




FRA-177 - SEYCHELLES

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

- 1.1 Product identifier:** FRA-177 - SEYCHELLES
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Product fragrance mixture
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 - Sandra Aris
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.
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411
Asp. Tox. 1: Aspiration hazard, Category 1, H304
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:
Danger
- 


- Hazard statements:**
Acute Tox. 4: H302 - Harmful if swallowed
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
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
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor
P302+P352: IF ON SKIN: Wash with plenty of water
P501: Dispose of contents/container according to the separated collection system used in your municipality
- Supplementary information:**
Contains (r)-p-mentha-1,8-diene, Citral, Dipentene
- Acute Toxicity Estimate (ATE mix):**
87,5 % (oral) of the mixture consists of ingredient(s) of unknown toxicity
UFI: K4G0-701W-Q00J-80E1
- 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: 5989-27-5 EC: 227-813-5 Index: Non-applicable REACH: 01-2119529223-47-XXXX	(r)-p-mentha-1,8-diene ⁽¹⁾ Regulation 1272/2008 Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Asp. Tox. 1: H304; Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Danger	Self-classified 10 - <25 %
CAS: 120-51-4 EC: 204-402-9 Index: 607-085-00-9 REACH: 01-2119976371-33-XXXX	Benzyl benzoate ⁽¹⁾ Regulation 1272/2008 Acute Tox. 4: H302+H312; Aquatic Acute 1: H400; Aquatic Chronic 2: H411 - Warning	Self-classified 5 - <10 %
CAS: 4940-11-8 EC: 225-582-5 Index: Non-applicable REACH: 01-2120758795-36-XXXX	2-ethyl-3-hydroxy-4-pyrone ⁽¹⁾ Regulation 1272/2008 Acute Tox. 4: H302 - Warning	Self-classified 1 - <2,5 %
CAS: 79-92-5 EC: 201-234-8 Index: Non-applicable REACH: 01-2119446293-40-XXXX	Camphene ⁽¹⁾ Regulation 1272/2008 Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Irrit. 2: H319; Flam. Sol. 2: H228 - Warning	Self-classified 1 - <2,5 %
CAS: 5392-40-5 EC: 226-394-6 Index: 605-019-00-3 REACH: 01-2119462829-23-XXXX	Citral ⁽¹⁾ Regulation 1272/2008 Acute Tox. 4: H312; Aquatic Chronic 2: H411; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1B: H317 - Warning	Self-classified 1 - <2,5 %
CAS: 138-86-3 EC: 205-341-0 Index: 601-029-00-7 REACH: Non-applicable	Dipentene ⁽¹⁾ Regulation 1272/2008 Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning	ATP CLP00 <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 11, 12 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:

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

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:

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SECTION 4: FIRST AID MEASURES (continued)

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, 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. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

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

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for 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:

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SECTION 7: HANDLING AND STORAGE (continued)

A.- Technical measures for storage

Maximum time: 24 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.

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
(r)-p-mentha-1,8-diene CAS: 5989-27-5 EC: 227-813-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	33,3 mg/m ³	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 ³	Non-applicable	5,1 mg/m ³	Non-applicable
Camphene CAS: 79-92-5 EC: 201-234-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	1,25 mg/kg	Non-applicable	0,21 mg/kg	Non-applicable
	Inhalation	110,19 mg/m ³	Non-applicable	110,19 mg/m ³	Non-applicable
Citral CAS: 5392-40-5 EC: 226-394-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	1,7 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	9 mg/m ³	Non-applicable

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
(r)-p-mentha-1,8-diene CAS: 5989-27-5 EC: 227-813-5	Oral	Non-applicable	Non-applicable	4,76 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	8,33 mg/m ³	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 ³	Non-applicable	1,25 mg/m ³	Non-applicable
Camphene CAS: 79-92-5 EC: 201-234-8	Oral	0,625 mg/kg	Non-applicable	0,1 mg/kg	Non-applicable
	Dermal	0,625 mg/kg	Non-applicable	0,1 mg/kg	Non-applicable
	Inhalation	54,3 mg/m ³	Non-applicable	54,3 mg/m ³	Non-applicable
Citral CAS: 5392-40-5 EC: 226-394-6	Oral	Non-applicable	Non-applicable	0,6 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	1 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	2,7 mg/m ³	Non-applicable

