| LOEC (chronic) | 10 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC (chronic) | 5.9 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |

Cinnamic alcohol (104-54-1)

| | |
|----------------------|--|
| LC50 - Fish [1] | 9 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) |
| EC50 - Crustacea [1] | 7.7 mg/l Test organisms (species): Daphnia magna |
| EC50 72h - Algae [1] | 19.7 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |

Cinnamic aldehyde (104-55-2)

| | |
|----------------------|--|
| LC50 - Fish [1] | 2.35 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) |
| EC50 - Crustacea [1] | 119.5578 mg/l Test organisms (species): Daphnia magna |
| NOEC chronic fish | 15.159 mg/l Test organisms (species): other: Duration: '28 d' |

Isoeugenol (5932-68-3; 97-54-1)

| | |
|------------------------------------|---|
| LC50 - Fish [1] | 3.6 mg/l Test organisms (species): other: |
| EC50 - Other aquatic organisms [1] | 3 mg/l Test organisms (species): other: |

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Isoeugenol (5932-68-3; 97-54-1)

| | |
|----------------------|---|
| EC50 72h - Algae [1] | 5.6 mg/l Test organisms (species): other: |
|----------------------|---|

| | |
|----------------------|--|
| EC50 96h - Algae [1] | 34.3 mg/l Test organisms (species): other: |
|----------------------|--|

12.2. Persistence and degradability

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| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

Benzyl cinnamate (103-41-3)

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

Benzoic acid (65-85-0)

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

Benzyl benzoate (120-51-4)

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

Vanillin (121-33-5)

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

Cinnamic alcohol (104-54-1)

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

Cinnamic aldehyde (104-55-2)

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

Isoeugenol (5932-68-3; 97-54-1)

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

12.3. Bioaccumulative potential

Benzyl benzoate (120-51-4)

| | |
|---|-------------------|
| Partition coefficient n-octanol/water (Log Kow) | 3.97 Temp.: 25 °C |
|---|-------------------|

Cinnamic alcohol (104-54-1)

| | |
|---|-----------------------------|
| Partition coefficient n-octanol/water (Log Kow) | 1.636 pH value: 3.52, 27 °C |
|---|-----------------------------|

Isoeugenol (5932-68-3; 97-54-1)

| | |
|---|-----------|
| Partition coefficient n-octanol/water (Log Kow) | 2.1 25 °C |
|---|-----------|

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

| ADR | IMDG | IATA | ADN | RID |
|---|---------------|---------------|---------------|---------------|
| 14.1. UN number or ID number | | | | |
| Not regulated for transport | | | | |
| 14.2. UN proper shipping name | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.3. Transport hazard class(es) | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.4. Packing group | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.5. Environmental hazards | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available | | | | |

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

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) | Benzyl benzoate ; Cinnamic aldehyde ; Isoeugenol | 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) | Benzyl benzoate ; Cinnamic aldehyde | 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)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit 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)

15.1.2. National regulations

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

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 |
|-----|---|

Tolu res type nat (Fir)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:

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

Full text of H- and EUH-statements:

| | |
|---------------------------|-------------------------------------|
| Acute Tox. 4 (Dermal) | Acute toxicity (dermal), Category 4 |
| Acute Tox. 4 (Inhalation) | Acute toxicity (inhal.), Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |

Tolu res type nat (Fir)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

| Full text of H- and EUH-statements: | |
|-------------------------------------|--|
| Aquatic Acute 1 | Hazardous to the aquatic environment – Acute Hazard, Category 1 |
| Aquatic Chronic 2 | Hazardous to the aquatic environment – Chronic Hazard, Category 2 |
| Aquatic Chronic 3 | Hazardous to the aquatic environment – Chronic Hazard, Category 3 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Skin Sens. 1 | Skin sensitisation, Category 1 |
| Skin Sens. 1A | Skin sensitisation, category 1A |
| Skin Sens. 1B | Skin sensitisation, category 1B |
| STOT RE 1 | Specific target organ toxicity – Repeated exposure, Category 1 |
| STOT SE 3 | Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation |

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.