

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 2/22/2019 Revision date: 2/19/2024 Supersedes version of: 11/8/2023 Version: 3.0

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

1.1. Product identifier

Product form : Mixture
Trade name : Apple Juice

UFI : 8MVM-93QY-H00X-E85Q

Product code : parf_apple_juice
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

BAKED GAMES SRL ROMANIA, BUCHAREST, SECTOR 4 +40771326626

contact@kitlumanari.ro | www.kitlumanari.ro

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 – Chronic Hazard, H412

Category 3

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

Adverse physicochemical, human health and environmental effects

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)



GHSU

Signal word (CLP)

: Warning

Contains : Eugenol; Cinnamic aldehyde; Orange Oil; Allyl cyclohexylpropionate; Cinnamalva; citral;

COUMARIN; Heliotropine; Davana oil

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Hazard statements (CLP) : H317 - May cause an allergic skin reaction.

H412 - Harmful 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 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]
Verdox	CAS-No.: 88-41-5 EC-No.: 201-828-7 REACH-no: 01-2119970713- 33	2.2 – 4.4001	Aquatic Chronic 2, H411
Eugenol	CAS-No.: 97-53-0 EC-No.: 202-589-1 REACH-no: 01-2119971802- 33	1.9 – 3.8001	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Cinnamic aldehyde	CAS-No.: 104-55-2 EC-No.: 203-213-9 REACH-no: 01-2119935242- 45	1.4 – 2.8501	Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1A, H317 Aquatic Chronic 3, H412
2(3H)-Furanone, 5-heptyldihydro-	CAS-No.: 104-67-6 EC-No.: 203-225-4 REACH-no: 01-2119959333- 34	1.2 – 2.4001	Aquatic Chronic 3, H412
Vanillin	CAS-No.: 121-33-5 EC-No.: 204-465-2 REACH-no: 01-2119516040- 60	0.9 – 1.7501	Eye Irrit. 2, H319
Allyl heptanoate	CAS-No.: 142-19-8 EC-No.: 205-527-1 REACH-no: 01-2119488961- 23	0.7 – 1.3	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
Citronellyl acetate (mixed Isomers)	CAS-No.: 150-84-5 EC-No.: 205-775-0	0.5 – 1.0981	Aquatic Chronic 2, H411 Skin Irrit. 2, H315

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Orange Oil	CAS-No.: 8028-48-6 EC-No.: 232-433-8	0.5 – 0.9	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Allyl cyclohexylpropionate	CAS-No.: 2705-87-5 EC-No.: 220-292-5	0.3 – 0.65	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Sens. 1, H317 Aquatic Chronic 1, H410
Cinnamalva	CAS-No.: 1885-38-7 EC-No.: 217-552-5	0.3 – 0.65	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Sens. 1B, H317
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	0.3 – 0.65	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
COUMARIN	CAS-No.: 91-64-5 EC-No.: 202-086-7 REACH-no: 01-2119943756- 26	0.2 – 0.45	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Heliotropine	CAS-No.: 120-57-0 EC-No.: 204-409-7 REACH-no: 01-2119983608- 21	0.2 – 0.45	Skin Sens. 1B, H317
Davana oil	CAS-No.: 8016-03-3 EC-No.: 295-155-6	0.1 – 0.2	Skin Sens. 1, H317
benzaldehyde substance with national workplace exposure limit(s) (BG, FI, HU, LT, LV, PL)	CAS-No.: 100-52-7 EC-No.: 202-860-4 EC Index-No.: 605-012-00-5 REACH-no: 01-2119455540-	0.1 – 0.15	Acute Tox. 4 (Oral), H302

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 after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : 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 eyes with water as a precaution.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

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.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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

Protection during firefighting : 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. 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. For further information

refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

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. Wear personal protective equipment. Avoid

contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

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 : Store in a well-ventilated place. Keep cool.

