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

1.1. Product identifier

|  |  |  |
| --- | --- | --- |
| Product form | : | Mixture |
| Product name | : | Smell of Christmas #EU23764F 5% |
| Product code | : | EU23764F\_5% |
| Type of product | : | Perfumes, fragrances |

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

1.2.1. Relevant identified uses

|  |  |  |
| --- | --- | --- |
| Industrial/Professional use spec | : | Industrial For professional use only |
| Use of the substance/mixture | : | Perfumes, fragrances |
| Function or use category | : | Odour agents |

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

No additional information available

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]

|  |  |  |
| --- | --- | --- |
| Hazardous to the aquatic environment – Chronic Hazard, Category 3 | H412 |  |

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

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

|  |  |  |
| --- | --- | --- |
| Signal word (CLP) | : | - |
| Hazard statements (CLP) | : | H412 - Harmful to aquatic life with long lasting effects. |
| Precautionary statements (CLP) | : | P273 - Avoid release to the environment. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. |
| EUH-statements | : | EUH208 - Contains alpha-Methylcinnamic aldehyde, Cinnamic aldehyde, Clove Leaf Oil, Eugenol, Orange Oil. May produce an allergic reaction. |
| Extra phrases | : | For professional users only. |

2.3. Other hazards

|  |
| --- |
| Contains no PBT/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] |
| --- | --- | --- | --- |
| Cinnamic aldehyde | CAS-No.: 104-55-2  EC-No.: 203-213-9  REACH-no: 01-2119935242-45 | 0.3755125 – 0.7525625 | Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412 |
| Orange Oil | CAS-No.: 8028-48-6  EC-No.: 232-433-8 | 0.2025 – 0.405 | Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 |
| alpha-Methylcinnamic aldehyde | CAS-No.: 101-39-3  EC-No.: 202-938-8  REACH-no: 01-2119538797-21 | 0.17225 – 0.3445 | Skin Sens. 1, H317 Aquatic Chronic 1, H410 |
| Eugenol | CAS-No.: 97-53-0  EC-No.: 202-589-1  REACH-no: 01-2119971802-33 | 0.1038125 – 0.21275 | Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317 |
| Clove Leaf Oil | CAS-No.: 8000-34-8  EC-No.: 616-772-2 | 0.06075 – 0.1215 | Eye Irrit. 2, H319 Skin Sens. 1, H317 Asp. Tox. 1, H304 |
| Benzaldehyde  substance with national workplace exposure limit(s) (BG, FI, HU, LT, LV, PL) | CAS-No.: 100-52-7  EC-No.: 202-860-4  EC Index-No.: 605-012-00-5  REACH-no: 01-2119455540-44 | 0.006 – 0.012 | Acute Tox. 4 (Oral), H302 |
| .beta.-Pinene  substance with national workplace exposure limit(s) (BE, EE, ES, LT, PT, SE, NO) | CAS-No.: 127-91-3  EC-No.: 204-872-5 | 0.0004 – 0.002205 | Flam. Liq. 3, H226 |
| .alpha.-Pinene  substance with national workplace exposure limit(s) (BE, EE, ES, LT, PT, SE, NO) | CAS-No.: 80-56-8  EC-No.: 201-291-9 | 0.0004 – 0.002205 | Flam. Liq. 3, H226 |
| acetophenone  substance with national workplace exposure limit(s) (BE, BG, DK, ES, FI, HU, IE, LT, LV, PL, PT, RO) | CAS-No.: 98-86-2  EC-No.: 202-708-7  EC Index-No.: 606-042-00-1  REACH-no: 01-2119533169-37 | 0 – 0.002 | Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 |
| d-Limonene  substance with national workplace exposure limit(s) (DE, ES, FI, SI, NO, CH) | CAS-No.: 5989-27-5  EC-No.: 205-341-0  EC Index-No.: 601-096-00-2  REACH-no: 01-2119493353-35 | 0.0002 – 0.001005 | Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 3, H412 |
| p-Cymene  substance with national workplace exposure limit(s) (DK, EE, LT, LV, SE) | CAS-No.: 99-87-6  EC-No.: 202-796-7  EC Index-No.: 601-094-00-1 | 0.00004 – 0.0004 | Flam. Liq. 3, H226 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Inhalation:dust,mist), H331 Repr. 2, H361 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 |

