

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 10/31/2023 Revision date: 4/18/2022 Version: 1.0

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

1.1. Product identifier

Product form : Mixture

Trade name : CINNAMON #EU14708F UFI : CSQ9-E1M4-J007-0YTT

Product code : EU14708F

Type of product : Perfumes, fragrances Product group : Trade product

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use

Industrial/Professional use spec · Industrial

> For professional use only : Perfumes, fragrances

Use of the substance/mixture Function or use category : Odour agents

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

FRENCH COLOR & FRAGRANCE International GmbH

Mittlerer Weg 35 DE- 79424 Auggen

Germany

T 49-7631-931-8900

SDS@frenchcolor.com - www.frenchcolor.com

1.4. Emergency telephone number

Emergency number : 1-800-255-3924; +01-813-248-0585; China:+400-120-0751; Mexico:+01-800-099-0731;

Brazil: +0-800-591-6042; India: +000-800-100-4086

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 2 H315 H319 Serious eye damage/eye irritation, Category 2 H317 Skin sensitisation, Category 1 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

Harmful to aquatic life with long lasting effects. Causes skin irritation. Causes serious eye irritation. Toxic to aquatic life with long lasting effects. May cause an allergic skin reaction.

2.2. Label elements

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

Hazard pictograms (CLP)





GHS07 : Warning

GHS09

Signal word (CLP)

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Contains : Cinnamic aldehyde; Eugenol; alpha-Methylcinnamic aldehyde; Lemon oil; Clove Leaf Oil;

beta-Caryophyllene; Cuminic aldehyde

Hazard statements (CLP) : 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.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

Precautionary statements (CLP) : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 - Wash hands, forearms and face thoroughly after handling.

P272 - Contaminated work clothing should not be allowed out of the workplace.

P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

P302+P352 - IF ON SKIN: Wash with plenty of water.

Extra phrases : For professional users only.

2.3. Other hazards

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

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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Eugenol	CAS-No.: 97-53-0 EC-No.: 202-589-1 REACH-no: 01-2119971802- 33	5.15 – 10.625	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	5.03 – 10.15625	Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1A, H317 Aquatic Chronic 3, H412
alpha-Methylcinnamic aldehyde	CAS-No.: 101-39-3 EC-No.: 202-938-8 REACH-no: 01-2119538797- 21	2.3 – 4.5	Skin Sens. 1, H317 Aquatic Chronic 1, H410
Citrus medica limonum (Lemon) peel oil	CAS-No.: 8008-56-8 EC-No.: 284-515-8	1 – 2	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Repr. 2, H361 Aquatic Chronic 2, H411
Clove Leaf Oil	CAS-No.: 8000-34-8 EC-No.: 616-772-2	1 – 2	Eye Irrit. 2, H319 Skin Sens. 1, H317 Asp. Tox. 1, H304
beta-Caryophyllene	CAS-No.: 87-44-5 EC-No.: 201-746-1 REACH-no: 01-2120745237- 53	0.33 – 0.9375	Skin Sens. 1B, H317 Asp. Tox. 1, H304

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
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 – 0.25	Acute Tox. 4 (Oral), H302
Cuminic aldehyde	CAS-No.: 122-03-2 EC-No.: 204-516-9	0.1 – 0.15	Acute Tox. 4 (Oral), H302 Skin Sens. 1, H317
.alphaPinene substance with national workplace exposure limit(s) (BE, EE, ES, LT, PT, SE, NO)	CAS-No.: 80-56-8 EC-No.: 201-291-9	0.01 – 0.0375	Flam. Liq. 3, H226
.betaPinene substance with national workplace exposure limit(s) (BE, EE, ES, LT, PT, SE, NO)	CAS-No.: 127-91-3 EC-No.: 204-872-5	0.01 – 0.0375	Flam. Liq. 3, H226
(R)-p-mentha-1,8-diene; d-limonene substance with national workplace exposure limit(s) (DE, ES, FI, SI, NO, CH)	CAS-No.: 5989-27-5 EC-No.: 205-341-0 EC Index-No.: 601-096-00-2 REACH-no: 01-2119493353-	0.005 – 0.0225	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
p-Cymene substance with national workplace exposure limit(s) (DK, EE, LT, LV, SE)	CAS-No.: 99-87-6 EC-No.: 202-796-7 EC Index-No.: 601-094-00-1	0.001 – 0.005	Flam. Liq. 3, H226 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Inhalation:dust,mist), H331 Repr. 2, H361 Asp. Tox. 1, H304 Aquatic Chronic 2, H411

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical

advice (show the label where possible).

