FRAGRANCE OIL - ORANGE EPICEE

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

1.1 Product identifier: FRAGRANCE OIL - ORANGE EPICEE

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.

Acute Tox. 3: Acute inhalation toxicity, Category 3, H331
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Aquatic Acute 1: Hazardous to the aquatic environment, acute hazard, Category 1, H400
Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard, Category 1, H410
Carc. 1B: Carcinogenicity, Category 1B, H350
Eye Irrit. 2: Eye irritation, Category 2, H319
Muta. 2: Germ cell mutagenicity, Category 2, H341
Skin Irrit. 2: Skin irritation, Category 2, H315
Skin Sens. 1A: Sensitisation, skin, Category 1A, H317

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Danger

Hazard statements:

Acute Tox. 3: H331 - Toxic if inhaled
Acute Tox. 4: H302 - Harmful if swallowed
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects
Carc. 1B: H350 - May cause cancer
Eye Irrit. 2: H319 - Causes serious eye irritation
Muta. 2: H341 - Suspected of causing genetic defects
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1A: 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
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
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing
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 Clove, ext., Orange, sweet, ext., Orange, sweet, ext.

Substances that contribute to the classification

Benzyl benzoate (CAS: 120-51-4); Cinnamomum zeylanicum, ext. (CAS: 8015-91-6); Cinnamal (CAS: 104-55-2); Coumarin (CAS: 91-64-5)

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SECTION 2: HAZARDS IDENTIFICATION (continued)

Additional Labelling (Annex XVII, REACH):

Restricted to professional users

Acute Toxicity Estimate (ATE mix):

72,65 % (oral), 72,65 % (dermal), 98,29 % (inhalation) 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:

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

Identification	Chemical name/Classification		Concentration
CAS: 68647-72-3 EC: 232-433-8 Index: Non-applicable REACH: 01-2119493353-35-XXXX	**Orange, sweet, ext.**[1]	Self-classified	**20 - <40 %**
	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	
CAS: 120-51-4 EC: 204-402-9 Index: 607-085-00-9 REACH: 01-2119976371-33-XXXX	**Benzyl benzoate**[1]	Self-classified	**5 - <20 %**
	Regulation 1272/2008	Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 2: H411 - Warning	
CAS: 8000-34-8 EC: 284-638-7 Index: Non-applicable REACH: Non-applicable	**Clove, ext.**[1]	Self-classified	**5 - <20 %**
	Regulation 1272/2008	Asp. Tox. 1: H304; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Danger	
CAS: 8050-15-5 EC: 232-476-2 Index: Non-applicable REACH: 01-2119969275-26-XXXX	**Resin acids and Rosin acids, hydrogenated, Me esters**[1]	Self-classified	**5 - <20 %**
	Regulation 1272/2008	Aquatic Chronic 3: H412	
CAS: 8008-57-9 EC: 232-433-8 Index: Non-applicable REACH: 01-2119493353-35-XXXX	**Orange, sweet, ext.**[1]	Self-classified	**5 - <20 %**
	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	
CAS: 104-55-2 EC: 203-213-9 Index: Non-applicable REACH: 01-2119935242-45-XXXX	**Cinnamal**[1]	Self-classified	**2 - <5 %**
	Regulation 1272/2008	Acute Tox. 4: H312; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1A: H317 - Warning	
CAS: 8015-91-6 EC: 283-479-0 Index: Non-applicable REACH: 01-2119487278-23-XXXX	**Cinnamomum zeylanicum, ext.**[1]	Self-classified	**2 - <5 %**
	Regulation 1272/2008	Aquatic Chronic 3: H412; Carc. 1B: H350; Eye Irrit. 2: H319; Muta. 2: H341; Skin Sens. 1: H317 - Danger	
CAS: 91-64-5 EC: 202-086-7 Index: Non-applicable REACH: 01-2119943756-26-XXXX	**Coumarin**[1]	Self-classified	**1 - <2 %**
	Regulation 1272/2008	Acute Tox. 3: H301+H311+H331; Aquatic Chronic 2: H411; Skin Sens. 1: H317 - Danger	

[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:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

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SECTION 4: FIRST AID MEASURES (continued)

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

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:

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.

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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:

A.- Technical measures for storage

Minimum Temp.: 5 ºC

Maximum Temp.: 20 ºC

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.

