

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830
Issue date: 8/31/2022 Revision date: 3/8/2023



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

1.1. Product identifier

Product form : Mixture
Product name : Type 43 - ChMa CC-16328
UFI : REF-X8NX-900V-PA3H
Product code : CC-16328
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 : Professional use, Industrial use
Industrial/Professional use spec : Industrial
For professional use only
Use of the substance/mixture : Perfumes, fragrances
Function or use category : Odour agents

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Candle Craft
Weiherwiese 10
65510 Idstein - Germany
T 49-6126-9363 -0
info@candlecraft.de - www.candlecraft.de

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
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411

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

Adverse physicochemical, human health and environmental effects

Causes skin irritation. Causes serious eye irritation. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects. May cause an allergic skin reaction.

2.2. Label elements

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

Hazard pictograms (CLP) :



Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

Signal word (CLP)	: Danger
Contains	: Linalool, Hexyl salicylate, Patchouli oil, Orange oil, Linalyl acetate, Iso E Super, Helional, Citronellol Pure, d-Limonene, Benzyl salicylate, Vertofix, COUMARIN, Cyclamal, Triplal (Vertocitral), 3(2H)-Furanone, 4-hydroxy-2,5-dimethyl-
Hazard statements (CLP)	: H304 - May be fatal if swallowed and enters airways. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: 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. P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. P302+P352 - IF ON SKIN: Wash with plenty of water.
Extra phrases	: For professional users only.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ 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]
Linalool	CAS-No.: 78-70-6 EC-No.: 201-134-4 EC Index-No.: 603-235-00-2 REACH-no: 01-2119474016-42	6.925 – 13.85	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
2-Isobutyl-4-methyltetrahydro-2H-pyran-4-ol	CAS-No.: 63500-71-0 EC-No.: 405-040-6 EC Index-No.: 603-101-00-3 REACH-no: 01-000015458-64	2.3125 – 9.25	Eye Irrit. 2, H319
Phenylethyl alcohol	CAS-No.: 60-12-8 EC-No.: 200-456-2 REACH-no: 01-2119963921-31	2.95 – 5.9	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319
Patchouli oil	CAS-No.: 8014-09-3 EC Index-No.: 616-944-7	2.6 – 5.2	Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Hexamethylindanopyran	CAS-No.: 1222-05-5 EC-No.: 214-946-9 EC Index-No.: 603-212-00-7 REACH-no: 01-2119488227-29	2.315 – 4.63	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Orange oil	CAS-No.: 8008-57-9 EC-No.: 232-433-8 REACH-no: 01-2119493353-35	2.3 – 4.6	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 2, H411

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Linalyl acetate	CAS-No.: 115-95-7 EC-No.: 204-116-4 REACH-no: 01-2119454789-19	2 – 4	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Benzyl acetate substance with national workplace exposure limit(s) (BE, DK, ES, IE, LT, LV, PT, RO)	CAS-No.: 140-11-4 EC-No.: 205-399-7 REACH-no: 01-2119638272-42	1.85 – 3.7	Aquatic Chronic 3, H412
Iso E Super	CAS-No.: 54464-57-2 EC-No.: 259-174-3 REACH-no: 01-2119489989-04	1.85 – 3.7	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 1, H410
Helional	CAS-No.: 1205-17-0 EC-No.: 214-881-6 REACH-no: 01-2120740119-58	1.375 – 2.75	Skin Sens. 1B, H317 Repr. 2, H361 Aquatic Chronic 2, H411
Citronellol Pure	CAS-No.: 106-22-9 EC-No.: 203-375-0 REACH-no: 01-2119453995-23	1.3 – 2.6	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Dimethylbenzyl carbinyl butyrate(DMBCB)	CAS-No.: 10094-34-5 EC-No.: 233-221-8 REACH-no: 01-2120742578-44	1 – 2	Skin Irrit. 2, H315 Aquatic Chronic 2, H411
Dihydromyrcenol	CAS-No.: 18479-58-8 EC-No.: 242-362-4 REACH-no: 01-2119457274-37	0.925 – 1.85	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Ethyl vanillin	CAS-No.: 121-32-4 EC-No.: 204-464-7 REACH-no: 01-211958961-24	0.925 – 1.85	Eye Irrit. 2, H319
Vanillin	CAS-No.: 121-33-5 EC-No.: 204-465-2 REACH-no: 01-2119516040-60	0.925 – 1.85	Eye Irrit. 2, H319
d-Limonene substance with national workplace exposure limit(s) (DE, ES, FI, SI, NO, CH)	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	0.925 – 1.85	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
Benzyl salicylate	CAS-No.: 118-58-1 EC-No.: 204-262-9 EC Index-No.: 607-754-00-5 REACH-no: 01-2119969442-31	0.75 – 1.5	Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 3, H412
beta-Ionone	CAS-No.: 14901-07-6 EC-No.: 238-969-9	0.55 – 1.1	Aquatic Chronic 2, H411

