PLUM #EU35586F

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 12/3/2019 Revision date: 11/15/2023 Supersedes version of: 4/16/2021 Version: 2.0

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

1.1. Product identifier

Product form	:	Mixture
Trade name	:	PLUM #EU35586F
UFI	:	T7J5-J347-600E-J8YS
Product code	:	EU35586F
Type of product	:	Perfumes, fragrances
Product group	:	Trade product

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

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

FRENCH COLOR & FRAGRANCE International GmbH
Mittlerer Weg 35
DE– 79424 Auggen
Germany
T 49-7631-931-8900
SDS@frenchcolor.com - www.frenchcolor.com

1.4. Emergency telephone number

Emergency number	:	1-800-255-3924; +01-813-248-0585; China:+400-120-0751; Mexico:+01-800-099-0731; Brazil: +0-800-591-6042; India: +000-800-100-4086

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. May cause an allergic skin reaction.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS07 GHS09

Signal word (CLP) : Warning

Contains	:	Hexyl cinnamic aldehyde; Aldehyde C-16; Linalyl acetate; Helional; Linalool; d-Limonene; COUMARIN; Damascone Beta; alpha-Methylcinnamic aldehyde
Hazard statements (CLP)	:	H317 - May cause an allergic skin reaction. H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	:	P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. 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. P302+P352 - IF ON SKIN: Wash with plenty of water. P321 - Specific treatment (see supplemental first aid instruction on this label).
Extra phrases	:	For professional users only.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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	9.2 – 18.4002	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB)	CAS-No.: 1222-05-5 EC-No.: 214-946-9 EC Index-No.: 603-212-00-7 REACH-no: 01-2119488227-29	5 – 10.05	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Hexyl cinnamic aldehyde	CAS-No.: 101-86-0 EC-No.: 202-983-3 REACH-no: 01-2119533092-50	4.5 – 9.05	Skin Sens. 1, H317 Aquatic Chronic 2, H411
2(3H)-Furanone, 5-heptyldihydro-	CAS-No.: 104-67-6 EC-No.: 203-225-4 REACH-no: 01-2119959333-34	2.3 – 4.55	Aquatic Chronic 3, H412
Dimethylbenzyl carbinyl butyrate(DMBCB)	CAS-No.: 10094-34-5 EC-No.: 233-221-8 REACH-no: 01-2120742578-44	2.1 – 4.2	Skin Irrit. 2, H315 Aquatic Chronic 3, H412
Dimethylbenzyl carbinyl acetate(DMBCA)	CAS-No.: 151-05-3 EC-No.: 205-781-3	1.7 – 3.3	Aquatic Chronic 3, H412

