ORGANIC ROSEMARY CT VERBENONE OIL

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 11/27/2014 Revision date: 9/7/2021 Supersedes version of: 9/7/2021 Version: 1.4

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

1.1. Product identifier

Product form	:	Substance
Substance name	:	ORGANIC ROSEMARY CT VERBENONE OIL
EC-No.	:	283-291-9
CAS-No.	:	84604-14-8
Product code	:	BROMHE04
Synonyms	:	CAS USA No 8000-25-7
Product group	:	Organic essential oil

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
Industrial/Professional use spec	:	Industrial For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

EXAFLOR
5 rue des Pyrénées
P.O. Box CP 30561
94653 Rungis Cedex - France
T +33 (0)1 41 73 23 10
exaflor@orange.fr - www.exaflor.co

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
	ORFILA (FRANCE)		+33 1 45 42 59 59	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 3	H226
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 — Acute Hazard, Category 1	H400
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

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

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS02 GHS07 GHS08 GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) : H226 - Flammable liquid and vapour.
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.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 - Avoid breathing fume, gas, dust, vapours.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection.
P301+P310+P331 - IF SWALLOWED: Immediately call a POISON CENTER, a doctor. Do NOT induce vomiting.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P391 - Collect spillage.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : ORGANIC ROSEMARY CT VERBENONE OIL
CAS-No. : 84604-14-8
EC-No. : 283-291-9

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ALPHA-PINENES	CAS-No.: 80-56-8 EC-No.: 201-291-9	15 – 46	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
CAMPHOR	CAS-No.: 76-22-2 EC-No.: 200-945-0	1 – 16	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg de poids corporel) Acute Tox. 4 (Inhalation:dust,mist), H332 (ATE=1.5 mg/l/4h) Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 3, H412
L-BORNYL ACETATE	CAS-No.: 5655-61-8 EC-No.: 227-101-4	5 – 13	Not classified

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
CAMPHENE	CAS-No.: 79-92-5 EC-No.: 201-234-8	4 – 11	Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
BORNEOL	CAS-No.: 507-70-0 EC-No.: 208-080-0	2 – 10	Skin Sens. 1, H317
EUCALYPTOL	CAS-No.: 470-82-6 EC-No.: 207-431-5	≤ 7	Flam. Liq. 3, H226
D-LIMONENE	CAS-No.: 5989-27-5 EC-No.: 227-813-5 EC Index-No.: 601-029-00-7	3 – 6	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
BETA-PINENES	CAS-No.: 127-91-3 EC-No.: 204-872-5	≤ 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304
LINALOOL	CAS-No.: 78-70-6 EC-No.: 201-134-4	1 – 3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
ALPHA-TERPINEOL	CAS-No.: 98-55-5 EC-No.: 202-680-6	≤ 3	Skin Irrit. 2, H315 Eye Irrit. 2, H319
P-CYMENE	CAS-No.: 99-87-6 EC-No.: 202-796-7	≤ 2	Flam. Liq. 3, H226 Repr. 2, H361 Aquatic Chronic 2, H411
GERANIOL	CAS-No.: 106-24-1 EC-No.: 203-377-1	≤ 1	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
CITRONELLOL	CAS-No.: 106-22-9 EC-No.: 203-375-0	≤ 0.2	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

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). Call a physician immediately.

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

First-aid measures after skin contact : Wash with plenty of water/... Wash contaminated clothing before reuse. If skin irritation occurs: Immediately call a POISON CENTER/doctor, Get immediate medical advice/attention. Get medical advice/attention. Specific treatment (see Read label before use. on this label). If skin irritation or rash occurs: Immediately call a POISON CENTER/doctor, Get immediate medical advice/attention. Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : If eye irritation persists: Get medical advice/attention. Get medical advice/attention. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Do not induce vomiting. Call a physician immediately.

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

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

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

Symptoms/effects after eye contact : Causes serious eye irritation. Eye irritation.

