

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name: **SPEAKER SHAPED - PACYFIC**
UFI: VRFM-30CX-P005-EMF3

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: air freshener.
Uses advised against: not determined.

1.3. Details of the supplier of the safety data sheet

Manufacturer: **Dr. MARCUS International Sp. z o.o. Sp. k.**
Address: Aleja Wojska Polskiego 2C, 62-800 Kalisz, PL
Telephone/fax: + 48 62 760 07 00 / +48 62 760 07 59

E-mail address for a competent person responsible for SDS: drmarcus@dr-marcus.com

1.4. Emergency telephone number

112 (general emergency telephone number)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin Irrit. 2 H315, Skin Sens. 1 H317, Eye Irrit. 2 H319, Aquatic Chronic 3 H412

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictograms and signal words



Hazardous components placed on the label

Contains: 3,7-dimethyloctan-3-ol; linalyl acetate; 1,8-cineole; 3-(p-cumenyl)-2-methylpropionaldehyde; 2,4-dimethylcyclohex-3-ene-1-carbaldehyde; cinnamaldehyde; limonene; 2-methylundecanal; dodecanal; eugenol; 3-(p-ethylphenyl)-2,2-dimethylpropionaldehyde; citral; methyl non-2-ynoate.

Hazard statements

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P501 Dispose of contents/container to properly labelled waste containers according to national law.

Additional information

None.

2.3. Other hazards

Product does not contain components, which meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixtures

Plastic soaked in a fragrance composition:

CAS number: 78-69-3 EC number: 201-133-9 Index number: — Registration number: 01-2119454788-21-XXXX	3,7-dimethyloctan-3-ol Skin Irrit. 2 H315, Skin Sens. 1B H317, Eye Irrit. 2 H319	C ≤ 20 %
CAS number: 140-11-4 EC number: 205-399-7 Index number: — Registration number: 01-2119638272-42-XXXX	benzyl acetate Aquatic Chronic 3 H412	C < 6 %
CAS number: 115-95-7 EC number: 204-116-4 Index number: — Registration number: 01-2119454789-19-XXXX	linalyl acetate Skin Irrit. 2 H315, Skin Sens. 1 H317	C < 5 %
CAS number: 60-12-8 EC number: 200-456-2 Index number: — Registration number: 01-2119963921-31-XXXX	2-phenylethan-1-ol Acute Tox. 4 H302, Eye Irrit. 2 H319	C < 5 %
CAS number: 67634-00-8 EC number: 266-803-5 Index number: — Registration number: 01-2120795456-39-XXXX	allyl (3-methylbutoxy)acetate Acute Tox. 4 H302, Skin Irrit. 2 H315, Acute Tox. 2 H330	C < 5 %
CAS number: 470-82-6 EC number: 207-431-5 Index number: — Registration number: —	1,8-cineole Flam. Liq. 3 H226, Skin Sens. 1B H317	C < 1,5 %
CAS number: 18479-58-8 EC number: 242-362-4 Index number: — Registration number: 01-2119457274-37-XXXX	2,6-dimethyloct-7-en-2-ol Skin Irrit. 2 H315, Eye Irrit. 2 H319	C < 1,5 %

CAS number: 6658-48-6 EC number: 229-695-0 Index number: — Registration number: —	3-(p-cumenyl)-2-methylpropionaldehyde Skin Irrit. 2 H315, Skin Sens. 1B H317	C ≤ 0,5 %
CAS number: 68039-49-6 EC number: 268-264-1 Index number: — Registration number: 01-2119982384-28-XXXX	2,4-dimethylcyclohex-3-ene-1-carbaldehyde Skin Irrit. 2 H315, Skin Sens. 1B H317, Eye Irrit. 2 H319, Aquatic Chronic 2 H411	C < 0,5 %
CAS number: 104-55-2 EC number: 203-213-9 Index number: — Registration number: 01-2119935242-45-XXXX	cinnamaldehyde Acute Tox. 4 H312, Skin Irrit. 2 H315, Skin Sens. 1A H317, Eye Irrit. 2 H319, Aquatic Chronic 3 H412	C < 0,5 %
CAS number: 138-86-3 EC number: 205-341-0 Index number: 601-029-00-7 Registration number: —	limonene Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1B H317, STOT SE 3 H336, Aquatic Acute 1 H400 (M=1), Aquatic Chronic 3 H412 Note C	C < 0,5 %
CAS number: 110-41-8 EC number: 203-765-0 Index number: — Registration number: 01-2119969443-29-XXXX	2-methylundecanal Skin Irrit. 2 H315, Skin Sens. 1B H317, Aquatic Acute 1 H400 (M=1), Aquatic Chronic 1 H410 (M=1)	C < 0,5 %
CAS number: 112-54-9 EC number: 203-983-6 Index number: — Registration number: 01-2119969441-33-XXXX	dodecanal Skin Irrit. 2 H315, Skin Sens. 1B H317, Eye Irrit. 2 H319	C < 0,5 %
CAS number: 97-53-0 EC number: 202-589-1 Index number: — Registration number: 01-2119971802-33-XXXX	eugenol Skin Sens. 1B H317, Eye Irrit. 2 H319	C < 0,25 %
CAS number: 67634-15-5 EC number: 259-174-3 Index number: — Registration number: —	3-(p-ethylphenyl)-2,2-dimethylpropionaldehyde Skin Irrit. 2 H315, Skin Sens. 1B H317, Aquatic Acute 1 H400 (M=1), Aquatic Chronic 2 H411	C < 0,25 %
CAS number: 52475-86-2 EC number: 257-942-2 Index number: — Registration number: —	1-methyl-4-(4-methyl-3-pentenyl)cyclohex-3-ene-1-carbaldehyde Aquatic Acute 1 H400 (M=1), Aquatic Chronic 1 H410 (M=1)	C < 0,25 %
CAS number: 5392-40-5 EC number: 226-394-6 Index number: 605-019-00-3 Registration number: 01-2119462829-23-XXXX	citral Skin Irrit. 2 H315, Skin Sens. 1B H317, Eye Irrit. 2 H319	C < 0,15 %

