

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Issue date: 5/24/2022

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

#### **1.1. Product identifier**

Product form	:	Mixture
Product name	:	Mango at 25% in DPG
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

Industrial/Professional use spec

Use of the substance/mixture Function or use category

- For professional use only : Perfumes, fragrances
- : Odour agents

: Industrial

#### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

No additional information available

#### 1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification	
2.1. Classification of the substance or m	ixture
Classification according to Regulation (EC) No.	o. 1272/2008 [CLP]
Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment – Chronic	Hazard, Category 3 H412
Full text of H- and EUH-statements: see section 1	16
Adverse physicochemical, human health and	environmental effects
No additional information available	
2.2. Label elements	
Labelling according to Regulation (EC) No. 12	72/2008 [CLP]
Hazard pictograms (CLP)	: GHS07
Signal word (CLP)	: Warning
Contains	: Hexyl cinnamic aldehyde, Vertenex, Linalool, d-Limonene, Citronellol Pure, Orange oil , Cyclamen aldehyde, delta-Damascone, Melonal, Citral, Linalyl acetate
Hazard statements (CLP)	<ul> <li>H317 - May cause an allergic skin reaction.</li> <li>H412 - Harmful to aquatic life with long lasting effects.</li> </ul>
Precautionary statements (CLP)	<ul> <li>P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.</li> <li>P272 - Contaminated work clothing should not be allowed out of the workplace.</li> <li>P273 - Avoid release to the environment.</li> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing</li> </ul>

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protection. P302+P352 - IF ON SKIN: Wash with plenty of water. P321 - Specific treatment (see supplemental first aid instruction on this label).

#### 2.3. Other hazards

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

### 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]
Hexyl cinnamic aldehyde	CAS-No.: 101-86-0 EC-No.: 202-983-3 REACH-no: 01-2119533092- 50	2.80625 – 5.6125	Skin Sens. 1, H317 Aquatic Chronic 2, H411
Ethyl maltol	CAS-No.: 4940-11-8 EC-No.: 225-582-5	0.5375 – 1.075	Acute Tox. 4 (Oral), H302
Hexamethylindanopyran	CAS-No.: 1222-05-5 EC-No.: 214-946-9 EC Index-No.: 603-212-00-7 REACH-no: 01-2119488227- 29	0.45 – 0.9	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Vertenex	CAS-No.: 32210-23-4 EC-No.: 250-954-9 REACH-no: 01-2119976286- 24	0.3375 – 0.675	Skin Sens. 1B, H317
Linalool	CAS-No.: 78-70-6 EC-No.: 201-134-4 EC Index-No.: 603-235-00-2 REACH-no: 01-2119474016- 42	0.195 – 0.39	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
d-Limonene	CAS-No.: 5989-27-5 EC-No.: 227-813-5 EC Index-No.: 601-029-00- 7;601-096-00-2 REACH-no: 01-2119493353- 35	0.19125 – 0.3825	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
Citronellol Pure	CAS-No.: 106-22-9 EC-No.: 203-375-0 REACH-no: 01-2119453995- 23	0.175 – 0.35	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Orange oil	CAS-No.: 8008-57-9 EC-No.: 232-433-8; 600-006- 9; 616-926-9 REACH-no: 01-2119493353- 35	0.11 – 0.22	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 2, H411