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Allow the victim to rest.

First-aid measures after skin contact : If skin irritation occurs: Get medical advice/attention. Wash skin with plenty of water. Tal

: If skin irritation occurs: Get medical advice/attention. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Obtain medical attention if pain, blinking or redness persists. Rinse cautiously with water for

several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye

irritation persists: Get medical advice/attention.

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

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

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

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

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

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

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

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes.

Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew

with proper protection. For further information refer to section 8: "Exposure

controls/personal protection".

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Store away from other materials.

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

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Provide good ventilation in process area to

prevent formation of vapour. Avoid contact with skin and eyes. Wear personal protective

equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be

allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Store in a well-ventilated place. Keep cool.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage temperature : 25 °C

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

Special rules on packaging : Store in a closed container.
Packaging materials : Do not store in corrodable metal.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)		
Finland - Occupational Exposure Limits		
HTP (OEL TWA) [1]	140 mg/m³	
HTP (OEL TWA) [2]	25 ppm	
HTP (OEL STEL)	280 mg/m³	
HTP (OEL STEL) [ppm]	50 ppm	
Germany - Occupational Exposure Limits (TRGS 90	00)	
AGW (OEL TWA) [1]	28 mg/m³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)	
AGW (OEL TWA) [2]	5 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)	
Chemical category	Skin notation, Skin sensitization	
Slovenia - Occupational Exposure Limits		
OEL TWA	28 mg/m³	
OEL TWA	5 ppm	
OEL STEL	112 mg/m³	
OEL STEL	20 ppm	
OEL chemical category	Potential for cutaneous absorption	
Spain - Occupational Exposure Limits		
VLA-ED (OEL TWA) [1]	168 mg/m³	
VLA-ED (OEL TWA) [2]	30 ppm	
OEL chemical category	Sensitizer, skin - potential for cutaneous absorption	
Norway - Occupational Exposure Limits		
Grenseverdi (OEL TWA) [1]	140 mg/m³	
Grenseverdi (OEL TWA) [2]	25 ppm	
Korttidsverdi (OEL STEL)	175 mg/m³ (value calculated)	
Korttidsverdi (OEL STEL) [ppm]	37.5 ppm (value calculated)	
OEL chemical category	Allergenic substance	
Switzerland - Occupational Exposure Limits		
MAK (OEL TWA) [1]	40 mg/m³	
MAK (OEL TWA) [2]	7 ppm	
KZGW (OEL STEL)	80 mg/m³	