CAS number: 142-19-8 EC number: 205-527-1 Index number: — Registration number: 01-2119488961-23-XXXX	allyl heptanoate Acute Tox. 3 H301, Acute Tox. 3 H311, Aquatic Acute 1 H400 (M=1), Aquatic Chronic 3 H412	C < 0,15 %
CAS number: 111-80-8 EC number: 203-909-2 Index number: — Registration number: —	methyl non-2-ynoate Acute Tox. 4 H302, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Acute 1 H400 (M=1), Aquatic Chronic 3 H412	C < 0,1 %

Full text of each H phrase is given in section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Contact with skin

Take off contaminated clothing. Wash the exposed parts of the skin thoroughly with water and soap. Consult a doctor if disturbing symptoms appear.

Contact with eyes

Protect non-irritated eye, remove contact lenses. Rinse contaminated eyes thoroughly with water for 10 - 15 minutes. Avoid powerful water stream – risk of cornea damage. Consult an ophthalmologist if disturbing symptoms appear.

Ingestion

Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a doctor, show the packaging or label.

After inhalation

Remove the victim to fresh air, keep warm and at rest. Consult a doctor if disturbing symptoms appear.

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

Contact with skin

The product may cause redness, burning sensation, irritation, allergic reaction.

Contact with eyes

The product may cause irritation.

Ingestion

Exposure by this route does not cause negative health effects.

After inhalation

High concentration of vapours and mists may cause headaches, dizziness.

Effects of exposure

There are no known effects other than those mentioned above.

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

Physician makes a decision regarding further medical treatment after thorough examination of the injured. Symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: adapt the extinguishing media to surrounding materials.

Unsuitable extinguishing media: water jet – risk of the propagation of the flame.

5.2. Special hazards arising from the substance or mixture

During the fire may produce harmful gases containing e.g. carbon monoxides, other hazardous unidentified products of thermal decomposition. Do not inhale combustion products, they can be dangerous for human health.

5.3. Advice for firefighters

Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Cool down the containers that are endangered by fire with a water spray from a safe distance. Collect used extinguishing media.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. In case of large spills, isolate the exposed area. Use personal protective equipment.

6.2. Environmental precautions

Do not allow the product to get into the sewage system, surface waters and soil. In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services.

6.3. Methods and material for containment and cleaning up

Collect the product mechanically and place it in labelled waste containers and transfer for disposal.

6.4. Reference to other sections

Appropriate conduct with waste product – see section 13. Personal protective equipment – see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Do not eat, drink and smoke during the work. Before break and after work wash hands carefully. Use personal protective equipment. Avoid eyes and skin contamination. Keep the unused containers tightly closed.

7.2. Conditions for safe storage, including any incompatibilities

Store in properly labeled, sealed packages in a dry, cool and well-ventilated place. Keep away from incompatible materials (see subsection 10.5). Keep away from, foodstuffs and animal feed. Recommended storage temperature: 5 - 30 °C.

7.3. Specific end use(s)

No information about other uses than those mentioned in subsection 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limit Values

Legal Basis: Commission Directive 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, 2019/1831/EU.

The product does not contain components subject to exposure controls in the workplace.

Recommended control procedures

Procedures for monitoring concentrations of hazardous components in the air and procedures for monitoring air purity in the workplace should be applied - if available and justified at a given position - in accordance with the relevant national or European Standards, taking into account the conditions at the site of exposure and the appropriate measurement methods adapted to the working conditions. The mode, type and frequency of tests and measurements should meet the requirements of the appropriate laws.

