


CITRONELLA

Date of compilation: 25/11/2024 Version: 1

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

- 1.1 Product identifier:** CITRONELLA
Other means of identification:
Not relevant
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Essence
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:**
ECHOES MUM VE KOKU TASARIM PAZARLAMA VE SAN. A.Ş
FERİKÖY FIRIN SOKAK NO: 69 KAT: 4 34360
BOMONTI / ŞİŞLİ - İSTANBUL
T + 90 212 231 41 54
info@candlelab.com.tr - www.candlelab.com.tr
- 1.4 Emergency telephone number:** 114

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
Asp. Tox. 1: Aspiration hazard, Category 1, H304
Eye Irrit. 2: Eye irritation, Category 2, H319
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:**
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.
Skin Irrit. 2: H315 - Causes skin irritation.
Skin Sens. 1A: H317 - May cause an allergic skin reaction.
- Precautionary statements:**
P264: Wash thoroughly after handling.
P273: Avoid release to the environment.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Supplementary information:**
Contains (-)-pin-2(3)-ene, Cineole, Citral, Citronellal, Citronellol, Eugenol, Geraniol, Geranyl acetate, Hydrocarbons, terpene processing by-products, P-mentha-1,3-diene.
- Substances that contribute to the classification**
(r)-p-mentha-1,8-diene; P-mentha-1,4(8)-diene; (E)-2-methoxy-4-(prop-1-enyl)phenol
- 2.3 Other hazards:**

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SECTION 2: HAZARDS IDENTIFICATION (continued)

Product does not meet PBT/vPvB criteria
Endocrine-disrupting properties: The product does not meet the criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture based on aromatising substances and preparations.

Components:

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

Identification	Chemical name/Classification	Concentration
CAS: 8000-41-7 EC: 232-268-1 Index: Non-applicable REACH:01-2119553062-49-XXXX	Terpineol⁽¹⁾ Self-classified	10 - <25 %
	Regulation 1272/2008 Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning	
CAS: 5989-27-5 EC: 227-813-5 Index: Non-applicable REACH:01-2119529223-47-XXXX	(r)-p-mentha-1,8-diene⁽¹⁾ Self-classified	2,5 - <10 %
	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: 101-84-8 EC: 202-981-2 Index: Non-applicable REACH:01-2119472545-33-XXXX	Diphenyl ether⁽¹⁾ Self-classified	2,5 - <10 %
	Regulation 1272/2008 Aquatic Chronic 2: H411; Eye Irrit. 2: H319 - Warning	
CAS: 586-62-9 EC: 209-578-0 Index: Non-applicable REACH:01-2119982325-32-XXXX	P-mentha-1,4(8)-diene⁽¹⁾ Self-classified	2,5 - <10 %
	Regulation 1272/2008 Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Asp. Tox. 1: H304; Skin Sens. 1B: H317 - Danger	
CAS: 99-86-5 EC: 202-795-1 Index: 601-095-00-7 REACH:01-2120766853-42-XXXX	P-mentha-1,3-diene⁽¹⁾ Self-classified	2,5 - <10 %
	Regulation 1272/2008 Acute Tox. 4: H302; Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Sens. 1B: H317 - Danger	
CAS: 106-23-0 EC: 203-376-6 Index: Non-applicable REACH:01-2119474900-37-XXXX	Citronellal⁽¹⁾ Self-classified	2,5 - <10 %
	Regulation 1272/2008 Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1B: H317 - Warning	
CAS: 106-24-1 EC: 203-377-1 Index: 603-241-00-5 REACH:01-2119552430-49-XXXX	Geraniol⁽¹⁾ Self-classified	1 - <2,5 %
	Regulation 1272/2008 Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Danger	
CAS: 99-85-4 EC: 202-794-6 Index: Non-applicable REACH:01-2120780478-40-XXXX	p-mentha-1,4-diene⁽¹⁾ Self-classified	1 - <2,5 %
	Regulation 1272/2008 Aquatic Chronic 2: H411; Flam. Liq. 3: H226; Repr. 2: H361 - Warning	
CAS: 106-22-9 EC: 203-375-0 Index: Non-applicable REACH:01-2119453995-23-XXXX	Citronellol⁽¹⁾ Self-classified	1 - <2,5 %
	Regulation 1272/2008 Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1B: H317 - Warning	
CAS: 470-82-6 EC: 207-431-5 Index: Non-applicable REACH:01-2119967772-24-XXXX	Cineole⁽¹⁾ Self-classified	1 - <2,5 %
	Regulation 1272/2008 Flam. Liq. 3: H226; Skin Sens. 1B: H317 - Warning	
CAS: 99-87-6 EC: 202-796-7 Index: 601-094-00-1 REACH:01-2119881770-31-XXXX	p-cymene⁽¹⁾ ATP ATP17	0,1 - <1 %
	Regulation 1272/2008 Acute Tox. 3: H331; Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Flam. Liq. 3: H226 - Danger	