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

2/19/2024 (Revision date) EN (English) 4/16

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

citral (5392-40-5)		
Belgium - Occupational Exposure Limits		
OEL TWA	32 mg/m³ (vapor and aerosol)	
	5 ppm (vapor and aerosol)	
OEL chemical category	Skin	
Ireland - Occupational Exposure Limits		
OEL TWA	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	
Spain - Occupational Exposure Limits		
VLA-ED (OEL TWA)	5 ppm (inhalable fraction and vapor)	
OEL chemical category	Sensitizer, skin - potential for cutaneous absorption	
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA	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	
benzaldehyde (100-52-7)		
Bulgaria - Occupational Exposure Limits		
OEL TWA	5 mg/m³	
Finland - Occupational Exposure Limits		
HTP (OEL TWA)	4.4 mg/m³	
	1 ppm	
HTP (OEL C)	17.4 mg/m³	
	4 ppm	
Hungary - Occupational Exposure Limits		
AK (OEL TWA)	5 mg/m³	
CK (OEL STEL)	10 mg/m³	
Latvia - Occupational Exposure Limits		
OEL TWA	5 mg/m³	
Lithuania - Occupational Exposure Limits		
IPRV (OEL TWA)	5 mg/m³	

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

benzaldehyde (100-52-7)	
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	10 mg/m³
NDSCh (OEL STEL)	40 mg/m³

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 symbol(s):







8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

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.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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 : > 93 °C (closed cup) ASTM D7094

Auto-ignition temperature : Not available Decomposition temperature : Not available : Not available рΗ : Not available Viscosity, kinematic : Not available Solubility Partition coefficient n-octanol/water (Log Kow) Not available Not available Vapour pressure Vapour pressure at 50°C : Not available Density : Not available Relative density : ≈ 0.94 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.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

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

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Verdox (88-41-5)		
LD50 oral rat	4600 mg/kg (Source: NLM_CIP)	
LD50 oral	4600 mg/kg bodyweight	
Eugenol (97-53-0)		
LD50 oral rat	1930 mg/kg (Source: NZ_CCID)	
LD50 oral	2500 mg/kg bodyweight	
Cinnamic aldehyde (104-55-2)		
LD50 oral rat	2220 mg/kg (Source: NLM_CIP)	
LD50 oral	2200 mg/kg bodyweight	
LD50 dermal rabbit	1260 mg/kg (Source: EPA_HPV)	
LD50 dermal	1100 mg/kg bodyweight	
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)	
Vanillin (121-33-5)		
LD50 dermal rabbit	> 5010 mg/kg (Source: OECD_SIDS)	
LD50 dermal	2600 mg/kg bodyweight	
Allyl heptanoate (142-19-8)		
LD50 oral rat	500 mg/kg (Source: NLM_CIP)	
LD50 oral	218 mg/kg bodyweight	
LD50 dermal rabbit	810 mg/kg (Source: ECHA_API)	
LD50 dermal	810 mg/kg bodyweight	
Citronellyl acetate (mixed Isomers) (150-84-5)		
LD50 oral rat	6800 mg/kg (Source: NLM_CIP)	
LD50 dermal rabbit	> 2000 mg/kg (Source: ECHA_API)	
Orange Oil (8028-48-6)		
LD50 dermal rabbit	> 5000 mg/kg (Source: ECHA_API)	
Allyl cyclohexylpropionate (2705-87-5)		
LD50 oral rat	585 mg/kg (Source: NLM_CIP)	
LD50 oral	380 mg/kg bodyweight	
LD50 dermal rabbit	1600 mg/kg (Source: ECHA_API)	
LD50 dermal	1600 mg/kg bodyweight	
Cinnamalva (1885-38-7)		
LD50 oral	100 mg/kg bodyweight	
LD50 dermal	1100 mg/kg bodyweight	
LC50 Inhalation - Rat (Dust/Mist)	1.5 mg/l/4h	
citral (5392-40-5)		
LD50 oral rat	4960 mg/kg (Source: NLM_CIP)	

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

citral (5392-40-5)		
LD50 dermal rabbit	2250 mg/kg (Source: NLM_CIP)	
COUMARIN (91-64-5)		
LD50 oral rat	> 5000 mg/kg (Source: JAPAN_GHS)	
LD50 oral	290 mg/kg bodyweight	
LD50 dermal rat	293 mg/kg (Source: ECHA_API)	
Heliotropine (120-57-0)		
LD50 oral rat	2700 mg/kg (Source: NLM_CIP)	
LD50 oral	2700 mg/kg bodyweight	
LD50 dermal rat	> 5000 mg/kg (Source: ECHA_API)	
benzaldehyde (100-52-7)		
LD50 oral rat	1292 mg/kg (Source: JAPAN_GHS)	
LD50 dermal rabbit	> 1250 mg/kg (Source: JAPAN_GHS)	
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	
Eugenol (97-53-0)		
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	
Heliotropine (120-57-0)		
Viscosity, kinematic	Not applicable	