PNEC:

Identification					
(r)-p-mentha-1,8-diene CAS: 5989-27-5 EC: 227-813-5	STP	1,8 mg/L	Fresh water	0,0054 mg/L	
	Soil	0,262 mg/kg	Marine water	0,00054 mg/L	
	Intermittent	Non-applicable	Sediment (Fresh water)	1,32 mg/kg	
	Oral	3,33 g/kg	Sediment (Marine water)	0,13 mg/kg	

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
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
Camphene CAS: 79-92-5 EC: 201-234-8	STP	10 mg/L	Fresh water	0,00072 mg/L
	Soil	0,0211 mg/kg	Marine water	0,000072 mg/L
	Intermittent	0,00072 mg/L	Sediment (Fresh water)	0,0262 mg/kg
	Oral	2,08 g/kg	Sediment (Marine water)	0,00262 mg/kg
Citral CAS: 5392-40-5 EC: 226-394-6	STP	1,6 mg/L	Fresh water	0,00678 mg/L
	Soil	0,0209 mg/kg	Marine water	0,000678 mg/L
	Intermittent	0,0678 mg/L	Sediment (Fresh water)	0,125 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,0125 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



The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Protective gloves against minor risks			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 420:2003+A1:2009 and EN ISO 374-1:2016

"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.		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			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		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

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

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):	11,2 % weight
V.O.C. density at 20 °C:	118,42 kg/m ³ (118,42 g/L)
Average carbon number:	10
Average molecular weight:	136,2 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:	Not available
Odour:	Not available
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	217 °C
Vapour pressure at 20 °C:	60 Pa
Vapour pressure at 50 °C:	477,28 Pa (0,48 kPa)
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	1057,4 kg/m ³
Relative density at 20 °C:	1,057
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	<20,5 cSt
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:	63 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	225 °C
Lower flammability limit:	Non-applicable *

*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 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:

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	Precaution	Precaution	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	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 : The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- 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, 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: Produces skin inflammation.
- 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: 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:

- 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:

The consumption of a considerable dose can cause pulmonary damage.

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	
Camphene CAS: 79-92-5 EC: 201-234-8	LD50 oral	5500 mg/kg	Rat
	LD50 dermal	8189 mg/kg	Rabbit
	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	
Citral CAS: 5392-40-5 EC: 226-394-6	LD50 oral	4950 mg/kg	Rat
	LD50 dermal	2250 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	

Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	1829,27 mg/kg (Calculation method)	87,5 %
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
(r)-p-mentha-1,8-diene CAS: 5989-27-5 EC: 227-813-5	LC50	0.1 - 1 mg/L (96 h)		Fish
	EC50	0.1 - 1 mg/L		Crustacean
	EC50	0.1 - 1 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	0.1 - 1 mg/L (96 h)		Fish
	EC50	0.1 - 1 mg/L (48 h)		Crustacean
	EC50	0.1 - 1 mg/L (72 h)		Algae
Camphene CAS: 79-92-5 EC: 201-234-8	LC50	0.72 mg/L (96 h)	Brachydanio rerio	Fish
	EC50	46 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		
Citral CAS: 5392-40-5 EC: 226-394-6	LC50	1 - 10 mg/L (96 h)		Fish
	EC50	1 - 10 mg/L (24 h)		Crustacean
	EC50	1 - 10 mg/L (72 h)		Algae
Dipentene CAS: 138-86-3 EC: 205-341-0	LC50	38.5 mg/L (96 h)	Pimephales promelas	Fish
	EC50	0.7 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	1.6 mg/L (48 h)	Selenastrum capricornutum	Algae