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Identification	Chemical name/Classification	Concentration
CAS: 68956-56-9 EC: 273-309-3 Index: Non-applicable REACH:01-2119980606-28-XXXX	Hydrocarbons, terpene processing by-products⁽¹⁾ Self-classified	0,1 - <1 %
	Regulation 1272/2008 Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1B: H317 - Danger	
CAS: 7785-26-4 EC: 232-077-3 Index: Non-applicable REACH:01-2119979519-16-XXXX	(-)-pin-2(3)-ene⁽¹⁾ Self-classified	0,1 - <1 %
	Regulation 1272/2008 Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Asp. Tox. 1: H304; Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1B: H317 - Danger	
CAS: 79-92-5 EC: 201-234-8 Index: Non-applicable REACH:01-2119446293-40-XXXX	Camphene⁽¹⁾ Self-classified	0,1 - <1 %
	Regulation 1272/2008 Aquatic Chronic 1: H410; Eye Irrit. 2: H319; Flam. Sol. 2: H228 - Warning	
CAS: 105-87-3 EC: 203-341-5 Index: Non-applicable REACH:01-2119973480-35-XXXX	Geranyl acetate⁽¹⁾ Self-classified	0,1 - <1 %
	Regulation 1272/2008 Aquatic Chronic 3: H412; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning	
CAS: 5392-40-5 EC: 226-394-6 Index: 605-019-00-3 REACH:01-2119462829-23-XXXX	Citral⁽¹⁾ ATP CLP00	0,1 - <1 %
	Regulation 1272/2008 Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning	
CAS: 97-53-0 EC: 202-589-1 Index: Non-applicable REACH:01-2119971802-33-XXXX	Eugenol⁽¹⁾ Self-classified	0,1 - <1 %
	Regulation 1272/2008 Eye Irrit. 2: H319; Skin Sens. 1B: H317 - Warning	
CAS: 5932-68-3 EC: 227-678-2 Index: 604-094-00-X REACH:01-2120223682-61-XXXX	(E)-2-methoxy-4-(prop-1-enyl)phenol⁽¹⁾ Self-classified	<0,1 %
	Regulation 1272/2008 Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1A: H317; STOT SE 3: H335 - Warning	

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

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

Other information:

Identification	Specific concentration limit
(E)-2-methoxy-4-(prop-1-enyl)phenol CAS: 5932-68-3 EC: 227-678-2	% (w/w) >=0,01: Skin Sens. 1A - H317

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

Identification	Acute toxicity		Genus
	Route	Value	
P-mentha-1,3-diene CAS: 99-86-5 EC: 202-795-1	LD50 oral	680 mg/kg	Rat
	LD50 dermal	Not relevant	
	LC50 inhalation	Not relevant	
p-cymene CAS: 99-87-6 EC: 202-796-7	LD50 oral	Not relevant	Rat
	LD50 dermal	Not relevant	
	LC50 inhalation	3 mg/L	
(-)-pin-2(3)-ene CAS: 7785-26-4 EC: 232-077-3	LD50 oral	500 mg/kg	Rat
	LD50 dermal	Not relevant	
	LC50 inhalation	Not relevant	
(E)-2-methoxy-4-(prop-1-enyl)phenol CAS: 5932-68-3 EC: 227-678-2	LD50 oral	450 mg/kg	Rat
	LD50 dermal	1911 mg/kg	
	LC50 inhalation	Not relevant	

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

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SECTION 4: FIRST AID MEASURES (continued)

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 is not classified as hazardous through inhalation.

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:

Not relevant

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Foam extinguisher (AB), Dry Chemical Powder (ABC) Fire Extinguisher, Carbon dioxide extinguisher (BC)

Unsuitable extinguishing media:

Water jet

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:

For non-emergency personnel:

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SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

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 spilled 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. Remove 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.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

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.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

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

It is recommended to transfer at a slow speed to avoid the creation of electrostatic charges that could affect flammable products. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

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.- Specific storage requirements

Minimum Temp.: -

Maximum Temp.: -

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 (European OEL, not country-specific legislation):

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Directive (EU) 2000/39, Directive 2004/37/EC, Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification		Occupational exposure limits		
Diphenyl ether CAS: 101-84-8 EC: 202-981-2		IOELV (8h)	1 ppm	7 mg/m ³
		IOELV (STEL)	2 ppm	14 mg/m ³