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Cyclamen aldehyde	CAS-No.: 103-95-7 EC-No.: 203-161-7 REACH-no: 01-2119970582- 32	0.1 – 0.2	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 2, H411
Ethyl acetate substance with a Community workplace exposure limit	CAS-No.: 141-78-6 EC-No.: 205-500-4 EC Index-No.: 607-022-00-5 REACH-no: 01-2119475103- 46	0.08125 – 0.1625	Flam. Liq. 1, H224 Eye Irrit. 2, H319 STOT SE 3, H336
delta-Damascone	CAS-No.: 57378-68-4 EC-No.: 260-709-8	0.075 – 0.15	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 1, H410
Allyl heptanoate	CAS-No.: 142-19-8 EC-No.: 205-527-1 REACH-no: 01-2119488961- 23	0.075 – 0.15	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
Melonal	CAS-No.: 106-72-9 EC-No.: 203-427-2	0.0625 – 0.125	Skin Sens. 1B, H317
Citral	CAS-No.: 5392-40-5 EC-No.: 226-394-6 EC Index-No.: 605-019-00-3 REACH-no: 01-2119462829- 23	0.0525 – 0.105	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Linalyl acetate	CAS-No.: 115-95-7 EC-No.: 204-116-4 REACH-no: 01-2119454789- 19	0.05 – 0.1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Isoamyl acetate substance with a Community workplace exposure limit	CAS-No.: 123-92-2 EC-No.: 204-662-3 EC Index-No.: 607-130-00-2 REACH-no: 01-2119548408- 32	0.01875 – 0.0375	Flam. Liq. 3, H226

#### 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	: 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.	
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.	
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.	
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.	

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

No additional information available

SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media Unsuitable extinguishing media	<ul><li>Foam. Dry powder. Carbon dioxide. Water spray. Sand.</li><li>Do not use a heavy water stream.</li></ul>	
5.2. Special hazards arising from the substance or mixture		
No additional information available		
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.	

SECTION 6: Accidental release measures			
6.1. Personal precautions, protective equipment and emergency procedures			
6.1.1. For non-emergency personnel			
Emergency procedures	: Evacuate unnecessary personnel.		
6.1.2. For emergency responders			
Protective equipment Emergency procedures	<ul><li>Equip cleanup crew with proper protection.</li><li>Ventilate area.</li></ul>		
6.2. Environmental precautions			
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		
Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.	
6.4. Reference to other sections		
See Section 8. Exposure controls and personal prote	ection.	

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling :	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.
7.2. Conditions for safe storage, including an	y incompatibilities
	Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Strong bases. Strong acids. Sources of ignition. Direct sunlight.
7.3. Specific end use(s)	

No additional information available

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## **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

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 90	0)	
AGW (OEL TWA) [1]	28 mg/m <sup>3</sup> (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/m <sup>3</sup>	
OEL TWA [ppm]	5 ppm	
OEL STEL	112 mg/m³	
OEL STEL [ppm]	20 ppm	
OEL chemical category	Potential for cutaneous absorption	
Spain - Occupational Exposure Limits		
VLA-ED (OEL TWA) [1]	168 mg/m <sup>3</sup>	
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/m <sup>3</sup>	
Grenseverdi (OEL TWA) [2]	25 ppm	
Korttidsverdi (OEL STEL)	175 mg/m <sup>3</sup> (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/m <sup>3</sup>	
MAK (OEL TWA) [2]	7 ppm	
KZGW (OEL STEL)	80 mg/m <sup>3</sup>	
KZGW (OEL STEL) [ppm]	14 ppm	
OEL chemical category	Sensitizer	
Ethyl acetate (141-78-6)		
EU - Indicative Occupational Exposure Limit (IOEL)		
IOEL TWA	734 mg/m³	

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Ethyl acetate (141-78-6)		
IOEL TWA [ppm]	200 ppm	
IOEL STEL	1468 mg/m <sup>3</sup>	
IOEL STEL [ppm]	400 ppm	
Austria - Occupational Exposure Limits		
MAK (OEL TWA)	734 mg/m³	
MAK (OEL TWA) [ppm]	200 ppm	
MAK (OEL STEL)	1468 mg/m <sup>3</sup>	
MAK (OEL STEL) [ppm]	400 ppm	
Belgium - Occupational Exposure Limits		
OEL TWA	734 mg/m³	
OEL TWA [ppm]	200 ppm	
OEL STEL	1468 mg/m <sup>3</sup>	
OEL STEL [ppm]	400 ppm	
Bulgaria - Occupational Exposure Limits		
OEL TWA	734 mg/m³	
OEL TWA [ppm]	200 ppm	
OEL STEL	1468 mg/m <sup>3</sup>	
OEL STEL [ppm]	400 ppm	
Croatia - Occupational Exposure Limits		
GVI (OEL TWA) [1]	734 mg/m³	
GVI (OEL TWA) [2]	200 ppm	
KGVI (OEL STEL)	1468 mg/m <sup>3</sup>	
KGVI (OEL STEL) [ppm]	400 ppm	
Cyprus - Occupational Exposure Limits		
OEL TWA	734 mg/m <sup>3</sup>	
OEL TWA [ppm]	200 ppm	
OEL STEL	1468 mg/m <sup>3</sup>	
OEL STEL [ppm]	400 ppm	
Czech Republic - Occupational Exposure Limits		
PEL (OEL TWA)	700 mg/m <sup>3</sup>	
Denmark - Occupational Exposure Limits		
OEL TWA [1]	540 mg/m <sup>3</sup>	
OEL TWA [2]	150 ppm	
Estonia - Occupational Exposure Limits		
OEL TWA	500 mg/m <sup>3</sup>	
OEL TWA [ppm]	150 ppm	
OEL STEL	1100 mg/m <sup>3</sup>	
OEL STEL [ppm]	300 ppm	