DNEL and PNEC

3,7-dimethyloctan-3-ol [CAS 78-69-3]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
skin	long-term local	190 µg/cm ²	190 µg/cm ²
inhalation	long-term systemic	2,75 mg/m ³	11,14 mg/m ³
skin	long-term systemic	1,58 mg/kg bw/day	3,16 mg/kg bw/day
oral	long-term systemic	—	1,58 mg/kg bw/day

3,7-dimethyloctan-3-ol [CAS 78-69-3]	
PNEC	Value
marine water	0,001 mg/l
freshwater	0,009 mg/l
soil	0,011 mg/kg dry weight
freshwater sediment	0,082 mg/kg dry weight
marine water sediment	0,008 mg/kg dry weight
sewage treatment plant	450 mg/l
freshwater (intermittent release)	0,089 mg/l

benzyl acetate [CAS 140-11-4]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
inhalation	long-term systemic	2,2 mg/m ³	9 mg/m ³
skin	long-term systemic	1,3 mg/kg bw/day	2,5 mg/kg bw/day
oral	long-term systemic	—	1,3 mg/kg bw/day

benzyl acetate [CAS 140-11-4]	
PNEC	Value
marine water	0,002 mg/l
freshwater	0,018 mg/l
soil	0,094 mg/kg dry weight
freshwater sediment	0,526 mg/kg dry weight
marine water sediment	0,053 mg/kg dry weight
sewage treatment plant	8,55 mg/l
freshwater (intermittent release)	0,04 mg/l

linalyl acetate [CAS 115-95-7]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
inhalation	long-term systemic	2,75 mg/m ³	0,68 mg/m ³
oral	long-term systemic	—	0,2 mg/kg bw/day
skin	long-term systemic	2,5 mg/kg bw/day	1,25 mg/kg bw/day

linalyl acetate [CAS 115-95-7]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
inhalation	long-term systemic	2,75 mg/m ³	0,68 mg/m ³
skin	long-term local	236,2 µg/cm ²	236,2 µg/cm ²
skin	short-term local	236,2 µg/cm ²	236,2 µg/cm ²

linalyl acetate [CAS 115-95-7]	
PNEC	Value
marine water	0,001 mg/l
freshwater	0,011 mg/l
soil	0,115 mg/kg dry weight
freshwater sediment	0,609 mg/kg dry weight
marine water sediment	0,061 mg/kg dry weight
sewage treatment plant	1 mg/l
freshwater (intermittent release)	0,11 mg/l

2-phenylethan-1-ol [CAS 60-12-8]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
inhalation	long-term systemic	17,7 mg/m ³	59,9 mg/m ³
skin	long-term systemic	12,7 mg/kg bw/day	21,2 mg/kg bw/day
oral	long-term systemic	—	5,1 mg/kg bw/day
oral	short-term systemic	—	5,1 mg/kg bw/day

2-phenylethan-1-ol [CAS 60-12-8]	
PNEC	Value
marine water	0,021 mg/l
freshwater	0,215 mg/l
soil	0,164 mg/kg dry weight
freshwater sediment	1,454 mg/kg dry weight
marine water sediment	0,145 mg/kg dry weight
sewage treatment plant	10 mg/l

2,6-dimethyloct-7-en-2-ol [CAS 18479-58-8]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
inhalation	long-term systemic	4,35 mg/m ³	24,7 mg/m ³
skin	long-term systemic	2,5 mg/kg bw/day	7 mg/kg bw/day
oral	long-term systemic	—	2,5 mg/kg bw/day

2,6-dimethyloct-7-en-2-ol [CAS 18479-58-8]	
PNEC	Value
marine water	2,78 µg/l
freshwater	27,8 µg/l
soil	0,103 mg/kg dry weight
freshwater sediment	0,594 mg/kg dry weight
marine water sediment	0,059 mg/kg dry weight
sewage treatment plant	10 mg/l
secondary poisoning	111 mg/kg food
freshwater (intermittent release)	0,278 mg/l

cinnamaldehyde [CAS 104-55-2]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
inhalation	long-term systemic	1,09 mg/m ³	6,11 mg/m ³
skin	long-term systemic	0,625 mg/kg bw/day	1,75 mg/kg bw/day
oral	long-term systemic	—	0,625 mg/kg bw/day

cinnamaldehyde [CAS 104-55-2]	
PNEC	Value
marine water	0,8 µg/l
freshwater	8 µg/l
soil	15,6 µg/kg dry weight
freshwater sediment	0,101 mg/kg dry weight
marine water sediment	10,1 µg/kg dry weight
sewage treatment plant	7,1 mg/l
marine water (intermittent release)	3,21 µg/l
freshwater (intermittent release)	32,1 µg/l

2-methylundecanal [CAS 110-41-8]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
inhalation	short-term systemic	352,63 mg/m ³	86,96 mg/m ³
inhalation	long-term systemic	36,89 mg/m ³	9,1 mg/m ³
inhalation	long-term local	92,21 mg/m ³	22,74 mg/m ³
inhalation	short-term local	881,58 mg/m ³	217,39 mg/m ³
oral	short-term systemic	—	25 mg/kg bw/day
oral	long-term systemic	—	5,23 mg/kg bw/day
skin	short-term systemic	100 mg/kg bw/day	50 mg/kg bw/day
skin	long-term systemic	10,46 mg/kg bw/day	5,23 mg/kg bw/day
skin	long-term local	35,7 mg/cm ²	17,86 mg/cm ²