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 | : | Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). |
| First-aid measures after inhalation | : | Allow affected person to breathe fresh air. Allow the victim to rest. |
| First-aid measures after skin contact | : | Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. |
| First-aid measures after eye contact | : | Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. |
| First-aid measures after ingestion | : | Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. |

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

|  |  |  |
| --- | --- | --- |
| Symptoms/effects | : | Not expected to present a significant hazard under anticipated conditions of normal use. |

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

|  |  |  |
| --- | --- | --- |
| Suitable extinguishing media | : | Foam. Dry powder. Carbon dioxide. Water spray. Sand. |
| Unsuitable extinguishing media | : | Do not use a heavy water stream. |

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

|  |  |  |
| --- | --- | --- |
| Firefighting instructions | : | Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment. |
| Protection during firefighting | : | Do not enter fire area without proper protective equipment, including respiratory protection. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

|  |  |  |
| --- | --- | --- |
| Emergency procedures | : | Evacuate unnecessary personnel. |

6.1.2. For emergency responders

|  |  |  |
| --- | --- | --- |
| Protective equipment | : | Equip cleanup crew with proper protection. |
| Emergency procedures | : | Ventilate area. |

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

|  |  |  |
| --- | --- | --- |
| Methods for cleaning up | : | Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. |

6.4. Reference to other sections

See Section 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

|  |  |  |
| --- | --- | --- |
| Precautions for safe handling | : | Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. |

7.2. Conditions for safe storage, including any incompatibilities

|  |  |  |
| --- | --- | --- |
| Storage conditions | : | Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. |
| Incompatible products | : | Strong bases. Strong acids. |
| Incompatible materials | : | Sources of ignition. Direct sunlight. |

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

| Benzaldehyde (100-52-7) | |
| --- | --- |
| Bulgaria - Occupational Exposure Limits | |
| OEL TWA | 5 mg/m³ |
| Finland - Occupational Exposure Limits | |
| HTP (OEL TWA) [1] | 4.4 mg/m³ |
| HTP (OEL TWA) [2] | 1 ppm |
| HTP (OEL C) | 17.4 mg/m³ |
| HTP (OEL C) [ppm]] | 4 ppm |
| Hungary - Occupational Exposure Limits | |
| AK (OEL TWA) | 5 mg/m³ |
| CK (OEL STEL) | 10 mg/m³ |
| Latvia - Occupational Exposure Limits | |
| OEL TWA | 5 mg/m³ |
| Lithuania - Occupational Exposure Limits | |
| IPRV (OEL TWA) | 5 mg/m³ |
| Poland - Occupational Exposure Limits | |
| NDS (OEL TWA) | 10 mg/m³ |
| NDSCh (OEL STEL) | 40 mg/m³ |

