

BUBBLE HEAD FO-0019

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

1.1. Product identifier

Product form : Mixture
Product name : BUBBLE HEAD
UFI : G9QT-128U-P00X-5FSA
Product code : FO-0019
Type of product : Perfumes, Fragrances
Product group : Finished Good

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

1.2.1. Relevant identified uses

Main use category : Industrial use
Industrial/Professional use spec : For professional use
Use of the substance/mixture only : Perfumes,
Function or use category : Fragrances
: Odour agents

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Fragrance Orchard

Neutrino,
Albert Road,
Essex CM7 3JQ
GB - United Kingdom

1.4. Emergency telephone number

Emergency number: +44 1376 555 185

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008

[CLP] H302
Acute toxicity (oral) Category 4 H317
Skin sensitization, Category 1 H411
Hazardous to the aquatic environment - Chronic Hazard Category 2

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Harmful if swallowed. Toxic to aquatic life with long lasting effects. May cause an allergic skin reaction.

2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008

[CLP] Hazard pictograms (CLP)



GHS07



GHS09

Signal word : Warning
(CLP) Contains : alpha-Methylcinnamic aldehyde; Linalool; Heliotropine crystals; Aldehyde C-16; Benzyl benzoate; Estragole (Methyl chavicol); d-Limonene

Hazard statements (CLP)	: H302 - Harmful if swallowed. H317 - May cause an allergic skin reaction. H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P272 - Contaminated work clothing should not be allowed out of the workplace. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. P302+P352 - IF ON SKIN: Wash with plenty of water. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Benzyl benzoate	(CAS-No.) 120-51-4 (EC-No.) 204-402-9 (EC Index-No.) 607-085-00-9 (REACH-no) 01-2119976371-33	20.15 – 40.15	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
d-Limonene	(CAS-No.) 5989-27-5 (EC-No.) 227-813-5 (EC Index-No.) 601-029-00-7 (REACH-no) 01-2119493353-35	3.925 – 7.85	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Methyl salicylate	(CAS-No.) 119-36-8 (EC-No.)	0.600525 – 1.20105	Acute Tox. 4 (Oral), H302 Repr. 2, H361
Heliotropine crystals	204-317-7 (CAS-No.) 120-57-0 (EC-No.) 204-409-7 (REACH-no)	0.6 – 1.2	Skin Sens. 1B, H317
Veltol plus crystals	01-2119983608-21 (CAS-No.) 4940-11-8 (EC-No.)	0.525 – 1.05	Acute Tox. 4 (Oral), H302
Vanillin	225-582-5 (CAS-No.) 121-33-5 (EC-No.) 204-465-2 (REACH-no)	0.5 – 1	Eye Irrit. 2, H319
Eugenol	01-2119516040-60 (CAS-No.) 97-53-0 (EC-No.) 202-589-1 (REACH-no) 01-2119971802-33	0.447825 – 0.89565	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Isoamyl acetate substance with a Community workplace exposure limit	(CAS-No.) 123-92-2 (EC-No.) 204-662-3 (EC Index-No.) 607-130-00-2 (REACH-no) 01-2119548408-32	0.35 – 0.7	Flam. Liq. 3, H226
alpha-Methylcinnamic aldehyde	(CAS-No.) 101-39-3 (EC-No.) 202-938-8 (REACH-no)	0.3 – 0.6	Skin Sens. 1, H317
	01-2119538797-21		

Allyl caproate	(CAS-No.) 123-68-2 (EC-No.) 204-642-4 (REACH-no) 01-2119983573-26	0.275 – 0.55	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
Linalool	(CAS-No.) 78-70-6 (EC-No.) 201-134-4 (EC Index-No.) 603-235-00-2 (REACH-no) 01-2119474016-42	0.250525 – 0.50105	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Aldehyde C-16	(CAS-No.) 77-83-8 (EC-No.) 201-061-8 (REACH-no) 01-2119967770-28	0.075 – 0.15	Skin Sens. 1B, H317 Aquatic Chronic 2, H411
beta-Caryophyllene	(CAS-No.) 87-44-5 (EC-No.) 201-746-1 (REACH-no) 01-2120745237-53	0.054075 – 0.10815	Asp. Tox. 1, H304 Aquatic Chronic 4, H413 Skin Sens. 1B, H317
Estragole (Methyl chavicol)	(CAS-No.) 140-67-0 (EC-No.) 205-427-8 (REACH-no) 01-2120783278-41	0.05 – 0.1	Acute Tox. 4 (Oral), H302 Skin Sens. 1B, H317 Muta. 2, H341 Carc. 2, H351