Symptoms/effects after ingestion : May be fatal if swallowed and enters airways. Risk of lung oedema.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

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

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapour-air 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

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. No open flames, no sparks, and no smoking. 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. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up	:	Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Notify authorities if product enters sewers or public waters.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	:	Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling	:	Ensure good ventilation of the work station. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.
Hygiene measures	:	Wash hands thoroughly after handling. 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

Technical measures	:	Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof ventilating equipment. Ground/bond container and receiving equipment.
Storage conditions	:	Keep only in the original container in a cool, well ventilated place away from : Heat sources, Direct sunlight. Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
Incompatible products	:	Strong bases. Strong acids.
Incompatible materials	:	Sources of ignition. Direct sunlight. Heat sources.
Maximum storage period	:	3 year Shelf life to guarantee the quality and properties of the product; After this period, it is recommended to control organoleptic and physicochemical properties before using the raw material.
Storage temperature	:	~ 18 (5 – 25) °C

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

CAMPHOR (76-22-2)	
France - Occupational Exposure Limits	
Local name	Camphre
VME (OEL TWA)	12 mg/m³
VME (OEL TWA) [ppm]	2 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:
[In case of inadequate ventilation] wear respiratory protection.

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. Green. yellowish.
Appearance	:	Liquid mobile. Clear.
Odour	:	characteristic. fresh. camphoric.
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	Not available
Flammability	:	Flammable liquid and vapour.

Explosive limits	:	Not available
Lower explosive limit (LEL)	:	Not available
Upper explosive limit (UEL)	:	Not available
Flash point	:	43 °C
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	Not available
Solubility	:	Insoluble in water. Soluble in oil.
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	:	0.895 – 0.93
Relative vapour density at 20 °C	:	Not available
Particle size	:	Not applicable
Particle size distribution	:	Not applicable
Particle shape	:	Not applicable
Particle aspect ratio	:	Not applicable
Particle aggregation state	:	Not applicable
Particle agglomeration state	:	Not applicable
Particle specific surface area	:	Not applicable
Particle dustiness	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Refractive index	:	1.458 – 1.477

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Sparks. Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

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

ALPHA-PINENES (80-56-8)	
LD50 oral rat	3700 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

CAMPHOR (76-22-2)	
LD50 dermal	3040 mg/kg rat

CAMPHENE (79-92-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2500 mg/kg

BORNEOL (507-70-0)	
LD50 oral rat	5800 mg/kg [French Demande Patent Document. Vol. #2448856]
LD50 oral	1059 mg/kg LD50 oral mouse [Shika Gakuho. Journal of Dentistry. Vol. 75, Pg. 934, 1975]
LD50, mammalian, acute, oral, rabbit, systemic	= 2000 mg/kg ([Reviews of Environmental Contamination and Toxicology. Vol. 113, Pg. 47, 1990])

D-LIMONENE (5989-27-5)	
LD50 oral rat	4400 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

LINALOOL (78-70-6)	
LD50 oral rat	2790 mg/kg
LD50 oral	3120 mg/kg LD50 oral mouse
LD50 dermal rabbit	5610 mg/kg

P-CYMENE (99-87-6)	
LD50 oral rat	4750 mg/kg
LD50 dermal rabbit	5000

GERANIOL (106-24-1)	
LD50 oral rat	3600 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

CITRONELLOL (106-22-9)	
LD50 oral rat	3450 mg/kg
LD50 dermal rabbit	2650 mg/kg

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

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

Carcinogenicity : Not classified

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

D-LIMONENE (5989-27-5)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

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

STOT-single exposure : Not classified

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

CAMPHOR (76-22-2)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified
Additional information : Based on available data, the classification criteria are not met
Aspiration hazard : May be fatal if swallowed and enters airways.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

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

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.
Ecology - water : Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

ALPHA-PINENES (80-56-8)	
LC50 - Fish [1]	0.28 mg/l Pimephales promela (fathead minnow) - 96h
LC50 - Other aquatic organisms [1]	41 mg/l EC50 48h - Daphnia magna [mg/l]