| acetophenone (98-86-2) | |
| --- | --- |
| Belgium - Occupational Exposure Limits | |
| OEL TWA | 50 mg/m³ |
| OEL TWA [ppm] | 10 ppm |
| Bulgaria - Occupational Exposure Limits | |
| OEL TWA | 5 mg/m³ |
| Denmark - Occupational Exposure Limits | |
| OEL TWA [1] | 49 mg/m³ |
| OEL TWA [2] | 10 ppm |
| OEL STEL | 98 mg/m³ |
| OEL STEL [ppm] | 20 ppm |
| Finland - Occupational Exposure Limits | |
| HTP (OEL TWA) [1] | 25 mg/m³ |
| HTP (OEL TWA) [2] | 5 ppm |
| Hungary - Occupational Exposure Limits | |
| AK (OEL TWA) | 50 mg/m³ |
| Ireland - Occupational Exposure Limits | |
| OEL TWA [1] | 49 mg/m³ |
| OEL TWA [2] | 10 ppm |
| OEL STEL | 147 mg/m³ (calculated) |
| OEL STEL [ppm] | 30 ppm (calculated) |
| Latvia - Occupational Exposure Limits | |
| OEL TWA | 5 mg/m³ |
| Lithuania - Occupational Exposure Limits | |
| IPRV (OEL TWA) | 5 mg/m³ |
| OEL chemical category | Skin notation |
| Poland - Occupational Exposure Limits | |
| NDS (OEL TWA) | 50 mg/m³ |
| NDSCh (OEL STEL) | 100 mg/m³ |
| Portugal - Occupational Exposure Limits | |
| OEL TWA [ppm] | 10 ppm |
| Romania - Occupational Exposure Limits | |
| OEL TWA | 100 mg/m³ |
| OEL TWA [ppm] | 20 ppm |
| OEL STEL | 200 mg/m³ |
| OEL STEL [ppm] | 41 ppm |
| Spain - Occupational Exposure Limits | |
| VLA-ED (OEL TWA) [1] | 50 mg/m³ |
| VLA-ED (OEL TWA) [2] | 10 ppm |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA [ppm] | 10 ppm |

| d-Limonene (5989-27-5) | |
| --- | --- |
| Finland - Occupational Exposure Limits | |
| HTP (OEL TWA) [1] | 140 mg/m³ |
| HTP (OEL TWA) [2] | 25 ppm |
| HTP (OEL STEL) | 280 mg/m³ |
| HTP (OEL STEL) [ppm] | 50 ppm |
| Germany - Occupational Exposure Limits (TRGS 900) | |
| AGW (OEL TWA) [1] | 28 mg/m³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed) |
| AGW (OEL TWA) [2] | 5 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed) |
| Chemical category | Skin notation, Skin sensitization |
| Slovenia - Occupational Exposure Limits | |
| OEL TWA | 28 mg/m³ |
| OEL TWA [ppm] | 5 ppm |
| OEL STEL | 112 mg/m³ |
| OEL STEL [ppm] | 20 ppm |
| OEL chemical category | Potential for cutaneous absorption |
| Spain - Occupational Exposure Limits | |
| VLA-ED (OEL TWA) [1] | 168 mg/m³ |
| VLA-ED (OEL TWA) [2] | 30 ppm |
| OEL chemical category | Sensitizer, skin - potential for cutaneous absorption |
| Norway - Occupational Exposure Limits | |
| Grenseverdi (OEL TWA) [1] | 140 mg/m³ |
| Grenseverdi (OEL TWA) [2] | 25 ppm |
| Korttidsverdi (OEL STEL) | 175 mg/m³ (value calculated) |
| Korttidsverdi (OEL STEL) [ppm] | 37.5 ppm (value calculated) |
| OEL chemical category | Allergenic substance |
| Switzerland - Occupational Exposure Limits | |
| MAK (OEL TWA) [1] | 40 mg/m³ |
| MAK (OEL TWA) [2] | 7 ppm |
| KZGW (OEL STEL) | 80 mg/m³ |
| KZGW (OEL STEL) [ppm] | 14 ppm |
| OEL chemical category | Sensitizer |