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Terpineol CAS: 8000-41-7 EC: 232-268-1	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	6,36 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	44,8 mg/m ³	Not relevant
(r)-p-mentha-1,8-diene CAS: 5989-27-5 EC: 227-813-5	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	9,5 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	66,7 mg/m ³	Not relevant
Diphenyl ether CAS: 101-84-8 EC: 202-981-2	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	25 mg/kg	Not relevant
	Inhalation	Not relevant	14 mg/m ³	59 mg/m ³	7 mg/m ³
P-mentha-1,4(8)-diene CAS: 586-62-9 EC: 209-578-0	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	0,52 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	3,6 mg/m ³	Not relevant
P-mentha-1,3-diene CAS: 99-86-5 EC: 202-795-1	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	0,833 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	2,939 mg/m ³	Not relevant
Citronellal CAS: 106-23-0 EC: 203-376-6	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	1,7 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	9 mg/m ³	Not relevant
Geraniol CAS: 106-24-1 EC: 203-377-1	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	12,5 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	161,6 mg/m ³	Not relevant
p-mentha-1,4-diene CAS: 99-85-4 EC: 202-794-6	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	0,833 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	2,939 mg/m ³	Not relevant
Citronellol CAS: 106-22-9 EC: 203-375-0	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	327,4 mg/kg	Not relevant
	Inhalation	Not relevant	10 mg/m ³	161,6 mg/m ³	10 mg/m ³
Cineole CAS: 470-82-6 EC: 207-431-5	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	2 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	7,05 mg/m ³	Not relevant
p-cymene CAS: 99-87-6 EC: 202-796-7	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	0,25 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0,88 mg/m ³	Not relevant
Hydrocarbons, terpene processing by-products CAS: 68956-56-9 EC: 273-309-3	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	0,8 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	2,9 mg/m ³	Not relevant
(-)-pin-2(3)-ene CAS: 7785-26-4 EC: 232-077-3	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	1,76 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	6,03 mg/m ³	Not relevant
Camphene CAS: 79-92-5 EC: 201-234-8	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	1,25 mg/kg	Not relevant	0,21 mg/kg	Not relevant
	Inhalation	110,19 mg/m ³	Not relevant	110,19 mg/m ³	Not relevant

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Geranyl acetate CAS: 105-87-3 EC: 203-341-5	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	35,5 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	62,59 mg/m ³	Not relevant
Citral CAS: 5392-40-5 EC: 226-394-6	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	1,7 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	9 mg/m ³	Not relevant
Eugenol CAS: 97-53-0 EC: 202-589-1	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	6 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	21,2 mg/m ³	Not relevant
(E)-2-methoxy-4-(prop-1-enyl)phenol CAS: 5932-68-3 EC: 227-678-2	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	1,71 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	6 mg/m ³	Not relevant

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Terpineol CAS: 8000-41-7 EC: 232-268-1	Oral	Not relevant	Not relevant	2,69 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	2,69 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	7,96 mg/m ³	Not relevant
(r)-p-mentha-1,8-diene CAS: 5989-27-5 EC: 227-813-5	Oral	Not relevant	Not relevant	4,8 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	4,8 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	16,6 mg/m ³	Not relevant
P-mentha-1,4(8)-diene CAS: 586-62-9 EC: 209-578-0	Oral	Not relevant	Not relevant	0,26 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	0,26 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0,9 mg/m ³	Not relevant
P-mentha-1,3-diene CAS: 99-86-5 EC: 202-795-1	Oral	Not relevant	Not relevant	0,417 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	0,417 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0,725 mg/m ³	Not relevant
Citronellal CAS: 106-23-0 EC: 203-376-6	Oral	Not relevant	Not relevant	0,6 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	1 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	2,7 mg/m ³	Not relevant
Geraniol CAS: 106-24-1 EC: 203-377-1	Oral	Not relevant	Not relevant	13,75 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	7,5 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	47,8 mg/m ³	Not relevant
p-mentha-1,4-diene CAS: 99-85-4 EC: 202-794-6	Oral	Not relevant	Not relevant	0,417 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	0,417 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0,725 mg/m ³	Not relevant
Citronellol CAS: 106-22-9 EC: 203-375-0	Oral	Not relevant	Not relevant	13,8 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	196,4 mg/kg	Not relevant
	Inhalation	Not relevant	10 mg/m ³	47,8 mg/m ³	10 mg/m ³
Cineole CAS: 470-82-6 EC: 207-431-5	Oral	Not relevant	Not relevant	600 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	1 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	1,74 mg/m ³	Not relevant
p-cymene CAS: 99-87-6 EC: 202-796-7	Oral	Not relevant	Not relevant	0,125 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	0,125 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0,22 mg/m ³	Not relevant
Hydrocarbons, terpene processing by-products CAS: 68956-56-9 EC: 273-309-3	Oral	Not relevant	Not relevant	0,3 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	0,3 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0,7 mg/m ³	Not relevant

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
(-)-pin-2(3)-ene CAS: 7785-26-4 EC: 232-077-3	Oral	Not relevant	Not relevant	0,628 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	0,628 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	1,07 mg/m ³	Not relevant
Camphene CAS: 79-92-5 EC: 201-234-8	Oral	0,625 mg/kg	Not relevant	0,1 mg/kg	Not relevant
	Dermal	0,625 mg/kg	Not relevant	0,1 mg/kg	Not relevant
	Inhalation	54,3 mg/m ³	Not relevant	54,3 mg/m ³	Not relevant
Geranyl acetate CAS: 105-87-3 EC: 203-341-5	Oral	Not relevant	Not relevant	8,9 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	17,75 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	15,4 mg/m ³	Not relevant
Citral CAS: 5392-40-5 EC: 226-394-6	Oral	Not relevant	Not relevant	0,6 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	1 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	2,7 mg/m ³	Not relevant
Eugenol CAS: 97-53-0 EC: 202-589-1	Oral	Not relevant	Not relevant	3 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	3 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	5,22 mg/m ³	Not relevant
(E)-2-methoxy-4-(prop-1-enyl)phenol CAS: 5932-68-3 EC: 227-678-2	Oral	Not relevant	Not relevant	0,85 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	0,85 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	1,5 mg/m ³	Not relevant