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethylene brassylate	CAS-No.: 105-95-3 EC-No.: 203-347-8 REACH-no: 01-2119976314-33	1.4 – 2.7	Aquatic Chronic 2, H411
Aldehyde C-16	CAS-No.: 77-83-8 EC-No.: 201-061-8 REACH-no: 01-2119967770-28	1.3 – 2.55	Skin Sens. 1B, H317 Aquatic Chronic 2, H411
Verdox	CAS-No.: 88-41-5 EC-No.: 201-828-7 REACH-no: 01-2119970713-33	1.3 – 2.5	Aquatic Chronic 2, H411
Linalyl acetate	CAS-No.: 115-95-7 EC-No.: 204-116-4 REACH-no: 01-2119454789-19	1.2 – 2.35	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Helional	CAS-No.: 1205-17-0 EC-No.: 214-881-6 REACH-no: 01-2120740119-58	0.5 – 1	Skin Sens. 1B, H317 Repr. 2, H361 Aquatic Chronic 2, H411
Linalool	CAS-No.: 78-70-6 EC-No.: 201-134-4 EC Index-No.: 603-235-00-2 REACH-no: 01-2119474016-42	0.5 – 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
ACETYL HEXAMETHYL TETRALIN	CAS-No.: 21145-77-7 EC-No.: 244-240-6	0.5 – 0.95	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
(R)-p-mentha-1,8-diene; d-limonene substance with national workplace exposure limit(s) (DE, ES, FI, SI, NO, CH)	CAS-No.: 5989-27-5 EC-No.: 205-341-0 EC Index-No.: 601-096-00-2 REACH-no: 01-2119493353-35	0.4 – 0.8	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
Benzyl acetate substance with national workplace exposure limit(s) (BE, DK, ES, IE, LT, LV, PT, RO)	CAS-No.: 140-11-4 EC-No.: 205-399-7 REACH-no: 01-2119638272-42	0.3 – 0.55	Aquatic Chronic 3, H412
COUMARIN	CAS-No.: 91-64-5 EC-No.: 202-086-7 REACH-no: 01-2119943756-26	0.2 – 0.4	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Damascone Beta	CAS-No.: 23726-92-3 EC-No.: 245-843-7	0.1 – 0.2	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 2, H411
alpha-Methylcinnamic aldehyde	CAS-No.: 101-39-3 EC-No.: 202-938-8 REACH-no: 01-2119538797-21	0.1 – 0.1	Skin Sens. 1, H317 Aquatic Chronic 1, H410

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
citral substance with national workplace exposure limit(s) (BE, ES, IE, PL, PT)	CAS-No.: 5392-40-5 EC-No.: 226-394-6 EC Index-No.: 605-019-00-3 REACH-no: 01-2119462829-23	0.001 – 0.003	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Alcohol C-10 substance with national workplace exposure limit(s) (BG, DE, LT, LV, RO, CH)	CAS-No.: 112-30-1 EC-No.: 203-956-9	0 – 0.0001	Aquatic Chronic 3, H412

Full text of H- and EUH-statements: 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).

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 : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see Get medical advice/attention. on this label). 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. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor 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 skin contact : May cause an allergic skin reaction.

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 : Sand. Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or 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 the 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

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/vapours/spray.

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. 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 vapour. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : 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 : Sources of ignition. Direct sunlight.

Storage temperature : 25 °C

Storage area : Store in a well-ventilated place. Store away from heat.

Special rules on packaging : 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

8.1.1 National occupational exposure and biological limit values

(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)	
Finland - Occupational Exposure Limits	
HTP (OEL TWA) [1]	140 mg/m³
HTP (OEL TWA) [2]	25 ppm
HTP (OEL STEL)	280 mg/m³
HTP (OEL STEL) [ppm]	50 ppm
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	28 mg/m³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
AGW (OEL TWA) [2]	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	28 mg/m³
OEL TWA	5 ppm
OEL STEL	112 mg/m³
OEL STEL	20 ppm
OEL chemical category	Potential for cutaneous absorption
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [1]	168 mg/m³
VLA-ED (OEL TWA) [2]	30 ppm
OEL chemical category	Sensitizer, skin - potential for cutaneous absorption
Norway - Occupational Exposure Limits	
Grenseverdi (OEL TWA) [1]	140 mg/m³
Grenseverdi (OEL TWA) [2]	25 ppm
Korttidsverdi (OEL STEL)	175 mg/m³ (value calculated)
Korttidsverdi (OEL STEL) [ppm]	37.5 ppm (value calculated)
OEL chemical category	Allergenic substance
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA) [1]	40 mg/m³
MAK (OEL TWA) [2]	7 ppm
KZGW (OEL STEL)	80 mg/m³
KZGW (OEL STEL) [ppm]	14 ppm
OEL chemical category	Sensitizer

Benzyl acetate (140-11-4)	
Belgium - Occupational Exposure Limits	
OEL TWA	62 mg/m³
OEL TWA	10 ppm
Denmark - Occupational Exposure Limits	
OEL TWA [1]	61 mg/m³