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a poison center/doctor/physician if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	: Wash with plenty of soap and water. If skin irritation or rash occurs: Get immediate medical advice/attention. Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). Wash contaminated clothing before reuse. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center/doctor/physician if you feel unwell.

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

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: May cause an allergic skin reaction.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray.
Unsuitable extinguishing media	Sand. : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Combustible liquid.
Explosion hazard	: May form flammable/explosive vapor-air mixture.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.
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6.1.1. For non-emergency

personnel Emergency procedures	: Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Handle empty containers with care because residual vapors are flammable. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. No open flames. No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid contact with skin and eyes.
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Proper grounding procedures to avoid static electricity should be followed.
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Storage conditions	: Keep in fireproof place. Keep only in the original container in a cool, well ventilated place away from : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container closed when not in use. Store in a well-ventilated place. Keep cool.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Heat sources. Sources of ignition. Direct sunlight.
Storage temperature	: 25 °C
Storage area	: Store in a well-ventilated place. Store away from
Special rules on packaging	heat. : Store in a closed container.
Packaging materials	: Do not store in corrodable metal.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Isoamyl acetate (123-92-2)	
EU - Occupational Exposure Limits	
IOELV TWA (mg/m ³)	270 mg/m ³
IOELV TWA (ppm)	50 ppm
IOELV STEL (mg/m ³)	540 mg/m ³
IOELV STEL (ppm)	100 ppm
Austria - Occupational Exposure Limits	
MAK Daily average value (mg/m ³)	270 mg/m ³ (Pentyl acetate (all isomers))
MAK Daily average value (ppm)	50 ppm (Pentyl acetate (all isomers))
MAK Short time value [mg/m ³]	540 mg/m ³ (Pentylacetate)
MAK Short time value [ppm]	100 ppm (Pentylacetate)
Belgium - Occupational Exposure Limits	
Limit value [mg/m ³]	270 mg/m ³
Limit value [ppm]	50 ppm
Short time value [mg/m ³]	540 mg/m ³
Short time value [ppm]	100 ppm
Bulgaria - Occupational Exposure Limits	
OEL TWA (mg/m ³)	270 mg/m ³
OEL TWA (ppm)	50 ppm
OEL STEL (mg/m ³)	540 mg/m ³
OEL STEL (ppm)	100 ppm
Croatia - Occupational Exposure Limits	
GVI (granična vrijednost izloženosti) (mg/m ³)	270 mg/m ³
GVI (granična vrijednost izloženosti) (ppm)	50 ppm
KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m ³)	540 mg/m ³
KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	100 ppm

