

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

1.1. Product identifier

| | |
|-----------------|------------------------|
| Product form | : Mixture |
| Trade name | : RASPBERRY #EU15107F |
| UFI | : 80UA-D10H-R00Q-X6AJ |
| Product code | : EU15107F |
| Type of product | : Perfumes, fragrances |
| Product group | : Trade product |

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

1.2.1. Relevant identified uses

| | |
|----------------------------------|---|
| Main use category | : Professional use, Industrial use |
| 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

FRENCH COLOR & FRAGRANCE International GmbH
Mittlerer Weg 35
DE- 79424 Auggen
Germany
T 49-7631-931-8900
SDS@frenchcolor.com - www.frenchcolor.com

1.4. Emergency telephone number

| | |
|------------------|--|
| Emergency number | : 1-800-255-3924; +01-813-248-0585; China: +400-120-0751; Mexico: +01-800-099-0731; Brazil: +0-800-591-6042; India: +000-800-100-4086 |
|------------------|--|

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

| | |
|---|------|
| Skin corrosion/irritation, Category 2 | H315 |
| Serious eye damage/eye irritation, Category 2 | H319 |
| Skin sensitisation, Category 1 | H317 |
| 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

Causes skin irritation. Causes serious eye irritation. Harmful to aquatic life with long lasting effects. May cause an allergic skin reaction.

2.2. Label elements

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

Hazard pictograms (CLP)



GHS07

Signal word (CLP)

: Warning

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| | |
|--------------------------------|--|
| Contains | : Aldehyde C-16; Citronellol Pure; Lemon oil ; Methyl cinnamate; Triplal (Vertocitral); Hexyl cinnamic aldehyde; Acetyl Propionyl |
| Hazard statements (CLP) | : H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H412 - Harmful to aquatic life with long lasting effects. |
| Precautionary statements (CLP) | : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash hands, forearms and face thoroughly after handling. P272 - Contaminated work clothing should not be allowed out of the workplace. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P302+P352 - IF ON SKIN: Wash with plenty of water. |
| Extra phrases | : For professional users only. |

2.3. Other hazards

Contains no PBT/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 is 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] |
|---|--|--------------|---|
| Bis(2-ethylhexyl) adipate substance with national workplace exposure limit(s) (PL) | CAS-No.: 103-23-1 EC-No.: 203-090-1 REACH-no: 01-2119439699-19 | 35.65 – 71.3 | Not classified |
| Benzyl alcohol substance with national workplace exposure limit(s) (BG, CZ, DE, FI, LT, LV, PL, SI, CH) | CAS-No.: 100-51-6 EC-No.: 202-859-9 EC Index-No.: 603-057-00-5 REACH-no: 01-2119492630-38 | 4.5 – 9 | Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 |
| Aldehyde C-16 | CAS-No.: 77-83-8 EC-No.: 201-061-8 REACH-no: 01-2119967770-28 | 2.5 – 5 | Skin Sens. 1B, H317 Aquatic Chronic 2, H411 |
| Oxypheylon (Raspberry ketone) crystals | CAS-No.: 5471-51-2 EC-No.: 226-806-4 | 1.5 – 3 | Acute Tox. 4 (Oral), H302 |
| beta-Ionone | CAS-No.: 14901-07-6 EC-No.: 238-969-9 | 1.25 – 2.5 | Aquatic Chronic 2, H411 |
| Citronellol Pure | CAS-No.: 106-22-9 EC-No.: 203-375-0 REACH-no: 01-2119453995-23 | 1 – 2 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 |
| Ethyl vanillin | CAS-No.: 121-32-4 EC-No.: 204-464-7 REACH-no: 01-211958961-24 | 0.5 – 1 | Eye Irrit. 2, H319 |

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| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|------------|---|
| Lemon oil | CAS-No.: 8008-56-8 EC-No.: 284-515-8 | 0.5 – 1 | Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Repr. 2, H361 Aquatic Chronic 2, H411 |
| Methyl cinnamate | CAS-No.: 103-26-4 EC-No.: 203-093-8 REACH-no: 01-2119979458-16 | 0.5 – 1 | Skin Sens. 1B, H317 |
| Triplal (Vertocitral) | CAS-No.: 68039-49-6 EC-No.: 268-264-1 | 0.2 – 0.4 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412 |
| Hexyl cinnamic aldehyde | CAS-No.: 101-86-0 EC-No.: 202-983-3 REACH-no: 01-2119533092-50 | 0.2 – 0.4 | Skin Sens. 1, H317 Aquatic Chronic 2, H411 |
| Ethyl acetoacetate substance with national workplace exposure limit(s) (RO) | CAS-No.: 141-97-9 EC-No.: 205-516-1 | 0.1 – 0.2 | Not classified |
| acetyl propionyl substance with national workplace exposure limit(s) (DE, SI, CH) | CAS-No.: 600-14-6 EC-No.: 209-984-8 | 0.05 – 0.1 | Flam. Liq. 2, H225 Eye Dam. 1, H318 Skin Sens. 1B, H317 STOT RE 2, H373 |
| 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 | 0.05 – 0.1 | Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 |