PNEC:

Identification					
Terpineol CAS: 8000-41-7 EC: 232-268-1	STP	2,57 mg/L	Fresh water	0,012 mg/L	
	Soil	0,045 mg/kg	Marine water	0,0012 mg/L	
	Intermittent	0,12 mg/L	Sediment (Fresh water)	0,263 mg/kg	
	Oral	0,0166 g/kg	Sediment (Marine water)	0,026 mg/kg	
(r)-p-mentha-1,8-diene CAS: 5989-27-5 EC: 227-813-5	STP	1,8 mg/L	Fresh water	0,014 mg/L	
	Soil	0,763 mg/kg	Marine water	0,0014 mg/L	
	Intermittent	Not relevant	Sediment (Fresh water)	3,85 mg/kg	
	Oral	0,133 g/kg	Sediment (Marine water)	0,385 mg/kg	
Diphenyl ether CAS: 101-84-8 EC: 202-981-2	STP	10 mg/L	Fresh water	0 mg/L	
	Soil	0,018 mg/kg	Marine water	0 mg/L	
	Intermittent	0,005 mg/L	Sediment (Fresh water)	0,093 mg/kg	
	Oral	Not relevant	Sediment (Marine water)	0,009 mg/kg	
P-mentha-1,4(8)-diene CAS: 586-62-9 EC: 209-578-0	STP	0,2 mg/L	Fresh water	0,000634 mg/L	
	Soil	0,0291 mg/kg	Marine water	0,000063 mg/L	
	Intermittent	0,00634 mg/L	Sediment (Fresh water)	0,147 mg/kg	
	Oral	0,01031 g/kg	Sediment (Marine water)	0,0147 mg/kg	
P-mentha-1,3-diene CAS: 99-86-5 EC: 202-795-1	STP	10 mg/L	Fresh water	0,002 mg/L	
	Soil	0,023 mg/kg	Marine water	0 mg/L	
	Intermittent	0,017 mg/L	Sediment (Fresh water)	0,196 mg/kg	
	Oral	0,008333 g/kg	Sediment (Marine water)	0,02 mg/kg	
Citronellal CAS: 106-23-0 EC: 203-376-6	STP	4 mg/L	Fresh water	0,009 mg/L	
	Soil	0,027 mg/kg	Marine water	0,001 mg/L	
	Intermittent	0,087 mg/L	Sediment (Fresh water)	0,159 mg/kg	
	Oral	Not relevant	Sediment (Marine water)	0,016 mg/kg	
Geraniol CAS: 106-24-1 EC: 203-377-1	STP	0,7 mg/L	Fresh water	0,011 mg/L	
	Soil	0,017 mg/kg	Marine water	0,001 mg/L	
	Intermittent	0,108 mg/L	Sediment (Fresh water)	0,115 mg/kg	
	Oral	Not relevant	Sediment (Marine water)	0,011 mg/kg	