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

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

Hazardous to the aquatic environment, short-term : Not classified

(acute)

Hazardous to the aquatic environment, long-term : Harmful to aquatic life with long lasting effects.

(chronic)

(ornonio)		
Eugenol (97-53-0)		
LC50 - Fish [1]	13 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static] Source: ECHA)	
2(3H)-Furanone, 5-heptyldihydro- (104-67-6)		
LC50 - Fish [1]	569 mg/l 96 h	

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

ECS0 - Crustacea [1] 5.88 mgll 48 h ECS0 - Other aquatic organisms [1] 5.94 mgll 72 h Vanillin (121-33-5) LCS0 - Fish [1] 53 - 61.3 mgll (Exposure time: 96 h - Species: Pimephales promelas (static) Source: EPA) NOEC (acute) 10000 mgkg (Exposure time: 42 Days - Species: Elsenia foetida (sol dry weight)) Citronelly a cotato (mixed Isomors) (150-84-5) LCS0 - Fish [1] 6.1 mgll (Exposure time: 96 h - Species: Danior rorio (semi-static) Source: ECHA) Allyl cyclohexylpropionate (2705-87-5) LCS0 - Fish [1] 0.13 mgll (Exposure time: 96 h - Species: Pimephales promelas (flow-through) Source: ECHA) Allyl cyclohexylpropionate (2705-87-5) LCS0 - Fish [1] 0.13 mgll (Exposure time: 96 h - Species: Pimephales promelas (flow-through) Source: ECHA) citral (5392-40-5) ECS0 - Crustacea [1] 7 mgll (Exposure time: 48 h - Species: Daphnia magna) ECS0 72h - Algae [1] 16 mgll (Species: Desmodesmus subspicatus) ECS0 96h - Algae [1] 19 mgll (Species: Desmodesmus subspicatus) LCS0 - Fish [1] 2.5 mgll (Exposure time: 96 h - Species: Cyprinus carpio (static) Source: ECHA) benzaldehyde (100-52-7) LCS0 - Fish [1] 10.6 - 11.8 mgll (Exposure time: 96 h - Species: Oncorfrynchus mykiss [flow-through] Source: EPA) LCS0 - Fish [2] 1.2 9 mgll (Exposure time: 96 h - Species: Oncorfrynchus mykiss [flow-through] Source: EPA) LCS0 - Fish [2] 1.2 9 mgll (Exposure time: 96 h - Species: Oncorfrynchus mykiss [static] Source: IUCLID) 12.2 Persistence and degradability Apple Juice Persistence and degradability Rapidly degradabile Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradabile Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradabile Vanillin (121-33-5) Persistence and degradability Rapidly degradabile Vanillin (121-33-5) Persistence and degradability Rapidly degradabile Persistence and degradability Rapidly degradabile Persistence and degradability Rapidly degradabile Persistence and degradability Rapidly degradabile	2(3H)-Furanone, 5-heptyldihydro- (104-67-6)			
Vanillin (121-33-5) LC50 - Fish [1] S3 - 61.3 mgh (Exposure time: 96 h - Species: Pimephales prometas [flow-through] Source: EPA) NC50 - Fish [2] 88 mgh (Exposure time: 96 h - Species: Pimephales prometas [static] Source: EPA) NC50 - Fish [2] 88 mgh (Exposure time: 42 Days - Species: Eisenia foetda [soil dry weight]) Citronellyl acetate (mixed Isomers) (150-84-5) LC50 - Fish [1] 8.1 mgh (Exposure time: 96 h - Species: Danio rerio [semi-static] Source: ECHA) Allyl cyclohexylpropionate (2705-87-5) LC50 - Fish [1] 0.13 mgh (Exposure time: 96 h - Species: Pimephales prometas [flow-through] Source: ECHA) citral (5382-40-5) EC50 - Crustacea [1] 7 mgh (Exposure time: 96 h - Species: Daphnia magna) EC50 72h - Algae [1] 16 mgh (Species: Desmodesmus subspicatus) EC50 72h - Algae [1] 19 mgh (Species: Desmodesmus subspicatus) Heliotropine (120-57-0) LC50 - Fish [1] 2.5 mgh (Exposure time: 96 h - Species: Cyprinus carpio [static] Source: ECHA) benzaldehyde (100-52-7) LC50 - Fish [1] 10.8 - 11.8 mgh (Exposure time: 96 h - Species: Oncorhynchus mykiss (flow-through) Source: EPA) benzaldehyde (100-52-7) LC50 - Fish [2] 12.69 mgh (Exposure time: 96 h - Species: Oncorhynchus mykiss (flow-through) Source: EPA) 12.2. Persistence and degradability Apple Juice Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Vallyl heptanoate (142-19-8)	EC50 - Crustacea [1]	5.85 mg/l 48 h		
LC50 - Fish [1] S3 - 61.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA] NC50 - Fish [2] 88 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA] NC6C (acute) 10000 mg/kg (Exposure time: 42 Days - Species: Eisenia foetida [soil dry weight]) Citronellyl acetate (mixed isomers) (150-84-5) LC50 - Fish [1] 6.1 mg/l (Exposure time: 96 h - Species: Danio reno [semi-static] Source: ECHA) Allyl cyclohexylproplonate (2705-87-5) LC50 - Fish [1] 0.13 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: ECHA) citral (5392-40-5) EC50 - Crustacea [1] 7 mg/l (Exposure time: 96 h - Species: Daphnia magna) EC50 72h - Algae [1] 16 mg/l (Species: Desmodesmus subspicatus) EC50 98 - Algae [1] 19 mg/l (Species: Desmodesmus subspicatus) LC50 - Fish [1] 2.5 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static] Source: ECHA) benzaldehyde (100-52-7) LC50 - Fish [1] 2.5 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA] benzaldehyde (100-52-7) LC50 - Fish [2] 10.6 - 11.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA] benzaldehyde (100-52-7) LC50 - Fish [2] 12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA] benzaldehyde (100-52-7) LC50 - Fish [2] 12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: ECHA] benzaldehyde (100-52-7) Repistence and degradability Repidly degradable Citramic aldehyde (104-55-2) Persistence and degradability Repidly degradable Citramic aldehyde (104-55-2) Persistence and degradability Repidly degradable Vanillin (121-33-5) Persistence and degradability Repidly degradable Vallilin (121-33-5) Persistence and degradability Repidly degradable	EC50 - Other aquatic organisms [1]	5.94 mg/l 72 h		
