

FRAGRANCE OIL - FRAISE

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:** FRAGRANCE OIL - FRAISE
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
 Relevant uses: Raw materials for the cosmetics and pharmaceuticals industries
 Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**
 Fleurs d'Arômes
 3A, Avenue Berton
 7333 Tertre - Hainaut - Belgique
 Phone.: 0032479433347
 fleursdaromes@hotmail.com
 https://www.fleursdaromes.be/
- 1.4 Emergency telephone number:** Centre antipoisons: 070/245.245

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
CLP Regulation (EC) No 1272/2008:
 Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.
 Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412
 Eye Irrit. 2: Eye irritation, Category 2, H319
 Skin Irrit. 2: Skin irritation, Category 2, H315
 Skin Sens. 1B: Sensitisation, skin, Category 1B, H317
- 2.2 Label elements:**
CLP Regulation (EC) No 1272/2008:
Warning

Hazard statements:
 Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects
 Eye Irrit. 2: H319 - Causes serious eye irritation
 Skin Irrit. 2: H315 - Causes skin irritation
 Skin Sens. 1B: H317 - May cause an allergic skin reaction
Precautionary statements:
 P101: If medical advice is needed, have product container or label at hand
 P102: Keep out of reach of children
 P261: Avoid breathing dust/fume/gas/mist/vapours/spray
 P264: Wash thoroughly after handling
 P280: Wear protective gloves/protective clothing/eye protection/face protection
 P302+P352: IF ON SKIN: Wash with plenty of 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
 P501: Dispose of contents/container according to the separated collection system used in your municipality
Supplementary information:
 Contains A-methylcinnamaldehyde
Substances that contribute to the classification
 Ethyl 2,3-epoxy-3-phenylbutyrate (CAS: 77-83-8); Hexyl cinnam-aldehyde (CAS: 101-86-0)
Acute Toxicity Estimate (ATE mix):
 89 % (oral) of the mixture consists of ingredient(s) of unknown toxicity
- 2.3 Other hazards:**
 Product fails to meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture of substances

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

| Identification | Chemical name/Classification | Concentration |
|--|--|------------------|
| CAS: 77-83-8 EC: 201-061-8 Index: Non-applicable REACH 01-2119967770-28-XXXX : | Ethyl 2,3-epoxy-3-phenylbutyrate⁽¹⁾ Self-classified Regulation 1272/2008 Aquatic Chronic 2: H411; Skin Sens. 1B: H317 - Warning | 5 - <20 % ! ! |
| CAS: 104-67-6 EC: 203-225-4 Index: Non-applicable REACH 01-2119959333-34-XXXX : | Undecan-4-olide⁽¹⁾ Self-classified Regulation 1272/2008 Aquatic Chronic 3: H412 | 2 - <5 % |
| CAS: 101-86-0 EC: 202-983-3 Index: Non-applicable REACH Non-applicable : | Hexyl cinnam-aldehyde⁽¹⁾ Self-classified Regulation 1272/2008 Aquatic Acute 1: H400; Aquatic Chronic 2: H411; Skin Sens. 1B: H317 - Warning | 2 - <5 % ! ! |
| CAS: 4940-11-8 EC: 225-582-5 Index: Non-applicable REACH 01-2120758795-36-XXXX : | 2-ethyl-3-hydroxy-4-pyrone⁽¹⁾ Self-classified Regulation 1272/2008 Acute Tox. 4: H302 - Warning | 2 - <5 % ! |
| CAS: 116-53-0 EC: 204-145-2 Index: Non-applicable REACH 01-2119959862-23-XXXX : | 2-methylbutyric acid⁽¹⁾ Self-classified Regulation 1272/2008 Acute Tox. 4: H302+H312; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger | 1 - <2 % ! ! |
| CAS: 101-39-3 EC: 202-938-8 Index: Non-applicable REACH 01-2119538797-21-XXXX : | A-methylcinnamaldehyde⁽¹⁾ Self-classified Regulation 1272/2008 Skin Sens. 1: H317 - Warning | <1 % ! |

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2015/830

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

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SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use full jet water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 5 °C

Maximum Temp.: 20 °C

Maximum time: 18 Months

B.- General conditions for storage

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SECTION 7: HANDLING AND STORAGE (continued)

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

There are no occupational exposure limits for the substances contained in the product