Isoamyl acetate (123-92-2)	
Cyprus - Occupational Exposure Limits	
OEL TWA (mg/m ³)	270 mg/m ³
OEL TWA (ppm)	50 ppm
OEL STEL (mg/m ³)	540 mg/m ³
OEL STEL (ppm)	100 ppm
Denmark - Occupational Exposure Limits	
Grænseværdi (8 timer) (mg/m ³)	271 mg/m ³ (Amyl acetate, all isomers)
Grænseværdi (8 timer) (ppm)	50 ppm (Amyl acetate, all isomers)
Estonia - Occupational Exposure Limits	
OEL TWA (mg/m ³)	270 mg/m ³
OEL TWA (ppm)	50 ppm
OEL STEL (mg/m ³)	540 mg/m ³
OEL STEL (ppm)	100 ppm
Finland - Occupational Exposure Limits	
HTP-arvo (8h) (mg/m ³)	270 mg/m ³ (Pentyl acetate)
HTP-arvo (8h) (ppm)	50 ppm (Pentyl acetate)
HTP-arvo (15 min)	540 mg/m ³
HTP-arvo (15 min) (ppm)	100 ppm
France - Occupational Exposure Limits	
VME [mg/m ³]	270 mg/m ³ (restrictive limit)
VME [ppm]	50 ppm (restrictive limit)
VLE [mg/m ³]	540 mg/m ³ (restrictive limit)
VLE [ppm]	100 ppm (restrictive limit)
Germany - Occupational Exposure Limits (TRGS 900)	
Occupational exposure limit value (mg/m ³)	270 mg/m ³
Occupational exposure limit value (ppm)	50 ppm
Gibraltar - Occupational Exposure Limits	
Eight hours mg/m ³	270 mg/m ³
Eight hours ppm	50 ppm
Short-term mg/m ³	540 mg/m ³
Short-term ppm	100 ppm
Greece - Occupational Exposure Limits	
OEL TWA (mg/m ³)	530 mg/m ³
OEL TWA (ppm)	100 ppm
OEL STEL (mg/m ³)	800 mg/m ³
OEL STEL (ppm)	150 ppm
Hungary - Occupational Exposure Limits	
Exposure Limit Value	270 mg/m ³
CK-érték	540 mg/m ³

Isoamyl acetate (123-92-2)	
Ireland - Occupational Exposure Limits	
OEL (8 hours ref) (mg/m ³)	260 mg/m ³
OEL (8 hours ref) (ppm)	50 ppm
OEL (15 min ref) (mg/m ³)	520 mg/m ³
OEL (15 min ref) (ppm)	100 ppm
Italy - Occupational Exposure Limits	
OEL TWA (mg/m ³)	270 mg/m ³
OEL TWA (ppm)	50 ppm
OEL STEL (mg/m ³)	540 mg/m ³
OEL STEL (ppm)	100 ppm
Latvia - Occupational Exposure Limits	
OEL TWA (mg/m ³)	270 mg/m ³
OEL TWA (ppm)	50 ppm
Lithuania - Occupational Exposure Limits	
IPRV (mg/m ³)	270 mg/m ³
IPRV (ppm)	50 ppm
TPRV (mg/m ³)	540 mg/m ³
TPRV (ppm)	100 ppm
Luxembourg - Occupational Exposure Limits	
OEL TWA (mg/m ³)	270 mg/m ³
OEL TWA (ppm)	50 ppm
OEL STEL (mg/m ³)	540 mg/m ³
OEL STEL (ppm)	100 ppm
Malta - Occupational Exposure Limits	
OEL TWA (mg/m ³)	270 mg/m ³
OEL TWA (ppm)	50 ppm
OEL STEL (mg/m ³)	540 mg/m ³
OEL STEL (ppm)	100 ppm
Netherlands - Occupational Exposure Limits	
Grenswaarde TGG 15MIN (mg/m ³)	530 mg/m ³
Poland - Occupational Exposure Limits	
NDS (mg/m ³)	250 mg/m ³
NDSch (mg/m ³)	500 mg/m ³
Portugal - Occupational Exposure Limits	
OEL TWA (mg/m ³)	270 mg/m ³ (indicative limit value)
OEL TWA (ppm)	50 ppm (indicative limit value)
OEL STEL (mg/m ³)	540 mg/m ³ (indicative limit value)
OEL STEL (ppm)	100 ppm (indicative limit value, regulated under Pentyl acetate, all isomers)
Romania - Occupational Exposure Limits	
OEL TWA (mg/m ³)	270 mg/m ³