Source: EPA	Vanillin (121-33-5)			
NOEC (acute) 10000 mg/kg (Exposure time: 42 Days - Species: Eisenia foetida [soil dry weight]) Citronellyl acetate (mixed isomers) (150-84-5) LC50 - Fish [1] 6.1 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static] Source: ECHA) Allyl cyclohexylpropionate (2705-87-5) LC50 - Fish [1] 0.13 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: ECHA) citral (5392-40-5) EC50 - Crustacea [1] 7 mg/l (Exposure time: 48 h - Species: Dephnia magna) EC50 72h - Algae [1] 16 mg/l (Species: Desmodesmus subspicatus) EC50 96h - Algae [1] 19 mg/l (Species: Desmodesmus subspicatus) Heliotropine (120-57-0) LC50 - Fish [1] 2.5 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static] Source: ECHA) benzaldehyde (100-52-7) LC50 - Fish [1] 10.6 - 11.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA) LC50 - Fish [2] 12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID) 12.2. Persistence and degradability Apple Juice Persistence and degradability Rapidly degradable Verdox (88-41-5) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Citra (61-61-61) Rapidly degradable Various (104-55-2) Persistence and degradability Rapidly degradable Various (104-53-3-5) Persistence and degradability Rapidly degradable Various (121-33-5) Persistence and degradability Rapidly degradable Various (121-33-5) Persistence and degradability Rapidly degradable Various (121-33-5) Persistence and degradability Rapidly degradable	LC50 - Fish [1]			
Citronellyl acetate (mixed Isomers) (150-84-5) LC50 - Fish [1]	LC50 - Fish [2]	88 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)		
LC50 - Fish [1] 6.1 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static] Source: ECHA) Allyl cyclohexylpropionate (2705-87-5) LC50 - Fish [1] 0.13 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: ECHA) Citral (5392-40-5) EC50 - Crustacea [1] 7 mg/l (Exposure time: 48 h - Species: Daphnia magna) EC50 - Fush (agae [1] 19 mg/l (Species: Desmodesmus subspicatus) Heliotropine (120-57-0) LC50 - Fish [1] 2.5 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static] Source: ECHA) benzaldehyde (100-52-7) LC50 - Fish [1] 10 11 8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA) benzaldehyde (100-52-7) LC50 - Fish [2] 12 69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA) 1.2.Persistence and degradability Apple Juice Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	NOEC (acute)	10000 mg/kg (Exposure time: 42 Days - Species: Eisenia foetida [soil dry weight])		
Allyl cyclohoxylpropionate (2705-87-5) LC50 - Fish [1] 0.13 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: ECHA) 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] 2.5 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static] Source: ECHA) Heliotropine (120-57-0) LC50 - Fish [1] 2.5 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static] Source: ECHA) benzaldehyde (100-52-7) LC50 - Fish [2] 10.6 – 11.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA) LC50 - Fish [2] 12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID) 12.2. Persistence and degradability Apple Juice Persistence and degradability Rapidly degradable Verdox (88-41-5) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	Citronellyl acetate (mixed Isomers) (150-84-5)			
LC50 - Fish [1] 0.13 mg/l (Exposure time: 96 h - Species: Pirnephales promelas [flow-through] Source: ECHA) 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) Hellotropine (120-57-0) LC50 - Fish [1] 2.5 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static] Source: ECHA) benzaldehyde (100-52-7) LC50 - Fish [1] 10.6 – 11.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA) LC50 - Fish [2] 12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IL/CLID) 12.2. Persistence and degradability Apple Juice Persistence and degradability Rapidly degradable Verdox (88-41-5) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	LC50 - Fish [1]	6.1 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static] Source: ECHA)		
citral (5392-40-5) EC50 - Crustacea [1] 7 mg/l (Exposure time: 48 h - Species: Daphnia magna) EC50 72h - Algae [1] 19 mg/l (Species: Desmodesmus subspicatus) EC50 96h - Algae [1] 19 mg/l (Species: Desmodesmus subspicatus) Heliotropine (120-57-0) LC50 - Fish [1] 2.5 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static] Source: ECHA) benzaldehyde (100-52-7) LC50 - Fish [1] 10.6 - 11.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA) LC50 - Fish [2] 12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID) 12.2. Persistence and degradability Apple Juice Persistence and degradability Rapidly degradable Verdox (88-41-5) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	Allyl cyclohexylpropionate (2705-87-5)			