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):

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
Orange, sweet, ext.	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 68647-72-3	Dermal	Non-applicable	Non-applicable	8,89 mg/kg	Non-applicable
EC: 232-433-8	Inhalation	Non-applicable	Non-applicable	31,1 mg/m³	Non-applicable
Benzyl benzoate	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 120-51-4	Dermal	Non-applicable	Non-applicable	2,6 mg/kg	Non-applicable
EC: 204-402-9	Inhalation	102 mg/m³	Non-applicable	5,1 mg/m³	Non-applicable
Resin acids and Rosin acids, hydrogenated, Me esters	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 8050-15-5	Dermal	Non-applicable	Non-applicable	6,3 mg/kg	Non-applicable
EC: 232-476-2	Inhalation	Non-applicable	Non-applicable	44,6 mg/m³	Non-applicable
Orange, sweet, ext.	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 8008-57-9	Dermal	Non-applicable	Non-applicable	8,89 mg/kg	Non-applicable
EC: 232-433-8	Inhalation	Non-applicable	Non-applicable	31,1 mg/m³	Non-applicable
Cinnamal	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 104-55-2	Dermal	Non-applicable	Non-applicable	2,5125 mg/kg	Non-applicable
EC: 203-213-9	Inhalation	Non-applicable	Non-applicable	2,203947368 mg/m³	Non-applicable
Coumarin	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 91-64-5	Dermal	Non-applicable	Non-applicable	0,84 mg/kg	Non-applicable
EC: 202-086-7	Inhalation	Non-applicable	Non-applicable	0,741 mg/m³	Non-applicable

DNEL (General population):

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Orange, sweet, ext.	Oral	Non-applicable	Non-applicable	4,44 mg/kg	Non-applicable
CAS: 68647-72-3	Dermal	Non-applicable	Non-applicable	4,44 mg/kg	Non-applicable
EC: 232-433-8	Inhalation	Non-applicable	Non-applicable	7,78 mg/m³	Non-applicable
Benzyl benzoate	Oral	78 mg/kg	Non-applicable	0,4 mg/kg	Non-applicable
CAS: 120-51-4	Dermal	Non-applicable	Non-applicable	1,3 mg/kg	Non-applicable
EC: 204-402-9	Inhalation	25 mg/m³	Non-applicable	1,25 mg/m³	Non-applicable
Resin acids and Rosin acids, hydrogenated, Me esters	Oral	Non-applicable	Non-applicable	3,8 mg/kg	Non-applicable
CAS: 8050-15-5	Dermal	Non-applicable	Non-applicable	3,8 mg/kg	Non-applicable
EC: 232-476-2	Inhalation	Non-applicable	Non-applicable	13,2 mg/m³	Non-applicable
Orange, sweet, ext.	Oral	Non-applicable	Non-applicable	4,44 mg/kg	Non-applicable
CAS: 8008-57-9	Dermal	Non-applicable	Non-applicable	4,44 mg/kg	Non-applicable
EC: 232-433-8	Inhalation	Non-applicable	Non-applicable	7,78 mg/m³	Non-applicable
Cinnamal	Oral	Non-applicable	Non-applicable	2,5 mg/kg	Non-applicable
CAS: 104-55-2	Dermal	Non-applicable	Non-applicable	0,625 mg/kg	Non-applicable
EC: 203-213-9	Inhalation	Non-applicable	Non-applicable	0,543478261 mg/m³	Non-applicable
Coumarin	Oral	Non-applicable	Non-applicable	0,42 mg/kg	Non-applicable
CAS: 91-64-5	Dermal	Non-applicable	Non-applicable	0,42 mg/kg	Non-applicable
EC: 202-086-7	Inhalation	Non-applicable	Non-applicable	0,183 mg/m³	Non-applicable

PNEC:

Identification				
Orange, sweet, ext.	STP	2,1 mg/L	Fresh water	0,0054 mg/L
CAS: 68647-72-3	Soil	0,261 mg/kg	Marine water	0,00054 mg/L
EC: 232-433-8	Intermittent	0,00577 mg/L	Sediment (Fresh water)	1,3 mg/kg
	Oral	13,3 g/kg	Sediment (Marine water)	0,13 mg/kg
Benzyl benzoate	STP	100 mg/L	Fresh water	0,0168 mg/L
CAS: 120-51-4	Soil	2,12 mg/kg	Marine water	0,00168 mg/L
EC: 204-402-9	Intermittent	Non-applicable	Sediment (Fresh water)	10,66 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	1,07 mg/kg
Resin acids and Rosin acids, hydrogenated, Me esters	STP	1,26 mg/L	Fresh water	0,027 mg/L
CAS: 8050-15-5	Soil	125 mg/kg	Marine water	0,0027 mg/L
EC: 232-476-2	Intermittent	0,27 mg/L	Sediment (Fresh water)	625,79 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	62,58 mg/kg
Orange, sweet, ext.	STP	2,1 mg/L	Fresh water	0,0054 mg/L
CAS: 8008-57-9	Soil	0,261 mg/kg	Marine water	0,00054 mg/L
EC: 232-433-8	Intermittent	0,00577 mg/L	Sediment (Fresh water)	1,3 mg/kg
	Oral	13,3 g/kg	Sediment (Marine water)	0,13 mg/kg
Cinnamal	STP	13,119 mg/L	Fresh water	1,004 mg/L
CAS: 104-55-2	Soil	56,08472512 mg/kg	Marine water	0,1004 mg/L
EC: 203-213-9	Intermittent	1,004 mg/L	Sediment (Fresh water)	159,1851438 mg/kg
	Oral	0,000333333 g/kg	Sediment (Marine water)	159,1851438 mg/kg
Coumarin	STP	10 mg/L	Fresh water	0,0056 mg/L
CAS: 91-64-5	Soil	0,0217 mg/kg	Marine water	0,00056 mg/L
EC: 202-086-7	Intermittent	0,056 mg/L	Sediment (Fresh water)	0,207 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,0207 mg/kg