Isoamyl acetate (123-92-2)	
OEL TWA (ppm)	50 ppm
OEL STEL (mg/m ³)	540 mg/m ³
OEL STEL (ppm)	100 ppm
Slovakia - Occupational Exposure Limits	
NPHV (priemerná) (mg/m ³)	270 mg/m ³
NPHV (priemerná) (ppm)	50 ppm
NPHV (Hraničná) (mg/m ³)	540 mg/m ³
Slovenia - Occupational Exposure Limits	
OEL TWA (mg/m ³)	270 mg/m ³
OEL TWA (ppm)	50 ppm
OEL STEL (mg/m ³)	540 mg/m ³
OEL STEL (ppm)	100 ppm
Spain - Occupational Exposure Limits	
VLA-ED (mg/m ³)	270 mg/m ³ (indicative limit value)
VLA-ED (ppm)	50 ppm (indicative limit value)
VLA-EC (mg/m ³)	540 mg/m ³
VLA-EC (ppm)	100 ppm
Sweden - Occupational Exposure Limits	
nivågränsvärde (NVG) (mg/m ³)	270 mg/m ³ (Pentyl acetates)
nivågränsvärde (NVG) (ppm)	50 ppm (Pentyl acetates)
kortidsvärde (KTV) (mg/m ³)	540 mg/m ³ (Pentyl acetates)
kortidsvärde (KTV) (ppm)	100 ppm (Pentyl acetates)
Norway - Occupational Exposure Limits	
TWA (AN) (mg/m ³)	260 mg/m ³
TWA (AN) (ppm)	50 ppm
TWA (Korttidsverdi) (mg/m ³)	325 mg/m ³ (value calculated)
TWA (Korttidsverdi) (ppm)	75 ppm (value calculated)
Turkey - Occupational Exposure Limits	
OEL TWA (mg/m ³)	270 mg/m ³
OEL TWA (ppm)	50 ppm
OEL STEL (mg/m ³)	540 mg/m ³
OEL STEL (ppm)	100 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (ppm)	50 ppm (Pentyl acetate, all isomers)
ACGIH STEL (ppm)	100 ppm (Pentyl acetate, all isomers)

d-Limonene (5989-27-5)**Finland - Occupational Exposure Limits**

HTP-arvo (8h) (mg/m ³)	140 mg/m ³
HTP-arvo (8h) (ppm)	25 ppm
HTP-arvo (15 min)	280 mg/m ³

d-Limonene (5989-27-5)	
HTP-arvo (15 min) (ppm)	50 ppm
Germany - Occupational Exposure Limits (TRGS 900)	
Occupational exposure limit value (mg/m ³)	28 mg/m ³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Occupational exposure limit value (ppm)	5 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Chemical category	skin notation, Skin sensitization
Slovenia - Occupational Exposure Limits	
OEL TWA (mg/m ³)	28 mg/m ³
OEL TWA (ppm)	5 ppm
OEL STEL (mg/m ³)	112 mg/m ³
OEL STEL (ppm)	20 ppm
OEL chemical category (SI)	Potential for cutaneous absorption
Spain - Occupational Exposure Limits	
VLA-ED (mg/m ³)	168 mg/m ³
VLA-ED (ppm)	30 ppm
OEL chemical category (ES)	Sensitizer, skin - potential for cutaneous absorption
Norway - Occupational Exposure Limits	
TWA (AN) (mg/m ³)	140 mg/m ³
TWA (AN) (ppm)	25 ppm
TWA (Korttidsverdi) (mg/m ³)	175 mg/m ³ (value calculated)
TWA (Korttidsverdi) (ppm)	37.5 ppm (value calculated)
OEL chemical category (NO)	Sensitizing substance
Switzerland - Occupational Exposure Limits	
MAK (mg/m ³)	40 mg/m ³
MAK (ppm)	7 ppm
KZGW (mg/m ³)	80 mg/m ³
KZGW (ppm)	14 ppm
OEL chemical category (CH)	Sensitizer

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses. Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear appropriate mask

Personal protective equipment symbol(s):**Environmental exposure controls:**

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	: Liquid
Color	: light yellow. amber.
Odor	: Fruity.
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 78.8 °C (closed cup) ASTM D7094
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Combustible liquid, Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 0.97
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Combustible liquid. May form flammable/explosive vapor-air mixture. Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Heat. Sparks. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

May release flammable gases. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