DNEL (Workers):

| Identification | | Short exposure | | Long exposure | |
|---|------------|----------------|----------------|------------------------|------------------------|
| | | Systemic | Local | Systemic | Local |
| Ethyl 2,3-epoxy-3-phenylbutyrate CAS: 77-83-8 EC: 201-061-8 | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 0,7 mg/kg | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | 2,45 mg/m ³ | Non-applicable |
| Undecan-4-olide CAS: 104-67-6 EC: 203-225-4 | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 5,38 mg/kg | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | 19 mg/m ³ | Non-applicable |
| A-methylcinnamaldehyde CAS: 101-39-3 EC: 202-938-8 | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 2,21 mg/kg | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | 13,3 mg/m ³ | 13,3 mg/m ³ |

DNEL (General population):

| Identification | | Short exposure | | Long exposure | |
|---|------------|----------------|----------------|------------------------|------------------------|
| | | Systemic | Local | Systemic | Local |
| Ethyl 2,3-epoxy-3-phenylbutyrate CAS: 77-83-8 EC: 201-061-8 | Oral | Non-applicable | Non-applicable | 0,35 mg/kg | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 0,35 mg/kg | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | 0,61 mg/m ³ | Non-applicable |
| Undecan-4-olide CAS: 104-67-6 EC: 203-225-4 | Oral | Non-applicable | Non-applicable | 2,7 mg/kg | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 2,7 mg/kg | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | 4,68 mg/m ³ | Non-applicable |
| A-methylcinnamaldehyde CAS: 101-39-3 EC: 202-938-8 | Oral | Non-applicable | Non-applicable | 1,1 mg/kg | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 1,11 mg/kg | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | 3,27 mg/m ³ | 3,27 mg/m ³ |

PNEC:

| Identification | | | | |
|---|--------------|----------------|-------------------------|---------------|
| Ethyl 2,3-epoxy-3-phenylbutyrate CAS: 77-83-8 EC: 201-061-8 | STP | 10 mg/L | Fresh water | 0,0084 mg/L |
| | Soil | 0,037 mg/kg | Marine water | 0,0084 mg/L |
| | Intermittent | 0,084 mg/L | Sediment (Fresh water) | 0,012 mg/kg |
| | Oral | 23,3 g/kg | Sediment (Marine water) | 0,0012 mg/kg |
| Undecan-4-olide CAS: 104-67-6 EC: 203-225-4 | STP | 80 mg/L | Fresh water | 0,00585 mg/L |
| | Soil | 0,122 mg/kg | Marine water | 0,000585 mg/L |
| | Intermittent | 0,0585 mg/L | Sediment (Fresh water) | 0,628 mg/kg |
| | Oral | 66,7 g/kg | Sediment (Marine water) | 0,063 mg/kg |
| A-methylcinnamaldehyde CAS: 101-39-3 EC: 202-938-8 | STP | 3,66 mg/L | Fresh water | 0,0012 mg/L |
| | Soil | 0,0071 mg/kg | Marine water | 0,00012 mg/L |
| | Intermittent | 0,012 mg/L | Sediment (Fresh water) | 0,0404 mg/kg |
| | Oral | Non-applicable | Sediment (Marine water) | 0,00404 mg/kg |

8.2 Exposure controls:

A.- General security and hygiene measures in the work place

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|---|-----------------------------------|---|---------------------|--|
|  Mandatory respiratory tract protection | Filter mask for gases and vapours |  CAT III | EN 405:2001+A1:2009 | Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment. |

C.- Specific protection for the hands

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|--|---------------------------------------|---|--------------|---|
|  Mandatory hand protection | Protective gloves against minor risks |  CAT I | | Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420 and EN 374. |

"As the product is a mixture of several substances, the resistance of the glove material can not be predicted in advance with total reliability and has therefore to be checked prior to the application"

D.- Ocular and facial protection

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|--|---|--|---------------------------------|---|
|  Mandatory face protection | Panoramic glasses against splash/projections. |  CAT II | EN 166:2001 EN ISO 4007:2018 | Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. |

E.- Body protection

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|-----------|----------------------|--|-------------------|---|
| | Work clothing |  CAT I | | Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994. |
| | Anti-slip work shoes |  CAT II | EN ISO 20347:2012 | Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007 |

F.- Additional emergency measures

| Emergency measure | Standards | Emergency measure | Standards |
|---|---|--|--|
|  Emergency shower | ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011 |  Eyewash stations | DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011 |