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 | : Remove person to fresh air and keep comfortable for breathing. 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. Wash with plenty of water/.... If skin irritation or rash occurs: Get immediate medical advice/attention. Get medical advice/attention. Specific treatment (see Wash skin with plenty of water, Call a physician immediately on this label). Wash contaminated clothing before reuse. 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 immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| First-aid measures after ingestion | : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell. |

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

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| | |
|-------------------------------------|--|
| Symptoms/effects after inhalation | : May cause an allergic skin reaction. |
| Symptoms/effects after skin contact | : Irritation. May cause an allergic skin reaction. |
| Symptoms/effects after eye contact | : Eye irritation. |

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

5.2. Special hazards arising from the substance or mixture

| | |
|--|--------------------------------|
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |
|--|--------------------------------|

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. 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 equipment and emergency procedures

6.1.1. For non-emergency personnel

| | |
|----------------------|--|
| Emergency procedures | : Ventilate spillage area. Evacuate unnecessary personnel. 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. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection". |
| Emergency procedures | : Ventilate area. |

6.2. Environmental precautions

Avoid release to the environment. 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 | : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. |
| Other information | : Dispose of materials or solid residues at an authorized site. |

6.4. Reference to other sections

See Section 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-------------------------------|---|
| Precautions for safe handling | : Ensure good ventilation of the work station. 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. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray. |
|-------------------------------|---|

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Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. 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

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container closed when not in use. Store in a well-ventilated place. Keep cool.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage temperature : 25 °C

Storage area : Store in a well-ventilated place. Store away from heat.

Special rules on packaging : Store in a closed container.

Packaging materials : Do not store in corrodable metal.

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

| Bis(2-ethylhexyl) adipate (103-23-1) | |
|--|---|
| Poland - Occupational Exposure Limits | |
| NDS (OEL TWA) | 400 mg/m ³ |
| Benzyl alcohol (100-51-6) | |
| Bulgaria - Occupational Exposure Limits | |
| OEL TWA | 5 mg/m ³ |
| Czech Republic - Occupational Exposure Limits | |
| PEL (OEL TWA) | 40 mg/m ³ |
| Finland - Occupational Exposure Limits | |
| HTP (OEL TWA) [1] | 45 mg/m ³ |
| HTP (OEL TWA) [2] | 10 ppm |
| Germany - Occupational Exposure Limits (TRGS 900) | |
| AGW (OEL TWA) [1] | 22 mg/m ³ (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 |
| Latvia - Occupational Exposure Limits | |
| OEL TWA | 5 mg/m ³ |
| Lithuania - Occupational Exposure Limits | |
| IPRV (OEL TWA) | 5 mg/m ³ |
| OEL chemical category | Skin notation |
| Poland - Occupational Exposure Limits | |
| NDS (OEL TWA) | 240 mg/m ³ |

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| Benzyl alcohol (100-51-6) | |
|--|--|
| Slovenia - Occupational Exposure Limits | |
| OEL TWA | 22 mg/m ³ |
| OEL TWA [ppm] | 5 ppm |
| OEL STEL | 44 mg/m ³ |
| OEL STEL [ppm] | 10 ppm |
| OEL chemical category | Potential for cutaneous absorption |
| Switzerland - Occupational Exposure Limits | |
| MAK (OEL TWA) [1] | 22 mg/m ³ (aerosol, vapour) |
| MAK (OEL TWA) [2] | 5 ppm (aerosol, vapour) |
| OEL chemical category | Skin notation |
| Ethyl acetoacetate (141-97-9) | |
| Romania - Occupational Exposure Limits | |
| OEL TWA | 100 mg/m ³ |
| OEL TWA [ppm] | 19 ppm |
| OEL STEL | 200 mg/m ³ |
| OEL STEL [ppm] | 38 ppm |
| acetyl propionyl (600-14-6) | |
| Germany - Occupational Exposure Limits (TRGS 900) | |
| AGW (OEL TWA) [1] | 0.083 mg/m ³ |
| AGW (OEL TWA) [2] | 0.02 ppm |
| Chemical category | Skin notation, Skin sensitization |
| Slovenia - Occupational Exposure Limits | |
| OEL TWA | 0.083 mg/m ³ |
| OEL TWA [ppm] | 0.02 ppm |
| OEL STEL | 0.083 mg/m ³ |
| OEL STEL [ppm] | 0.02 ppm |
| OEL chemical category | Potential for cutaneous absorption |
| Switzerland - Occupational Exposure Limits | |
| MAK (OEL TWA) [1] | 0.08 mg/m ³ |
| MAK (OEL TWA) [2] | 0.02 ppm |
| KZGW (OEL STEL) | 0.16 mg/m ³ |
| KZGW (OEL STEL) [ppm] | 0.04 ppm |
| OEL chemical category | Sensitizer, Skin notation |
| acetophenone (98-86-2) | |
| Belgium - Occupational Exposure Limits | |
| OEL TWA | 50 mg/m ³ |
| OEL TWA [ppm] | 10 ppm |