2-methylundecanal [CAS 110-41-8]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
inhalation	short-term systemic	352,63 mg/m ³	86,96 mg/m ³
skin	short-term local	71,43 mg/cm ²	35,71 mg/cm ²

2-methylundecanal [CAS 110-41-8]	
PNEC	Value
marine water	66 ng/l
freshwater	0,66 µg/l
soil	52,6 µg/kg mg/kg dry weight
freshwater sediment	0,265 mg/kg dry weight
marine water sediment	26,5 µg/kg dry weight
sewage treatment plant	10 mg/l
secondary poisoning	116 mg/kg food
marine water (intermittent release)	0,18 µg/l
freshwater (intermittent release)	1,8 µg/l

dodecanal [CAS 112-54-9]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
skin	long-term local	0,28 µg/cm ²	0,57 µg/cm ²
inhalation	long-term systemic	12,3 mg/m ³	49,7 mg/m ³
skin	long-term systemic	7 mg/kg bw/day	14,1 mg/kg bw/day
oral	long-term systemic	—	7 mg/kg bw/day

dodecanal [CAS 112-54-9]	
PNEC	Value
marine water	0 mg/l
freshwater	0,004 mg/l
soil	0,278 mg/kg dry weight
freshwater sediment	1,41 mg/kg dry weight
marine water sediment	0,141 mg/kg dry weight
sewage treatment plant	10 mg/l
secondary poisoning	313 mg/kg food
freshwater (intermittent release)	0,035 mg/l

eugenol [CAS 97-53-0]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
inhalation	long-term systemic	5,22 mg/m ³	21,2 mg/m ³
skin	long-term systemic	3 mg/kg bw/day	6 mg/kg bw/day
oral	long-term systemic	—	3 mg/kg bw/day

eugenol [CAS 97-53-0]	
PNEC	Value
marine water	0,113 µg/l
freshwater	1,13 µg/l
soil	0,015 mg/kg dry weight
freshwater sediment	0,081 mg/kg dry weight
marine water sediment	0,008 mg/kg dry weight
freshwater (intermittent release)	11,3 µg/l

citral [CAS 5392-40-5]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
skin	long-term local	140 µg/cm ²	140 µg/cm ²
inhalation	long-term systemic	2,7 mg/m ³	9 mg/m ³
skin	long-term systemic	1 mg/kg bw/day	1,7 mg/kg bw/day
oral	long-term systemic	—	0,6 mg/kg bw/day

citral [CAS 5392-40-5]	
PNEC	Value
marine water	0,001 mg/l
freshwater	0,007 mg/l
soil	0,021 mg/kg dry weight
freshwater sediment	0,013 mg/kg dry weight
marine water sediment	0,125 mg/kg dry weight
sewage treatment plant	1,6 mg/l
freshwater (intermittent release)	0,068 mg/l

allyl heptanoate [CAS 142-19-8]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
inhalation	long-term systemic	0,73 mg/m ³	2,97 mg/m ³
skin	long-term systemic	0,42 mg/kg bw/day	0,84 mg/kg bw/day
oral	long-term systemic	—	0,42 mg/kg bw/day

allyl heptanoate [CAS 142-19-8]	
PNEC	Value
marine water	0,012 µg/l
freshwater	0,12 µg/l
soil	0,002 mg/kg dry weight
freshwater sediment	0,012 mg/kg dry weight
marine water sediment	0,001 mg/kg dry weight
sewage treatment plant	10 mg/l
freshwater (intermittent release)	1,2 µg/l

8.2. Exposure controls

Industrial hygiene

Use the product in accordance with good occupational hygiene and safety practices. Do not eat, drink and smoke during the work. Before break and after work wash hands carefully. Ensure adequate general and/or local ventilation at the workplace.

Individual protection measures

The necessity to use and the selection of appropriate personal protective equipment should take into account the type of risk posed by the product, working conditions and the way of handling the product. The personal protective equipment used must meet the requirements of Regulation (EU) 2016/425 and the relevant standards. The employer is obliged to provide protection measures appropriate to the activities performed and meeting all quality requirements, including their maintenance and cleaning. Any contaminated or damaged PPE must be replaced immediately.

Hand protection

In case of a prolonged or repeated contact with the product, use protective gloves if a risk assessment indicates this is necessary. Select the material for the gloves individually at the workplace.

The glove material has to be impermeable and resistant to the product. The choice of material for protective gloves should be made taking into account the breakthrough times, permeation rate and degradation. Moreover, the selection of the appropriate gloves does not only depend on the material, but also on other quality characteristics and varies from manufacturer to manufacturer. The exact breakthrough time has to be obtained from the glove manufacturer and it must be observed.

Body protection

Use skin protection measures adequate to the existing thermal, chemical or mechanical hazards.

Eye protection

Not required.

Respiratory protection

Not required with adequate ventilation.

Thermal hazards

Not applicable.