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Ethyl acetate (141-78-6)			
Finland - Occupational Exposure Limits			
HTP (OEL TWA) [1]	730 mg/m³		
HTP (OEL TWA) [2]	200 ppm		
HTP (OEL STEL)	1470 mg/m³		
HTP (OEL STEL) [ppm]	400 ppm		
France - Occupational Exposure Limits			
VME (OEL TWA)	1400 mg/m <sup>3</sup>		
VME (OEL TWA) [ppm]	400 ppm		
Germany - Occupational Exposure Limits (TRGS 90	0)		
AGW (OEL TWA) [1]	730 mg/m <sup>3</sup> (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)		
AGW (OEL TWA) [2]	200 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)		
Gibraltar - Occupational Exposure Limits			
OEL TWA	200 mg/m <sup>3</sup>		
OEL TWA [ppm]	734 ppm		
OEL STEL	400 mg/m <sup>3</sup>		
OEL STEL [ppm]	1468 ppm		
Greece - Occupational Exposure Limits			
OEL TWA	734 mg/m <sup>3</sup>		
OEL TWA [ppm]	200 ppm		
OEL STEL	1468 mg/m <sup>3</sup>		
OEL STEL [ppm]	400 ppm		
Hungary - Occupational Exposure Limits			
AK (OEL TWA)	734 mg/m³		
CK (OEL STEL)	1468 mg/m <sup>3</sup>		
OEL chemical category	Sensitizer		
Ireland - Occupational Exposure Limits			
OEL TWA [1]	734 mg/m³		
OEL TWA [2]	200 ppm		
OEL STEL	1468 mg/m <sup>3</sup>		
OEL STEL [ppm]	400 ppm		
Italy - Occupational Exposure Limits			
OEL TWA	734 mg/m <sup>3</sup>		
OEL TWA [ppm]	200 ppm		
OEL STEL	1468 mg/m <sup>3</sup>		
OEL STEL [ppm]	400 ppm		
Latvia - Occupational Exposure Limits			
OEL TWA	200 mg/m <sup>3</sup>		
OEL TWA [ppm]	54 ppm		