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hexyl salicylate	CAS-No.: 6259-76-3 EC-No.: 228-408-6	0.04625 – 0.925	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
acetyl cedrene	CAS-No.: 32388-55-9 EC-No.: 251-020-3 REACH-no: 01-2119969651-28	0.45 – 0.9	Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
COUMARIN	CAS-No.: 91-64-5 EC-No.: 202-086-7 REACH-no: 01-2119943756-26	0.375 – 0.75	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Sandela	CAS-No.: 66068-84-6 EC-No.: 266-100-3	0.275 – 0.55	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Cyclamal	CAS-No.: 103-95-7 EC-No.: 203-161-7 REACH-no: 01-2119970582-32	0.275 – 0.55	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 2, H411
Allyl amyl glycolate	CAS-No.: 67634-00-8 EC-No.: 266-803-5	0.275 – 0.55	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Acute Tox. 2 (Inhalation), H330
1,2-Propanediol substance with national workplace exposure limit(s) (GB, HR, IE, LT, LV, PL, NO)	CAS-No.: 57-55-6 EC-No.: 200-338-0 REACH-no: 01-2119456809-23	0.14 – 0.28	Not classified
Triplal (Vertocitral)	CAS-No.: 68039-49-6 EC-No.: 268-264-1	0.1 – 0.2	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately.
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 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	: Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: Risk of lung oedema.

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

Treat symptomatically.

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

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

For containment : Collect spillage.
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. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.
Hygiene measures : Wash contaminated clothing before reuse. 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.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. 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

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Benzyl acetate (140-11-4)	
Belgium - Occupational Exposure Limits	
OEL TWA	62 mg/m ³
OEL TWA [ppm]	10 ppm
Denmark - Occupational Exposure Limits	
OEL TWA [1]	61 mg/m ³
OEL TWA [2]	10 ppm
Ireland - Occupational Exposure Limits	
OEL TWA [2]	10 ppm
OEL STEL [ppm]	30 ppm (calculated)
Latvia - Occupational Exposure Limits	
OEL TWA	5 mg/m ³
Lithuania - Occupational Exposure Limits	
IPRV (OEL TWA)	5 mg/m ³
Portugal - Occupational Exposure Limits	
OEL TWA [ppm]	10 ppm
OEL chemical category	A4 - Not Classifiable as a Human Carcinogen
Romania - Occupational Exposure Limits	
OEL TWA	50 mg/m ³
OEL TWA [ppm]	8 ppm
OEL STEL	80 mg/m ³
OEL STEL [ppm]	13 ppm
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [1]	62 mg/m ³
VLA-ED (OEL TWA) [2]	10 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	10 ppm
ACGIH chemical category	Not Classifiable as a Human Carcinogen
d-Limonene (5989-27-5)	
Finland - Occupational Exposure Limits	
HTP (OEL TWA) [1]	140 mg/m ³
HTP (OEL TWA) [2]	25 ppm
HTP (OEL STEL)	280 mg/m ³
HTP (OEL STEL) [ppm]	50 ppm
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	28 mg/m ³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

d-Limonene (5989-27-5)	
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 ³
OEL TWA [ppm]	5 ppm
OEL STEL	112 mg/m ³
OEL STEL [ppm]	20 ppm
OEL chemical category	Potential for cutaneous absorption
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [1]	168 mg/m ³
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 ³
Grenseverdi (OEL TWA) [2]	25 ppm
Korttidsverdi (OEL STEL)	175 mg/m ³ (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 ³
MAK (OEL TWA) [2]	7 ppm
KZGW (OEL STEL)	80 mg/m ³
KZGW (OEL STEL) [ppm]	14 ppm
OEL chemical category	Sensitizer
1,2-Propanediol (57-55-6)	
Croatia - Occupational Exposure Limits	
GVI (OEL TWA) [1]	474 mg/m ³ (total vapor and particles) 10 mg/m ³ (particles)
GVI (OEL TWA) [2]	150 ppm
Ireland - Occupational Exposure Limits	
OEL TWA [1]	10 mg/m ³ (particulates) 470 mg/m ³ (total vapour and particulates)
OEL TWA [2]	150 ppm (total vapour and particulates)
OEL STEL	1410 mg/m ³ (calculated-particulates) 30 mg/m ³ (calculated)
OEL STEL [ppm]	450 ppm (calculated-total vapour and particulates)
Latvia - Occupational Exposure Limits	
OEL TWA	7 mg/m ³