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

| | |
|---------------------------|-------------------------------------|
| V.O.C. (Supply): | 1 % weight |
| V.O.C. density at 20 °C: | 10,77 kg/m ³ (10,77 g/L) |
| Average carbon number: | 5 |
| Average molecular weight: | 102,1 g/mol |

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

| | |
|--------------------------|------------------|
| Physical state at 20 °C: | Liquid |
| Appearance: | Not available |
| Colour: | Yellow |
| Odour: | Not available |
| Odour threshold: | Non-applicable * |

Volatility:

| | |
|--|---------------------|
| Boiling point at atmospheric pressure: | 275 °C |
| Vapour pressure at 20 °C: | 5 Pa |
| Vapour pressure at 50 °C: | 42,55 Pa (0,04 kPa) |
| Evaporation rate at 20 °C: | Non-applicable * |

Product description:

| | |
|--|--------------------------|
| Density at 20 °C: | 1077,3 kg/m ³ |
| Relative density at 20 °C: | 1,077 |
| Dynamic viscosity at 20 °C: | Non-applicable * |
| Kinematic viscosity at 20 °C: | Non-applicable * |
| Kinematic viscosity at 40 °C: | Non-applicable * |
| Concentration: | Non-applicable * |
| pH: | Non-applicable * |
| Vapour density at 20 °C: | Non-applicable * |
| Partition coefficient n-octanol/water 20 °C: | Non-applicable * |
| Solubility in water at 20 °C: | Non-applicable * |
| Solubility properties: | Non-applicable * |
| Decomposition temperature: | Non-applicable * |
| Melting point/freezing point: | Non-applicable * |
| Explosive properties: | Non-applicable * |
| Oxidising properties: | Non-applicable * |

Flammability:

| | |
|----------------------------|------------------|
| Flash Point: | 70 °C |
| Flammability (solid, gas): | Non-applicable * |
| Autoignition temperature: | Non-applicable * |
| Lower flammability limit: | Non-applicable * |
| Upper flammability limit: | Non-applicable * |

Explosive:

| | |
|------------------------|------------------|
| Lower explosive limit: | Non-applicable * |
| Upper explosive limit: | Non-applicable * |

9.2 Other information:

| | |
|---------------------------|------------------|
| Surface tension at 20 °C: | Non-applicable * |
| Refraction index: | Non-applicable * |

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

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FRAGRANCE OIL - FRAISE

SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight | Humidity |
|--------------------|------------------|-------------------------|----------------|----------------|
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |

10.5 Incompatible materials:

| Acids | Water | Oxidising materials | Combustible materials | Others |
|--------------------|----------------|---------------------|-----------------------|-------------------------------|
| Avoid strong acids | Not applicable | Precaution | Not applicable | Avoid alkalis or strong bases |

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

| Identification | Acute toxicity | | Genus |
|---|-----------------|----------------|--------|
| | LD50 oral | LD50 dermal | |
| Hexyl cinnam-aldehyde CAS: 101-86-0 EC: 202-983-3 | LD50 oral | 3100 mg/kg | Rat |
| | LD50 dermal | 3000 mg/kg | Rabbit |
| | LC50 inhalation | Non-applicable | |
| Undecan-4-olide CAS: 104-67-6 EC: 203-225-4 | LD50 oral | 18500 mg/kg | Rat |
| | LD50 dermal | Non-applicable | |
| | LC50 inhalation | Non-applicable | |
| 2-ethyl-3-hydroxy-4-pyrone CAS: 4940-11-8 EC: 225-582-5 | LD50 oral | 1200 mg/kg | Rat |
| | LD50 dermal | Non-applicable | |
| | LC50 inhalation | Non-applicable | |
| 2-methylbutyric acid CAS: 116-53-0 EC: 204-145-2 | LD50 oral | 1760 mg/kg | Rat |
| | LD50 dermal | 1100 mg/kg | Rat |
| | LC50 inhalation | Non-applicable | |
| A-methylcinnamaldehyde CAS: 101-39-3 EC: 202-938-8 | LD50 oral | 2050 mg/kg | Rat |
| | LD50 dermal | Non-applicable | |
| | LC50 inhalation | Non-applicable | |

Acute Toxicity Estimate (ATE mix):

| ATE mix | | Ingredient(s) of unknown toxicity |
|------------|-------------------------------------|-----------------------------------|
| Oral | 5500 mg/kg (Calculation method) | 89 % |
| Dermal | >2000 mg/kg (Calculation method) | Non-applicable |
| Inhalation | >20 mg/L (4 h) (Calculation method) | Non-applicable |

