





Safety data sheet  
According to 1907/2006/EC (REACH), 2015/830/EU  
**FRAGRANCE OIL - MANGUE TROPICAL**

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

- 1.1 Product identifier:** FRAGRANCE OIL - MANGUE TROPICAL
- 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 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411  
Skin Sens. 1B: Sensitisation, skin, Category 1B, H317
- 2.2 Label elements:**  
**CLP Regulation (EC) No 1272/2008:**  
**Warning**
-  
- Hazard statements:**  
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects  
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  
P273: Avoid release to the environment  
P280: Wear protective gloves/protective clothing/eye protection/face protection  
P302+P352: IF ON SKIN: Wash with plenty of water  
P391: Collect spillage  
P501: Dispose of contents/container according to the separated collection system used in your municipality
- Substances that contribute to the classification**  
Ethyl 2,3-epoxy-3-phenylbutyrate (CAS: 77-83-8)
- Acute Toxicity Estimate (ATE mix):**  
84 % (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

- 3.1 Substance:**  
Non-applicable
- 3.2 Mixture:**  
**Chemical description:** Mixture of substances  
**Components:**

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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

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 :	<b>Ethyl 2,3-epoxy-3-phenylbutyrate<sup>(1)</sup></b>	Self-classified	20 - <40 %
	Regulation 1272/2008	Aquatic Chronic 2: H411; Skin Sens. 1B: H317 - Warning	
CAS: 8050-15-5 EC: 232-476-2 Index: Non-applicable REACH 01-2119969275-26-XXXX :	<b>Resin acids and Rosin acids, hydrogenated, Me esters<sup>(1)</sup></b>	Self-classified	20 - <40 %
	Regulation 1272/2008	Aquatic Chronic 3: H412	
CAS: 120-51-4 EC: 204-402-9 Index: 607-085-00-9 REACH 01-2119976371-33-XXXX :	<b>Benzyl benzoate<sup>(1)</sup></b>	Self-classified	5 - <20 %
	Regulation 1272/2008	Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 2: H411 - Warning	
CAS: 140-11-4 EC: 205-399-7 Index: Non-applicable REACH 01-2119638272-42-XXXX :	<b>Benzyl acetate<sup>(1)</sup></b>	Self-classified	2 - <5 %
	Regulation 1272/2008	Aquatic Chronic 3: H412	
CAS: 98-55-5 EC: 202-680-6 Index: Non-applicable REACH 01-2119980717-23-XXXX :	<b>P-menth-1-en-8-ol<sup>(1)</sup></b>	Self-classified	2 - <5 %
	Regulation 1272/2008	Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning	

<sup>(1)</sup> 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 water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for 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

### 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:

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## SECTION 5: FIREFIGHTING MEASURES (continued)

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 spilt 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

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.

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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 <sup>3</sup>	Non-applicable
Resin acids and Rosin acids, hydrogenated, Me esters CAS: 8050-15-5 EC: 232-476-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	6,3 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	44,6 mg/m <sup>3</sup>	Non-applicable
Benzyl benzoate CAS: 120-51-4 EC: 204-402-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	2,6 mg/kg	Non-applicable
	Inhalation	102 mg/m <sup>3</sup>	Non-applicable	5,1 mg/m <sup>3</sup>	Non-applicable
Benzyl acetate CAS: 140-11-4 EC: 205-399-7	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	12,5 mg/kg	Non-applicable	6,25 mg/kg	Non-applicable
	Inhalation	43,8 mg/m <sup>3</sup>	Non-applicable	21,9 mg/m <sup>3</sup>	Non-applicable

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 <sup>3</sup>	Non-applicable
Resin acids and Rosin acids, hydrogenated, Me esters CAS: 8050-15-5 EC: 232-476-2	Oral	Non-applicable	Non-applicable	3,8 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	3,8 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	13,2 mg/m <sup>3</sup>	Non-applicable
Benzyl benzoate CAS: 120-51-4 EC: 204-402-9	Oral	78 mg/kg	Non-applicable	0,4 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	1,3 mg/kg	Non-applicable
	Inhalation	25 mg/m <sup>3</sup>	Non-applicable	1,25 mg/m <sup>3</sup>	Non-applicable
Benzyl acetate CAS: 140-11-4 EC: 205-399-7	Oral	6,25 mg/kg	Non-applicable	3,125 mg/kg	Non-applicable
	Dermal	6,25 mg/kg	Non-applicable	3,125 mg/kg	Non-applicable
	Inhalation	11 mg/m <sup>3</sup>	Non-applicable	5,5 mg/m <sup>3</sup>	Non-applicable