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
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 %
Camphene CAS: 79-92-5 EC: 201-234-8	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	4 %
Citral CAS: 5392-40-5 EC: 226-394-6	BOD5	0.56 g O ₂ /g	Concentration	100 mg/L
	COD	1.99 g O ₂ /g	Period	28 days
	BOD5/COD	0.28	% Biodegradable	92 %
Dipentene CAS: 138-86-3 EC: 205-341-0	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	69 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
Benzyl benzoate CAS: 120-51-4 EC: 204-402-9	BCF	193
	Pow Log	4
	Potential	High
Camphene CAS: 79-92-5 EC: 201-234-8	BCF	1290
	Pow Log	4.22
	Potential	Very High
Citral CAS: 5392-40-5 EC: 226-394-6	BCF	10
	Pow Log	3.45
	Potential	Low
Dipentene CAS: 138-86-3 EC: 205-341-0	BCF	660
	Pow Log	4.57
	Potential	High

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
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
Camphene CAS: 79-92-5 EC: 201-234-8	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	1,098E-2 N/m (205,93 °C)	Moist soil	Non-applicable
Dipentene CAS: 138-86-3 EC: 205-341-0	Koc	1300	Henry	3242,4 Pa·m ³ /mol
	Conclusion	Low	Dry soil	Yes
	Surface tension	Non-applicable	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

- CONTINUED ON NEXT PAGE -

SECTION 12: ECOLOGICAL INFORMATION (continued)

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)
07 01 04*	other organic solvents, washing liquids and mother liquors	Dangerous

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

HP14 Ecotoxic, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, 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:



- | | |
|---|---|
| 14.1 UN number: | UN3082 |
| 14.2 UN proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Benzyl benzoate; (r)-p-mentha-1,8-diene) |
| 14.3 Transport hazard class(es): | 9 |
| Labels: | 9 |
| 14.4 Packing group: | III |
| 14.5 Environmental hazards: | Yes |
| 14.6 Special precautions for user | |
| Special regulations: | 274, 335, 375, 601 |
| Tunnel restriction code: | Non-applicable |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | 5 L |
| 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: | Non-applicable |

Transport of dangerous goods by sea:

With regard to IMDG 39-18:

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SECTION 14: TRANSPORT INFORMATION (continued)



14.1 UN number:	UN3082
14.2 UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Benzyl benzoate; (r)-p-mentha-1,8-diene)
14.3 Transport hazard class(es):	9
Labels:	9
14.4 Packing group:	III
14.5 Environmental hazards:	Yes
14.6 Special precautions for user	
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
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2020:



14.1 UN number:	UN3082
14.2 UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Benzyl benzoate; (r)-p-mentha-1,8-diene)
14.3 Transport hazard class(es):	9
Labels:	9
14.4 Packing group:	III
14.5 Environmental hazards:	Yes
14.6 Special precautions for user	
Physico-Chemical properties:	see section 9
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	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):

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

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

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

- CONTINUED ON NEXT PAGE -

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:

H315: Causes skin irritation

H317: May cause an allergic skin reaction

H411: Toxic to aquatic life with long lasting effects

H302: Harmful if swallowed

H304: May be fatal if swallowed and enters airways

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

Acute Tox. 4: H312 - Harmful in contact with skin

Aquatic Acute 1: H400 - Very toxic to aquatic life

Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects

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

Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways

Eye Irrit. 2: H319 - Causes serious eye irritation

Flam. Liq. 3: H226 - Flammable liquid and vapour

Flam. Sol. 2: H228 - Flammable solid

Skin Irrit. 2: H315 - Causes skin irritation

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

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

Classification procedure:

Skin Irrit. 2: Calculation method

Skin Sens. 1B: Calculation method

Aquatic Chronic 2: Calculation method

Acute Tox. 4: Calculation method

Asp. Tox. 1: 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