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
p-mentha-1,4-diene CAS: 99-85-4 EC: 202-794-6	STP	10 mg/L	Fresh water	0,003 mg/L
	Soil	0,423 mg/kg	Marine water	0 mg/L
	Intermittent	Not relevant	Sediment (Fresh water)	0,49 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0,049 mg/kg
Citronellol CAS: 106-22-9 EC: 203-375-0	STP	580 mg/L	Fresh water	0,002 mg/L
	Soil	0,004 mg/kg	Marine water	0 mg/L
	Intermittent	0,024 mg/L	Sediment (Fresh water)	0,026 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0,003 mg/kg
Cineole CAS: 470-82-6 EC: 207-431-5	STP	10 mg/L	Fresh water	0,057 mg/L
	Soil	0,25 mg/kg	Marine water	0,0057 mg/L
	Intermittent	0,57 mg/L	Sediment (Fresh water)	1,425 mg/kg
	Oral	0,04 g/kg	Sediment (Marine water)	0,142 mg/kg
p-cymene CAS: 99-87-6 EC: 202-796-7	STP	10 mg/L	Fresh water	0,004 mg/L
	Soil	0,302 mg/kg	Marine water	0 mg/L
	Intermittent	0,037 mg/L	Sediment (Fresh water)	1,52 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0,152 mg/kg
Hydrocarbons, terpene processing by-products CAS: 68956-56-9 EC: 273-309-3	STP	6,4 mg/L	Fresh water	0,0021 mg/L
	Soil	0,11 mg/kg	Marine water	0,00021 mg/L
	Intermittent	0,021 mg/L	Sediment (Fresh water)	0,542 mg/kg
	Oral	0,0131 g/kg	Sediment (Marine water)	0,0542 mg/kg
(-)-pin-2(3)-ene CAS: 7785-26-4 EC: 232-077-3	STP	0,2 mg/L	Fresh water	0,000606 mg/L
	Soil	0,0317 mg/kg	Marine water	0,000061 mg/L
	Intermittent	0,00303 mg/L	Sediment (Fresh water)	0,157 mg/kg
	Oral	0,00876 g/kg	Sediment (Marine water)	0,0157 mg/kg
Camphene CAS: 79-92-5 EC: 201-234-8	STP	10 mg/L	Fresh water	0,001 mg/L
	Soil	0,021 mg/kg	Marine water	0 mg/L
	Intermittent	0,001 mg/L	Sediment (Fresh water)	0,026 mg/kg
	Oral	0,00208 g/kg	Sediment (Marine water)	0,003 mg/kg
Geranyl acetate CAS: 105-87-3 EC: 203-341-5	STP	8 mg/L	Fresh water	0,00372 mg/L
	Soil	0,086 mg/kg	Marine water	0,000372 mg/L
	Intermittent	0,0372 mg/L	Sediment (Fresh water)	0,442 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0,044 mg/kg
Citral CAS: 5392-40-5 EC: 226-394-6	STP	1,6 mg/L	Fresh water	0,007 mg/L
	Soil	0,021 mg/kg	Marine water	0,001 mg/L
	Intermittent	0,068 mg/L	Sediment (Fresh water)	0,125 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0,013 mg/kg
Eugenol CAS: 97-53-0 EC: 202-589-1	STP	Not relevant	Fresh water	0,00113 mg/L
	Soil	0,015 mg/kg	Marine water	0,000113 mg/L
	Intermittent	0,0113 mg/L	Sediment (Fresh water)	0,081 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0,008 mg/kg
(E)-2-methoxy-4-(prop-1-enyl)phenol CAS: 5932-68-3 EC: 227-678-2	STP	10 mg/L	Fresh water	0,0047 mg/L
	Soil	0,007 mg/kg	Marine water	0,00047 mg/L
	Intermittent	0,047 mg/L	Sediment (Fresh water)	0,047 mg/kg
	Oral	0,0415 g/kg	Sediment (Marine water)	0,005 mg/kg

8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Regulation (EU) 2016/425. 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



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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours		EN 405:2002+A1:2010	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	Chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.4 mm)		EN ISO 21420:2020	Replace the gloves at any sign of deterioration.

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



D.- Eye and face protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.		EN 166:2002 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 20347:2022	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 20345:2022 y EN 13832-1:2007

F.- Additional emergency measures

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

Environmental exposure controls:

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

Volatile organic compounds:

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

V.O.C. (Supply):	43,7 % weight
V.O.C. density at 20 °C:	0,4 kg/m³ (0,4 g/L)
Average carbon number:	10
Average molecular weight:	146,47 g/mol

SECTION 9: 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)

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:	Light yellow , Colourless
Odour:	Characteristic
Odour threshold:	Not relevant *

Volatility:

Boiling point at atmospheric pressure:	>40 °C
Vapour pressure at 20 °C:	Not relevant *
Vapour pressure at 50 °C:	Not relevant *
Evaporation rate at 20 °C:	Not relevant *

Product description:

Density at 20 °C:	Not relevant *
Relative density at 20 °C:	0.914 - 0.924
Dynamic viscosity at 20 °C:	Not relevant *
Kinematic viscosity at 20 °C:	Not relevant *
Kinematic viscosity at 40 °C:	<20,5 mm ² /s
Concentration:	Not relevant *
pH:	Not relevant *
Vapour density at 20 °C:	Not relevant *
Partition coefficient n-octanol/water 20 °C:	Not relevant *
Solubility in water at 20 °C:	Not relevant *
Solubility properties:	Not relevant *
Decomposition temperature:	Not relevant *
Melting point/freezing point:	Not relevant *

Flammability:

Flash Point:	74 °C
Flammability (solid, gas):	Not relevant *
Autoignition temperature:	Not relevant *
Lower flammability limit:	Not relevant *
Upper flammability limit:	Not relevant *

Particle characteristics:

Median equivalent diameter:	Non-applicable
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9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:	Not relevant *
Oxidising properties:	Not relevant *
Corrosive to metals:	Not relevant *
Heat of combustion:	Not relevant *
Aerosols-total percentage (by mass) of flammable components:	Not relevant *

Other safety characteristics:

*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)

Surface tension at 20 °C: Not relevant *
Refraction index: Not relevant *

*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 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated 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
Precaution	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 hazard classes as defined in Regulation (EC) No 1272/2008:

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

Dangerous health implications:

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

A- Ingestion (acute effect):

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

B- Inhalation (acute effect):

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

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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 hazardous for the effects mentioned. For more information see section 3.
IARC: (r)-p-mentha-1,8-diene (3); Eugenol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous 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 hazardous with sensitising effects. For more information see section 3.
- Skin: 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. However, it contains substances classified as hazardous for inhalation. 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 hazardous 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 hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

May be fatal if swallowed and enters airways.