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

1,2-Propanediol (57-55-6)	
Lithuania - Occupational Exposure Limits	
IPRV (OEL TWA)	7 mg/m ³
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	100 mg/m ³ (vapor and inhalable fraction)
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	474 mg/m ³ (total vapour and particulates) 10 mg/m ³ (particulates)
WEL TWA (OEL TWA) [2]	150 ppm (total vapour and particulates)
WEL STEL (OEL STEL)	1422 mg/m ³ (calculated-total vapour and particulates) 30 mg/m ³ (calculated-particulate)
WEL STEL (OEL STEL) [ppm]	450 ppm (calculated-total vapour and particulates)
Norway - Occupational Exposure Limits	
Grønseverdi (OEL TWA) [1]	79 mg/m ³
Grønseverdi (OEL TWA) [2]	25 ppm
Korttidsverdi (OEL STEL)	118.5 mg/m ³ (value calculated)
Korttidsverdi (OEL STEL) [ppm]	37.5 ppm (value calculated)

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

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

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.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 83 °C (closed cup) ASTM D7094
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
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

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

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

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 toxicological effects

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

Linalool (78-70-6)	
LD50 oral	2790 mg/kg bodyweight
2-Isobutyl-4-methyltetrahydro-2H-pyran-4-ol (63500-71-0)	
LD50 dermal rabbit	> 2000 mg/kg
Hexyl salicylate (6259-76-3)	
LD50 oral rat	> 5 g/kg
LD50 dermal rabbit	> 5000 mg/kg
Phenylethyl alcohol (60-12-8)	
LD50 oral rat	1609 mg/kg
LD50 oral	1610 mg/kg bodyweight
LD50 dermal rabbit	2535 mg/kg
LD50 dermal	2500 mg/kg bodyweight
LC50 Inhalation - Rat	> 4.63 mg/l/4h
Patchouli oil (8014-09-3)	
LD50 oral rat	> 5 g/kg
Hexamethylindanopyran (1222-05-5)	
LD50 oral rat	> 3250 mg/kg
LD50 dermal rabbit	> 3250 mg/kg
Orange oil (8008-57-9)	
LD50 oral rat	4400 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
Linalyl acetate (115-95-7)	
LD50 oral rat	14550 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
Benzyl acetate (140-11-4)	
LD50 oral rat	2490 mg/kg
LD50 oral	2490 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg
Helional (1205-17-0)	
LD50 dermal rabbit	> 2000 mg/kg

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

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
Dimethylbenzyl carbonyl butyrate(DMBCB) (10094-34-5)	
LD50 oral rat	> 5 g/kg
Dihydromyrcenol (18479-58-8)	
LD50 oral rat	3600 mg/kg
LD50 oral	3600 mg/kg bodyweight
LD50 dermal rabbit	> 5 g/kg
Ethyl vanillin (121-32-4)	
LD50 oral rat	1590 mg/kg
LD50 oral	3000 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg
Vanillin (121-33-5)	
LD50 dermal rabbit	> 5010 mg/kg
LD50 dermal	2600 mg/kg bodyweight
d-Limonene (5989-27-5)	
LD50 oral rat	4400 mg/kg
LD50 dermal rabbit	> 5 g/kg
Benzyl salicylate (118-58-1)	
LD50 oral rat	2227 mg/kg
LD50 oral	2200 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg
beta-Ionone (14901-07-6)	
LD50 oral rat	4590 mg/kg
LD50 oral	3490 mg/kg bodyweight
acetyl cedrene (32388-55-9)	
LD50 oral	4500 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg
COUMARIN (91-64-5)	
LD50 oral rat	> 5000 mg/kg
LD50 oral	500 mg/kg bodyweight
LD50 dermal rat	293 mg/kg
Sandela (66068-84-6)	
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 5.27 mg/l/4h

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

Cyclamal (103-95-7)	
LD50 oral rat	3810 mg/kg
LD50 oral	3810 mg/kg bodyweight
LD50 dermal rat	> 5000 mg/kg
Allyl amyl glycolate (67634-00-8)	
LD50 oral	500 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	0.43 mg/l/4h
LC50 Inhalation - Rat (Dust/Mist)	0.5 mg/l/4h
1,2-Propanediol (57-55-6)	
LD50 oral rat	20 g/kg
LD50 dermal rabbit	20800 mg/kg
Triplal (Vertocitral) (68039-49-6)	
LD50 oral	3900 mg/kg bodyweight
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
Benzyl acetate (140-11-4)	
IARC group	3 - Not classifiable
d-Limonene (5989-27-5)	
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	: May be fatal if swallowed and enters airways.
Orange oil (8008-57-9)	
Hydrocarbon	Yes