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| acetophenone (98-86-2) | |
|---|------------------------------------|
| Bulgaria - Occupational Exposure Limits | |
| OEL TWA | 5 mg/m ³ |
| Denmark - Occupational Exposure Limits | |
| OEL TWA [1] | 49 mg/m ³ |
| OEL TWA [2] | 10 ppm |
| OEL STEL | 98 mg/m ³ |
| OEL STEL [ppm] | 20 ppm |
| Finland - Occupational Exposure Limits | |
| HTP (OEL TWA) [1] | 25 mg/m ³ |
| HTP (OEL TWA) [2] | 5 ppm |
| Hungary - Occupational Exposure Limits | |
| AK (OEL TWA) | 50 mg/m ³ |
| Ireland - Occupational Exposure Limits | |
| OEL TWA [1] | 49 mg/m ³ |
| OEL TWA [2] | 10 ppm |
| OEL STEL | 147 mg/m ³ (calculated) |
| OEL STEL [ppm] | 30 ppm (calculated) |
| Latvia - Occupational Exposure Limits | |
| OEL TWA | 5 mg/m ³ |
| Lithuania - Occupational Exposure Limits | |
| IPRV (OEL TWA) | 5 mg/m ³ |
| OEL chemical category | Skin notation |
| Poland - Occupational Exposure Limits | |
| NDS (OEL TWA) | 50 mg/m ³ |
| NDSch (OEL STEL) | 100 mg/m ³ |
| Portugal - Occupational Exposure Limits | |
| OEL TWA [ppm] | 10 ppm |
| Romania - Occupational Exposure Limits | |
| OEL TWA | 100 mg/m ³ |
| OEL TWA [ppm] | 20 ppm |
| OEL STEL | 200 mg/m ³ |
| OEL STEL [ppm] | 41 ppm |
| Spain - Occupational Exposure Limits | |
| VLA-ED (OEL TWA) [1] | 50 mg/m ³ |
| VLA-ED (OEL TWA) [2] | 10 ppm |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA [ppm] | 10 ppm |

8.1.2. Recommended monitoring procedures

No additional information available

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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:

Avoid all unnecessary exposure.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses. Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

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

Environmental exposure controls:

Avoid release to the environment.

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 | : light yellow. amber. Conforms to standard. |
| Odour | : characteristic. |
| Odour threshold | : Not available |
| Melting point | : Not applicable |
| Freezing point | : Not available |
| Boiling point | : Not available |
| Flammability | : Non flammable. |
| Explosive limits | : Not available |

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| | |
|---|-----------------------------------|
| Lower explosion limit | : Not available |
| Upper explosion limit | : Not available |
| Flash point | : > 93 °C (closed cup) ASTM D7094 |
| Auto-ignition temperature | : Not available |
| Decomposition temperature | : Not available |
| pH | : Not available |
| Viscosity, kinematic | : Not available |
| Solubility | : Not available |
| 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 | : ≈ 0.98 |
| Relative vapour density at 20°C | : Not available |
| Particle characteristics | : Not applicable |

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

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 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 |

Bis(2-ethylhexyl) adipate (103-23-1)

| | |
|-----------------------|------------------------------|
| LD50 oral rat | 5600 mg/kg (Source: NLM_CIP) |
| LD50 dermal rabbit | 8410 mg/kg (Source: NLM_CIP) |
| LC50 Inhalation - Rat | > 5.7 mg/l/4h |