Benzyl acetate (140-11-4)	
OEL TWA [2]	10 ppm
OEL STEL	122 mg/m³
OEL STEL	20 ppm
Ireland - Occupational Exposure Limits	
OEL TWA [2]	10 ppm
OEL STEL	30 ppm (calculated)
Latvia - Occupational Exposure Limits	
OEL TWA	5 mg/m³
Lithuania - Occupational Exposure Limits	
IPRV (OEL TWA)	5 mg/m³
Portugal - Occupational Exposure Limits	
OEL TWA	10 ppm
OEL chemical category	A4 - Not Classifiable as a Human Carcinogen
Romania - Occupational Exposure Limits	
OEL TWA	50 mg/m³
OEL TWA	8 ppm
OEL STEL	80 mg/m³
OEL STEL	13 ppm
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [1]	62 mg/m³
VLA-ED (OEL TWA) [2]	10 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	10 ppm
ACGIH chemical category	Not Classifiable as a Human Carcinogen

citral (5392-40-5)	
Belgium - Occupational Exposure Limits	
OEL TWA	32 mg/m³ (vapor and aerosol)
OEL TWA	5 ppm (vapor and aerosol)
OEL chemical category	Skin
Ireland - Occupational Exposure Limits	
OEL TWA [2]	5 ppm
OEL STEL	15 ppm (calculated)
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	27 mg/m³
NDSCh (OEL STEL)	54 mg/m³
Portugal - Occupational Exposure Limits	
OEL TWA	5 ppm (inhalable fraction; vapor)
OEL chemical category	Sensitizer dermal, A4 - Not Classifiable as a Human Carcinogen, skin - potential for cutaneous exposure

citral (5392-40-5)	
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [2]	5 ppm (inhalable fraction and vapor)
OEL chemical category	Sensitizer, skin - potential for cutaneous absorption
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	5 ppm (inhalable fraction and vapor)
ACGIH chemical category	Not Classifiable as a Human Carcinogen, Skin - potential significant contribution to overall exposure by the cutaneous route, dermal sensitizer

Alcohol C-10 (112-30-1)	
Bulgaria - Occupational Exposure Limits	
OEL TWA	10 mg/m³
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	66 mg/m³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
AGW (OEL TWA) [2]	10 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Latvia - Occupational Exposure Limits	
OEL TWA	10 mg/m³
Lithuania - Occupational Exposure Limits	
IPRV (OEL TWA)	10 mg/m³
Romania - Occupational Exposure Limits	
OEL TWA	100 mg/m³
OEL TWA	15 ppm
OEL STEL	200 mg/m³
OEL STEL	30 ppm
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA) [1]	66 mg/m³ (aerosol, vapour)
MAK (OEL TWA) [2]	10 ppm (aerosol, vapour)
KZGW (OEL STEL)	66 mg/m³ (aerosol, vapour)
KZGW (OEL STEL) [ppm]	10 ppm (aerosol, vapour)

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:
Avoid all unnecessary exposure.

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Chemical goggles or safety glasses. Safety glasses

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Protective gloves. Wear protective gloves.

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate mask

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

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
Colour	:	light yellow. amber. Conforms to standard.
Odour	:	characteristic. characteristic.
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	Not available
Flammability	:	Not applicable
Explosive limits	:	Not available
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	> 93 °C
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	Not available
Solubility	:	Not available
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	Not available
Relative density	:	≈ 1.02
Relative vapour density at 20°C	:	Not available

Particle characteristics : Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

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

Stable under normal conditions. Not established.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Not established.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

benzyl benzoate (120-51-4)	
LD50 oral rat	500 mg/kg (Source: NLM_CIP)
LD50 oral	1160 mg/kg bodyweight
LD50 dermal rabbit	4000 mg/kg (Source: NLM_CIP)

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB) (1222-05-5)	
LD50 oral rat	> 3250 mg/kg (Source: CHEMVIEW)
LD50 dermal rabbit	> 3250 mg/kg (Source: CHEMVIEW)

Hexyl cinnamic aldehyde (101-86-0)	
LD50 oral rat	3100 mg/kg (Source: NLM_CIP)
LD50 oral	3100 mg/kg bodyweight
LD50 dermal rabbit	> 3000 mg/kg (Source: EPA_HPV)
LC50 Inhalation - Rat	> 5 mg/l/4h

2(3H)-Furanone, 5-heptyldihydro- (104-67-6)	
LD50 oral rat	18500 mg/kg (Source: NLM_CIP)
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)
Dimethylbenzyl carbinyl butyrate(DMBCB) (10094-34-5)	
LD50 oral rat	> 5 g/kg (Source: NLM_CIP)
Dimethylbenzyl carbinyl acetate(DMBCA) (151-05-3)	
LD50 oral rat	3300 mg/kg (Source: NLM_CIP)
LD50 oral	3300 mg/kg bodyweight
Ethylene brassylate (105-95-3)	
LD50 oral rat	> 5000 mg/kg (Source: ECHA)
LD50 dermal rabbit	> 5000 mg/kg (Source: ECHA)
Aldehyde C-16 (77-83-8)	
LD50 oral rat	5470 mg/kg (Source: NLM_CIP)
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)
Verdox (88-41-5)	
LD50 oral rat	4600 mg/kg (Source: NLM_CIP)
LD50 oral	4600 mg/kg bodyweight
Linalyl acetate (115-95-7)	
LD50 oral rat	14550 mg/kg (Source: EPA_HPV)
LD50 dermal rabbit	> 5000 mg/kg (Source: EPA_HPV)
Helional (1205-17-0)	
LD50 dermal rabbit	> 2000 mg/kg (Source: ECHA_API)
Linalool (78-70-6)	
LD50 oral	2790 mg/kg bodyweight
ACETYL HEXAMETHYL TETRALIN (21145-77-7)	
LD50 oral rat	570 mg/kg (Source: NLM_CIP)
LD50 oral	1000 mg/kg bodyweight
LD50 dermal rabbit	> 5 g/kg (Source: NLM_HSDB)
(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)	
LD50 oral rat	4400 mg/kg (Source: CHEMVIEW)
LD50 dermal rabbit	> 5 g/kg (Source: CHEMVIEW)
Benzyl acetate (140-11-4)	
LD50 oral rat	2490 mg/kg (Source: JAPAN_GHS)
LD50 oral	2490 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg (Source: JAPAN_GHS)
COUMARIN (91-64-5)	
LD50 oral rat	> 5000 mg/kg (Source: JAPAN_GHS)
LD50 oral	290 mg/kg bodyweight

COUMARIN (91-64-5)	
LD50 dermal rat	293 mg/kg (Source: ECHA_API)

Damascone Beta (23726-92-3)	
LD50 oral	2920 mg/kg bodyweight

citral (5392-40-5)	
LD50 oral rat	4960 mg/kg (Source: NLM_CIP)
LD50 dermal rabbit	2250 mg/kg (Source: NLM_CIP)

alpha-Methylcinnamic aldehyde (101-39-3)	
LD50 oral rat	2050 mg/kg (Source: NLM_CIP)
LD50 oral	2050 mg/kg bodyweight
LD50 dermal rabbit	> 5 g/kg (Source: NLM_CIP)

Alcohol C-10 (112-30-1)	
LD50 oral rat	4720 mg/kg (Source: NZ_CCID)
LD50 dermal rabbit	3560 mg/kg (Source: NLM_CIP)

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

(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)	
IARC group	3 - Not classifiable

Benzyl acetate (140-11-4)	
IARC group	3 - Not classifiable

COUMARIN (91-64-5)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

benzyl benzoate (120-51-4)	
Viscosity, kinematic	7.456 mm²/s

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short–term (acute) : Very toxic to aquatic life.

Hazardous to the aquatic environment, long–term (chronic) : Toxic to aquatic life with long lasting effects.

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

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB) (1222-05-5)	
LC50 - Fish [1]	0.452 mg/l Wolf, 1996d-27682
LC50 - Other aquatic organisms [1]	> 0.14 mg/l REACH DOSSIER Pimephales promelas
EC50 - Crustacea [2]	260 µg/l REACH Dossier
EC50 - Other aquatic organisms [1]	0.131 mg/l REACH Dossier

2(3H)-Furanone, 5-heptyldihydro- (104-67-6)	
LC50 - Fish [1]	569 mg/l 96 h
EC50 - Crustacea [1]	5.85 mg/l 48 h
EC50 - Other aquatic organisms [1]	5.94 mg/l 72 h

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

Linalyl acetate (115-95-7)	
LC50 - Fish [1]	11 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [flow-through] Source: ECHA)

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

(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)	
LC50 - Fish [1]	0.619 – 0.796 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)
LC50 - Fish [2]	35 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss Source: EPA)

citral (5392-40-5)	
EC50 - Crustacea [1]	7 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	16 mg/l (Species: Desmodesmus subspicatus)
EC50 96h - Algae [1]	19 mg/l (Species: Desmodesmus subspicatus)

Alcohol C-10 (112-30-1)	
LC50 - Fish [1]	2.2 – 2.5 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)
LC50 - Fish [2]	4.12 – 6.2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA)
EC50 - Crustacea [1]	3 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

PLUM #EU35586F	
Persistence and degradability	Not established.

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

12.3. Bioaccumulative potential

PLUM #EU35586F	
Bioaccumulative potential	Not established.

benzyl benzoate (120-51-4)	
Partition coefficient n-octanol/water (Log Pow)	3.97 (at 25 °C)
Bioaccumulative potential	Not established.

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB) (1222-05-5)	
BCF - Fish [1]	(1618 dimensionless (whole body w.w.)
Partition coefficient n-octanol/water (Log Pow)	5.3 (at 25 °C (at pH 7)

2(3H)-Furanone, 5-heptyldihydro- (104-67-6)	
Partition coefficient n-octanol/water (Log Pow)	3.6 (at 25 °C)

Dimethylbenzyl carbinyl butyrate(DMBCB) (10094-34-5)	
Partition coefficient n-octanol/water (Log Pow)	4.7 (at 25 °C)

Dimethylbenzyl carbinyl acetate(DMBCA) (151-05-3)	
Partition coefficient n-octanol/water (Log Pow)	3.64 (at 25 °C (at pH >6-<7)

Ethylene brassylate (105-95-3)	
Partition coefficient n-octanol/water (Log Pow)	4.3 (at 25 °C (at pH 6.4-7)

Aldehyde C-16 (77-83-8)	
Partition coefficient n-octanol/water (Log Pow)	2.4 (at 25 °C (cis isomer)

Linalyl acetate (115-95-7)	
Partition coefficient n-octanol/water (Log Pow)	3.9 (at 25 °C)

Helional (1205-17-0)	
Partition coefficient n-octanol/water (Log Pow)	2.4 (at 25 °C)

ACETYL HEXAMETHYL TETRALIN (21145-77-7)	
Partition coefficient n-octanol/water (Log Pow)	5.7 (at 24 °C)

(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)	
Partition coefficient n-octanol/water (Log Pow)	4.38 (at 37 °C (at pH 7.2)

Benzyl acetate (140-11-4)	
Partition coefficient n-octanol/water (Log Pow)	1.96 (at 25 °C (at pH 7)

citral (5392-40-5)	
Partition coefficient n-octanol/water (Log Pow)	2.76 (at 25 °C)

Alcohol C-10 (112-30-1)	
Partition coefficient n-octanol/water (Log Pow)	4.5 (at 25 °C (at pH 6)

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

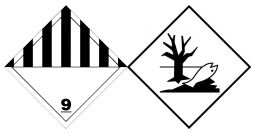
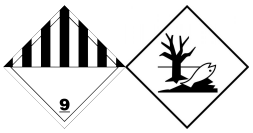
13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.
HP Code : HP3 - "Flammable:"
– flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;
– flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;
– flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;
– flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;
– water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;
– other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.
HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN)	Environmentally hazardous substance, liquid, n.o.s. (HEXAMETHYLINDANOPYRAN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN)

ADR	IMDG	IATA	ADN	RID
Transport document description				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (HEXAMETHYLINDANOPYRAN), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN), 9, III
14.3. Transport hazard class(es)				
9	9	9	9	9
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	M6
Special provisions (ADR)	:	274, 335, 375, 601
Limited quantities (ADR)	:	5l
Excepted quantities (ADR)	:	E1
Packing instructions (ADR)	:	P001, IBC03, LP01, R001
Special packing provisions (ADR)	:	PP1
Mixed packing provisions (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.)	:	90
Orange plates	:	
Tunnel restriction code (ADR)	:	-
EAC code	:	•3Z

Transport by sea

Special provisions (IMDG)	:	274, 335, 969
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	LP01, P001

Special packing provisions (IMDG)	:	PP1
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP1, 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 provisions (IATA)	:	A97, A158, A197, A215
ERG code (IATA)	:	9L

Inland waterway transport

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

Rail transport

Classification code (RID)	:	M6
Special provisions (RID)	:	274, 335, 375, 601
Limited quantities (RID)	:	5L
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P001, IBC03, LP01, R001
Special packing provisions (RID)	:	PP1
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T4
Portable tank and bulk container special provisions (RID)	:	TP1, TP29
Tank codes for RID tanks (RID)	:	LGBV
Transport category (RID)	:	3
Special provisions for carriage – Packages (RID)	:	W12
Special provisions for carriage - Loading, unloading and handling (RID)	:	CW13, CW31
Colis express (express parcels) (RID)	:	CE8
Hazard identification number (RID)	:	90

14.7. Maritime transport in bulk according to IMO instruments

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

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	**Applicable on**	**Entry title or description**
3(a)	(R)-p-mentha-1,8-diene; d-limonene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	PLUM #EU35586F ; benzyl benzoate ; Hexyl cinnamic aldehyde ; Dimethylbenzyl carbinyl butyrate(DMBCB) ; Aldehyde C-16 ; Linalyl acetate ; Helional ; Linalool ; (R)-p-mentha-1,8-diene; d-limonene ; Damascone Beta ; citral ; alpha-Methylcinnamic aldehyde	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	PLUM #EU35586F ; benzyl benzoate ; 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB) ; Hexyl cinnamic aldehyde ; 2(3H)-Furanone, 5-heptyldihydro- ; Dimethylbenzyl carbinyl butyrate(DMBCB) ; Dimethylbenzyl carbinyl acetate(DMBCA) ; Ethylene brassylate ; Aldehyde C-16 ; Verdox ; Helional ; (R)-p-mentha-1,8-diene; d-limonene ; Benzyl acetate ; Damascone Beta ; alpha-Methylcinnamic aldehyde ; Alcohol C-10	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
40.	(R)-p-mentha-1,8-diene; d-limonene	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Germany

Water hazard class (WGK)	:	WGK 2, Significantly 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

ABM category	:	A(1) - highly toxic for aquatic organisms, may have longterm hazardous effects in aquatic environment
SZW-lijst van kankerverwekkende stoffen	:	None of the components are listed
SZW-lijst van mutagene stoffen	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	:	None of the components are listed

Denmark

Classification remarks	:	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

Other information : None.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), 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
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2

Full text of H- and EUH-statements:	
Flam. Liq. 3	Flammable liquids, Category 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.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
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.
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

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.