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(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)			
KZGW (OEL STEL) [ppm]	14 ppm		
OEL chemical category	Sensitizer		
.alphaPinene (80-56-8)			
Belgium - Occupational Exposure Limits			
OEL TWA	20 ppm		
Estonia - Occupational Exposure Limits			
OEL TWA	150 mg/m³ (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect)		
OEL TWA	25 ppm (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect)		
OEL STEL	300 mg/m³ (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect)		
OEL STEL	50 ppm (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect)		
Lithuania - Occupational Exposure Limits			
IPRV (OEL TWA)	150 mg/m³		
IPRV (OEL TWA) [ppm]	25 ppm		
TPRV (OEL STEL)	300 mg/m³		
TPRV (OEL STEL) [ppm]	50 ppm		
Portugal - Occupational Exposure Limits			
OEL TWA	20 ppm (Turpentine and selected Monoterpenes)		
OEL chemical category	Sensitizer dermal, A4 - Not Classifiable as a Human Carcinogen		
Spain - Occupational Exposure Limits	Spain - Occupational Exposure Limits		
VLA-ED (OEL TWA) [1]	113 mg/m³		
VLA-ED (OEL TWA) [2]	20 ppm		
OEL chemical category	Sensitizer		
Sweden - Occupational Exposure Limits			
NGV (OEL TWA)	150 mg/m³		
NGV (OEL TWA) [ppm]	25 ppm		
KTV (OEL STEL)	300 mg/m³		
KTV (OEL STEL) [ppm]	50 ppm		
OEL chemical category	Sensitizer		
Norway - Occupational Exposure Limits			
Grenseverdi (OEL TWA) [1]	140 mg/m³		
Grenseverdi (OEL TWA) [2]	25 ppm		
Korttidsverdi (OEL STEL)	175 mg/m³ (value calculated)		
Korttidsverdi (OEL STEL) [ppm]	37.5 ppm (value calculated)		
OEL chemical category	Skin notation		
USA - ACGIH - Occupational Exposure Limits			
ACGIH OEL TWA [ppm]	20 ppm (Turpentine and selected Monoterpenes)		

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.alphaPinene (80-56-8)		
ACGIH chemical category	Not Classifiable as a Human Carcinogen, dermal sensitizer	
.betaPinene (127-91-3)		
Belgium - Occupational Exposure Limits		
OEL TWA	20 ppm	
Estonia - Occupational Exposure Limits		
OEL TWA	150 mg/m³ (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect)	
OEL TWA	25 ppm (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect)	
OEL STEL	300 mg/m³ (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect)	
OEL STEL	50 ppm (Turpentine produced from Nordic conifers has an irritating effect on the skin, monoterpenes, with the exception of 3-Carene, have a lesser effect)	
Lithuania - Occupational Exposure Limits		
IPRV (OEL TWA)	150 mg/m³	
IPRV (OEL TWA) [ppm]	25 ppm	
TPRV (OEL STEL)	300 mg/m³	
TPRV (OEL STEL) [ppm]	50 ppm	
Portugal - Occupational Exposure Limits		
OEL TWA	20 ppm (Turpentine and selected Monoterpenes)	
OEL chemical category	Sensitizer dermal, A4 - Not Classifiable as a Human Carcinogen	
Spain - Occupational Exposure Limits		
VLA-ED (OEL TWA) [1]	113 mg/m³	
VLA-ED (OEL TWA) [2]	20 ppm	
OEL chemical category	Sensitizer	
Sweden - Occupational Exposure Limits		
NGV (OEL TWA)	150 mg/m³	
NGV (OEL TWA) [ppm]	25 ppm	
KTV (OEL STEL)	300 mg/m³	
KTV (OEL STEL) [ppm]	50 ppm	
OEL chemical category	Sensitizer	
Norway - Occupational Exposure Limits		
Grenseverdi (OEL TWA) [1]	140 mg/m³	
Grenseverdi (OEL TWA) [2]	25 ppm	
Korttidsverdi (OEL STEL)	175 mg/m³ (value calculated)	
Korttidsverdi (OEL STEL) [ppm]	37.5 ppm (value calculated)	
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA [ppm]	20 ppm (Turpentine and selected Monoterpenes)	
ACGIH chemical category	Not Classifiable as a Human Carcinogen, dermal sensitizer	