CAMPHOR (76-22-2)	
LC50 - Fish [1]	50 mg/l LC50 96h fish

CAMPHENE (79-92-5)	
LC50 - Fish [1]	0.72 mg/l
EC50 - Crustacea [1]	22 mg/l
EC50 - Other aquatic organisms [1]	1000

D-LIMONENE (5989-27-5)	
LC50 - Fish [1]	0.702 mg/l Pimephales promela (fathead minnow) -96h
EC50 - Crustacea [1]	69.6 daphnia - 48h

LINALOOL (78-70-6)	
LC50 - Fish [1]	27.8 mg/l EC 50 (fish : rainbow trout) : - 96h
LC50 - Other aquatic organisms [1]	88.3 mg/l Desmodesmus subspicatus (green algae) - 96h
EC50 - Crustacea [1]	59 mg/l EC50 48h - Daphnia magna [mg/l]
NOEC chronic fish	3.5 mg/l Oncorhynchus mykiss (Rainbow trout)- 96h
NOEC chronic crustacea	25 mg/l daphnia - 48h

P-CYMENE (99-87-6)	
LC50 - Fish [1]	48 mg/l 96H -Cyprinodon variegatus (Sheep shead minnow)
EC50 - Crustacea [1]	6.5 mg/l EC50 48h - Daphnia magna [mg/l]
ErC50 algae	4.03 mg/l 72h - Scenedesmus capricornutum (Fresh water algae)

GERANIOL (106-24-1)	
LC50 - Fish [1]	env. 22 mg/l Brachydanio rerio (zebra-fish) - 96h
EC50 - Crustacea [1]	10.8 mg/l EC50 48h - Daphnia magna [mg/l]
EC50 - Other aquatic organisms [1]	13.1 mg/l Desmodesmus subspicatus (green algae) -72h

CITRONELLOL (106-22-9)	
LC50 - Fish [1]	10 – 22 mg/l Leuciscus idus (Ide; golden orfe) - 96h
EC50 - Crustacea [1]	17 mg/l daphnia - 48h
EC50 - Other aquatic organisms [1]	2.4 mg/l algae - 72h

12.2. Persistence and degradability

ORGANIC ROSEMARY CT VERBENONE OIL (84604-14-8)	
Persistence and degradability	May cause long-term adverse effects in the environment.

ALPHA-PINENES (80-56-8)	
Persistence and degradability	Readily biodegradable. May cause long-term adverse effects in the environment.

CAMPHOR (76-22-2)	
Persistence and degradability	May cause long-term adverse effects in the environment.
BOD (% of ThOD)	94 % ThOD

CAMPHENE (79-92-5)	
Biodegradation	4 % aerobic - No readily biodegradable

BORNEOL (507-70-0)	
Persistence and degradability	Not established.

D-LIMONENE (5989-27-5)	
Persistence and degradability	May cause long-term adverse effects in the environment.

LINALOOL (78-70-6)	
Persistence and degradability	Readily biodegradable. Not established.
Biodegradation	100 % 13 DAYS- ZAHN-WELLENS TEST OECD N° 302 B

P-CYMENE (99-87-6)	
Persistence and degradability	Readily biodegradable.
Biodegradation	100 %

ALPHA-TERPINEOL (98-55-5)	
Persistence and degradability	Not established.

GERANIOL (106-24-1)	
Persistence and degradability	Readily biodegradable. Not established.
Biodegradation	80 – 100 % aérobic, Exposure duration 3 days

CITRONELLOL (106-22-9)	
Persistence and degradability	Readily biodegradable. May cause long-term adverse effects in the environment.
Chemical oxygen demand (COD)	2.05 g O_2/g substance

BETA-PINENES (127-91-3)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

ORGANIC ROSEMARY CT VERBENONE OIL (84604-14-8)	
Bioaccumulative potential	Not established.

ALPHA-PINENES (80-56-8)	
Partition coefficient n-octanol/water (Log Pow)	4.834
Bioaccumulative potential	Not established.