8.2 Exposure controls:

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

In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the occupational exposure limits. In case of using personal protective equipment it should have 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 additional 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.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

B.- Respiratory protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours	CE 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	NON-disposable chemical protective gloves	CE CAT III	EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420:2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

"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	Face shield	CE CAT II	EN 166:2001 EN 167:2001 EN 168:2001 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
 Mandatory complete body protection	Disposable clothing for protection against chemical risks	CE CAT III	EN 13034:2005+A1:2009 EN 168:2001 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2001 EN ISO 6530:2005 EN 464:1994	For professional use only. Clean periodically according to the manufacturer´s instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk	CE CAT III	EN ISO 20345:2011 EN 13832-1:2006	Replace boots at any sign of deterioration.

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):	34,19 % weight
V.O.C. density at 20 ºC:	323,11 kg/m³ (323,11 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:

*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)

For complete information see the product datasheet.

Appearance:

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

Volatility:

Boiling point at atmospheric pressure:	212 ºC
Vapour pressure at 20 ºC:	49 Pa
Vapour pressure at 50 ºC:	399,35 Pa (0,4 kPa)
Evaporation rate at 20 ºC:	Non-applicable *

Product description:

Density at 20 ºC:	945,1 kg/m³
Relative density at 20 ºC:	0,945
Dynamic viscosity at 20 ºC:	66,41 cP
Kinematic viscosity at 20 ºC:	70,27 cSt
Kinematic viscosity at 40 ºC:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 ºC:	Non-applicable *
Partition coefficient n-octanol/water 20 ºC:	Non-applicable *
Solubility in water at 20 ºC:	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:	82 ºC
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	480 ºC
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 ºC:	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.

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SECTION 10: STABILITY AND REACTIVITY (continued)

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 : Inhalation after prolonged exposure may be lethal.
- 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: Produces eye damage after contact.

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

- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.
  IARC: Coumarin (3)
- Mutagenicity: Exposure to this product can cause genetic modifications. For more specific information on the possible health effects see section 2.
- 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:

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

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.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Benzyl benzoate	LD50 oral	1500 mg/kg	Rat
CAS: 120-51-4	LD50 dermal	4000 mg/kg	Rabbit
EC: 204-402-9	LC50 inhalation	Non-applicable	
Cinnamal	LD50 oral	2100 mg/kg	Rat
CAS: 104-55-2	LD50 dermal	1100 mg/kg	Rat
EC: 203-213-9	LC50 inhalation	Non-applicable	
Cinnamomum zeylanicum, ext.	LD50 oral	2650 mg/kg	Rat
CAS: 8015-91-6	LD50 dermal	5500 mg/kg	Rabbit
EC: 283-479-0	LC50 inhalation	Non-applicable	
Coumarin	LD50 oral	293 mg/kg	Rat
CAS: 91-64-5	LD50 dermal	293 mg/kg (ATEi)	Rat
EC: 202-086-7	LC50 inhalation	3 mg/L (4 h) (ATEi)	

Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	1587,33 mg/kg (Calculation method)	72,65 %
Dermal	2813,99 mg/kg (Calculation method)	72,65 %
Inhalation	3 mg/L (4 h) (Calculation method)	98,29 %

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
Orange, sweet, ext.	LC50	0.1 - 1 mg/L (96 h)		Fish
CAS: 68647-72-3	EC50	0.1 - 1 mg/L		Crustacean
EC: 232-433-8	EC50	0.1 - 1 mg/L		Algae
Benzyl benzoate	LC50	2.32 mg/L (96 h)	Danio rerio	Fish
CAS: 120-51-4	EC50	3.1 mg/L (48 h)	Daphnia magna	Crustacean
EC: 204-402-9	EC50	0.36 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae
Resin acids and Rosin acids, hydrogenated, Me esters	LC50	10 - 100 mg/L (96 h)		Fish
CAS: 8050-15-5	EC50	10 - 100 mg/L		Crustacean
EC: 232-476-2	EC50	10 - 100 mg/L		Algae
Orange, sweet, ext.	LC50	0.1 - 1 mg/L (96 h)		Fish
CAS: 8008-57-9	EC50	0.1 - 1 mg/L		Crustacean
EC: 232-433-8	EC50	0.1 - 1 mg/L		Algae
Cinnamomum zeylanicum, ext.	LC50	10 - 100 mg/L (96 h)		Fish
CAS: 8015-91-6	EC50	10 - 100 mg/L		Crustacean
EC: 283-479-0	EC50	10 - 100 mg/L		Algae
Coumarin	LC50	1.3 mg/L (96 h)	QSAR	Fish
CAS: 91-64-5	EC50	8 mg/L (48 h)	QSAR	Fish
EC: 202-086-7	EC50	1.4 mg/L (96 h)	QSAR	Fish