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	
Resin acids and Rosin acids, hydrogenated, Me esters CAS: 8050-15-5 EC: 232-476-2	STP	1,26 mg/L	Fresh water	0,027 mg/L	
	Soil	125 mg/kg	Marine water	0,0027 mg/L	
	Intermittent	0,27 mg/L	Sediment (Fresh water)	625,79 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	62,58 mg/kg	
Benzyl benzoate CAS: 120-51-4 EC: 204-402-9	STP	100 mg/L	Fresh water	0,0168 mg/L	
	Soil	2,12 mg/kg	Marine water	0,00168 mg/L	
	Intermittent	Non-applicable	Sediment (Fresh water)	10,66 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	1,07 mg/kg	
Benzyl acetate CAS: 140-11-4 EC: 205-399-7	STP	8,55 mg/L	Fresh water	0,004 mg/L	
	Soil	0,0205 mg/kg	Marine water	0,0004 mg/L	
	Intermittent	0,04 mg/L	Sediment (Fresh water)	0,114 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	0,0114 mg/kg	

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### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
P-menth-1-en-8-ol	STP	2,6 mg/L	Fresh water	0,068 mg/L
CAS: 98-55-5	Soil	0,329 mg/kg	Marine water	0,0068 mg/L
EC: 202-680-6	Intermittent	Non-applicable	Sediment (Fresh water)	1,85 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,185 mg/kg



#### 8.2 Exposure controls:

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



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:

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

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

V.O.C. (Supply):	11 % weight
V.O.C. density at 20 °C:	113,81 kg/m <sup>3</sup> (113,81 g/L)
Average carbon number:	7,09
Average molecular weight:	135,97 g/mol

## 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:	222 °C
Vapour pressure at 20 °C:	40 Pa
Vapour pressure at 50 °C:	251,57 Pa (0,25 kPa)
Evaporation rate at 20 °C:	Non-applicable *

#### Product description:

Density at 20 °C:	1034,6 kg/m <sup>3</sup>
Relative density at 20 °C:	1,035
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:	68 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	295 °C
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

#### Explosive:

Lower explosive limit:	Non-applicable *
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\*Not relevant due to the nature of the product, not providing information property of its hazards.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

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:

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	Not applicable	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 (CO<sub>2</sub>), 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: 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.

#### 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, as it does not 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: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: 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.

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

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## SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- 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: Benzyl acetate (3)
- 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:

- 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
Benzyl benzoate CAS: 120-51-4 EC: 204-402-9	LD50 oral	1500 mg/kg	Rat
	LD50 dermal	4000 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
Benzyl acetate CAS: 140-11-4 EC: 205-399-7	LD50 oral	2490 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
P-menth-1-en-8-ol CAS: 98-55-5 EC: 202-680-6	LD50 oral	4300 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	

### Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	4800 mg/kg (Calculation method)	84 %
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
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
Resin acids and Rosin acids, hydrogenated, Me esters CAS: 8050-15-5 EC: 232-476-2	LC50	10 - 100 mg/L (96 h)		Fish
	EC50	10 - 100 mg/L		Crustacean
	EC50	10 - 100 mg/L		Algae

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**SECTION 12: ECOLOGICAL INFORMATION (continued)**

Identification	Acute toxicity		Species	Genus
Benzyl benzoate CAS: 120-51-4 EC: 204-402-9	LC50	2.32 mg/L (96 h)	Danio rerio	Fish
	EC50	3.1 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	0.36 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae
Benzyl acetate CAS: 140-11-4 EC: 205-399-7	LC50	Non-applicable		
	EC50	17 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	110 mg/L (72 h)	Desmodesmus subspicatus	Algae
P-menth-1-en-8-ol CAS: 98-55-5 EC: 202-680-6	LC50	10 mg/L (96 h)	Salmo gairdneri	Fish
	EC50	Non-applicable		
	EC50	Non-applicable		