| .beta.-Pinene (127-91-3) | |
| --- | --- |
| Belgium - Occupational Exposure Limits | |
| OEL TWA [ppm] | 20 ppm |
| Estonia - Occupational Exposure Limits | |
| OEL TWA | 150 mg/m³ (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect) |
| OEL TWA [ppm] | 25 ppm (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect) |
| OEL STEL | 300 mg/m³ (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect) |
| OEL STEL [ppm] | 50 ppm (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect) |
| Lithuania - Occupational Exposure Limits | |
| IPRV (OEL TWA) | 150 mg/m³ |
| IPRV (OEL TWA) [ppm] | 25 ppm |
| TPRV (OEL STEL) | 300 mg/m³ |
| TPRV (OEL STEL) [ppm] | 50 ppm |
| Portugal - Occupational Exposure Limits | |
| OEL TWA [ppm] | 20 ppm (Turpentine and selected Monoterpenes) |
| OEL chemical category | Sensitizer dermal, A4 - Not Classifiable as a Human Carcinogen |
| Spain - Occupational Exposure Limits | |
| VLA-ED (OEL TWA) [1] | 113 mg/m³ |
| VLA-ED (OEL TWA) [2] | 20 ppm |
| OEL chemical category | Sensitizer |
| Sweden - Occupational Exposure Limits | |
| NGV (OEL TWA) | 150 mg/m³ |
| NGV (OEL TWA) [ppm] | 25 ppm |
| KTV (OEL STEL) | 300 mg/m³ |
| KTV (OEL STEL) [ppm] | 50 ppm |
| OEL chemical category | Sensitizer |
| Norway - Occupational Exposure Limits | |
| Grenseverdi (OEL TWA) [1] | 140 mg/m³ |
| Grenseverdi (OEL TWA) [2] | 25 ppm |
| Korttidsverdi (OEL STEL) | 175 mg/m³ (value calculated) |
| Korttidsverdi (OEL STEL) [ppm] | 37.5 ppm (value calculated) |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA [ppm] | 20 ppm (Turpentine and selected Monoterpenes) |
| ACGIH chemical category | Not Classifiable as a Human Carcinogen, dermal sensitizer |

| .alpha.-Pinene (80-56-8) | |
| --- | --- |
| Belgium - Occupational Exposure Limits | |
| OEL TWA [ppm] | 20 ppm |
| Estonia - Occupational Exposure Limits | |
| OEL TWA | 150 mg/m³ (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect) |
| OEL TWA [ppm] | 25 ppm (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect) |
| OEL STEL | 300 mg/m³ (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect) |
| OEL STEL [ppm] | 50 ppm (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect) |
| Lithuania - Occupational Exposure Limits | |
| IPRV (OEL TWA) | 150 mg/m³ |
| IPRV (OEL TWA) [ppm] | 25 ppm |
| TPRV (OEL STEL) | 300 mg/m³ |
| TPRV (OEL STEL) [ppm] | 50 ppm |
| Portugal - Occupational Exposure Limits | |
| OEL TWA [ppm] | 20 ppm (Turpentine and selected Monoterpenes) |
| OEL chemical category | Sensitizer dermal, A4 - Not Classifiable as a Human Carcinogen |
| Spain - Occupational Exposure Limits | |
| VLA-ED (OEL TWA) [1] | 113 mg/m³ |
| VLA-ED (OEL TWA) [2] | 20 ppm |
| OEL chemical category | Sensitizer |
| Sweden - Occupational Exposure Limits | |
| NGV (OEL TWA) | 150 mg/m³ |
| NGV (OEL TWA) [ppm] | 25 ppm |
| KTV (OEL STEL) | 300 mg/m³ |
| KTV (OEL STEL) [ppm] | 50 ppm |
| OEL chemical category | Sensitizer |
| Norway - Occupational Exposure Limits | |
| Grenseverdi (OEL TWA) [1] | 140 mg/m³ |
| Grenseverdi (OEL TWA) [2] | 25 ppm |
| Korttidsverdi (OEL STEL) | 175 mg/m³ (value calculated) |
| Korttidsverdi (OEL STEL) [ppm] | 37.5 ppm (value calculated) |
| OEL chemical category | Skin notation |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA [ppm] | 20 ppm (Turpentine and selected Monoterpenes) |
| ACGIH chemical category | Not Classifiable as a Human Carcinogen, dermal sensitizer |