Other information:

Not relevant

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Terpineol CAS: 8000-41-7 EC: 232-268-1	LD50 oral	4300 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>20 mg/L	
(r)-p-mentha-1,8-diene CAS: 5989-27-5 EC: 227-813-5	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>20 mg/L	
Diphenyl ether CAS: 101-84-8 EC: 202-981-2	LD50 oral	>5000 mg/kg	Rat
	LD50 dermal	7940 mg/kg	Rabbit
	LC50 inhalation	>5 mg/L	
P-mentha-1,4(8)-diene CAS: 586-62-9 EC: 209-578-0	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>20 mg/L	
P-mentha-1,3-diene CAS: 99-86-5 EC: 202-795-1	LD50 oral	680 mg/kg (ATEi)	Rat
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>20 mg/L	
Citronellal CAS: 106-23-0 EC: 203-376-6	LD50 oral	2500 mg/kg	Rat
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>20 mg/L	
Geraniol CAS: 106-24-1 EC: 203-377-1	LD50 oral	4200 mg/kg	Rat
	LD50 dermal	5100 mg/kg	Rabbit
	LC50 inhalation	>20 mg/L	
p-mentha-1,4-diene CAS: 99-85-4 EC: 202-794-6	LD50 oral	3850 mg/kg	Rat
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>20 mg/L	
Citronellol CAS: 106-22-9 EC: 203-375-0	LD50 oral	3450 mg/kg	Rat
	LD50 dermal	2650 mg/kg	
	LC50 inhalation	>20 mg/L	

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Cineole CAS: 470-82-6 EC: 207-431-5	2480 mg/kg	>2000 mg/kg	Rat
p-cymene CAS: 99-87-6 EC: 202-796-7	5800 mg/kg	12200 mg/kg	Rat Rabbit
Hydrocarbons, terpene processing by-products CAS: 68956-56-9 EC: 273-309-3	>2000 mg/kg	>2000 mg/kg	Rat
(-)-pin-2(3)-ene CAS: 7785-26-4 EC: 232-077-3	500 mg/kg	>2000 mg/kg	Rat
Camphene CAS: 79-92-5 EC: 201-234-8	>5000 mg/kg	8189 mg/kg	Rat Rabbit
Geranyl acetate CAS: 105-87-3 EC: 203-341-5	>2000 mg/kg	>2000 mg/kg	
Citral CAS: 5392-40-5 EC: 226-394-6	4950 mg/kg	2250 mg/kg	Rat Rabbit
Eugenol CAS: 97-53-0 EC: 202-589-1	2300 mg/kg	>5000 mg/kg	Rat
(E)-2-methoxy-4-(prop-1-enyl)phenol CAS: 5932-68-3 EC: 227-678-2	450 mg/kg	1911 mg/kg	Rat Rat

Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	17000 mg/kg (Calculation method)	0 %
Dermal	>2000 mg/kg (Calculation method)	Non-applicable
Inhalation	333,33 mg/L (4 h) (Calculation method)	0 %

11.2 Information on other hazards:

Endocrine disrupting properties

Endocrine-disrupting properties: The product does not meet the criteria.

Other information

Not relevant

SECTION 12: ECOLOGICAL INFORMATION

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

Toxic to aquatic life with long lasting effects.

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
	LC50	EC50		
(r)-p-mentha-1,8-diene CAS: 5989-27-5 EC: 227-813-5	>0.1 - 1 mg/L (96 h)	>0.1 - 1 mg/L (48 h)		Fish Crustacean Algae

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Concentration	Species	Genus
Diphenyl ether CAS: 101-84-8 EC: 202-981-2	LC50 >1 - 10 mg/L (96 h)		Fish
	EC50 >1 - 10 mg/L (48 h)		Crustacean
	EC50 >1 - 10 mg/L (72 h)		Algae
P-mentha-1,4(8)-diene CAS: 586-62-9 EC: 209-578-0	LC50 0,8 mg/L (96 h)	Danio rerio	Fish
	EC50 0,63 mg/L (48 h)	Daphnia magna	Crustacean
	EC50 0,7 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae
P-mentha-1,3-diene CAS: 99-86-5 EC: 202-795-1	LC50 Not relevant		
	EC50 1,7 mg/L (48 h)	Daphnia magna	Crustacean
	EC50 Not relevant		
p-mentha-1,4-diene CAS: 99-85-4 EC: 202-794-6	LC50 2,8 mg/L (96 h)	N/A	Fish
	EC50 10,2 mg/L (48 h)	Daphnia magna	Crustacean
	EC50 Not relevant		
p-cymene CAS: 99-87-6 EC: 202-796-7	LC50 48 mg/L (96 h)	Cyprionodon variegatus	Fish
	EC50 3,7 mg/L (48 h)	Daphnia magna	Crustacean
	EC50 Not relevant		
Hydrocarbons, terpene processing by-products CAS: 68956-56-9 EC: 273-309-3	LC50 5,07 mg/L (96 h)	Danio rerio	Fish
	EC50 2,1 mg/L (48 h)	Daphnia magna	Crustacean
	EC50 4,8 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae
(-)-pin-2(3)-ene CAS: 7785-26-4 EC: 232-077-3	LC50 0,3 mg/L (96 h)	Danio rerio	Fish
	EC50 0,47 mg/L (48 h)	Daphnia magna	Crustacean
	EC50 Not relevant		
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 Not relevant		
Geranyl acetate CAS: 105-87-3 EC: 203-341-5	LC50 >10 - 100 mg/L (96 h)		Fish
	EC50 >10 - 100 mg/L (48 h)		Crustacean
	EC50 >10 - 100 mg/L (72 h)		Algae
Citral CAS: 5392-40-5 EC: 226-394-6	LC50 6,1 mg/L (24 h)	Oryzias latipes	Fish
	EC50 11 mg/L (24 h)	Daphnia magna	Crustacean
	EC50 16 mg/L (72 h)	Scenedesmus subspicatus	Algae
Eugenol CAS: 97-53-0 EC: 202-589-1	LC50 60,8 mg/L (96 h)	Oncorhynchus mykiss	Fish
	EC50 Not relevant		
	EC50 Not relevant		