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
Benzyl benzoate	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 120-51-4	COD	Non-applicable	Period	28 days
EC: 204-402-9	BOD5/COD	Non-applicable	% Biodegradable	94 %

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Degradability		Biodegradability	
Coumarin	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 91-64-5	COD	Non-applicable	Period	28 days
EC: 202-086-7	BOD5/COD	Non-applicable	% Biodegradable	100 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
Benzyl benzoate	BCF	193
CAS: 120-51-4	Pow Log	4
EC: 204-402-9	Potential	High
Cinnamal	BCF	8
CAS: 104-55-2	Pow Log	1.9
EC: 203-213-9	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Benzyl benzoate	Koc	6310	Henry	Non-applicable
CAS: 120-51-4	Conclusion	Immobile	Dry soil	Non-applicable
EC: 204-402-9	Surface tension	4,626E-2 N/m (25 ºC)	Moist soil	Non-applicable
Cinnamal	Koc	37	Henry	3,546E-1 Pa·m³/mol
CAS: 104-55-2	Conclusion	Very High	Dry soil	Yes
EC: 203-213-9	Surface tension	Non-applicable	Moist soil	Yes

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, HP7 Carcinogenic, HP11 Mutagenic, HP13 Sensitising, HP4 Irritant — skin irritation and eye damage

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:

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SECTION 14: TRANSPORT INFORMATION (continued)

14.1	**UN number:**	UN2810
14.2	**UN proper shipping name:**	TOXIC LIQUID, ORGANIC, N.O.S. (Orange, sweet, ext.)
14.3	**Transport hazard class(es):**	6.1
	Labels:	6.1
14.4	**Packing group:**	III
14.5	**Environmental hazards:**	Yes
14.6	**Special precautions for user**	
	Special regulations:	274, 315, 614
	Tunnel restriction code:	E
	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 38-16:

14.1	**UN number:**	UN2810
14.2	**UN proper shipping name:**	TOXIC LIQUID, ORGANIC, N.O.S. (Orange, sweet, ext.)
14.3	**Transport hazard class(es):**	6.1
	Labels:	6.1
14.4	**Packing group:**	III
14.5	**Environmental hazards:**	Yes
14.6	**Special precautions for user**	
	Special regulations:	274, 223
	EmS Codes:	F-A, S-A
	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 2019:

14.1	**UN number:**	UN2810
14.2	**UN proper shipping name:**	TOXIC LIQUID, ORGANIC, N.O.S. (Orange, sweet, ext.)
14.3	**Transport hazard class(es):**	6.1
	Labels:	6.1
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: Cinnamal (Product-type 2)

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
H2		50	200

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SECTION 15: REGULATORY INFORMATION (continued)

Section	Description	Lower-tier requirements	Upper-tier requirements
E1		100	200

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

Product classified hazardous under the CMR. Sale and distribution to the general public is prohibited. Due to its CMR category, it is essential to apply the specific measures for workplace hazard prevention covered in articles 4 and 5 of the 2004/37/EC Directive and later modifications.

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:ADD0-00Y6-W00Q-32RY

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:
H315: Causes skin irritation
H317: May cause an allergic skin reaction
H400: Very toxic to aquatic life
H410: Very toxic to aquatic life with long lasting effects
H341: Suspected of causing genetic defects
H350: May cause cancer
H302: Harmful if swallowed
H331: Toxic if inhaled
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. 3: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
Acute Tox. 4: H302 - Harmful if swallowed
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
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Carc. 1B: H350 - May cause cancer
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 3: H226 - Flammable liquid and vapour
Muta. 2: H341 - Suspected of causing genetic defects
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1: H317 - May cause an allergic skin reaction
Skin Sens. 1A: H317 - May cause an allergic skin reaction

Classification procedure:

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SECTION 16: OTHER INFORMATION (continued)

Skin Irrit. 2: Calculation method
Skin Sens. 1A: Calculation method
Aquatic Acute 1: Calculation method
Aquatic Chronic 1: Calculation method
Muta. 2: Calculation method
Carc. 1B: Calculation method
Acute Tox. 4: Calculation method
Acute Tox. 3: 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:

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

- END OF SAFETY DATA SHEET -