| p-Cymene (99-87-6) | |
| --- | --- |
| Denmark - Occupational Exposure Limits | |
| OEL TWA [1] | 135 mg/m³ (Methylisopropylbenzenes) |
| OEL TWA [2] | 25 ppm (Methylisopropylbenzenes) |
| OEL STEL | 270 mg/m³ (Methylisopropylbenzenes) |
| OEL STEL [ppm] | 50 ppm (Methylisopropylbenzenes) |
| Estonia - Occupational Exposure Limits | |
| OEL TWA | 140 mg/m³ |
| OEL TWA [ppm] | 25 ppm |
| OEL STEL | 190 mg/m³ |
| OEL STEL [ppm] | 35 ppm |
| Latvia - Occupational Exposure Limits | |
| OEL TWA | 10 mg/m³ (Cymene (2, 3, 4-isomers mixture)) |
| Lithuania - Occupational Exposure Limits | |
| IPRV (OEL TWA) | 140 mg/m³ |
| IPRV (OEL TWA) [ppm] | 25 ppm |
| TPRV (OEL STEL) | 190 mg/m³ |
| TPRV (OEL STEL) [ppm] | 35 ppm |
| Sweden - Occupational Exposure Limits | |
| NGV (OEL TWA) | 140 mg/m³ |
| NGV (OEL TWA) [ppm] | 25 ppm |
| KTV (OEL STEL) | 190 mg/m³ |
| KTV (OEL STEL) [ppm] | 35 ppm |

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

No additional information available

8.2.2. Personal protection equipment

|  |
| --- |
| Personal protective equipment: |
| Avoid all unnecessary exposure. |
| Personal protective equipment symbol(s): |
| Chemical goggles or safety glasses |

8.2.2.1. Eye and face protection

|  |
| --- |
| Eye protection: |
| Chemical goggles or safety glasses |

8.2.2.2. Skin protection

|  |
| --- |
| Hand protection: |
| Wear protective gloves. |

8.2.2.3. Respiratory protection

|  |
| --- |
| Respiratory protection: |
| Wear appropriate mask |

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

|  |
| --- |
| Other information: |
| Do not eat, drink or smoke during use. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

|  |  |  |
| --- | --- | --- |
| Physical state | : | Liquid |
| Colour | : | Standard. |
| Odour | : | characteristic. |
| Odour threshold | : | No data available |
| pH | : | No data available |
| Relative evaporation rate (butylacetate=1) | : | No data available |
| Melting point | : | No data available |
| Freezing point | : | No data available |
| Boiling point | : | No data available |
| Flash point | : | > 93 °C |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Flammability (solid, gas) | : | Non flammable. |
| Vapour pressure | : | No data available |
| Relative vapour density at 20°C | : | No data available |
| Relative density | : | No data available |
| Solubility | : | No data available |
| 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

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

| alpha-Methylcinnamic aldehyde (101-39-3) | |
| --- | --- |
| LD50 oral rat | 2050 mg/kg (Source: NLM\_CIP) |
| LD50 oral | 2050 mg/kg bodyweight |
| LD50 dermal rabbit | > 5 g/kg (Source: NLM\_CIP) |

| Cinnamic aldehyde (104-55-2) | |
| --- | --- |
| LD50 oral rat | 2220 mg/kg (Source: NLM\_CIP) |
| LD50 oral | 2200 mg/kg bodyweight |
| LD50 dermal rabbit | 1260 mg/kg (Source: EPA\_HPV) |
| LD50 dermal | 1100 mg/kg bodyweight |

| Benzaldehyde (100-52-7) | |
| --- | --- |
| LD50 oral rat | 1292 mg/kg (Source: JAPAN\_GHS) |
| LD50 dermal rabbit | > 1250 mg/kg (Source: JAPAN\_GHS) |

| Clove Leaf Oil (8000-34-8) | |
| --- | --- |
| LD50 oral rat | 1370 mg/kg (Source: NZ\_CCID) |
| LD50 oral | 2650 mg/kg bodyweight |
| LD50 dermal rabbit | 1200 mg/kg (Source: NLM\_CIP) |
| LD50 dermal | 2500 mg/kg bodyweight |