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) Heliotropine (120-57-0) LC50 - Fish [1] 2.5 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static] Source: ECHA) benzaldehyde (100-52-7) LC50 - Fish [1] 10.6 – 11.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA) LC50 - Fish [2] 12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID) 12.2. Persistence and degradability Apple Juice Persistence and degradability Rapidly degradable Verdox (88-41-5) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	LC50 - Fish [1]			
EC50 72h - Algae [1] 16 mg/l (Species: Desmodesmus subspicatus) EC50 96h - Algae [1] 19 mg/l (Species: Desmodesmus subspicatus) Heliotropine (120-57-0) LC50 - Fish [1] 2.5 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static] Source: ECHA) benzaldehyde (100-52-7) LC50 - Fish [1] 10.6 – 11.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA) LC50 - Fish [2] 12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID) 12.2. Persistence and degradability Apple Juice Persistence and degradability Rapidly degradable Verdox (88-41-5) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	citral (5392-40-5)			
EC50 96h - Algae [1] 19 mg/l (Species: Desmodesmus subspicatus) Heliotropine (120-57-0) LC50 - Fish [1] 2.5 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static] Source: ECHA) benzaldehyde (100-52-7) LC50 - Fish [1] 10.6 - 11.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA) LC50 - Fish [2] 12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID) 12.2. Persistence and degradability Apple Juice Persistence and degradability Rapidly degradable Verdox (88-41-5) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	EC50 - Crustacea [1]	7 mg/l (Exposure time: 48 h - Species: Daphnia magna)		
Heliotropine (120-57-0) LC50 - Fish [1]	EC50 72h - Algae [1]	16 mg/l (Species: Desmodesmus subspicatus)		
LC50 - Fish [1] 2.5 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static] Source: ECHA) benzaldehyde (100-52-7) LC50 - Fish [1] 10.6 - 11.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA) LC50 - Fish [2] 12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID) 12.2. Persistence and degradability Apple Juice Persistence and degradability Rapidly degradable Verdox (88-41-5) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	EC50 96h - Algae [1]	19 mg/l (Species: Desmodesmus subspicatus)		
benzaldehyde (100-52-7) LCS0 - Fish [1]	Heliotropine (120-57-0)			
LC50 - Fish [1] 10.6 – 11.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA) LC50 - Fish [2] 12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID) 12.2. Persistence and degradability Apple Juice Persistence and degradability Rapidly degradable Verdox (88-41-5) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	LC50 - Fish [1]	2.5 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static] Source: ECHA)		
Source: EPA) LC50 - Fish [2] 12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID) 12.2. Persistence and degradability Apple Juice Persistence and degradability Rapidly degradable Verdox (88-41-5) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	benzaldehyde (100-52-7)			
Apple Juice Persistence and degradability Rapidly degradable Verdox (88-41-5) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	LC50 - Fish [1]			
Apple Juice Persistence and degradability Rapidly degradable Verdox (88-41-5) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	LC50 - Fish [2]	12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID)		
Persistence and degradability Rapidly degradable Verdox (88-41-5) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	12.2. Persistence and degradability			
Verdox (88-41-5) Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	Apple Juice			
Persistence and degradability Rapidly degradable Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	Persistence and degradability	Rapidly degradable		
Eugenol (97-53-0) Persistence and degradability Rapidly degradable Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	Verdox (88-41-5)			
Persistence and degradability Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	Persistence and degradability	Rapidly degradable		
Cinnamic aldehyde (104-55-2) Persistence and degradability Rapidly degradable 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	Eugenol (97-53-0)			
Persistence and degradability 2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	Persistence and degradability	Rapidly degradable		
2(3H)-Furanone, 5-heptyldihydro- (104-67-6) Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	Cinnamic aldehyde (104-55-2)	Cinnamic aldehyde (104-55-2)		
Persistence and degradability Rapidly degradable Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	Persistence and degradability	Rapidly degradable		
Vanillin (121-33-5) Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	2(3H)-Furanone, 5-heptyldihydro- (104-67-6)			
Persistence and degradability Rapidly degradable Allyl heptanoate (142-19-8)	Persistence and degradability	Rapidly degradable		
Allyl heptanoate (142-19-8)	Vanillin (121-33-5)			
	Persistence and degradability	Rapidly degradable		
Persistence and degradability Rapidly degradable	Allyl heptanoate (142-19-8)			
	Persistence and degradability	Rapidly degradable		