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
Diphenyl ether CAS: 101-84-8 EC: 202-981-2	BOD5	Not relevant	Concentration	5.6 mg/L
	COD	Not relevant	Period	20 days
	BOD5/COD	Not relevant	% Biodegradable	76 %
P-mentha-1,4(8)-diene CAS: 586-62-9 EC: 209-578-0	BOD5	Not relevant	Concentration	2 mg/L
	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	81 %
P-mentha-1,3-diene CAS: 99-86-5 EC: 202-795-1	BOD5	Not relevant	Concentration	15 mg/L
	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	40 %
Geraniol CAS: 106-24-1 EC: 203-377-1	BOD5	Not relevant	Concentration	100 mg/L
	COD	Not relevant	Period	21 days
	BOD5/COD	Not relevant	% Biodegradable	70 %
p-mentha-1,4-diene CAS: 99-85-4 EC: 202-794-6	BOD5	Not relevant	Concentration	Not relevant
	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	27 %

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Degradability		Biodegradability	
p-cymene CAS: 99-87-6 EC: 202-796-7	BOD5	Not relevant	Concentration	100 mg/L
	COD	Not relevant	Period	14 days
	BOD5/COD	Not relevant	% Biodegradable	88 %
Hydrocarbons, terpene processing by-products CAS: 68956-56-9 EC: 273-309-3	BOD5	Not relevant	Concentration	2 mg/L
	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	83 %
(-)-pin-2(3)-ene CAS: 7785-26-4 EC: 232-077-3	BOD5	Not relevant	Concentration	2 mg/L
	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	78 %
Camphene CAS: 79-92-5 EC: 201-234-8	BOD5	Not relevant	Concentration	100 mg/L
	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	4 %
Citral CAS: 5392-40-5 EC: 226-394-6	BOD5	0,56 g O2/g	Concentration	100 mg/L
	COD	1,99 g O2/g	Period	28 days
	BOD5/COD	0,28	% Biodegradable	92 %
(E)-2-methoxy-4-(prop-1-enyl)phenol CAS: 5932-68-3 EC: 227-678-2	BOD5	Not relevant	Concentration	100 mg/L
	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	79 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
Diphenyl ether CAS: 101-84-8 EC: 202-981-2	BCF	196
	Pow Log	4.21
	Potential	High
P-mentha-1,4(8)-diene CAS: 586-62-9 EC: 209-578-0	BCF	334
	Pow Log	4.29
	Potential	High
Citronellal CAS: 106-23-0 EC: 203-376-6	BCF	280
	Pow Log	3.53
	Potential	High
Geraniol CAS: 106-24-1 EC: 203-377-1	BCF	110
	Pow Log	3.56
	Potential	High
Cineole CAS: 470-82-6 EC: 207-431-5	BCF	
	Pow Log	2.74
	Potential	
p-cymene CAS: 99-87-6 EC: 202-796-7	BCF	286
	Pow Log	4.1
	Potential	High
(-)-pin-2(3)-ene CAS: 7785-26-4 EC: 232-077-3	BCF	1250
	Pow Log	4.5
	Potential	Very 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
Eugenol CAS: 97-53-0 EC: 202-589-1	BCF	31
	Pow Log	2.27
	Potential	Moderate

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Bioaccumulation potential	
(E)-2-methoxy-4-(prop-1-enyl)phenol CAS: 5932-68-3 EC: 227-678-2	BCF	
	Pow Log	2.1
	Potential	