CAMPHOR (76-22-2)	
Bioconcentration factor (BCF REACH)	38
Partition coefficient n-octanol/water (Log Pow)	2.38
Partition coefficient n-octanol/water (Log Kow)	2.95
Bioaccumulative potential	Not established.

CAMPHENE (79-92-5)	
BCF - Fish [1]	922 mg/l - 56 d - Cyprinus carpio (Carp) - not significantly accumulate

BORNEOL (507-70-0)	
Partition coefficient n-octanol/water (Log Kow)	2.69
Bioaccumulative potential	Not established.

D-LIMONENE (5989-27-5)	
Bioaccumulative potential	Not established.

LINALOOL (78-70-6)	
Partition coefficient n-octanol/water (Log Pow)	2.97
Bioaccumulative potential	Not established.

P-CYMENE (99-87-6)	
Partition coefficient n-octanol/water (Log Kow)	4.1

ALPHA-TERPINEOL (98-55-5)	
Bioaccumulative potential	Not established.

GERANIOL (106-24-1)	
Partition coefficient n-octanol/water (Log Pow)	2.5 at 25 °C
Bioaccumulative potential	Not established.

CITRONELLOL (106-22-9)	
Partition coefficient n-octanol/water (Log Pow)	3.41
Bioaccumulative potential	Not established.

BETA-PINENES (127-91-3)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

CAMPHOR (76-22-2)	
Partition coefficient n-octanol/water (Log Koc)	env. 2.67

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to contents/container to agreemented companies according to national regulations.

Additional information : Handle empty containers with care because residual vapours are flammable. Flammable vapours may accumulate in the container.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR

14.1. UN number or ID number

UN-No. (ADR) : UN 1169

14.2. UN proper shipping name

Proper Shipping Name (ADR) : EXTRACTS, AROMATIC, LIQUID

Transport document description (ADR) : UN 1169 EXTRACTS, AROMATIC, LIQUID, 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 3

Danger labels (ADR) : 3

:

14.4. Packing group

Packing group (ADR) : III

14.5. Environmental hazards

Dangerous for the environment : Yes

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	F1
Special provisions (ADR)	:	601, 640E
Limited quantities (ADR)	:	5l
Excepted quantities (ADR)	:	E1
Vehicle for tank carriage	:	FL
Transport category (ADR)	:	3
Hazard identification number (Kemler No.)	:	30
Orange plates	:	
Tunnel restriction code (ADR)	:	D/E

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

EU restriction list (REACH Annex XVII)

Reference code	Applicable on	Entry title or description
3(a)	ORGANIC ROSEMARY CT VERBENONE OIL ; P-CYMENE ; ALPHA-PINENES ; D-LIMONENE ; EUCALYPTOL ; BETA-PINENES	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)	ORGANIC ROSEMARY CT VERBENONE OIL ; ALPHA-PINENES ; LINALOOL ; D-LIMONENE ; GERANIOL ; CITRONELLOL ; ALPHA-TERPINEOL ; BETA-PINENES	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)	ORGANIC ROSEMARY CT VERBENONE OIL ; P-CYMENE ; ALPHA-PINENES ; D-LIMONENE ; CITRONELLOL	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.	ORGANIC ROSEMARY CT VERBENONE OIL ; P-CYMENE ; BORNEOL ; ALPHA-PINENES ; CAMPHOR ; D-LIMONENE ; EUCALYPTOL ; CAMPHENE ; BETA-PINENES	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.

ORGANIC ROSEMARY CT VERBENONE OIL is not on the REACH Candidate List

ORGANIC ROSEMARY CT VERBENONE OIL is not on the REACH Annex XIV List

ORGANIC ROSEMARY CT VERBENONE OIL is not 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.

ORGANIC ROSEMARY CT VERBENONE OIL is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Germany

Water hazard class (WGK)	:	WGK 2, Significantly hazardous to water (Classification according to AwSV; ID No. 2911)
Hazardous Incident Ordinance (12. BImSchV)	:	Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

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
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

Abbreviations and acronyms	
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

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-statements	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) 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 Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
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.

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.