SECTION 12: Ecological information

12.1. Toxicity

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

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

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

Phenylethyl alcohol (60-12-8)	
EC50 - Crustacea [1]	287.17 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	490 mg/l (Species: Desmodesmus subspicatus)
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
Linalyl acetate (115-95-7)	
LC50 - Fish [1]	11 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [flow-through])
Ethyl vanillin (121-32-4)	
LC50 - Fish [1]	81.4 – 94.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
Vanillin (121-33-5)	
LC50 - Fish [1]	53 – 61.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 - Fish [2]	88 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
NOEC (acute)	10000 mg/kg (Exposure time: 42 Days - Species: Eisenia foetida [soil dry weight])
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)
Benzyl salicylate (118-58-1)	
LC50 - Fish [1]	1.03 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static])
1,2-Propanediol (57-55-6)	
LC50 - Fish [1]	51600 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
LC50 - Fish [2]	41 – 47 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 - Crustacea [1]	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 96h - Algae [1]	19000 mg/l (Species: Pseudokirchneriella subcapitata)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

2-Isobutyl-4-methyltetrahydro-2H-pyran-4-ol (63500-71-0)	
Partition coefficient n-octanol/water (Log Pow)	1.65 (at 23 °C (at pH >6.09-<6.74))
Hexyl salicylate (6259-76-3)	
Partition coefficient n-octanol/water (Log Pow)	5.5 (at 30 °C (at pH 7))
Phenylethyl alcohol (60-12-8)	
Partition coefficient n-octanol/water (Log Pow)	1.36 (at 20 °C (at pH 7))
Hexamethylindanopyran (1222-05-5)	
BCF - Fish [1]	(1618 dimensionless (whole body w.w.))

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

Hexamethylindanopyran (1222-05-5)	
Partition coefficient n-octanol/water (Log Pow)	5.3 (at 25 °C (at pH 7)
Linalyl acetate (115-95-7)	
Partition coefficient n-octanol/water (Log Pow)	3.9 (at 25 °C)
Benzyl acetate (140-11-4)	
Partition coefficient n-octanol/water (Log Pow)	1.96 (at 25 °C (at pH 7)
Helional (1205-17-0)	
Partition coefficient n-octanol/water (Log Pow)	2.4 (at 25 °C)
Citronellol Pure (106-22-9)	
Partition coefficient n-octanol/water (Log Pow)	3.41 (at 25 °C)
Dimethylbenzyl carbiny l butyrate(DMBCB) (10094-34-5)	
Partition coefficient n-octanol/water (Log Pow)	4.7 (at 25 °C)
Dihydromyrcenol (18479-58-8)	
Partition coefficient n-octanol/water (Log Pow)	3.25 (at 40 °C (at pH 7)
Ethyl vanillin (121-32-4)	
Partition coefficient n-octanol/water (Log Pow)	1.61 (at 25 °C)
Vanillin (121-33-5)	
Partition coefficient n-octanol/water (Log Pow)	1.23 (at 22 °C)
d-Limonene (5989-27-5)	
Partition coefficient n-octanol/water (Log Pow)	4.38 (at 37 °C (at pH 7.2)
Benzyl salicylate (118-58-1)	
Partition coefficient n-octanol/water (Log Pow)	4
beta-Ionone (14901-07-6)	
Partition coefficient n-octanol/water (Log Pow)	1.903 (at 27 °C (at pH 5.7)
acetyl cedrene (32388-55-9)	
BCF - Fish [1]	(3920 dimensionless (organ w.w.)
Partition coefficient n-octanol/water (Log Pow)	5.6 – 5.9
Cyclamal (103-95-7)	
Partition coefficient n-octanol/water (Log Pow)	3.4 (at 35 °C)
Allyl amyl glycolate (67634-00-8)	
Partition coefficient n-octanol/water (Log Pow)	1.96 (at 25 °C (at pH 2.3)
1,2-Propanediol (57-55-6)	
BCF - Fish [1]	(1 dimensionless)
Partition coefficient n-octanol/water (Log Pow)	-1.07 (at 20.5 °C (at pH >=6.2-<=6.4)

12.4. Mobility in soil

No additional information available

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

HP Code

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

: HP3 - "Flammable:"

– flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;

– flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;

– flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;

– flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;

– water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;

– other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.

HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.

HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

HP13 - "Sensitising:" waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.

HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information





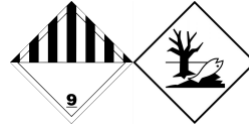
In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN)	Environmentally hazardous substance, liquid, n.o.s. (HEXAMETHYLINDANOPYRAN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN)
Transport document description				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (HEXAMETHYLINDANOPYRAN), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HEXAMETHYLINDANOPYRAN), 9, III

Type 43 - ChMa CC-16328

Safety Data Sheet

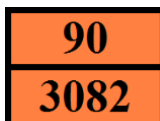
according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

ADR	IMDG	IATA	ADN	RID
14.3. Transport hazard class(es)				
9	9	9	9	9
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : M6
 Special provisions (ADR) : 274, 335, 375, 601
 Limited quantities (ADR) : 5l
 Excepted quantities (ADR) : E1
 Packing instructions (ADR) : P001, IBC03, LP01, R001
 Special packing provisions (ADR) : PP1
 Mixed packing provisions (ADR) : MP19
 Portable tank and bulk container instructions (ADR) : T4
 Portable tank and bulk container special provisions (ADR) : TP1, TP29
 Tank code (ADR) : LGBV
 Vehicle for tank carriage : AT
 Transport category (ADR) : 3
 Special provisions for carriage - Packages (ADR) : V12
 Special provisions for carriage - Loading, unloading and handling (ADR) : CV13
 Hazard identification number (Kemler No.) : 90
 Orange plates :



Tunnel restriction code (ADR) : -
 EAC code : •3Z

Transport by sea

Special provisions (IMDG) : 274, 335, 969
 Limited quantities (IMDG) : 5 L
 Excepted quantities (IMDG) : E1
 Packing instructions (IMDG) : LP01, P001
 Special packing provisions (IMDG) : PP1
 IBC packing instructions (IMDG) : IBC03
 Tank instructions (IMDG) : T4
 Tank special provisions (IMDG) : TP1, TP29
 EmS-No. (Fire) : F-A
 EmS-No. (Spillage) : S-F
 Stowage category (IMDG) : A

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provisions (IATA)	: A97, A158, A197, A215
ERG code (IATA)	: 9L

Inland waterway transport

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

Rail transport

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

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(a)	Orange oil ; d-Limonene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(b)	Type 43 - ChMa CC-16328 ; Linalool ; 2-Isobutyl-4-methyltetrahydro-2H-pyran-4-ol ; Hexyl salicylate ; Phenylethyl alcohol ; Patchouli oil ; Orange oil ; Linalyl acetate ; Iso E Super ; Helional ; Citronellol Pure ; Dimethylbenzyl carbonyl butyrate(DMBCB) ; Dihydromyrcenol ; d-Limonene ; Benzyl salicylate ; acetyl cedrene ; Sandela ; Cyclamal ; Allyl amyl glycolate ; Triplal (Vertocitral)	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)	Type 43 - ChMa CC-16328 ; Hexyl salicylate ; Patchouli oil ; Hexamethylindanopyran ; Orange oil ; Benzyl acetate ; Iso E Super ; Helional ; Dimethylbenzyl carbonyl butyrate(DMBCB) ; d-Limonene ; Benzyl salicylate ; beta-Ionone ; acetyl cedrene ; Sandela ; Cyclamal ; Triplal (Vertocitral)	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 ; d-Limonene	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

REACH Annex XIV (Authorisation List)

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

REACH Candidate List (SVHC)

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

PIC Regulation (Prior Informed Consent)

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

POP Regulation (Persistent Organic Pollutants)

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

Ozone Regulation (1005/2009)

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

Explosives Precursors Regulation (2019/1148)

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

Drug Precursors Regulation (273/2004)

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

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

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

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 3, Highly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV)	: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

ABM category	: A(2) - toxic for aquatic organisms, may have longterm hazardous effects in aquatic environment
SZW-lijst van kankerverwekkende stoffen	: Orange oil ,Sandela,Allyl amyl glycolate,Triplal (Vertocitral) are listed
SZW-lijst van mutagene stoffen	: Orange oil ,Sandela,Allyl amyl glycolate,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
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 6.1 - Toxic materials
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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. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
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

Type 43 - ChMa CC-16328

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

Full text of H- and EUH-statements:	
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.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H361	Suspected of damaging fertility or the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

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