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Diphenyl ether CAS: 101-84-8 EC: 202-981-2	Koc	1960	Henry	Not relevant
	Conclusion	Low	Dry soil	Not relevant
	Surface tension	1,753E-2 N/m (258,4 °C)	Moist soil	Not relevant
P-mentha-1,4(8)-diene CAS: 586-62-9 EC: 209-578-0	Koc	1120	Henry	Not relevant
	Conclusion	Low	Dry soil	Not relevant
	Surface tension	2,865E-2 N/m (25 °C)	Moist soil	Not relevant
P-mentha-1,3-diene CAS: 99-86-5 EC: 202-795-1	Koc	Not relevant	Henry	Not relevant
	Conclusion	Not relevant	Dry soil	Not relevant
	Surface tension	2,79E-2 N/m (25 °C)	Moist soil	Not relevant
p-mentha-1,4-diene CAS: 99-85-4 EC: 202-794-6	Koc	8038	Henry	Not relevant
	Conclusion	Immobile	Dry soil	Not relevant
	Surface tension	2,991E-2 N/m (25 °C)	Moist soil	Not relevant
Cineole CAS: 470-82-6 EC: 207-431-5	Koc	Not relevant	Henry	Not relevant
	Conclusion	Not relevant	Dry soil	Not relevant
	Surface tension	3,24E-2 N/m (25 °C)	Moist soil	Not relevant
p-cymene CAS: 99-87-6 EC: 202-796-7	Koc	5011.87	Henry	1114,58 Pa·m ³ /mol
	Conclusion	Low	Dry soil	Not relevant
	Surface tension	2,835E-2 N/m (25 °C)	Moist soil	Yes
(-)-pin-2(3)-ene CAS: 7785-26-4 EC: 232-077-3	Koc	2180	Henry	Not relevant
	Conclusion	Low	Dry soil	Not relevant
	Surface tension	Not relevant	Moist soil	Not relevant
Camphene CAS: 79-92-5 EC: 201-234-8	Koc	Not relevant	Henry	Not relevant
	Conclusion	Not relevant	Dry soil	Not relevant
	Surface tension	1,098E-2 N/m (205,93 °C)	Moist soil	Not relevant

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product does not meet the criteria.

12.7 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	Hazardous

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

HP14 Ecotoxic, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, 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-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

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SECTION 13: DISPOSAL CONSIDERATIONS (continued)

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 2023 and RID 2023:



- 14.1 **UN number or ID number:** UN3082
- 14.2 **UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diphenyl ether; (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: -
Physico-Chemical properties: see section 9
Limited quantities: 5 L
- 14.7 **Maritime transport in bulk according to IMO instruments:** Not relevant

Transport of dangerous goods by sea:

With regard to IMDG 41-22:



- 14.1 **UN number or ID number:** UN3082
- 14.2 **UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diphenyl ether; (r)-p-mentha-1,8-diene)
- 14.3 **Transport hazard class(es):** 9
Labels: 9
- 14.4 **Packing group:** III
- 14.5 **Marine pollutant:** 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: Not relevant
- 14.7 **Maritime transport in bulk according to IMO instruments:** Not relevant

Transport of dangerous goods by air:

With regard to IATA/ICAO 2024:



- 14.1 **UN number or ID number:** UN3082
- 14.2 **UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diphenyl ether; (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 **Maritime transport in bulk according to IMO instruments:** Not relevant

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SECTION 15: REGULATORY INFORMATION

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

- Article 95, REGULATION (EU) No 528/2012: *Geraniol (106-24-1) - PT: (18, 19)*
- Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): *Not relevant*
- REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: *Not relevant*
- Regulation (EU) No 2024/590, about substances that deplete the ozone layer: *Not relevant*
- Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: *Not relevant*

Seveso III:

Section	Description	Lower-tier requirements	Upper-tier requirements
E2	ENVIRONMENTAL HAZARDS	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.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. 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 (COMMISSION REGULATION (EU) 2020/878).

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

Not relevant

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

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SECTION 16: OTHER INFORMATION (continued)

Acute Tox. 3: H331 - Toxic if inhaled.
 Acute Tox. 4: H302 - Harmful if swallowed.
 Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled.
 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.
 Eye Dam. 1: H318 - Causes serious eye damage.
 Eye Irrit. 2: H319 - Causes serious eye irritation.
 Flam. Liq. 3: H226 - Flammable liquid and vapour.
 Flam. Sol. 2: H228 - Flammable solid.
 Repr. 2: H361 - Suspected of damaging fertility or the unborn child.
 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.
 Skin Sens. 1B: H317 - May cause an allergic skin reaction.
 STOT SE 3: H335 - May cause respiratory irritation.

Classification procedure:

Skin Irrit. 2: Calculation method
 Skin Sens. 1A: Calculation method
 Aquatic Chronic 2: Calculation method
 Asp. Tox. 1: Calculation method
 Eye Irrit. 2: Calculation method

Advice related to training:

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: 5day biochemical oxygen demand
 BCF: Bioconcentration factor
 LD50: Lethal Dose 50
 LC50: Lethal Concentration 50
 EC50: Effective concentration 50
 LogPOW: Octanolwater partition coefficient
 Koc: Partition coefficient of organic carbon
 UFI: unique formula identifier
 IARC: International Agency for Research on Cancer

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