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Citronellyl acetate (mixed Isomers) (150-84-5)		
Persistence and degradability	Rapidly degradable	
Orange Oil (8028-48-6)		
Persistence and degradability	Rapidly degradable	
Allyl cyclohexylpropionate (2705-87-5)		
Persistence and degradability	Rapidly degradable	
Cinnamalva (1885-38-7)		
Persistence and degradability	Rapidly degradable	
citral (5392-40-5)		
Persistence and degradability	Rapidly degradable	
COUMARIN (91-64-5)		
Persistence and degradability	Rapidly degradable	
Heliotropine (120-57-0)		
Persistence and degradability	Rapidly degradable	
Davana oil (8016-03-3)		
Persistence and degradability	Rapidly degradable	
benzaldehyde (100-52-7)		
Persistence and degradability	Rapidly degradable	
12.3. Bioaccumulative potential		
Eugenol (97-53-0)		
Partition coefficient n-octanol/water (Log Pow)	1.83 (at 30 °C (at pH 5.5)	
Cinnamic aldehyde (104-55-2)		
Partition coefficient n-octanol/water (Log Pow)	2.1065 (at 25 °C)	
2(3H)-Furanone, 5-heptyldihydro- (104-67-6)		
Partition coefficient n-octanol/water (Log Pow)	3.6 (at 25 °C)	
Vanillin (121-33-5)		
Partition coefficient n-octanol/water (Log Pow)	1.23 (at 22 °C)	
Allyl heptanoate (142-19-8)		
Partition coefficient n-octanol/water (Log Pow)	3.97 (at 20 °C (at pH 5.3)	
Citronellyl acetate (mixed Isomers) (150-84-5)		
Partition coefficient n-octanol/water (Log Pow)	4.9 (at 25 °C (at pH 4.23)	
Allyl cyclohexylpropionate (2705-87-5)		
Partition coefficient n-octanol/water (Log Pow)	4.28 (at 20 °C (at pH 5.3)	
Cinnamalva (1885-38-7)		
Partition coefficient n-octanol/water (Log Pow)	1.96	