**12.2 Persistence and degradability:**

Identification	Degradability		Biodegradability	
Ethyl 2,3-epoxy-3-phenylbutyrate CAS: 77-83-8 EC: 201-061-8	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	53 %
Benzyl benzoate CAS: 120-51-4 EC: 204-402-9	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	94 %
Benzyl acetate CAS: 140-11-4 EC: 205-399-7	BOD5	Non-applicable	Concentration	10 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	100 %
P-menth-1-en-8-ol CAS: 98-55-5 EC: 202-680-6	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	84,6 %

**12.3 Bioaccumulative potential:**

Identification	Bioaccumulation potential	
Benzyl benzoate CAS: 120-51-4 EC: 204-402-9	BCF	193
	Pow Log	4
	Potential	High
Benzyl acetate CAS: 140-11-4 EC: 205-399-7	BCF	8
	Pow Log	1.96
	Potential	Low
P-menth-1-en-8-ol CAS: 98-55-5 EC: 202-680-6	BCF	110
	Pow Log	2.98
	Potential	High

**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
Benzyl benzoate CAS: 120-51-4 EC: 204-402-9	Koc	6310	Henry	Non-applicable
	Conclusion	Immobile	Dry soil	Non-applicable
	Surface tension	4,626E-2 N/m (25 °C)	Moist soil	Non-applicable
Benzyl acetate CAS: 140-11-4 EC: 205-399-7	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	3,558E-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

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## 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

### Transport of dangerous goods by land:

With regard to ADR 2019 and RID 2019:



- |   |   |
|---|---|
| <b>14.1 UN number:</b>  | UN3082  |
| <b>14.2 UN proper shipping name:</b>  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.<br>(Ethyl 2,3-epoxy-3-phenylbutyrate) |
| <b>14.3 Transport hazard class(es):</b>   | 9   |
| Labels:   | 9   |
| <b>14.4 Packing group:</b>  | III   |
| <b>14.5 Environmental hazards:</b>  | Yes   |
| <b>14.6 Special precautions for user</b>  |   |
| Special regulations:  | 274, 335, 375, 601  |
| Tunnel restriction code:  | Non-applicable  |
| Physico-Chemical properties:  | see section 9   |
| Limited quantities:   | 5 L   |
| <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b> | Non-applicable  |

### Transport of dangerous goods by sea:

With regard to IMDG 38-16:



- |   |   |
|---|---|
| <b>14.1 UN number:</b>  | UN3082  |
| <b>14.2 UN proper shipping name:</b>  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.<br>(Ethyl 2,3-epoxy-3-phenylbutyrate) |
| <b>14.3 Transport hazard class(es):</b>   | 9   |
| Labels:   | 9   |
| <b>14.4 Packing group:</b>  | III   |
| <b>14.5 Environmental hazards:</b>  | Yes   |
| <b>14.6 Special precautions for user</b>  |   |
| Special regulations:  | 335, 969, 274   |
| EmS Codes:  | F-A, S-F  |
| Physico-Chemical properties:  | see section 9   |
| Limited quantities:   | 5 L   |
| Segregation group:  | Non-applicable  |
| <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b> | Non-applicable  |

### Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

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#### SECTION 14: TRANSPORT INFORMATION (continued)



<b>14.1 UN number:</b>	UN3082
<b>14.2 UN proper shipping name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Ethyl 2,3-epoxy-3-phenylbutyrate)
<b>14.3 Transport hazard class(es):</b>	9
Labels:	9
<b>14.4 Packing group:</b>	III
<b>14.5 Environmental hazards:</b>	Yes
<b>14.6 Special precautions for user</b>	
Physico-Chemical properties:	see section 9
<b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b>	Non-applicable

#### 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:

Section	Description	Lower-tier requirements	Upper-tier requirements
E2		200	500

**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:AU80-80NX-C00E-Y2VA

##### 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:

H411: Toxic to aquatic life with long lasting effects

H317: May cause an allergic skin reaction

##### 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:

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Safety data sheet  
According to 1907/2006/EC (REACH), 2015/830/EU  
**FRAGRANCE OIL - MANGUE TROPICAL**

**SECTION 16: OTHER INFORMATION (continued)**

Acute Tox. 4: H302 - Harmful if swallowed  
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 Irrit. 2: H319 - Causes serious eye irritation  
Skin Irrit. 2: H315 - Causes skin irritation  
Skin Sens. 1B: H317 - May cause an allergic skin reaction

**Classification procedure:**

Aquatic Chronic 2: Calculation method  
Skin Sens. 1B: 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:**

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 -