



# YARROW MILFOIL OIL

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 9/5/2017 Revision date: Supersedes: 9/5/2017

Version: 1.0

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

#### 1.1. Product identifier

Product form : Substance  
Substance name : YARROW MILFOIL OIL  
EC no : 282-030-6  
CAS No : 84082-83-7  
Product code : MILHE01  
Product group : 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, Professional use  
Industrial/Professional use spec : 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

EXAFLO  
5 rue des Pyrénées  
94653 Rungis Cedex - France  
T +33 (0)1 41 73 23 10 - F +33 (0)1 41 73 23 19  
[exaflor@orange.fr](mailto:exaflor@orange.fr) - [www.exaflor.fr](http://www.exaflor.fr)

#### 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
Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Sensitisation — Skin, Category 1	H317
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335
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

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word (CLP) : Danger

Hazard statements (CLP) :

- 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
- H319 - Causes serious eye irritation

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	H335 - May cause respiratory 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 P233 - Keep container tightly closed P240 - Ground/bond container and receiving equipment P241 - Use explosion-proof ventilating equipment P261 - Avoid breathing dust, fume, mist, vapours P264 - Wash hands thoroughly after handling P270 - Do not eat, drink or smoke when using this product P271 - Use only outdoors or in a well-ventilated area P272 - Contaminated work clothing should not be allowed out of the workplace P273 - Avoid release to the environment P280 - Wear eye protection, protective clothing, protective gloves P301+P310 - IF SWALLOWED: Immediately call a doctor, a POISON CENTER P301+P312 - IF SWALLOWED: Call a doctor, a POISON CENTER if you feel unwell P302+P352 - IF ON SKIN: Wash with plenty of water P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P321 - Specific treatment (see Read label before use on this label) P330 - Rinse mouth P331 - 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 P370+P378 - In case of fire: Use carbon dioxide (CO <sub>2</sub> ), foam to extinguish P391 - Collect spillage P403+P233 - Store in a well-ventilated place. Keep container tightly closed P403+P235 - Store in a well-ventilated place. Keep cool P501 - Dispose of contents/container to contents/container to agreed companies according to national regulations
Child-resistant fastening	: No
Tactile warning	: No

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Name	: YARROW MILFOIL OIL
CAS No	: 84082-83-7
EC no	: 282-030-6

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
BETA-PINENES	(CAS No) 127-91-3 (EC no) 204-872-5	<= 45	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304
ALPHA-PINENES	(CAS No) 80-56-8 (EC no) 201-291-9	<= 25	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	<= 25	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 3, H412
EUCALYPTOL	(CAS No) 470-82-6 (EC no) 207-431-5	<= 25	Flam. Liq. 3, H226
SABINENE	(CAS No) 3387-41-5 (EC no) 222-212-4	<= 25	Flam. Liq. 3, H226
BETA-CARYOPHYLLENE	(CAS No) 87-44-5 (EC no) 201-746-1	<= 15	Not classified

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BORNEOL	(CAS No) 507-70-0 (EC no) 208-080-0	<= 10	Skin Sens. 1, H317
P-CYMENE	(CAS No) 99-87-6 (EC no) 202-796-7	<= 10	Flam. Liq. 3, H226 Aquatic Chronic 2, H411
D-LIMONENE	(CAS No) 5989-27-5 (EC no) 227-813-5 (EC index no) 601-029-00-7	<= 8	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
NEROLIDOL ISOMERS	(CAS No) 7212-44-4 (EC no) 230-597-5	<= 6	Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
CAMPHENE	(CAS No) 79-92-5 (EC no) 201-234-8	<= 6	Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
4-TERPINEOL	(CAS No) 562-74-3 (EC no) 209-235-5	<= 6	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
MYRCENE	(CAS No) 123-35-3 (EC no) 204-622-5	<= 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319
ALPHA-TERPINEOL	(CAS No) 98-55-5 (EC no) 202-680-6	<= 3	Skin Irrit. 2, H315 Eye Irrit. 2, H319
CITRONELLOL	(CAS No) 106-22-9 (EC no) 203-375-0	<= 2	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 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
LINALOOL	(CAS No) 78-70-6 (EC no) 201-134-4	<= 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319
CITRAL	(CAS No) 5392-40-5 (EC no) 226-394-6	<= 1	Skin Irrit. 2, H315 Skin Sens. 1, H317
EUGENOL	(CAS No) 97-53-0 (EC no) 202-589-1	<= 1	Acute Tox. 4 (Oral), H302 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. Mixture

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Wash with plenty of soap and water. Get medical advice/attention. Specific treatment (see Read label before use on this label). If skin irritation or rash occurs: Gently wash with plenty of soap and water.
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: Consult an eye specialist. Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell. Immediately call a POISON CENTER or doctor/physician.