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Ethyl acetate (141-78-6)			
Lithuania - Occupational Exposure Limits			
IPRV (OEL TWA)	500 mg/m³		
IPRV (OEL TWA) [ppm]	150 ppm		
NRV (OEL C)	1100 mg/m <sup>3</sup>		
NRV (OEL C) [ppm]	300 ppm		
Luxembourg - Occupational Exposure Limits			
OEL STEL	1468 mg/m <sup>3</sup>		
OEL STEL [ppm]	400 ppm		
Malta - Occupational Exposure Limits			
OEL TWA	734 mg/m³		
OEL TWA [ppm]	200 ppm		
OEL STEL	1468 mg/m <sup>3</sup>		
OEL STEL [ppm]	400 ppm		
Netherlands - Occupational Exposure Limits	·		
TGG-8u (OEL TWA)	734 mg/m³		
TGG-15min (OEL STEL)	1468 mg/m <sup>3</sup>		
Poland - Occupational Exposure Limits			
NDS (OEL TWA)	734 mg/m³		
NDSCh (OEL STEL)	1468 mg/m <sup>3</sup>		
Portugal - Occupational Exposure Limits	·		
OEL TWA	734 mg/m³ (indicative limit value)		
OEL TWA [ppm]	200 ppm (indicative limit value)		
OEL STEL	1468 mg/m <sup>3</sup> (indicative limit value)		
OEL STEL [ppm]	400 ppm (indicative limit value)		
Romania - Occupational Exposure Limits	Romania - Occupational Exposure Limits		
OEL TWA	400 mg/m <sup>3</sup>		
OEL TWA [ppm]	111 ppm		
OEL STEL	500 mg/m³		
OEL STEL [ppm]	139 ppm		
Slovakia - Occupational Exposure Limits	Slovakia - Occupational Exposure Limits		
NPHV (OEL TWA) [1]	734 mg/m³		
NPHV (OEL TWA) [2]	200 ppm		
NPHV (OEL C)	1100 mg/m <sup>3</sup>		
Slovenia - Occupational Exposure Limits			
OEL TWA	734 mg/m³		
OEL TWA [ppm]	200 ppm		
OEL STEL	1468 mg/m <sup>3</sup>		
OEL STEL [ppm]	400 ppm		

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Ethyl acetate (141-78-6)		
Spain - Occupational Exposure Limits		
VLA-ED (OEL TWA) [1]	734 mg/m <sup>3</sup>	
VLA-ED (OEL TWA) [2]	200 ppm	
VLA-EC (OEL STEL)	1468 mg/m <sup>3</sup>	
VLA-EC (OEL STEL) [ppm]	400 ppm	
Sweden - Occupational Exposure Limits		
NGV (OEL TWA)	550 mg/m³	
NGV (OEL TWA) [ppm]	150 ppm	
KTV (OEL STEL)	1100 mg/m <sup>3</sup>	
KTV (OEL STEL) [ppm]	300 ppm	
United Kingdom - Occupational Exposure Limits		
WEL TWA (OEL TWA) [1]	734 mg/m³	
WEL TWA (OEL TWA) [2]	200 ppm	
WEL STEL (OEL STEL)	1468 mg/m <sup>3</sup>	
WEL STEL (OEL STEL) [ppm]	400 ppm	
Norway - Occupational Exposure Limits		
Grenseverdi (OEL TWA) [1]	734 mg/m³	
Grenseverdi (OEL TWA) [2]	200 ppm	
Korttidsverdi (OEL STEL)	1468 mg/m <sup>3</sup> (value from the regulation)	
Korttidsverdi (OEL STEL) [ppm]	400 ppm (value from the regulation)	
Switzerland - Occupational Exposure Limits		
MAK (OEL TWA) [1]	730 mg/m³	
MAK (OEL TWA) [2]	200 ppm	
KZGW (OEL STEL)	1460 mg/m <sup>3</sup>	
KZGW (OEL STEL) [ppm]	400 ppm	
USA - ACGIH - Occupational Exposure Limits	·	
ACGIH OEL TWA [ppm]	400 ppm	
Citral (5392-40-5)		
Belgium - Occupational Exposure Limits		
OEL TWA	32 mg/m <sup>3</sup> (vapor and aerosol)	
OEL TWA [ppm]	5 ppm (vapor and aerosol)	
OEL chemical category	Skin	
Ireland - Occupational Exposure Limits		
OEL TWA [2]	5 ppm	
OEL STEL [ppm]	15 ppm (calculated)	
Poland - Occupational Exposure Limits		
NDS (OEL TWA)	27 mg/m³	
NDSCh (OEL STEL)	54 mg/m³	