Environmental exposure controls

Avoid release to the environment, do not empty into sewers.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	solid, liquid on the carrier
Colour:	acc. to the assortment
Odour:	characteristic, pleasant
Melting point/freezing point:	not determined

Boiling point or initial boiling point and boiling range:	not determined
Flammability:	not determined
Lower and upper explosion limit:	not applicable
Flash point:	not applicable
Auto-ignition temperature:	not applicable
Decomposition temperature:	not applicable
pH:	not determined
Kinematic viscosity:	not applicable
Solubility:	not soluble in water
Partition coefficient n-octanol/water (log value):	not applicable
Vapour pressure:	not applicable
Density and/or relative density:	not determined
Relative vapour density:	not applicable
Particle characteristics:	not determined

9.2. Other information

No additional tests.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is not very reactive. See also subsection 10.3-10.5.

10.2. Chemical stability

The product is stable under normal conditions of use and storage.

10.3. Possibility of hazardous reactions

Hazardous reactions are not known.

10.4. Conditions to avoid

Avoid sources of heat, direct sunlight.

10.5. Incompatible materials

Not known.

10.6. Hazardous decomposition products

Not known.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

3,7-dimethyloctan-3-ol [CAS 78-69-3]	
LD ₅₀ (oral, rat)	8270 mg/kg
LD ₅₀ (skin, rabbit)	> 5000 mg/kg

benzyl acetate [CAS 140-11-4]	
LD ₅₀ (oral, rat)	> 2000 mg/kg
LD ₅₀ (skin, rabbit)	> 5 g/kg

linalyl acetate [CAS 115-95-7]	
LD ₅₀ (oral, rat)	> 9000 mg/kg
LD ₅₀ (skin, rabbit)	> 5000 mg/kg
2-phenylethan-1-ol [CAS 60-12-8]	
LC ₅₀ (inhalation, rat)	> 4,63 mg/l/4 h
LD ₅₀ (oral, rat)	1603,3 mg/kg
LD ₅₀ (skin, rabbit)	2535 mg/kg
allyl (3-methylbutoxy)acetate [CAS 67634-00-8]	
LC ₅₀ (inhalation, rat)	0,46 mg/l
LD ₅₀ (oral, rat)	500 mg/kg
LD ₅₀ (skin, rat)	> 2000 mg/kg
2,6-dimethyloct-7-en-2-ol [CAS 18479-58-8]	
LD ₅₀ (oral, rat)	3020 mg/kg
3-(p-cumenyl)-2-methylpropionaldehyde [CAS 6658-48-6]	
LD ₅₀ (oral, rat)	> 5000 mg/kg
LD ₅₀ (skin, rabbit)	> 5000 mg/kg
cinnamaldehyde [CAS 104-55-2]	
LD ₅₀ (oral, rat)	2220 mg/kg
LD ₅₀ (skin, rat)	> 2000 mg/kg
2-methylundecanal [CAS 110-41-8]	
LD ₅₀ (oral, rat)	> 50000 mg/kg
LD ₅₀ (skin, rabbit)	> 10 ml/kg
dodecanal [CAS 112-54-9]	
LD ₅₀ (oral, rat)	23100 mg/kg
LD ₅₀ (skin, rabbit)	> 2000 mg/kg
eugenol [CAS 97-53-0]	
LD ₅₀ (oral, rat)	> 2000 mg/kg
citral [CAS 5392-40-5]	
LD ₅₀ (oral, rat)	6800 mg/kg
LD ₅₀ (skin, rat)	> 2000 mg/kg
allyl heptanoate [CAS 142-19-8]	
LD ₅₀ (oral, rat)	444 mg/kg
LD ₅₀ (skin, rabbit)	810 mg/kg
methyl non-2-ynoate [CAS 111-80-8]	
LD ₅₀ (oral, rat)	2220 mg/kg

Mixture	
ATE _{mix} (oral)	4 608,29 mg/kg
ATE _{mix} (skin)	104 761,90 mg/kg
ATE _{mix} (inhalation, dusts)	1,00 mg/l
Based on available data, the classification criteria are not met.	

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

Exposure route: skin exposure, inhalation. For more information on the impact of each possible route of exposure, see subsection 4.2.

Symptoms related to the physical, chemical and toxicological characteristics

See subsection 4.2 of the SDS.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

See subsection 4.2 of the SDS.

11.2. Information on other hazards

Endocrine disrupting properties

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

Other information

No data on other hazards.