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benzaldehyde (100-52-7)		
Bulgaria - Occupational Exposure Limits		
OEL TWA	5 mg/m³	
Finland - Occupational Exposure Limits		
HTP (OEL TWA) [1]	4.4 mg/m³	
HTP (OEL TWA) [2]	1 ppm	
HTP (OEL C)	17.4 mg/m³	
HTP (OEL C) [ppm]]	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	
Poland - Occupational Exposure Limits		
NDS (OEL TWA)	10 mg/m³	
NDSCh (OEL STEL)	40 mg/m³	
p-Cymene (99-87-6)		
Denmark - Occupational Exposure Limits		
OEL TWA [1]	135 mg/m³ (Methylisopropylbenzenes)	
OEL TWA [2]	25 ppm (Methylisopropylbenzenes)	
OEL STEL	270 mg/m³ (Methylisopropylbenzenes)	
OEL STEL	50 ppm (Methylisopropylbenzenes)	
Estonia - Occupational Exposure Limits		
OEL TWA	140 mg/m³	
OEL TWA	25 ppm	
OEL STEL	190 mg/m³	
OEL STEL	35 ppm	
Latvia - Occupational Exposure Limits		
OEL TWA	10 mg/m³ (Cymene (2, 3, 4-isomers mixture))	
Lithuania - Occupational Exposure Limits		
IPRV (OEL TWA)	140 mg/m³	
IPRV (OEL TWA) [ppm]	25 ppm	
TPRV (OEL STEL)	190 mg/m³	
TPRV (OEL STEL) [ppm]	35 ppm	
Sweden - Occupational Exposure Limits		
NGV (OEL TWA)	140 mg/m³	
NGV (OEL TWA) [ppm]	25 ppm	
KTV (OEL STEL)	190 mg/m³	

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p-Cymene (99-87-6)

KTV (OEL STEL) [ppm]

35 ppm

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Personal protective equipment symbol(s):





8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses. Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Wear protective gloves.

8.2.2.3. Respiratory protection

Respiratory protection:

Wear appropriate mask

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : light yellow. amber. Conforms to standard.

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Odour : characteristic. characteristic.

Odour threshold : Not available Melting point : Not applicable Not available Freezing point Boiling point Not available Flammability Not applicable **Explosive limits** Not available Lower explosion limit : Not available Upper explosion limit : Not available : > 93.3 °C Flash point : Not available Auto-ignition temperature Decomposition temperature Not available : Not available рΗ Viscosity, kinematic Not available Solubility Not available Partition coefficient n-octanol/water (Log Kow) : Not available Vapour pressure : Not available Vapour pressure at 50°C : Not available Density : Not available Relative density : ≈ 0.95 Relative vapour density at 20°C : Not available

9.2. Other information

Particle characteristics

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.

: Not applicable

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon dioxide.

SECTION 11: Toxicological information

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

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

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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	
Eugenol (97-53-0)		
LD50 oral rat	1930 mg/kg (Source: NZ_CCID)	
LD50 oral	2500 mg/kg bodyweight	
alpha-Methylcinnamic aldehyde (101-39-3)		
LD50 oral rat	2050 mg/kg (Source: NLM_CIP)	
LD50 oral	2050 mg/kg bodyweight	
LD50 dermal rabbit	> 5 g/kg (Source: NLM_CIP)	
Citrus medica limonum (Lemon) peel oil (800	8-56-8)	
LD50 oral rat	2840 mg/kg (Source: NLM_CIP)	
Clove Leaf Oil (8000-34-8)		
LD50 oral rat	1370 mg/kg (Source: NZ_CCID)	
LD50 oral	2650 mg/kg bodyweight	
LD50 dermal rabbit	1200 mg/kg (Source: NLM_CIP)	
LD50 dermal	2500 mg/kg bodyweight	
(R)-p-mentha-1,8-diene; d-limonene (5989-27-	5)	
LD50 oral rat	4400 mg/kg (Source: CHEMVIEW)	
LD50 dermal rabbit	> 5 g/kg (Source: CHEMVIEW)	
.alphaPinene (80-56-8)		
LD50 oral rat	3700 mg/kg (Source: NLM_CIP)	
LD50 oral	500 mg/kg bodyweight	
LD50 dermal rat	> 5000 mg/kg (Source: CHEMVIEW)	
.betaPinene (127-91-3)		
LD50 oral rat	> 5000 mg/kg (Source: EPA_HPV)	
LD50 dermal rabbit	> 5000 mg/kg (Source: CHEMVIEW)	
benzaldehyde (100-52-7)		
LD50 oral rat	1292 mg/kg (Source: JAPAN_GHS)	
LD50 dermal rabbit	> 1250 mg/kg (Source: JAPAN_GHS)	
Cuminic aldehyde (122-03-2)		
LD50 oral rat	1390 mg/kg (Source: NLM_CIP)	
LD50 oral	1390 mg/kg bodyweight	
LD50 dermal	2800 mg/kg bodyweight	
p-Cymene (99-87-6)		
LD50 oral rat	4750 mg/kg (Source: NLM_CIP)	