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Citral (5392-40-5)			
Portugal - Occupational Exposure Limits			
OEL TWA [ppm]	5 ppm		
OEL chemical category	Sensitizer, A4 - Not Classifiable as a Human Carcinogen, skin - potential for cutaneous exposure		
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		
Isoamyl acetate (123-92-2)			
EU - Indicative Occupational Exposure Limit (IOEI	-)		
IOEL TWA	270 mg/m <sup>3</sup>		
IOEL TWA [ppm]	50 ppm		
IOEL STEL	540 mg/m <sup>3</sup>		
IOEL STEL [ppm]	100 ppm		
Austria - Occupational Exposure Limits			
MAK (OEL TWA)	270 mg/m <sup>3</sup> (Pentyl acetate (all isomers))		
MAK (OEL TWA) [ppm]	50 ppm (Pentyl acetate (all isomers))		
MAK (OEL STEL)	540 mg/m <sup>3</sup> (Pentylacetate)		
MAK (OEL STEL) [ppm]	100 ppm (Pentylacetate)		
Belgium - Occupational Exposure Limits			
OEL TWA	270 mg/m <sup>3</sup>		
OEL TWA [ppm]	50 ppm		
OEL STEL	540 mg/m <sup>3</sup>		
OEL STEL [ppm]	100 ppm		
Bulgaria - Occupational Exposure Limits			
OEL TWA	270 mg/m <sup>3</sup>		
OEL TWA [ppm]	50 ppm		
OEL STEL	540 mg/m <sup>3</sup>		
OEL STEL [ppm]	100 ppm		
Croatia - Occupational Exposure Limits			
GVI (OEL TWA) [1]	270 mg/m <sup>3</sup>		
GVI (OEL TWA) [2]	50 ppm		
KGVI (OEL STEL)	540 mg/m <sup>3</sup>		
KGVI (OEL STEL) [ppm]	100 ppm		
Cyprus - Occupational Exposure Limits	Cyprus - Occupational Exposure Limits		
OEL TWA	270 mg/m <sup>3</sup>		

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Isoamyl acetate (123-92-2)		
OEL TWA [ppm]	50 ppm	
OEL STEL	540 mg/m <sup>3</sup>	
OEL STEL [ppm]	100 ppm	
Denmark - Occupational Exposure Limits		
OEL TWA [1]	271 mg/m <sup>3</sup> (Amyl acetate, all isomers)	
OEL TWA [2]	50 ppm (Amyl acetate, all isomers)	
Estonia - Occupational Exposure Limits		
OEL TWA	270 mg/m³	
OEL TWA [ppm]	50 ppm	
OEL STEL	540 mg/m³	
OEL STEL [ppm]	100 ppm	
Finland - Occupational Exposure Limits		
HTP (OEL TWA) [1]	270 mg/m <sup>3</sup> (Pentyl acetate)	
HTP (OEL TWA) [2]	50 ppm (Pentyl acetate)	
HTP (OEL STEL)	540 mg/m³	
HTP (OEL STEL) [ppm]	100 ppm	
France - Occupational Exposure Limits		
VME (OEL TWA)	270 mg/m <sup>3</sup> (restrictive limit)	
VME (OEL TWA) [ppm]	50 ppm (restrictive limit)	
VLE (OEL C/STEL)	540 mg/m <sup>3</sup> (restrictive limit)	
VLE (OEL C/STEL) [ppm]	100 ppm (restrictive limit)	
Germany - Occupational Exposure Limits (TRGS 90	)))	
AGW (OEL TWA) [1]	270 mg/m <sup>3</sup>	
AGW (OEL TWA) [2]	50 ppm	
Gibraltar - Occupational Exposure Limits		
OEL TWA	270 mg/m³	
OEL TWA [ppm]	50 ppm	
OEL STEL	540 mg/m³	
OEL STEL [ppm]	100 ppm	
Greece - Occupational Exposure Limits		
OEL TWA	530 mg/m³	
OEL TWA [ppm]	100 ppm	
OEL STEL	800 mg/m³	
OEL STEL [ppm]	150 ppm	
Hungary - Occupational Exposure Limits		
AK (OEL TWA)	270 mg/m <sup>3</sup>	
CK (OEL STEL)	540 mg/m³	
Ireland - Occupational Exposure Limits		
OEL TWA [1]	260 mg/m <sup>3</sup>	