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

| Identification | Acute toxicity | | Species | Genus |
|---|----------------|----------------------|---------------------------------|------------|
| | LC50 | EC50 | | |
| Ethyl 2,3-epoxy-3-phenylbutyrate CAS: 77-83-8 EC: 201-061-8 | LC50 | 4.2 mg/L (96 h) | Oncorhynchus mykiss | Fish |
| | EC50 | 52 mg/L (48 h) | Daphnia magna | Crustacean |
| | EC50 | 36 mg/L (72 h) | Pseudokirchneriella subcapitata | Algae |
| Undecan-4-olide CAS: 104-67-6 EC: 203-225-4 | LC50 | 10 - 100 mg/L (96 h) | | Fish |
| | EC50 | 10 - 100 mg/L | | Crustacean |
| | EC50 | 10 - 100 mg/L | | Algae |
| Hexyl cinnam-aldehyde CAS: 101-86-0 EC: 202-983-3 | LC50 | 0.1 - 1 mg/L (96 h) | | Fish |
| | EC50 | 0.1 - 1 mg/L | | Crustacean |
| | EC50 | 0.1 - 1 mg/L | | Algae |

12.2 Persistence and degradability:

| Identification | Degradability | | Biodegradability | |
|---|---------------|----------------|------------------|---------|
| | BOD5 | COD | Concentration | Period |
| Ethyl 2,3-epoxy-3-phenylbutyrate CAS: 77-83-8 EC: 201-061-8 | BOD5 | Non-applicable | 100 mg/L | 28 days |
| | COD | Non-applicable | | |
| | BOD5/COD | Non-applicable | % Biodegradable | 53 % |

12.3 Bioaccumulative potential:

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SECTION 12: ECOLOGICAL INFORMATION (continued)

| Identification | Bioaccumulation potential | |
|-----------------------|---------------------------|-----|
| Hexyl cinnam-aldehyde | BCF | 17 |
| CAS: 101-86-0 | Pow Log | |
| EC: 202-983-3 | Potential | Low |

12.4 Mobility in soil:

| Identification | Absorption/desorption | | Volatility | |
|---|-----------------------|----------------------|------------|----------------|
| Ethyl 2,3-epoxy-3-phenylbutyrate CAS: 77-83-8 EC: 201-061-8 | Koc | 240 | Henry | Non-applicable |
| | Conclusion | Moderate | Dry soil | Non-applicable |
| | Surface tension | Non-applicable | Moist soil | Non-applicable |
| 2-methylbutyric acid CAS: 116-53-0 EC: 204-145-2 | Koc | Non-applicable | Henry | Non-applicable |
| | Conclusion | Non-applicable | Dry soil | Non-applicable |
| | Surface tension | 2,703E-2 N/m (25 °C) | Moist soil | Non-applicable |

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

| Code | Description | Waste class (Regulation (EU) No 1357/2014) |
|------|---|--|
| | It is not possible to assign a specific code, as it depends on the intended use by the user | Dangerous |

Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP13 Sensitising

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport (ADR/RID,IMDG,IATA)

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III:

Non-applicable

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FRAGRANCE OIL - FRAISE

SECTION 15: REGULATORY INFORMATION (continued)

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

Other information:

UFI:XHF0-P074-K002-MMAK

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (Regulation (EC) No 2015/830)

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Non-applicable

Texts of the legislative phrases mentioned in section 2:

H412: Harmful to aquatic life with long lasting effects

H317: May cause an allergic skin reaction

H315: Causes skin irritation

H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 4: H302 - Harmful if swallowed

Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin

Aquatic Acute 1: H400 - Very toxic to aquatic life

Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects

Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects

Eye Dam. 1: H318 - Causes serious eye damage

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

Skin Sens. 1: H317 - May cause an allergic skin reaction

Skin Sens. 1B: H317 - May cause an allergic skin reaction

Classification procedure:

Aquatic Chronic 3: Calculation method

Skin Sens. 1B: Calculation method

Skin Irrit. 2: Calculation method

Eye Irrit. 2: Calculation method

Advice related to training:

Minimal training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Abbreviations and acronyms:

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FRAGRANCE OIL - FRAISE

SECTION 16: OTHER INFORMATION (continued)

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -