



RASPBERRY FR20065

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 5/20/2024 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Product name : RASPBERRY FR20065
Product code : FR20065
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 : For professional use only
Industrial
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

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 corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2 H319
Skin sensitisation, Category 1 H317
Hazardous to the aquatic environment – Chronic Hazard, Category 3 H412

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

Adverse physicochemical, human health and environmental effects

Causes mild skin irritation. Harmful to aquatic life. Causes skin irritation. Causes serious eye irritation. Harmful 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

Signal word (CLP)

: Warning

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Hazard statements (CLP)	: 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 (CLP)	: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash hands, forearms and face thoroughly after handling. 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.
Extra phrases	: For professional users only.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ 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 substance(s) are 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]
Bis(2-ethylhexyl) adipate substance with national workplace exposure limit(s) (PL)	CAS-No.: 103-23-1 EC-No.: 203-090-1 REACH-no: 01-2119439699-19	35.7 – 71.3	Not classified
benzyl alcohol substance with national workplace exposure limit(s) (BG, CZ, DE, FI, LT, LV, PL, SI, CH)	CAS-No.: 100-51-6 EC-No.: 202-859-9 EC Index-No.: 603-057-00-5 REACH-no: 01-2119492630-38	4.5 – 9	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Aldehyde C-16	CAS-No.: 77-83-8 EC-No.: 201-061-8 REACH-no: 01-2119967770-28	2.5 – 5	Skin Sens. 1B, H317 Aquatic Chronic 2, H411
Oxypheylon (Raspberry ketone) crystals	CAS-No.: 5471-51-2 EC-No.: 226-806-4	1.5 – 3	Acute Tox. 4 (Oral), H302
beta-Ionone	CAS-No.: 14901-07-6 EC-No.: 238-969-9	1.3 – 2.5	Aquatic Chronic 2, H411
Citronellol Pure	CAS-No.: 106-22-9 EC-No.: 203-375-0 REACH-no: 01-2119453995-23	1 – 2	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Citrus medica limonum (Lemon) peel oil	CAS-No.: 8008-56-8 EC-No.: 284-515-8	0.5 – 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Repr. 2, H361 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Methyl cinnamate	CAS-No.: 103-26-4 EC-No.: 203-093-8 REACH-no: 01-2119979458-16	0.5 – 1	Skin Sens. 1B, H317
Ethyl vanillin	CAS-No.: 121-32-4 EC-No.: 204-464-7 REACH-no: 01-211958961-24	0.5 – 1	Eye Irrit. 2, H319
Triplal (Vertocitral)	CAS-No.: 68039-49-6 EC-No.: 268-264-1	0.2 – 0.463	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Hexyl cinnamic aldehyde	CAS-No.: 101-86-0 EC-No.: 202-983-3 REACH-no: 01-2119533092-50	0.2 – 0.4	Skin Sens. 1, H317 Aquatic Chronic 2, H411
Ethyl acetoacetate substance with national workplace exposure limit(s) (RO)	CAS-No.: 141-97-9 EC-No.: 205-516-1	0.1 – 0.2	Not classified
acetophenone substance with national workplace exposure limit(s) (BE, BG, DK, ES, FI, HU, IE, LT, LV, PL, PT, RO)	CAS-No.: 98-86-2 EC-No.: 202-708-7 EC Index-No.: 606-042-00-1 REACH-no: 01-2119533169-37	0.1 – 0.1	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319
Acetyl Propionyl substance with national workplace exposure limit(s) (DE, SI, CH)	CAS-No.: 600-14-6 EC-No.: 209-984-8	0.1 – 0.1	Flam. Liq. 2, H225 Eye Dam. 1, H318 Skin Sens. 1B, H317 STOT RE 2, H373
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 – 0.0056	Aquatic Chronic 3, H412
Aldehyde C-6 substance with national workplace exposure limit(s) (FI, PL)	CAS-No.: 66-25-1 EC-No.: 200-624-5	0 – 0.0014	Flam. Liq. 3, H226
Caproic acid substance with national workplace exposure limit(s) (BG, LT, LV)	CAS-No.: 142-62-1 EC-No.: 205-550-7	0 – 0.0001	Eye Dam. 1, H318 Skin Corr. 1C, H314

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.

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First-aid measures after skin contact	: Wash with plenty of water/.... If skin irritation or rash occurs: 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 cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
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 inhalation	: May cause an allergic skin reaction.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.

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.
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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.
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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.

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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. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.

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

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.

Germany

Storage class (LGK, TRGS 510) : LGK 10 - Combustible liquids

Joint storage table :

LGK 1	LGK 2A	LGK 2B	LGK 3	LGK 4.1A
LGK 4.1B	LGK 4.2	LGK 4.3	LGK 5.1A	LGK 5.1B
LGK 5.1C	LGK 5.2	LGK 6.1A	LGK 6.1B	LGK 6.1C
LGK 6.1D	LGK 6.2	LGK 7	LGK 8A	LGK 8B
LGK 10	LGK 11	LGK 12	LGK 13	LGK 10-13

Joint storage not permitted for : LGK 1, LGK 2A, LGK 5.1A, LGK 6.2, LGK 7

Joint storage with restrictions permitted for : LGK 4.1A, LGK 4.2, LGK 4.3, LGK 5.1B, LGK 5.1C, LGK 5.2

Joint storage permitted for : LGK 2B, LGK 3, LGK 4.1B, LGK 6.1A, LGK 6.1B, LGK 6.1C, LGK 6.1D, LGK 8A, LGK 8B, LGK 10, LGK 11, LGK 12, LGK 13, LGK 10-13

Switzerland

Storage class (LK) : LK 10/12 - Liquids

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

Bis(2-ethylhexyl) adipate (103-23-1)

Poland - Occupational Exposure Limits

NDS (OEL TWA)	400 mg/m ³
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benzyl alcohol (100-51-6)	
Bulgaria - Occupational Exposure Limits	
OEL TWA	5 mg/m ³
Czech Republic - Occupational Exposure Limits	
PEL (OEL TWA)	40 mg/m ³
Finland - Occupational Exposure Limits	
HTP (OEL TWA)	45 mg/m ³
	10 ppm
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA)	22 mg/m ³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
	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
Latvia - Occupational Exposure Limits	
OEL TWA	5 mg/m ³
Lithuania - Occupational Exposure Limits	
IPRV (OEL TWA)	5 mg/m ³
OEL chemical category	Skin notation
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	240 mg/m ³
Slovenia - Occupational Exposure Limits	
OEL TWA	22 mg/m ³
	5 ppm
OEL STEL	44 mg/m ³
	10 ppm
OEL chemical category	Potential for cutaneous absorption
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA)	22 mg/m ³ (aerosol, vapour)
	5 ppm (aerosol, vapour)
OEL chemical category	Skin notation
Ethyl acetoacetate (141-97-9)	
Romania - Occupational Exposure Limits	
OEL TWA	100 mg/m ³
	19 ppm
OEL STEL	200 mg/m ³
	38 ppm
acetophenone (98-86-2)	
Belgium - Occupational Exposure Limits	
OEL TWA	50 mg/m ³

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acetophenone (98-86-2)	
	10 ppm
Bulgaria - Occupational Exposure Limits	
OEL TWA	5 mg/m ³
Denmark - Occupational Exposure Limits	
OEL TWA	49 mg/m ³
	10 ppm
OEL STEL	98 mg/m ³
	20 ppm
Finland - Occupational Exposure Limits	
HTP (OEL TWA)	25 mg/m ³
	5 ppm
Hungary - Occupational Exposure Limits	
AK (OEL TWA)	50 mg/m ³
Ireland - Occupational Exposure Limits	
OEL TWA	49 mg/m ³
	10 ppm
OEL STEL	147 mg/m ³ (calculated)
	30 ppm (calculated)
Latvia - Occupational Exposure Limits	
OEL TWA	5 mg/m ³
Lithuania - Occupational Exposure Limits	
IPRV (OEL TWA)	5 mg/m ³
OEL chemical category	Skin notation
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	50 mg/m ³
NDSch (OEL STEL)	100 mg/m ³
Portugal - Occupational Exposure Limits	
OEL TWA	10 ppm
Romania - Occupational Exposure Limits	
OEL TWA	100 mg/m ³
	20 ppm
OEL STEL	200 mg/m ³
	41 ppm
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA)	50 mg/m ³
	10 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	10 ppm

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Acetyl Propionyl (600-14-6)	
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA)	0.083 mg/m ³
	0.02 ppm
Chemical category	Skin notation, Skin sensitization
Slovenia - Occupational Exposure Limits	
OEL TWA	0.083 mg/m ³
	0.02 ppm
OEL STEL	0.083 mg/m ³
	0.02 ppm
OEL chemical category	Potential for cutaneous absorption
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA)	0.08 mg/m ³
	0.02 ppm
KZGW (OEL STEL)	0.16 mg/m ³
	0.04 ppm
OEL chemical category	Sensitizer, Skin notation
Alcohol C-10 (112-30-1)	
Bulgaria - Occupational Exposure Limits	
OEL TWA	10 mg/m ³
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA)	66 mg/m ³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
	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/m ³
Lithuania - Occupational Exposure Limits	
IPRV (OEL TWA)	10 mg/m ³
Romania - Occupational Exposure Limits	
OEL TWA	100 mg/m ³
	15 ppm
OEL STEL	200 mg/m ³
	30 ppm
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA)	66 mg/m ³ (aerosol, vapour)
	10 ppm (aerosol, vapour)
KZGW (OEL STEL)	66 mg/m ³ (aerosol, vapour)
	10 ppm (aerosol, vapour)

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Aldehyde C-6 (66-25-1)	
Finland - Occupational Exposure Limits	
HTP (OEL STEL)	42 mg/m ³
	10 ppm
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	40 mg/m ³
NDSch (OEL STEL)	80 mg/m ³
Caproic acid (142-62-1)	
Bulgaria - Occupational Exposure Limits	
OEL TWA	5 mg/m ³
Latvia - Occupational Exposure Limits	
OEL TWA	5 mg/m ³
Lithuania - Occupational Exposure Limits	
IPRV (OEL TWA)	5 mg/m ³

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:

Wear protective gloves.

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8.2.2.3. Respiratory protection

Respiratory protection:

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.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not applicable
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 95 °C (closed cup) ASTM D7094
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
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

Not established.

10.3. Possibility of hazardous reactions

Not established.

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10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

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

Bis(2-ethylhexyl) adipate (103-23-1)

LD50 oral rat	5600 mg/kg (Source: NLM_CIP)
LD50 dermal rabbit	8410 mg/kg (Source: NLM_CIP)
LC50 Inhalation - Rat	> 5.7 mg/l/4h

benzyl alcohol (100-51-6)

LD50 oral rat	1230 mg/kg (Source: NLM_CIP)
LD50 oral	1570 mg/kg

Aldehyde C-16 (77-83-8)

LD50 oral rat	5470 mg/kg (Source: NLM_CIP)
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)

Oxypheylon (Raspberry ketone) crystals (5471-51-2)

LD50 oral rat	1320 mg/kg (Source: NLM_CIP)
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)

beta-Ionone (14901-07-6)

LD50 oral rat	4590 mg/kg (Source: NLM_HSDB)
LD50 oral	3940 mg/kg bodyweight

Citronellol Pure (106-22-9)

LD50 oral rat	3450 mg/kg (Source: NLM_CIP)
LD50 oral	3450 mg/kg bodyweight
LD50 dermal rabbit	2650 mg/kg (Source: EPA_HPVS)
LD50 dermal	2650 mg/kg bodyweight

Citrus medica limonum (Lemon) peel oil (8008-56-8)

LD50 oral rat	2840 mg/kg (Source: NLM_CIP)
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Methyl cinnamate (103-26-4)

LD50 oral rat	2610 mg/kg (Source: NLM_CIP)
LD50 oral	2610 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg (Source: ECHA_API)

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Ethyl vanillin (121-32-4)	
LD50 oral rat	1590 mg/kg (Source: NLM_CIP)
LD50 oral	3000 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)
Triplal (Vertocitral) (68039-49-6)	
LD50 oral	2330 mg/kg
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_HP)
LC50 Inhalation - Rat	> 5 mg/l/4h
Ethyl acetoacetate (141-97-9)	
LD50 oral rat	3980 mg/kg (Source: NLM_CIP)
LD50 dermal rabbit	> 5000 mg/kg (Source: NLM_CIP)
acetophenone (98-86-2)	
LD50 oral rat	900 mg/kg (Source: JAPAN_GHS)
LD50 oral	500 mg/kg bodyweight
LD50 dermal rat	3300 mg/kg (Source: ECHA_API)
LC50 Inhalation - Rat	> 2.13 mg/l (Exposure time: 8 h Source: CHEMVIEW)
Acetyl Propionyl (600-14-6)	
LD50 oral rat	3 g/kg (Source: NLM_CIP)
LD50 oral	3000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg (Source: NIOSH)
Alcohol C-10 (112-30-1)	
LD50 oral rat	4720 mg/kg (Source: NZ_CCID)
LD50 dermal rabbit	3560 mg/kg (Source: NLM_CIP)
Aldehyde C-6 (66-25-1)	
LD50 oral rat	4890 mg/kg (Source: NLM_CIP)
LD50 dermal rabbit	> 8100 mg/kg (Source: ECHA_API)
Caproic acid (142-62-1)	
LD50 oral rat	3 g/kg (Source: NLM_HSDB)
LD50 oral	4000 mg/kg bodyweight
LD50 dermal rabbit	630 mg/kg (Source: NLM_HSDB)
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	: Not classified
Carcinogenicity	: Not classified
Bis(2-ethylhexyl) adipate (103-23-1)	
IARC group	3 - Not classifiable

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

Acetyl Propionyl (600-14-6)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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Aspiration hazard	: Not classified
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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
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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Harmful to aquatic life. Harmful 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)	: Harmful to aquatic life with long lasting effects.

Bis(2-ethylhexyl) adipate (103-23-1)

LC50 - Fish [1]	0.48 – 0.85 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA)
LC50 - Fish [2]	0.48 – 0.85 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: EPA)
EC50 - Crustacea [1]	> 1.6 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	> 500 mg/l (Species: Desmodesmus subspicatus)

benzyl alcohol (100-51-6)

LC50 - Fish [1]	460 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)
LC50 - Fish [2]	10 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA)
EC50 - Crustacea [1]	23 mg/l (Exposure time: 48 h - Species: water flea)

Aldehyde C-16 (77-83-8)

LC50 - Fish [1]	4.2 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static] Source: ECHA)
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Methyl cinnamate (103-26-4)

LC50 - Fish [1]	2.76 mg/l (Exposure time: 96 h - Species: Danio rerio [static] Source: ECHA)
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Ethyl vanillin (121-32-4)

LC50 - Fish [1]	81.4 – 94.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)
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Ethyl acetoacetate (141-97-9)

LC50 - Fish [1]	298 mg/l (Exposure time: 96 h - Species: Pimephales promelas Source: IUCLID)
LC50 - Fish [2]	290 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss Source: IUCLID)
EC50 - Crustacea [1]	646 mg/l (Exposure time: 48 h - Species: Daphnia magna)

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Ethyl acetoacetate (141-97-9)	
EC50 72h - Algae [1]	> 500 mg/l (Species: <i>Desmodesmus subspicatus</i>)
acetophenone (98-86-2)	
LC50 - Fish [1]	162 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [flow-through] Source: EPA)
LC50 - Fish [2]	155 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [static] Source: EPA)
Alcohol C-10 (112-30-1)	
LC50 - Fish [1]	2.2 – 2.5 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [flow-through] Source: EPA)
LC50 - Fish [2]	4.12 – 6.2 mg/l (Exposure time: 96 h - Species: <i>Lepomis macrochirus</i> [static] Source: EPA)
EC50 - Crustacea [1]	3 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i>)
Aldehyde C-6 (66-25-1)	
LC50 - Fish [1]	12 – 16.5 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [flow-through] Source: EPA)
Caproic acid (142-62-1)	
LC50 - Fish [1]	306 – 334 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [flow-through] Source: EPA)
LC50 - Fish [2]	88 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [static] Source: EPA)
12.2. Persistence and degradability	
RASPBERRY FR20065	
Persistence and degradability	Not established.
Bis(2-ethylhexyl) adipate (103-23-1)	
Persistence and degradability	Rapidly degradable
benzyl alcohol (100-51-6)	
Persistence and degradability	Rapidly degradable
Aldehyde C-16 (77-83-8)	
Persistence and degradability	Rapidly degradable
Oxyphelyon (Raspberry ketone) crystals (5471-51-2)	
Persistence and degradability	Rapidly degradable
beta-Ionone (14901-07-6)	
Persistence and degradability	Rapidly degradable
Citronellol Pure (106-22-9)	
Persistence and degradability	Rapidly degradable
Citrus medica limonum (Lemon) peel oil (8008-56-8)	
Persistence and degradability	Rapidly degradable
Methyl cinnamate (103-26-4)	
Persistence and degradability	Not established.

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Ethyl vanillin (121-32-4)	
Persistence and degradability	Rapidly degradable
Triplal (Vertocitral) (68039-49-6)	
Persistence and degradability	Rapidly degradable
Hexyl cinnamic aldehyde (101-86-0)	
Persistence and degradability	Rapidly degradable
Ethyl acetoacetate (141-97-9)	
Persistence and degradability	Rapidly degradable
acetophenone (98-86-2)	
Persistence and degradability	Rapidly degradable
Acetyl Propionyl (600-14-6)	
Persistence and degradability	Rapidly degradable
Alcohol C-10 (112-30-1)	
Persistence and degradability	Rapidly degradable
Aldehyde C-6 (66-25-1)	
Persistence and degradability	Rapidly degradable
Caproic acid (142-62-1)	
Persistence and degradability	Rapidly degradable
12.3. Bioaccumulative potential	
RASPBERRY FR20065	
Bioaccumulative potential	Not established.
Bis(2-ethylhexyl) adipate (103-23-1)	
BCF - Fish [1]	(27 dimensionless)
Partition coefficient n-octanol/water (Log Pow)	8.94 (at 25 °C)
benzyl alcohol (100-51-6)	
Partition coefficient n-octanol/water (Log Pow)	1.05
Aldehyde C-16 (77-83-8)	
Partition coefficient n-octanol/water (Log Pow)	2.4 (at 25 °C (cis isomer))
Oxyphylon (Raspberry ketone) crystals (5471-51-2)	
Partition coefficient n-octanol/water (Log Pow)	1.33 (at 20 °C)
beta-Ionone (14901-07-6)	
Partition coefficient n-octanol/water (Log Pow)	1.903 (at 27 °C (at pH 5.7))
Citronellol Pure (106-22-9)	
Partition coefficient n-octanol/water (Log Pow)	3.41 (at 25 °C)
Methyl cinnamate (103-26-4)	
Partition coefficient n-octanol/water (Log Pow)	2.68 (at 25 °C (at pH >4.73-<7.06))

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Methyl cinnamate (103-26-4)	
Bioaccumulative potential	Not established.
Ethyl vanillin (121-32-4)	
Partition coefficient n-octanol/water (Log Pow)	1.61 (at 25 °C)
Ethyl acetoacetate (141-97-9)	
Partition coefficient n-octanol/water (Log Pow)	0.8 (at 20 °C)
acetophenone (98-86-2)	
Partition coefficient n-octanol/water (Log Pow)	1.63 – 1.65
Alcohol C-10 (112-30-1)	
Partition coefficient n-octanol/water (Log Pow)	4.5 (at 25 °C (at pH 6)
Aldehyde C-6 (66-25-1)	
Partition coefficient n-octanol/water (Log Pow)	2.3 (at 25 °C (at pH 5)
Caproic acid (142-62-1)	
Partition coefficient n-octanol/water (Log Pow)	1.88

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 of contents/container in accordance with local/national laws and regulations. Dispose in a safe manner in accordance with local/national regulations.
Ecological information	: Avoid release to the environment.
HP Code	: HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye. 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				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

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ADR	IMDG	IATA	ADN	RID
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

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)	Citrus medica limonum (Lemon) peel oil ; Acetyl Propionyl ; Aldehyde C-6	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)	RASPBERRY FR20065 ; benzyl alcohol ; Aldehyde C-16 ; Citronellol Pure ; Citrus medica limonum (Lemon) peel oil ; Triplal (Vertocitral) ; Hexyl cinnamic aldehyde ; acetophenone ; Acetyl Propionyl ; Caproic acid	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

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EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(c)	RASPBERRY FR20065 ; Aldehyde C-16 ; beta-Ionone ; Citrus medica limonum (Lemon) peel oil ; Triplal (Vertocitral) ; Hexyl cinnamic 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.	Citrus medica limonum (Lemon) peel oil ; Acetyl Propionyl ; Aldehyde C-6	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)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

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 to the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

ABM category : A(2) - toxic for aquatic organisms, may have longterm hazardous effects in aquatic environment
SZW-lijst van kankerverwekkende stoffen : Lemon oil ,Triplal (Vertocitral) are listed
SZW-lijst van mutagene stoffen : Lemon oil ,Triplal (Vertocitral) 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

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

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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. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute 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
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
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 Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

The classification complies with : ATP 12

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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.