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| Benzyl alcohol (100-51-6) | |
|--|---------------------------------|
| LD50 oral rat | 1230 mg/kg (Source: NLM_CIP) |
| LD50 oral | 1620 mg/kg bodyweight |
| LD50 dermal | 2500 mg/kg bodyweight |
| Aldehyde C-16 (77-83-8) | |
| LD50 oral rat | 5470 mg/kg (Source: NLM_CIP) |
| LD50 dermal rat | > 2000 mg/kg (Source: ECHA_API) |
| Oxyphelylon (Raspberry ketone) crystals (5471-51-2) | |
| LD50 oral rat | 1320 mg/kg (Source: NLM_CIP) |
| LD50 dermal rat | > 2000 mg/kg (Source: ECHA_API) |
| beta-Ionone (14901-07-6) | |
| LD50 oral rat | 4590 mg/kg (Source: NLM_HSDB) |
| LD50 oral | 3940 mg/kg bodyweight |
| Citronellol Pure (106-22-9) | |
| LD50 oral rat | 3450 mg/kg (Source: NLM_CIP) |
| LD50 oral | 3450 mg/kg bodyweight |
| LD50 dermal rabbit | 2650 mg/kg (Source: EPA_HPVS) |
| LD50 dermal | 2650 mg/kg bodyweight |
| Ethyl vanillin (121-32-4) | |
| LD50 oral rat | 1590 mg/kg (Source: NLM_CIP) |
| LD50 oral | 3000 mg/kg bodyweight |
| LD50 dermal rat | > 2000 mg/kg (Source: ECHA_API) |
| Lemon oil (8008-56-8) | |
| LD50 oral rat | 2840 mg/kg (Source: NLM_CIP) |
| Methyl cinnamate (103-26-4) | |
| LD50 oral rat | 2610 mg/kg (Source: NLM_CIP) |
| LD50 oral | 2610 mg/kg bodyweight |
| LD50 dermal rabbit | > 5000 mg/kg (Source: ECHA_API) |
| Triplal (Vertocitral) (68039-49-6) | |
| LD50 oral | 3900 mg/kg bodyweight |
| Hexyl cinnamic aldehyde (101-86-0) | |
| LD50 oral rat | 3100 mg/kg (Source: NLM_CIP) |
| LD50 oral | 3100 mg/kg bodyweight |
| LD50 dermal rabbit | > 3000 mg/kg (Source: EPA_HPVS) |
| LC50 Inhalation - Rat | > 5 mg/l/4h |
| Ethyl acetoacetate (141-97-9) | |
| LD50 oral rat | 3980 mg/kg (Source: NLM_CIP) |
| LD50 dermal rabbit | > 5000 mg/kg (Source: NLM_CIP) |

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| acetyl propionyl (600-14-6) | |
|------------------------------------|------------------------------|
| LD50 oral rat | 3 g/kg (Source: NLM_CIP) |
| LD50 oral | 3000 mg/kg bodyweight |
| LD50 dermal rabbit | > 2000 mg/kg (Source: NIOSH) |
| LD50 dermal | 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) |

| | |
|-----------------------------------|--|
| Skin corrosion/irritation | : Causes skin irritation. |
| Additional information | : Based on available data, the classification criteria are not met |
| Serious eye damage/irritation | : Causes serious eye irritation. |
| Additional information | : Based on available data, the classification criteria are not met |
| Respiratory or skin sensitisation | : May cause an allergic skin reaction. |
| 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 |

| Bis(2-ethylhexyl) adipate (103-23-1) | |
|---|----------------------|
| 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 |

| acetyl propionyl (600-14-6) | |
|------------------------------------|--|
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |

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

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

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

SECTION 12: Ecological information

12.1. Toxicity

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

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| Bis(2-ethylhexyl) adipate (103-23-1) | |
|---|--|
| LC50 - Fish [1] | 0.48 – 0.85 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA) |
| LC50 - Fish [2] | 0.48 – 0.85 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: EPA) |
| EC50 - Crustacea [1] | > 1.6 mg/l (Exposure time: 48 h - Species: Daphnia magna) |
| EC50 72h - Algae [1] | > 500 mg/l (Species: Desmodesmus subspicatus) |
| Benzyl alcohol (100-51-6) | |
| LC50 - Fish [1] | 460 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA) |
| LC50 - Fish [2] | 10 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA) |
| EC50 - Crustacea [1] | 23 mg/l (Exposure time: 48 h - Species: water flea) |
| Aldehyde C-16 (77-83-8) | |
| LC50 - Fish [1] | 4.2 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static] Source: ECHA) |
| Ethyl vanillin (121-32-4) | |
| LC50 - Fish [1] | 81.4 – 94.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA) |
| Methyl cinnamate (103-26-4) | |
| LC50 - Fish [1] | 2.76 mg/l (Exposure time: 96 h - Species: Danio rerio [static] Source: ECHA) |
| Ethyl acetoacetate (141-97-9) | |
| LC50 - Fish [1] | 298 mg/l (Exposure time: 96 h - Species: Pimephales promelas Source: IUCLID) |
| LC50 - Fish [2] | 290 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss Source: IUCLID) |
| EC50 - Crustacea [1] | 646 mg/l (Exposure time: 48 h - Species: Daphnia magna) |
| EC50 72h - Algae [1] | > 500 mg/l (Species: Desmodesmus subspicatus) |
| 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) |
| 12.2. Persistence and degradability | |
| RASPBERRY #EU15107F | |
| Persistence and degradability | May cause long-term adverse effects in the environment. Not established. |
| Methyl cinnamate (103-26-4) | |
| Persistence and degradability | Not established. |
| 12.3. Bioaccumulative potential | |
| RASPBERRY #EU15107F | |
| Bioaccumulative potential | Not established. |
| Bis(2-ethylhexyl) adipate (103-23-1) | |
| BCF - Fish [1] | (27 dimensionless) |
| Partition coefficient n-octanol/water (Log Pow) | 8.94 (at 25 °C) |

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| Benzyl alcohol (100-51-6) | |
|--|-------------------------------------|
| Partition coefficient n-octanol/water (Log Pow) | 1.05 |
| Aldehyde C-16 (77-83-8) | |
| Partition coefficient n-octanol/water (Log Pow) | 2.4 (at 25 °C (cis isomer)) |
| Oxyphelylon (Raspberry ketone) crystals (5471-51-2) | |
| Partition coefficient n-octanol/water (Log Pow) | 1.33 (at 20 °C) |
| beta-Ionone (14901-07-6) | |
| Partition coefficient n-octanol/water (Log Pow) | 1.903 (at 27 °C (at pH 5.7)) |
| Citronellol Pure (106-22-9) | |
| Partition coefficient n-octanol/water (Log Pow) | 3.41 (at 25 °C) |
| Ethyl vanillin (121-32-4) | |
| Partition coefficient n-octanol/water (Log Pow) | 1.61 (at 25 °C) |
| Methyl cinnamate (103-26-4) | |
| Partition coefficient n-octanol/water (Log Pow) | 2.68 (at 25 °C (at pH >4.73-<7.06)) |
| Bioaccumulative potential | Not established. |
| Ethyl acetoacetate (141-97-9) | |
| Partition coefficient n-octanol/water (Log Pow) | 0.8 (at 20 °C) |
| acetophenone (98-86-2) | |
| Partition coefficient n-octanol/water (Log Pow) | 1.63 – 1.65 |

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

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container in accordance with local/national laws and regulations.
Ecology - waste materials : Avoid release to the environment.

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| | |
|---------|--|
| 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 or ID 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. 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(a) | Lemon oil ; acetyl propionyl | 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) | RASPBERRY #EU15107F ; Benzyl alcohol ; Aldehyde C-16 ; Citronellol Pure ; Lemon oil ; Triplal (Vertocitral) ; Hexyl cinnamic aldehyde ; acetyl propionyl ; acetophenone | 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) | RASPBERRY #EU15107F ; Aldehyde C-16 ; beta-Ionone ; Lemon oil ; Triplal (Vertocitral) ; Hexyl 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 |
| 40. | Lemon oil ; acetyl propionyl | 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

Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

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Netherlands

| | |
|--|--|
| ABM category | : A(2) - toxic for aquatic organisms, may have longterm hazardous effects in aquatic environment |
| SZW-lijst van kankerverwekkende stoffen | : Lemon oil ,Triplal (Vertocitral) are listed |
| SZW-lijst van mutagene stoffen | : Lemon oil ,Triplal (Vertocitral) 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 |

Denmark

| | |
|-----------------------------|---|
| Classification remarks | : Emergency management guidelines for the storage of flammable liquids must be followed |
| Danish National Regulations | : Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product |

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Other information : None.

| Full text of H- and EUH-statements: | |
|-------------------------------------|--|
| Acute Tox. 4 (Inhalation) | Acute toxicity (inhal.), Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| 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 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Flam. Liq. 3 | Flammable liquids, Category 3 |
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| 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. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| 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 |

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Full text of H- and EUH-statements:

| | |
|---------------|--|
| Skin Sens. 1B | Skin sensitisation, category 1B |
| STOT RE 2 | Specific target organ toxicity – Repeated exposure, Category 2 |

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.