SECTION 12: Ecological information

12.1. Toxicity

3,7-dimethyloctan-3-ol [CAS 78-69-3]		
LC ₅₀ (fish)	8,9 mg/l / 96 h <i>Danio rerio</i>	method: OECD 203
EC ₅₀ (invertebrates)	14,2 mg/l / 48 h <i>Daphnia magna</i>	method: OECD 202
EC ₅₀ (algae)	21,6 mg/l / 72 h <i>Desmodesmus subspicatus</i>	method: DIN 38412, L9
EC ₅₀ (microorganisms)	1000 mg/l / 30 min <i>Pseudomonas putida</i>	method: DIN 38412
benzyl acetate [CAS 140-11-4]		
LC ₅₀ (fish)	4 mg/l / 96 h <i>Oryzias latipes</i>	method: ASTM E279-80 (1980)
NOEC (fish)	0,92 mg/l / 28 days <i>Oryzias latipes</i>	method: —
EC ₅₀ (invertebrates)	17 mg/l / 48 h <i>Daphnia magna</i>	method: OECD 202 / EU Metoda C.2
EC ₅₀ (algae)	92 mg/l / 72 h <i>Desmodesmus subspicatus</i>	method: OECD 201 / EU Metoda C.3
EC ₅₀ (microorganisms)	855 mg/l / 3 h —	method: OECD 209
linalyl acetate [CAS 115-95-7]		
LC ₅₀ (fish)	11 mg/l / 96 h <i>Cyprinus carpio</i>	method: OECD 203
EC ₅₀ (invertebrates)	10,8 mg/l / 48 h <i>Daphnia magna</i>	method: OECD 202
2-phenylethan-1-ol [CAS 60-12-8]		
LC ₅₀ (fish)	215-464 mg/l / 96 h <i>Leuciscus idus</i>	method: DIN 38 412
EC ₅₀ (invertebrates)	287,17 mg/l / 48 h <i>Daphnia magna</i>	method: EU C.2
allyl (3-methylbutoxy)acetate [CAS 67634-00-8]		
LC ₅₀ (fish)	0,77 mg/l / 96 h —	method: —
EC ₅₀ (daphnia)	5,09 mg/l / 48 h <i>Daphnia magna</i>	method: —
EC ₅₀ (algae)	2,06 mg/l / 96 h —	method: —

1,8-cineole [CAS 470-82-6]		
LC ₅₀ (fish)	57 mg/l / 96 h <i>Oncorhynchus mykiss</i>	method: OECD 203 / EU Metoda C.1
EC ₅₀ (invertebrates)	> 100 mg/l / 48 h <i>Daphnia magna</i>	method: OECD 202 / EU Metoda C.2 / EPA OPPTS 850.1010
EC ₅₀ (algae)	> 74 mg/l / 72 h <i>Pseudokirchneriella subcapitata</i>	method: OECD 201 / EU Metoda C.3 / EPA OPPTS 850.5400
EC ₅₀ (microorganisms)	> 100 mg/l / 3 h —	method: OECD 209 / EU Metoda C.11
2,6-dimethyloct-7-en-2-ol [CAS 18479-58-8]		
EC ₅₀ (invertebrates)	38 mg/l / 48 h <i>Daphnia magna</i>	method: OECD 202 / EU Metoda C.2
EC ₅₀ (algae)	65 mg/l / 72 h <i>Desmodesmus subspicatus</i>	method: OECD 201 / EU Metoda C.3
3-(p-cumenyl)-2-methylpropionaldehyde [CAS 6658-48-6]		
LC ₅₀ (fish)	11,3 mg/l / 96 h <i>Danio rerio</i>	method: OECD 203 / EU Metoda C.1
EC ₅₀ (algae)	1,44 mg/l / 72 h <i>Pseudokirchneriella subcapitata</i>	method: OECD 201
EC ₅₀ (microorganisms)	> 100 mg/l / 3 h —	method: OECD 209
cinnamaldehyde [CAS 104-55-2]		
LC ₅₀ (fish)	2,35 mg/l / 96 h <i>Danio rerio</i>	method: EU Metoda C.1
EC ₅₀ (microorganisms)	71 mg/l / 3 h —	method: ISO 8192
2-methylundecanal [CAS 110-41-8]		
LC ₅₀ (fish)	0,35 mg/l / 96 h <i>Oncorhynchus mykiss</i>	method: OECD 203
EC ₅₀ (invertebrates)	0,21 mg/l / 48 h <i>Daphnia magna</i>	method: OECD 202
NOEC (invertebrates)	33 µg/l / 21 days <i>Daphnia magna</i>	method: OECD 211 / EPA OPPTS 850.1300
EC ₅₀ (algae)	0,11 mg/l / 72 h <i>Pseudokirchneriella subcapitata</i>	method: OECD 201
NOEC (microorganisms)	100 mg/l / 22 days —	method: OECD 301 F