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Isoamyl acetate (123-92-2)	
OEL TWA [2]	50 ppm
OEL STEL	520 mg/m <sup>3</sup>
OEL STEL [ppm]	100 ppm
Italy - Occupational Exposure Limits	
OEL TWA	270 mg/m <sup>3</sup>
OEL TWA [ppm]	50 ppm
OEL STEL	540 mg/m <sup>3</sup>
OEL STEL [ppm]	100 ppm
Latvia - Occupational Exposure Limits	
OEL TWA	270 mg/m <sup>3</sup>
OEL TWA [ppm]	50 ppm
Lithuania - Occupational Exposure Limits	
IPRV (OEL TWA)	270 mg/m³
IPRV (OEL TWA) [ppm]	50 ppm
TPRV (OEL STEL)	540 mg/m <sup>3</sup>
TPRV (OEL STEL) [ppm]	100 ppm
Luxembourg - Occupational Exposure Limits	
OEL TWA	270 mg/m³
OEL TWA [ppm] OEL STEL	50 ppm
	540 mg/m <sup>3</sup>
OEL STEL [ppm]	100 ppm
Malta - Occupational Exposure Limits	
OEL TWA	270 mg/m <sup>3</sup>
OEL TWA [ppm]	50 ppm
OEL STEL	540 mg/m <sup>3</sup>
OEL STEL [ppm]	100 ppm
Netherlands - Occupational Exposure Limits	
TGG-15min (OEL STEL)	530 mg/m <sup>3</sup>
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	250 mg/m <sup>3</sup>
NDSCh (OEL STEL)	500 mg/m <sup>3</sup>
Portugal - Occupational Exposure Limits	1
OEL TWA	270 mg/m <sup>3</sup> (indicative limit value)
OEL TWA [ppm]	50 ppm (indicative limit value)
OEL STEL	540 mg/m <sup>3</sup> (indicative limit value)
OEL STEL [ppm]	100 ppm (indicative limit value, regulated under Pentyl acetate, all isomers)
Romania - Occupational Exposure Limits	
OEL TWA	270 mg/m³
OEL TWA [ppm]	50 ppm

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Isoamyl acetate (123-92-2)		
OEL STEL	540 mg/m <sup>3</sup>	
OEL STEL [ppm]	100 ppm	
Slovakia - Occupational Exposure Limits		
NPHV (OEL TWA) [1]	270 mg/m³	
NPHV (OEL TWA) [2]	50 ppm	
NPHV (OEL C)	540 mg/m <sup>3</sup>	
Slovenia - Occupational Exposure Limits		
OEL TWA	270 mg/m³	
OEL TWA [ppm]	50 ppm	
OEL STEL	540 mg/m³	
OEL STEL [ppm]	100 ppm	
Spain - Occupational Exposure Limits		
VLA-ED (OEL TWA) [1]	270 mg/m <sup>3</sup> (indicative limit value)	
VLA-ED (OEL TWA) [2]	50 ppm (indicative limit value)	
VLA-EC (OEL STEL)	540 mg/m³	
VLA-EC (OEL STEL) [ppm]	100 ppm	
Sweden - Occupational Exposure Limits		
NGV (OEL TWA)	270 mg/m <sup>3</sup> (Pentyl acetates)	
NGV (OEL TWA) [ppm]	50 ppm (Pentyl acetates)	
KTV (OEL STEL)	540 mg/m <sup>3</sup> (Pentyl acetates)	
KTV (OEL STEL) [ppm]	100 ppm (Pentyl acetates)	
Norway - Occupational Exposure Limits		
Grenseverdi (OEL TWA) [1]	260 mg/m <sup>3</sup>	
Grenseverdi (OEL TWA) [2]	50 ppm	
Korttidsverdi (OEL STEL)	325 mg/m <sup>3</sup> (value calculated)	
Korttidsverdi (OEL STEL) [ppm]	75 ppm (value calculated)	
USA - ACGIH - Occupational Exposure Limits	·	
ACGIH OEL TWA [ppm]	50 ppm (Pentyl acetate, all isomers)	
ACGIH OEL STEL [ppm]	100 ppm (Pentyl acetate, all isomers)	

#### 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

No additional information available

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#### 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

#### 8.2.2.2. Skin protection

Hand protection: Wear protective gloves.