BUBBLE HEAD FO-0019	
ATE CLP (oral)	1135.513 mg/kg body weight

alpha-Methylcinnamic aldehyde (101-39-3)	
LD50 oral rat	2050 mg/kg
LD50 oral	2050 mg/kg body weight
LD50 dermal rabbit	> 5 g/kg

Allyl caproate (123-68-2)	
LD50 oral	300 mg/kg body weight
LD50 dermal	300 mg/kg body weight
LC50 Inhalation - Rat (Vapours)	3 mg/l/4h

Veltol plus crystals (4940-11-8)	
LD50 oral rat	1150 mg/kg
LD50 oral	1200 mg/kg body weight

Benzyl benzoate (120-51-4)	
LD50 oral rat	500 mg/kg
LD50 oral	1500 mg/kg body weight
LD50 dermal rabbit	4000 mg/kg
LD50 dermal	4000 mg/kg body weight

Heliotropine crystals (120-57-0)	
LD50 oral rat	2700 mg/kg
LD50 oral	2700 mg/kg body weight

Aldehyde C-16 (77-83-8)	
LD50 oral rat	5470 mg/kg

d-Limonene (5989-27-5)	
LD50 oral rat	4400 mg/kg
LD50 dermal rabbit	> 5 g/kg

Linalool (78-70-6)	
LD50 oral	2790 mg/kg body weight

Estragole (Methyl chavicol) (140-67-0)	
LD50 oral rat	1230 mg/kg
LD50 oral	1230 mg/kg body weight
LD50 dermal rabbit	> 5000 mg/kg

Methyl salicylate (119-36-8)	
LD50 oral rat	887 mg/kg
LD50 oral	890 mg/kg body weight
LD50 dermal rabbit	> 5000 mg/kg

Vanillin (121-33-5)	
LD50 dermal rabbit	> 5010 mg/kg

Eugenol (97-53-0)	
LD50 oral rat	1930 mg/kg
LD50 oral	2500 mg/kg body weight

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

d-Limonene (5989-27-5)	
IARC group	3 - Not classifiable

Eugenol (97-53-0)	
IARC group	3 - Not classifiable

Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Harmful if swallowed. Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Toxic to aquatic life with long lasting effects.

Allyl caproate (123-68-2)	
LC50 fish 1	0.117 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static])

Veltol plus crystals (4940-11-8)	
LC50 fish 1	> 85 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

Benzyl benzoate (120-51-4)	
LC50 fish 1	2.32 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static])
NOEC (chronic)	0.168 mg/l

Heliotropine crystals (120-57-0)	
LC50 fish 1	2.5 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static])

Aldehyde C-16 (77-83-8)	
LC50 fish 1	4.2 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static])

d-Limonene (5989-27-5)	
LC50 fish 1	0.619 – 0.796 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 2	35 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

Linalool (78-70-6)	
EC50 96h algae (1)	88.3 mg/l (Species: Desmodesmus subspicatus)

Vanillin (121-33-5)	
LC50 fish 1	53 – 61.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 2	88 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
NOEC (acute)	10000 mg/kg (Exposure time: 42 Days - Species: Eisenia foetida [soil dry weight])

Eugenol (97-53-0)	
LC50 fish 1	13 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static])

12.2. Persistence and degradability

BUBBLE HEAD FO-0019	
Persistence and degradability	Not established.

Benzyl benzoate (120-51-4)	
Persistence and degradability	May cause long-term adverse effects in the environment.

Estragole (Methyl chavicol) (140-67-0)

Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

BUBBLE HEAD FO-0019

Bioaccumulative potential	Not established.
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Benzyl benzoate (120-51-4)

Partition coefficient n-octanol/water (Log Pow)	4
Bioaccumulative potential	Not established.