dodecanal [CAS 112-54-9]		
LC ₅₀ (fish)	2,6 mg/l / 96 h <i>Oncorhynchus mykiss</i>	method: OECD 203
EC ₅₀ (invertebrates)	> 0,27 mg/l / 48 h <i>Daphnia magna</i>	method: OECD 202 / EU Metoda C.2 / EPA OPPTS 850.1010
EC ₅₀ (algae)	> 0,048 mg/l / 72 h <i>Pseudokirchneriella subcapitata</i>	method: OECD 201 / EU Metoda C.3
eugenol [CAS 97-53-0]		
LC ₅₀ (fish)	13 mg/l / 96 h <i>Danio rerio</i>	method: EU Metoda C.1 / OECD 203
EC ₅₀ (invertebrates)	1,05 mg/l / 48 h <i>Daphnia magna</i>	method: OECD 202 / EU Metoda C.2
EC ₅₀ (algae)	24 mg/l / 72 h <i>Desmodesmus subspicatus</i>	method: OECD 201 / EU Metoda C.3
citral [CAS 5392-40-5]		
LC ₅₀ (fish)	6,78 mg/l / 96 h <i>Leuciscus idus</i>	method: DIN 38412
EC ₅₀ (invertebrates)	6,8 mg/l / 48 h <i>Daphnia magna</i>	method: Dyrektywa 79/831 / EWG, C2 aneks V
EC ₅₀ (algae)	103,8 mg/l / 72 h <i>Desmodesmus subspicatus</i>	method: DIN 38412 L9
EC ₅₀ (microorganisms)	160 mg/l / 0.5 h —	method: OECD 209
allyl heptanoate [CAS 142-19-8]		
EC ₅₀ (invertebrates)	0,89 mg/l / 48 h <i>Daphnia magna</i>	method: OECD 202 / EU Metoda C.2
methyl non-2-ynoate [CAS 111-80-8]		
EC ₅₀ (invertebrates)	1,1 mg/l / 48 h <i>Daphnia magna</i>	method: OECD 202
NOEC (invertebrates)	0,38 mg/l / 48 h <i>Daphnia magna</i>	method: OECD 202
EC ₅₀ (algae)	0,83 mg/l / 72 h <i>Pseudokirchneriella subcapitata</i>	method: OECD 201
EC ₁₀ (algae)	0,29 mg/l / 72 h <i>Pseudokirchneriella subcapitata</i>	method: EU Method C.3
Mixture		
Harmful to aquatic life with long lasting effects.		

12.2. Persistence and degradability

3,7-dimethyloctan-3-ol CAS 78-69-3	Easily biodegradable	60-70%/28 days	method: OECD 301 F
benzyl acetate CAS 140-11-4	Easily biodegradable	100,9%/28 days	method: OECD 301 B
linalyl acetate CAS 115-95-7	Easily biodegradable	70-80%/28 days	method: OECD 301 F
2-phenylethan-1-ol CAS 60-12-8	Biodegradable	106,3%/14 days	method: OECD 301B
1,8-cineole CAS 470-82-6	Easily biodegradable	82%/28 days	method: OECD 301 F
2,6-dimethyloct-7-en-2-ol CAS 18479-58-8	Easily biodegradable	72%/28 days	method: OECD 301 B
3-(p-cumenyl)-2-methylpropionaldehyde CAS 6658-48-6	Easily biodegradable	76%/28 days	method: OECD 301 F / EU Metoda C.4-D
cinnamaldehyde CAS 104-55-2	Easily biodegradable	89%/7 days	method: OECD 301 B
2-methylundecanal CAS 110-41-8	Easily biodegradable	68%/22 days	method: OECD 301 F
dodecanal CAS 112-54-9	Easily biodegradable	73%/28 days	method: OECD 301 F
eugenol CAS 97-53-0	Easily biodegradable	82%/28 days	method: EU Metoda C.4-E
citral CAS 5392-40-5	Easily biodegradable	> 90%/28 days	method: EU Metoda C.4-D
allyl heptanoate CAS 142-19-8	Easily biodegradable	81%/28 days	method: OECD 301 F
methyl non-2-ynoate CAS 111-80-8	Biodegradable	71%/28 days	method: OECD 301F

12.3. Bioaccumulative potential

3,7-dimethyloctan-3-ol CAS 78-69-3	log Po/w = 3,3	method: OECD 107
	BCF = —	method: —
benzyl acetate CAS 140-11-4	log Po/w = 1,96	method: —
	BCF = —	method: —
linalyl acetate CAS 115-95-7	log Po/w = 3,9	method: OECD 107
	BCF = 174	method: —

2-phenylethan-1-ol CAS 60-12-8	log Po/w = < 3	method: —
	BCF = —	method: —
1,8-cineole CAS 470-82-6	log Po/w = 3,4	method: OECD 117
	BCF = —	method: —
2,6-dimethyloct-7-en-2-ol CAS 18479-58-8	log Po/w = 3,25	method: OECD 117 / EU Metoda A.8
	BCF = —	method: —
3-(p-cumenyl)-2-methylpropionaldehyde CAS 6658-48-6	log Po/w = 3,8	method: EU Metoda A.8
	BCF = —	method: OECD 117
cinnamaldehyde CAS 104-55-2	log Po/w = 2,107	method: OECD 117
	BCF = —	method: OECD 117
2-methylundecanal CAS 110-41-8	log Po/w = 4,9	method: OECD 117 / EU Metoda A.8 / EPA OPPTS 830.7570
	BCF = —	method: —
dodecanal CAS 112-54-9	log Po/w = 4,9	method: OECD 117 / EU Metoda A.8 / EPA OPPTS 830.7570
	BCF = —	method: —
eugenol CAS 97-53-0	log Po/w = 1,83	method: EU Metoda A.8 / OECD 117
	BCF = —	method: —
citral CAS 5392-40-5	log Po/w = 2,76	method: OECD 107
	BCF = —	method: —
allyl heptanoate CAS 142-19-8	log Po/w = 3,97	method: OECD 107
	BCF = —	method: —
methyl non-2-ynoate CAS 111-80-8	log Po/w = 3,4	method: OECD 117
	BCF = —	method: OECD 117

12.4. Mobility in soil

The product is not mobile in soil. Mobility of components of the mixture in soil depends on the hydrophilic and hydrophobic properties and biotic and abiotic conditions of soil, including its structure, climatic conditions, seasons and soil organisms.