#### 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

**SECTION 9: Physical and chemical properties** 

#### Other information:

Do not eat, drink or smoke during use.

9.1. Information on basic physical and cher	mio	cal properties
Physical state	:	Liquid
Colour	:	Standard.
Odour	:	characteristic.
Odour threshold	:	No data available
pН	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	> 93 °C
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Non flammable.
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

#### 9.2. Other information

No additional information available

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ECTION 10: Stability and reactivity
.1. Reactivity
additional information available
.2. Chemical stability
established.
.3. Possibility of hazardous reactions
established.
.4. Conditions to avoid
ect sunlight. Extremely high or low temperatures.
.5. Incompatible materials
ong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

## **SECTION 11: Toxicological information**

11.1 Information on toxicological effects		
Acute toxicity (dermal) :	Not classified Not classified Not classified	
Hexyl cinnamic aldehyde (101-86-0)		
LD50 oral rat	3100 mg/kg	
LD50 oral	3100 mg/kg bodyweight	
LD50 dermal rabbit	> 3000 mg/kg	
LC50 Inhalation - Rat	> 5 mg/l/4h	
Ethyl maltol (4940-11-8)		
LD50 oral rat	1150 mg/kg	
LD50 oral	1200 mg/kg bodyweight	
LD50 dermal rabbit	> 5000 mg/kg	
Hexamethylindanopyran (1222-05-5)		
LD50 oral rat	> 3250 mg/kg	
LD50 dermal rabbit	> 3250 mg/kg	
Vertenex (32210-23-4)		
LD50 oral rat	5 g/kg	
LD50 oral	3370 mg/kg bodyweight	
LD50 dermal rabbit	> 5000 mg/kg	
Linalool (78-70-6)		
LD50 oral	2790 mg/kg bodyweight	

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d-Limonene (5989-27-5)	
LD50 oral rat	4400 mg/kg
LD50 dermal rabbit	> 5 g/kg
Citronellol Pure (106-22-9)	
LD50 oral rat	3450 mg/kg
LD50 oral	3450 mg/kg bodyweight
LD50 dermal rabbit	2650 mg/kg
LD50 dermal	2650 mg/kg bodyweight
Orange oil (8008-57-9)	
LD50 oral rat	4400 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
Cyclamen aldehyde (103-95-7)	
LD50 oral rat	3810 mg/kg
LD50 oral	3810 mg/kg bodyweight
LD50 dermal rat	> 5000 mg/kg
Ethyl acetate (141-78-6)	
LD50 oral rat	5620 mg/kg
LD50 dermal rabbit	> 18000 mg/kg
LC50 Inhalation - Rat [ppm]	4000 ppm/4h
delta-Damascone (57378-68-4)	
LD50 oral	1400 mg/kg bodyweight
Allyl heptanoate (142-19-8)	
LD50 oral rat	500 mg/kg
LD50 oral	218 mg/kg bodyweight
LD50 dermal rabbit	810 mg/kg
LD50 dermal	810 mg/kg bodyweight
Melonal (106-72-9)	
LD50 oral rat	> 5 g/kg
Citral (5392-40-5)	
LD50 oral rat	4960 mg/kg
LD50 dermal rabbit	2250 mg/kg
LD50 dermal	2250 mg/kg bodyweight
Linalyl acetate (115-95-7)	
LD50 oral rat	14550 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
	Not classified
Additional information :	Based on available data, the classification criteria are not met
Serious eye damage/irritation : Additional information :	Not classified Based on available data, the classification criteria are not met
	May cause an allergic skin reaction.