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

Symptoms/injuries after inhalation	: May cause an allergic skin reaction. May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard. May be fatal if swallowed and enters airways.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

No additional information available

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### 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.

### 5.3. Advice for firefighters

No additional information available

## 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

No additional information available

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

No additional information available

### 6.4. Reference to other sections

No additional information available

## 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 : No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid breathing fume, mist, dust, vapours. Use only outdoors or in a well-ventilated area.  
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof ventilating equipment.  
Storage conditions : Keep container tightly closed.  
Incompatible materials : Heat sources. Plain Iron packaging.  
Maximum storage period : 2 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 :  $\approx 18$  (5 - 25) °C

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

CAMPHOR (76-22-2)		
France	Local name	Camphre
France	VME (mg/m <sup>3</sup> )	12 mg/m <sup>3</sup>
France	VME (ppm)	2 ppm

### 8.2. Exposure controls

- Skin and body protection : Wear suitable protective clothing  
Respiratory protection : Wear respiratory protection

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

- Physical state : Liquid  
Colour : Green. dark blue.  
Odour : Fatty. sharp.

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Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: ≤ 59 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable liquid and vapour
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 0.87 - 0.96
Solubility	: Insoluble in water. Solubility in ethanol.
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

Refractive index	: 1.465 - 1.49
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Heat. Sparks.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Oral: Harmful if swallowed.
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EUCALYPTOL (470-82-6)	
LD50 oral rat	2480 ml/kg
CAMPHOR (76-22-2)	
LD50 dermal	3040 mg/kg rat
ALPHA-PINENES (80-56-8)	
LD50 oral rat	3700 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
P-CYMENE (99-87-6)	
LD50 oral rat	4750 mg/kg
LD50 dermal rabbit	5000
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])

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<b>D-LIMONENE (5989-27-5)</b>	
LD50 oral rat	4400 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
<b>4-TERPINEOL (562-74-3)</b>	
LD50 oral rat	1300 mg/kg
LD50 dermal rabbit	2500 mg/kg
<b>CAMPHENE (79-92-5)</b>	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2500 mg/kg
<b>NEROLIDOL ISOMERS (7212-44-4)</b>	
LD50 oral rat	> 5000 mg/kg LD50 oral rat
LD50 oral	15000 mg/kg LD50 oral mouse
LD50 dermal rabbit	> 5000 mg/kg LD50 dermal rabbit
<b>MYRCENE (123-35-3)</b>	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
<b>CITRONELLOL (106-22-9)</b>	
LD50 oral rat	3450 mg/kg
LD50 dermal rabbit	2650 mg/kg
<b>EUGENOL (97-53-0)</b>	
LD50 oral rat	1930 mg/kg
LC50 inhalation rat (ppm)	> 384 ppmv/4h
<b>CITRAL (5392-40-5)</b>	
LD50 oral rat	4960 mg/kg
LD50 oral	6000 mg/kg LD50 oral mouse
LD50 dermal rabbit	2550 mg/kg
<b>LINALOOL (78-70-6)</b>	
LD50 oral rat	2790 mg/kg
LD50 oral	3120 mg/kg LD50 oral mouse
LD50 dermal rabbit	5610 mg/kg
<b>GERANIOL (106-24-1)</b>	
LD50 oral rat	3600 mg/kg
LD50 dermal rabbit	> 5000 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
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: May be fatal if swallowed and enters airways.
Potential adverse human health effects and symptoms	: Harmful if swallowed.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water	: Very toxic to aquatic life with long lasting effects.
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<b>EUCALYPTOL (470-82-6)</b>	
LC50 fish 1	102 mg/l Pimephales promela (fathead minnow) - 96h
<b>CAMPHOR (76-22-2)</b>	
LC50 fish 1	50 mg/l LC50 96h fish
<b>ALPHA-PINENES (80-56-8)</b>	
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]