Estragole (Methyl chavicol) (140-67-0)

Bioaccumulative potential	Not established.
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Methyl salicylate (119-36-8)

Partition coefficient n-octanol/water (Log Pow)	2.55
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Vanillin (121-33-5)

Partition coefficient n-octanol/water (Log Pow)	1.23 (at 22 °C)
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose of contents/container in accordance with local/national laws and regulations. Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Handle empty containers with care because residual vapors are flammable.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: UN 3082
UN-No. (IMDG)	: UN 3082
UN-No. (IATA)	: UN 3082
UN-No. (ADN)	: UN 3082
UN-No. (RID)	: Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (IMDG)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (IATA)	: Environmentally hazardous substance, liquid, n.o.s.
Proper Shipping Name (ADN)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (RID) Transport document description (ADR)	: Not applicable
Transport document description (IMDG)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (d-Limonene), 9, III, (E)
Transport document description (IATA)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (d-Limonene), 9, III, MARINE POLLUTANT
Transport document description (ADN)	: UN 3082 Environmentally hazardous substance, liquid, n.o.s. (d-Limonene), 9, III
	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es)	: 9
(ADR) Hazard labels (ADR)	: 9



IMDG

Transport hazard class(es)	: 9
(IMDG) Hazard labels (IMDG)	: 9



IATA

Transport hazard class(es)	: 9
(IATA) Hazard labels (IATA)	: 9



ADN

Transport hazard class(es)	: 9
(ADN) Hazard labels (ADN)	: 9



RID

Transport hazard class(es) (RID)	: Not applicable
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14.4. Packing group

Packing group (ADR)	: III
Packing group (IMDG) Packing group (IATA) Packing group (ADN) Packing group (RID)	: III
	: III
	: III
	: Not applicable

14.5. Environmental hazards

Dangerous for the : Yes
environment Marine pollutant : Yes
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport Classification : M6
code (ADR) Special provision (ADR) : 274, 335, 601, 375
Limited quantities (ADR) Excepted : 5L
quantities (ADR) Packing instructions : E1
(ADR) Special packing provisions : P001, IBC03, LP01, R001
(ADR) Mixed packing provisions : PP1
(ADR) : MP19

Portable tank and bulk container instructions (ADR) : T4
Portable tank and bulk container special provisions (ADR) : TP1, TP29

Tank code (ADR) : LGBV
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Special provisions for carriage - Loading, unloading and handling (ADR) : CV13

Hazard identification number (Kemler No.) Orange plates : 90



Tunnel restriction code (ADR) : E
EAC : *3Z

Transport by sea

Special provision (IMDG) : 274, 335, 969
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
Packing provisions (IMDG) : PP1
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T4
Tank special provisions (IMDG) : TP2, TP29
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-F
Stowage category (IMDG) : A

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 450L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L
Special provision (IATA) : A97, A158, A197 :
ERG code (IATA) 9L

Inland waterway transport

Classification code (ADN) : M6
Special provision (ADN) : 274, 335, 375,
Limited quantities (ADN) 601 : 5 L
Excepted quantities (ADN) : E1
Carriage permitted (ADN) : T
Equipment required (ADN) : PP
Number of blue cones/lights (ADN) : 0

Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable
3(b)	alpha-Methylcinnamic aldehyde ; Allyl caproate ; Aldehyde C-16 ; Benzyl benzoate ; Estragole (Methyl chavicol) ; Linalool ; Methyl salicylate ; d-Limonene
3(c)	Allyl caproate ; Aldehyde C-16 ; Benzyl benzoate ; d-Limonene
3(a)	Isoamyl acetate ; d-Limonene
40.	Isoamyl acetate ; d-Limonene

Contains no REACH candidate substance

Contains no REACH Annex XIV substances.

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance(s) subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling

Denmark : None of the components are listed

Denmark

Class for fire hazard : Class III-1

Store unit : 50 liter

Classification remarks : Flammable according to the Danish Ministry of Justice; Emergency management guidelines for the storage of flammable liquids must be followed

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Other information : None.

Full text of H- and EUH-phrases:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhalation) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment - Chronic Hazard Category 4
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 2	Carcinogenicity Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2

Flam. Liq. 3	Flammable liquids Category 3
Muta. 2	Germ cell mutagenicity Category 2
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization, Category 1
Skin Sens. 1B	Skin sensitization, Category 1B
H226	Flammable liquid and vapor.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
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.
H413	May cause long lasting harmful effects to aquatic life.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.