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Additional information Germ cell mutagenicity Additional information Carcinogenicity Additional information d-Limonene (5989-27-5)	<ul> <li>Based on available data, the classification criteria are not met</li> <li>Not classified</li> <li>Based on available data, the classification criteria are not met</li> <li>Not classified</li> <li>Based on available data, the classification criteria are not met</li> </ul>
IARC group	3 - Not classifiable
Reproductive toxicity Additional information STOT-single exposure Additional information Ethyl acetate (141-78-6)	<ul> <li>Not classified</li> <li>Based on available data, the classification criteria are not met</li> <li>Not classified</li> <li>Based on available data, the classification criteria are not met</li> </ul>
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure Additional information Aspiration hazard Additional information Potential adverse human health effects and symptoms	<ul> <li>Not classified</li> <li>Based on available data, the classification criteria are not met</li> <li>Not classified</li> <li>Based on available data, the classification criteria are not met</li> <li>Based on available data, the classification criteria are not met</li> </ul>

## **SECTION 12: Ecological information**

12.1. Toxicity		
(acute)	Not classified	
Hazardous to the aquatic environment, long-term : (chronic)	Harmful to aquatic life with long lasting effects.	
Ethyl maltol (4940-11-8)		
LC50 - Fish [1]	> 85 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)	
Hexamethylindanopyran (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	
Vertenex (32210-23-4)		
LC50 - Fish [1]	8.6 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])	
Linalool (78-70-6)		
EC50 96h - Algae [1]	88.3 mg/I (Species: Desmodesmus subspicatus)	
d-Limonene (5989-27-5)		
LC50 - Fish [1]	0.619 – 0.796 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])	
LC50 - Fish [2]	35 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)	
Ethyl acetate (141-78-6)		
LC50 - Fish [1]	220 – 250 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])	
LC50 - Fish [2]	484 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])	
EC50 - Crustacea [1]	560 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])	

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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)
Linalyl acetate (115-95-7)	
LC50 - Fish [1]	11 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [flow-through])
12.2. Persistence and degradability	
Mango at 25% in DPG	
Persistence and degradability	Not established.
12.3. Bioaccumulative potential	
Mango at 25% in DPG	
Bioaccumulative potential	Not established.
Ethyl acetate (141-78-6)	
BCF - Fish [1]	30
Partition coefficient n-octanol/water (Log Pow)	0.6
Citral (5392-40-5)	
Partition coefficient n-octanol/water (Log Pow)	2.76 (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. Other adverse effects	
Additional information :	Avoid release to the environment.
SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
	Dispose in a safe manner in accordance with local/national regulations. Avoid release to the environment.

#### **SECTION 14: Transport information**

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

#### 14.1 UN number

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

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14.2. UN proper shipping name	
Proper Shipping Name (ADR) Proper Shipping Name (IMDG) Proper Shipping Name (IATA) Proper Shipping Name (ADN) Proper Shipping Name (RID)	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> </ul>
14.3. Transport hazard class(es)	
ADR Transport hazard class(es) (ADR)	: Not applicable
IMDG Transport hazard class(es) (IMDG)	: Not applicable
IATA Transport hazard class(es) (IATA)	: Not applicable
ADN Transport hazard class(es) (ADN)	: Not applicable
<b>RID</b> Transport hazard class(es) (RID)	: Not applicable
14.4. Packing group	
Packing group (ADR) Packing group (IMDG) Packing group (IATA) Packing group (ADN) Packing group (RID)	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> </ul>
14.5. Environmental hazards	
Dangerous for the environment Marine pollutant Other information	: No : No : No supplementary information available
14.6. Special precautions for user	
<b>Overland transport</b> Not applicable	
Transport by sea Not applicable	
Air transport Not applicable	
Inland waterway transport Not applicable	
Rail transport	

Not applicable

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

Not applicable

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#### **SECTION 15: Regulatory information**

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

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

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

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 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

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

Connuny	
Employment restrictions	: Observe restrictions according Act on the Protection of Working Mothers (MuSchG) Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG)
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	
SZW-lijst van kankerverwekkende stoffen	: Orange oil is listed
SZW-lijst van mutagene stoffen	: Orange oil is listed
SZW-lijst van reprotoxische stoffen - Borstvoedin	g : 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
Switzerland	
Storage class (LK)	: LK 10/12 - Liquids

#### **15.2. Chemical safety assessment**

No chemical safety assessment has been carried out

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SECTION 16: Other Information	
Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	: None.

Full text of H- and EUH	I-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
Flam. Liq. 1	Flammable liquids, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
H224	Extremely flammable liquid and vapour.
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.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis

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.