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p-Cymene (99-87-6)	
LD50 oral	4750 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg (Source: CHEMVIEW)
LC50 Inhalation - Rat	> 9.7 mg/l (Exposure time: 5 h Source: EU_CLH)
LC50 Inhalation - Rat (Vapours)	9.7 mg/l/4h
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
Eugenol (97-53-0)	
IARC group	3 - Not classifiable
(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and

symptoms

: Based on available data, the classification criteria are not met

SECTION 12: Ecological information

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

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

Hazardous to the aquatic environment, long-term

(acute)

: Toxic to aquatic life with long lasting effects.

(chronic) Eugenol (97-53-0) LC50 - Fish [1] 13 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static] Source: ECHA) (R)-p-mentha-1,8-diene; d-limonene (5989-27-5) LC50 - Fish [1] 0.619 - 0.796 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA) LC50 - Fish [2] 35 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss Source: EPA) .alpha.-Pinene (80-56-8) LC50 - Fish [1] 0.28 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: IUCLID) EC50 - Crustacea [1] 41 mg/l (Exposure time: 48 h - Species: Daphnia magna) benzaldehyde (100-52-7) LC50 - Fish [1] 10.6 – 11.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA)

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benzaldehyde (100-52-7)	
LC50 - Fish [2]	12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID)
Cuminic aldehyde (122-03-2)	
LC50 - Fish [1]	6.62 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

12.2. Persistence and degradability

CINNAMON #EU14708F	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

CINNAMON #EU14708F		
Bioaccumulative potential	Not established.	
Cinnamic aldehyde (104-55-2)		
Partition coefficient n-octanol/water (Log Pow)	2.1065 (at 25 °C)	
Eugenol (97-53-0)		
Partition coefficient n-octanol/water (Log Pow)	1.83 (at 30 °C (at pH 5.5)	
beta-Caryophyllene (87-44-5)		
Partition coefficient n-octanol/water (Log Pow)	6.23 (at 25 °C (at pH 7)	
(R)-p-mentha-1,8-diene; d-limonene (5989-27-	5)	
Partition coefficient n-octanol/water (Log Pow)	4.38 (at 37 °C (at pH 7.2)	
.alphaPinene (80-56-8)		
Partition coefficient n-octanol/water (Log Pow)	4.1	
benzaldehyde (100-52-7)		
BCF - Fish [1]	(no significant bioaccumulation)	
Partition coefficient n-octanol/water (Log Pow)	1.4 (at 25 °C)	
Cuminic aldehyde (122-03-2)		
Partition coefficient n-octanol/water (Log Pow)	2.8 (at 35 °C (at pH 7)	
p-Cymene (99-87-6)		
Partition coefficient n-octanol/water (Log Pow)	4.8 (at 20 °C (at pH 7)	
Partition coefficient n-octanol/water (Log Kow)	0	

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods Product/Packaging disposal recommendations Ecology - waste materials **HP Code**

- : Dispose of contents/container in accordance with licensed collector's sorting instructions.
- Dispose in a safe manner in accordance with local/national regulations.
- Avoid release to the environment.
- 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.
- 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

n accordance with ADR / IMDG / IATA / ADN / RID				
ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID n	14.1. UN number or ID number			
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
14.2. UN proper shippin	g name			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alpha- Methylcinnamic aldehyde)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alpha- Methylcinnamic aldehyde)	Environmentally hazardous substance, liquid, n.o.s. (alpha-Methylcinnamic aldehyde)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alpha- Methylcinnamic aldehyde)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alpha- Methylcinnamic aldehyde)
Transport document descr	iption			
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alpha- Methylcinnamic aldehyde), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alpha- Methylcinnamic aldehyde), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (alpha- Methylcinnamic aldehyde), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alpha- Methylcinnamic aldehyde), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alpha- Methylcinnamic aldehyde) 9, III
14.3. Transport hazard class(es)				
9	9	9	9	9
9	**************************************		9	