12.5. Results of PBT and vPvB assessment

Product does not contain components, which meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

12.6. Endocrine disrupting properties

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.



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12.7. Other adverse effects

The mixture is not classified as hazardous to the ozone layer. Consider other harmful effects of individual components of the mixture on the environment (eg, global warming potential).

SECTION 13: Waste treatment methods

13.1. Disposal considerations

Recommendations for the product

The waste code should be given in the place of its formation. The waste product should be recovered or disposed of in authorized incineration plants or waste disposal / neutralization plants, in accordance with applicable regulations. Do not empty into drains.

Recommendations for used packaging

Reuse / recycle / eliminate empty containers in accordance with the local legislation. Only completely empty containers can be reused.

EU legal acts: directives of the European Parliament and of the Council: 2008/98 / EC as amended and 94/62 / EC as amended.

Recommended waste codes

The waste code should be assigned at the place of its formation.

SECTION 14: Transport information

14.1. UN number or ID number

Not applicable, the product is not dangerous during transport.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Not applicable.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

Additional data

Not applicable.

SECTION 15: Regulatory information

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

ADR Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG Code International Maritime Dangerous Goods Code

IATA Dangerous Goods Regulations

1907/2006/EC REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (as amended).

1272/2008/EC REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (as amended).

2020/878/EU COMMISSION REGULATION of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.

2000/39/EC COMMISSION DIRECTIVE of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

2006/15/EC COMMISSION DIRECTIVE of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

2009/161/EU COMMISSION DIRECTIVE of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

2017/164/EU COMMISSION DIRECTIVE of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.

2019/1831/EU COMMISSION DIRECTIVE of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

2008/98/EC DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives (as amended).

94/62/EC REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents (as amended).

2016/425/EU REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

The components of the mixture are not included in Annex XVII of the REACH Regulation.

The components of the mixture are not included in Annex XIV of the REACH Regulation.

15.2. Chemical safety assessment

A Chemical Safety Assessment is not required for mixtures.

SECTION 16: Other information

Full text of H phrases mentioned in section 3

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Note C	Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers.

Clarification of abbreviations and acronyms

ADR	Agreement concerning the International Carriage of Dangerous Goods by Road.
DIN	German Institute for Standardization
DNEL	Derived No-Effect Level.

EC ₁₀	A statistically calculated concentration of a chemical substance in an environmental medium that can cause specific effects in 50% of the tested organisms of a given population under certain conditions.
EC ₅₀	(median effective concentration) - statistically calculated concentration of a chemical substance in an environmental medium that can cause specific effects in 50% of the tested organisms of a given population under certain conditions.
EN	European standard
IATA	The International Air Transport Association.
IMDG	International Maritime Dangerous Goods Code.
ISO	International Organization for Standardization
LC ₅₀	Concentration of a substance that is lethal to 50 percent of the organisms in a toxicity test.
LD ₅₀	Dose of a substance that is lethal to 50 percent of the organisms in a toxicity test.
NOEC	The highest concentration that does not cause a statistically significant adverse effect in the exposed population, when compared with its appropriate control.
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, bioaccumulative and toxic substance.
PNEC	Predicted no-effect concentration.
RID	The Regulation concerning the International Carriage of Dangerous Goods by Rail.
UFI	Unique Formula Identifier
vPvB	Very persistent and very bioaccumulative substance.
Acute Tox. 2	Acute toxicity - category 2
Acute Tox. 3	Acute toxicity - category 3
Acute Tox. 4	Acute toxicity - category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute - category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic - category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic - category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic - category 3
Asp. Tox. 1	Aspiration hazard - category 1
Eye Irrit. 2	Eye irritation - category 2
Flam. Liq. 3	Flammable liquid - category 3
STOT SE 3	Specific target organ toxicity — single exposure - category 3
Skin Irrit. 2	Skin irritation - category 2
Skin Sens. 1	Skin sensitization - category 1
Skin Sens. 1A	Skin sensitization - category 1A
Skin Sens. 1B	Skin sensitization - category 1B

Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.

Key literature references and sources of data

This SDS was prepared on the basis of sheets of the individual components, literature data, online databases (eg. ECHA, TOXNET, COSING) as well as our knowledge and experience, taking into account current legislation.

Procedures used for the mixture classification according with Regulation 1272/2008/EC as amended

Skin Irrit. 2 H315	calculation method
Skin Sens. 1 H317	calculation method
Eye Irrit. 2 H319	calculation method
Aquatic Chronic 3 H412	calculation method



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