| Eugenol (97-53-0) | |
| --- | --- |
| LD50 oral rat | 1930 mg/kg (Source: NZ\_CCID) |
| LD50 oral | 2500 mg/kg bodyweight |

| acetophenone (98-86-2) | |
| --- | --- |
| LD50 oral rat | 900 mg/kg (Source: JAPAN\_GHS) |
| LD50 oral | 500 mg/kg bodyweight |
| LD50 dermal rat | 3300 mg/kg (Source: ECHA\_API) |
| LC50 Inhalation - Rat | > 2.13 mg/l (Exposure time: 8 h Source: CHEMVIEW) |

| Orange Oil (8028-48-6) | |
| --- | --- |
| LD50 dermal rabbit | > 5000 mg/kg (Source: ECHA\_API) |

| d-Limonene (5989-27-5) | |
| --- | --- |
| LD50 oral rat | 4400 mg/kg (Source: CHEMVIEW) |
| LD50 dermal rabbit | > 5 g/kg (Source: CHEMVIEW) |

| .beta.-Pinene (127-91-3) | |
| --- | --- |
| LD50 oral rat | > 5000 mg/kg (Source: EPA\_HPV) |
| LD50 dermal rabbit | > 5000 mg/kg (Source: CHEMVIEW) |

| .alpha.-Pinene (80-56-8) | |
| --- | --- |
| LD50 oral rat | 3700 mg/kg (Source: NLM\_CIP) |
| LD50 oral | 500 mg/kg bodyweight |
| LD50 dermal rat | > 5000 mg/kg (Source: CHEMVIEW) |

| p-Cymene (99-87-6) | |
| --- | --- |
| LD50 oral rat | 4750 mg/kg (Source: NLM\_CIP) |
| LD50 oral | 4750 mg/kg bodyweight |
| LD50 dermal rabbit | > 5000 mg/kg (Source: CHEMVIEW) |
| LC50 Inhalation - Rat | > 9.7 mg/l (Exposure time: 5 h Source: EU\_CLH) |
| LC50 Inhalation - Rat (Vapours) | 9.7 mg/l/4h |

|  |  |  |
| --- | --- | --- |
| Skin corrosion/irritation | : | Not classified |
| Additional information | : | Based on available data, the classification criteria are not met |

|  |  |  |
| --- | --- | --- |
| Serious eye damage/irritation | : | Not classified |
| Additional information | : | Based on available data, the classification criteria are not met |

|  |  |  |
| --- | --- | --- |
| Respiratory or skin sensitisation | : | Not classified |
| Additional information | : | Based on available data, the classification criteria are not met |

|  |  |  |
| --- | --- | --- |
| Germ cell mutagenicity | : | Not classified |
| Additional information | : | Based on available data, the classification criteria are not met |

|  |  |  |
| --- | --- | --- |
| Carcinogenicity | : | Not classified |
| Additional information | : | Based on available data, the classification criteria are not met |

| Eugenol (97-53-0) | |
| --- | --- |
| IARC group | 3 - Not classifiable |

| d-Limonene (5989-27-5) | |
| --- | --- |
| IARC group | 3 - Not classifiable |

|  |  |  |
| --- | --- | --- |
| Reproductive toxicity | : | Not classified |
| Additional information | : | Based on available data, the classification criteria are not met |

|  |  |  |
| --- | --- | --- |
| STOT-single exposure | : | Not classified |
| Additional information | : | Based on available data, the classification criteria are not met |

|  |  |  |
| --- | --- | --- |
| STOT-repeated exposure | : | Not classified |
| Additional information | : | Based on available data, the classification criteria are not met |

|  |  |  |
| --- | --- | --- |
| Aspiration hazard | : | Not classified |
| Additional information | : | Based on available data, the classification criteria are not met |

|  |  |  |
| --- | --- | --- |
| Potential adverse human health effects and symptoms | : | Based on available data, the classification criteria are not met |