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ADR	IMDG	IATA	ADN	RID
14.4. Packing group				
III	III	III	III	III
14.5. Environmental haz	zards			
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

14.6. Special precautions for user

Overland transport

Classification code (ADR) : M6

Special provisions (ADR) : 274, 335, 375, 601

Limited quantities (ADR) : 5I 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 : TP1, TP29

(ADR)

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 : CV13

and handling (ADR)

Hazard identification number (Kemler No.) : 90

Orange plates :

90 3082

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 : LP01, P001 Packing instructions (IMDG) Special packing provisions (IMDG) : PP1 : IBC03 IBC packing instructions (IMDG) : T4 Tank instructions (IMDG) : TP1, TP29 Tank special provisions (IMDG) : F-A EmS-No. (Fire) : S-F EmS-No. (Spillage) Stowage category (IMDG) : A

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 450L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L

Special provisions (IATA) : A97, A158, A197, A215

ERG code (IATA) : 9L

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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 : TP1, TP29

(RID)

Tank codes for RID tanks (RID) : LGBV

Transport category (RID) : 3

Special provisions for carriage – Packages (RID) : W12

Special provisions for carriage - Loading, unloading : CW13, CW31

and handling (RID)

Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 90

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(a)	Citrus medica limonum (Lemon) peel oil ; (R)-p- mentha-1,8-diene; d- limonene ; .alphaPinene ; .betaPinene ; p- Cymene	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)	CINNAMON #EU14708F; Cinnamic aldehyde; Eugenol; alpha- Methylcinnamic aldehyde; Citrus medica limonum (Lemon) peel oil; Clove Leaf Oil; (R)-p-mentha- 1,8-diene; d-limonene; benzaldehyde; Cuminic aldehyde; p-Cymene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10

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EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(c)	CINNAMON #EU14708F; Cinnamic aldehyde; alpha-Methylcinnamic aldehyde; Citrus medica limonum (Lemon) peel oil ; (R)-p-mentha-1,8-diene; d-limonene; p-Cymene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
40.	Citrus medica limonum (Lemon) peel oil ; (R)-p- mentha-1,8-diene; d- limonene ; .alphaPinene ; .betaPinene ; p- Cymene	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

REACH Annex XIV (Authorisation List)

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

REACH Candidate List (SVHC)

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

PIC Regulation (Prior Informed Consent)

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

POP Regulation (Persistent Organic Pollutants)

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

Ozone Regulation (1005/2009)

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

Explosives Precursors Regulation (2019/1148)

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

Drug Precursors Regulation (273/2004)

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

15.1.2. National regulations

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).Contains sensitizing substances according TRGS 907.

List of sensitizing substances (TRGS 907) 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

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SZW-lijst van kankerverwekkende stoffen

SZW-lijst van mutagene stoffen

SZW-lijst van reprotoxische stoffen – Borstvoeding

SZW-lijst van reprotoxische stoffen -

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen – Ontwikkeling

: Lemon oil is listed : Lemon oil is listed

: None of the components are listed

None of the components are listedNone of the components are listed

Denmark

Classification remarks
Danish National Regulations

: Emergency management guidelines for the storage of flammable liquids must be followed

: 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

SECTION 16: Other information

Abbreviations and acronyms:		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	
IARC	International Agency for Research on Cancer	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	

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Abbreviations and acronyms:		
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	
N.O.S.	Not Otherwise Specified	
vPvB	Very Persistent and Very Bioaccumulative	
ED	Endocrine disrupting properties	

Other information : None.

Full text of H- and EUH-statements:		
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3	
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), 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.	
H302	Harmful if swallowed.	
H304	May be fatal if swallowed and enters airways.	
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.	
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	

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Full text of H- and EUH-statements:	
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

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.