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

citral (5392-40-5)		
Partition coefficient n-octanol/water (Log Pow)	2.76 (at 25 °C)	
Heliotropine (120-57-0)		
Partition coefficient n-octanol/water (Log Pow) 1.2 (at 35 °C)		
benzaldehyde (100-52-7)		
BCF - Fish [1]	(no significant bioaccumulation)	
Partition coefficient n-octanol/water (Log Pow)	1.4 (at 25 °C)	

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

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

HP Code

- $: \ \, \text{Dispose of contents/container in accordance with licensed collector's sorting instructions}.$
- : 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 n	umber				
Not regulated for transport					
14.2. UN proper shipping	g name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated	
14.3. Transport hazard o	class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated	
14.4. Packing group					
Not regulated	Not regulated Not regulated Not regulated Not regulated Not regulated				
14.5. Environmental hazards					
Not regulated	Not regulated Not regulated Not regulated Not regulated Not regulated				
No supplementary information	No supplementary information available				

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

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)	Orange Oil	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)	Apple Juice; Eugenol; Cinnamic aldehyde; Allyl heptanoate; Citronellyl acetate (mixed Isomers); Orange Oil; Allyl cyclohexylpropionate; Cinnamalva; citral; Davana oil; benzaldehyde	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)	Apple Juice; Verdox; Cinnamic aldehyde; 2(3H)-Furanone, 5- heptyldihydro-; Allyl heptanoate; Citronellyl acetate (mixed Isomers); Orange Oil; Allyl cyclohexylpropionate	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.	Orange Oil	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.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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 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)

Name	CN designation	CAS-No.	CN code	Category, Subcategory	Threshold	Annex
Piperonal		120-57-0	2932 93 00	Category 1		Annex I

15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide

Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).

List of sensitizing substances (TRGS 907) : Contains sensitizing substances according TRGS 907.

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

SZW-liist van kankerverwekkende stoffen

SZW-liist van mutagene stoffen SZW-lijst van reprotoxische stoffen – Borstvoeding

SZW-lijst van reprotoxische stoffen -

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen - Ontwikkeling

environment

: Orange Oil, Davana oil are listed : Orange Oil, Davana oil are listed

: None of the components are listed

: None of the components are listed

: 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

2/19/2024 (Revision date) EN (English) 14/16

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

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 (Dermal)	Acute toxicity (dermal), Category 4			
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 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			
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.			
H312	Harmful in contact with skin.			
H315	Causes skin irritation.			
H317	May cause an allergic skin reaction.			
H319	Causes serious eye irritation.			
H331	Toxic if inhaled.			
H332	Harmful if inhaled.			
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.			
Skin Irrit. 2	Skin corrosion/irritation, Category 2			
Skin Sens. 1	Skin sensitisation, Category 1			
Skin Sens. 1A	Skin sensitisation, category 1A			
Skin Sens. 1B	Skin sensitisation, category 1B			

The classification complies with

: ATP 12

Safety Data Sheet (SDS), EU

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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.