SECTION 12: Ecological information

12.1. Toxicity

|  |  |  |
| --- | --- | --- |
| 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. |

| Benzaldehyde (100-52-7) | |
| --- | --- |
| LC50 - Fish [1] | 10.6 – 11.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA) |
| LC50 - Fish [2] | 12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID) |

| Eugenol (97-53-0) | |
| --- | --- |
| LC50 - Fish [1] | 13 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static] Source: ECHA) |

| acetophenone (98-86-2) | |
| --- | --- |
| LC50 - Fish [1] | 162 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA) |
| LC50 - Fish [2] | 155 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA) |

| d-Limonene (5989-27-5) | |
| --- | --- |
| LC50 - Fish [1] | 0.619 – 0.796 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA) |
| LC50 - Fish [2] | 35 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss Source: EPA) |

| .alpha.-Pinene (80-56-8) | |
| --- | --- |
| LC50 - Fish [1] | 0.28 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: IUCLID) |
| EC50 - Crustacea [1] | 41 mg/l (Exposure time: 48 h - Species: Daphnia magna) |

12.2. Persistence and degradability

| Smell of Christmas #EU23764F 5% | |
| --- | --- |
| Persistence and degradability | Not established. |

12.3. Bioaccumulative potential

| Smell of Christmas #EU23764F 5% | |
| --- | --- |
| Bioaccumulative potential | Not established. |

| Cinnamic aldehyde (104-55-2) | |
| --- | --- |
| Partition coefficient n-octanol/water (Log Pow) | 2.1065 (at 25 °C) |

| Benzaldehyde (100-52-7) | |
| --- | --- |
| BCF - Fish [1] | (no significant bioaccumulation) |
| Partition coefficient n-octanol/water (Log Pow) | 1.4 (at 25 °C) |

| Eugenol (97-53-0) | |
| --- | --- |
| Partition coefficient n-octanol/water (Log Pow) | 1.83 (at 30 °C (at pH 5.5) |

| acetophenone (98-86-2) | |
| --- | --- |
| Partition coefficient n-octanol/water (Log Pow) | 1.63 – 1.65 |

| d-Limonene (5989-27-5) | |
| --- | --- |
| Partition coefficient n-octanol/water (Log Pow) | 4.38 (at 37 °C (at pH 7.2) |

| .alpha.-Pinene (80-56-8) | |
| --- | --- |
| Partition coefficient n-octanol/water (Log Pow) | 4.1 |

| p-Cymene (99-87-6) | |
| --- | --- |
| Partition coefficient n-octanol/water (Log Pow) | 4.8 (at 20 °C (at pH 7) |
| Partition coefficient n-octanol/water (Log Kow) | 0 |

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

|  |  |  |
| --- | --- | --- |
| Additional information | : | Avoid release to the environment. |

SECTION 13: Disposal considerations

13.1. Waste treatment methods

|  |  |  |
| --- | --- | --- |
| Product/Packaging disposal recommendations | : | Dispose in a safe manner in accordance with local/national regulations. |
| Ecology - waste materials | : | Avoid release to the environment. |
| HP Code | : | HP3 - “Flammable:”  – flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;  – flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;  – flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;  – flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;  – water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;  – other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste. HP14 - “Ecotoxic:” waste which presents or may present immediate or delayed risks for one or more sectors of the environment |

SECTION 14: Transport information

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

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

14.6. Special precautions for user

|  |
| --- |
| Overland transport |
| Not applicable |

|  |
| --- |
| Transport by sea |
| Not applicable |

|  |
| --- |
| Air transport |
| Not applicable |

|  |
| --- |
| Inland waterway transport |
| Not applicable |

|  |
| --- |
| Rail transport |
| Not applicable |

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(a) | Orange Oil ; d-Limonene ; .beta.-Pinene ; .alpha.-Pinene ; p-Cymene | Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F |
| 3(b) | alpha-Methylcinnamic aldehyde ; Cinnamic aldehyde ; Benzaldehyde ; Clove Leaf Oil ; Eugenol ; acetophenone ; Orange Oil ; d-Limonene ; p-Cymene | 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) | Smell of Christmas #EU23764F 5% ; alpha-Methylcinnamic aldehyde ; Cinnamic aldehyde ; Orange Oil ; d-Limonene ; p-Cymene | 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 |
| 40. | Orange Oil ; d-Limonene ; .beta.-Pinene ; .alpha.-Pinene ; p-Cymene | Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not. |

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)

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

|  |  |  |
| --- | --- | --- |
| France | | |
| | Occupational diseases | | | --- | --- | | Code | Description | | RG 84 | Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide | | | |
| Germany | | |
| Water hazard class (WGK) | : | WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1). |
| Storage class (LGK, TRGS 510) | : | LGK 12 - Non-combustible liquids. |
| Joint storage table | : | Joint storage table |
| Joint storage not permitted for | : | LGK 1, LGK 6.2, LGK 7. |
| Joint storage with restrictions permitted for | : | LGK 4.1A, LGK 4.3, LGK 5.1C. |
| Joint storage permitted for | : | LGK 2A, LGK 2B, LGK 3, LGK 4.1B, LGK 4.2, LGK 5.1A, LGK 5.1B, LGK 5.2, LGK 6.1A, LGK 6.1B, LGK 6.1C, LGK 6.1D, LGK 8A, LGK 8B, LGK 10, LGK 11, LGK 12, LGK 13, LGK 10-13. |
| List of sensitizing substances (TRGS 907) | : | Contains sensitizing substances according TRGS 907. |
| Hazardous Incident Ordinance (12. BImSchV) | : | Is not subject of the Hazardous Incident Ordinance (12. BImSchV) |
| Netherlands | | |
| ABM category | : | A(3) - hazardous for aquatic organisms, may have longterm hazardous effects in aquatic environment |
| SZW-lijst van kankerverwekkende stoffen | : | Orange Oil is listed |
| SZW-lijst van mutagene stoffen | : | Orange Oil is 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 |
| Denmark | | |
| Classification remarks | : | Emergency management guidelines for the storage of flammable liquids must be followed |
| Danish National Regulations | : | Pregnant/breastfeeding women working with the product must not be in direct contact with the product |
| Switzerland | | |
| Storage class (LK) | : | LK 10/12 - Liquids |

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

|  |  |  |
| --- | --- | --- |
| Data sources | : | REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. |
| Other information | : | None. |

| Full text of H- and EUH-statements: | |
| --- | --- |
| Acute Tox. 3 (Inhalation) | Acute toxicity (inhal.), Category 3 |
| Acute Tox. 3 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 3 |
| Acute Tox. 4 (Dermal) | Acute toxicity (dermal), Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Aquatic Acute 1 | Hazardous to the aquatic environment – Acute Hazard, Category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment – Chronic Hazard, Category 1 |
| Aquatic Chronic 2 | Hazardous to the aquatic environment – Chronic Hazard, Category 2 |
| Aquatic Chronic 3 | Hazardous to the aquatic environment – Chronic Hazard, Category 3 |
| Asp. Tox. 1 | Aspiration hazard, Category 1 |
| EUH208 | Contains alpha-Methylcinnamic aldehyde, Cinnamic aldehyde, Clove Leaf Oil, Eugenol, Orange Oil. May produce an allergic reaction. |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 3 | Flammable liquids, Category 3 |
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| 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. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| Repr. 2 | Reproductive toxicity, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Skin Sens. 1 | Skin sensitisation, Category 1 |
| Skin Sens. 1B | Skin sensitisation, category 1B |

|  |  |  |
| --- | --- | --- |
| The classification complies with | : | ATP 12 |

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.