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<b>P-CYMENE (99-87-6)</b>	
LC50 fish 1	48 mg/l 96h -Cyprinodon variegatus (Sheep shead minnow)
EC50 Daphnia 1	6.5 mg/l EC50 48h - Daphnia magna [mg/l]
ErC50 (algae)	4.03 mg/l 72h - Scenedesmus capricornutum (Fresh water algae)
<b>D-LIMONENE (5989-27-5)</b>	
LC50 fish 1	0.702 mg/l Pimephales promela (fathead minnow) -96h
EC50 Daphnia 1	69.6 daphnia - 48h
<b>CAMPHENE (79-92-5)</b>	
LC50 fish 1	0.72 mg/l
EC50 Daphnia 1	22 mg/l
EC50 other aquatic organisms 1	1000
<b>NEROLIDOL ISOMERS (7212-44-4)</b>	
LC50 fish 1	1.8 mg/l Brachydanio rerio (zebra-fish) - 96h
LC50 fish 2	1.43 mg/l Pimephales promela (fathead minnow) - 96h
EC50 Daphnia 1	0.5103 mg/l EC50 48h - Daphnia magna [mg/l]
EC50 Daphnia 2	0.94 mg/l EC50 48h - Daphnia magna [mg/l]
EC50 other aquatic organisms 1	1.2 mg/l Desmodesmus subspicatus (green algae) - 72h
EC50 other aquatic organisms 2	2 mg/l Desmodesmus subspicatus (green algae) - 72h
NOEC chronic fish	0.64 mg/l Pimephales promela (fathead minnow) - 96h
NOEC chronic algae	0.44 mg/l Desmodesmus subspicatus (green algae) - 72h
<b>CITRONELLOL (106-22-9)</b>	
LC50 fish 1	10 - 22 mg/l Leuciscus idus (Ide; golden orfe) - 96h
EC50 Daphnia 1	17 mg/l daphnia - 48h
EC50 other aquatic organisms 1	2.4 mg/l algae - 72h
<b>EUGENOL (97-53-0)</b>	
LC50 fish 1	13 mg/l Brachydanio rerio (zebra-fish) - 96h
EC50 Daphnia 1	1.13 mg/l EC50 48h - Daphnia magna [mg/l]
<b>LINALOOL (78-70-6)</b>	
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 Daphnia 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
<b>GERANIOL (106-24-1)</b>	
LC50 fish 1	env. 22 mg/l Brachydanio rerio (zebra-fish) - 96h
EC50 Daphnia 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

### 12.2. Persistence and degradability

<b>YARROW MILFOIL OIL (84082-83-7)</b>	
Persistence and degradability	May cause long-term adverse effects in the environment.
<b>BETA-PINENES (127-91-3)</b>	
Persistence and degradability	Not established.
<b>SABINENE (3387-41-5)</b>	
Persistence and degradability	Not established.
<b>CAMPHOR (76-22-2)</b>	
Persistence and degradability	May cause long-term adverse effects in the environment.
BOD (% of ThOD)	94 % ThOD
<b>ALPHA-PINENES (80-56-8)</b>	
Persistence and degradability	Readily biodegradable. May cause long-term adverse effects in the environment.
<b>BETA-CARYOPHYLLENE (87-44-5)</b>	
Persistence and degradability	Not established.
<b>P-CYMENE (99-87-6)</b>	
Persistence and degradability	Readily biodegradable.
Biodegradation	100 %
<b>BORNEOL (507-70-0)</b>	
Persistence and degradability	Not established.

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<b>D-LIMONENE (5989-27-5)</b>	
Persistence and degradability	May cause long-term adverse effects in the environment.
<b>4-TERPINEOL (562-74-3)</b>	
Persistence and degradability	Not established.
<b>CAMPHENE (79-92-5)</b>	
Biodegradation	4 % aerobic - No readily biodegradable
<b>NEROLIDOL ISOMERS (7212-44-4)</b>	
Persistence and degradability	May cause long-term adverse effects in the environment.
Biodegradation	50 - 80 % 28 days
<b>MYRCENE (123-35-3)</b>	
Persistence and degradability	Not established.
<b>ALPHA-TERPINEOL (98-55-5)</b>	
Persistence and degradability	Not established.
<b>CITRONELLOL (106-22-9)</b>	
Persistence and degradability	Readily biodegradable. May cause long-term adverse effects in the environment.
Chemical oxygen demand (COD)	2.05 g O <sub>2</sub> /g substance
<b>EUGENOL (97-53-0)</b>	
Persistence and degradability	Readily biodegradable. May cause long-term adverse effects in the environment.
<b>CITRAL (5392-40-5)</b>	
Persistence and degradability	Not established.
<b>LINALOOL (78-70-6)</b>	
Persistence and degradability	Readily biodegradable. Not established.
Biodegradation	100 % 13 DAYS- ZAHN-WELLENS TEST OECD N° 302 B
<b>GERANIOL (106-24-1)</b>	
Persistence and degradability	Readily biodegradable. Not established.
Biodegradation	80 - 100 % aérobic, Exposure duration 3 days
<b>12.3. Bioaccumulative potential</b>	
<b>BETA-PINENES (127-91-3)</b>	
Bioaccumulative potential	Not established.
<b>SABINENE (3387-41-5)</b>	
Bioaccumulative potential	Not established.
<b>CAMPHOR (76-22-2)</b>	
Bioconcentration factor (BCF REACH)	38
Log Pow	2.38
Log Kow	2.95
Bioaccumulative potential	Not established.
<b>ALPHA-PINENES (80-56-8)</b>	
Log Pow	4.834
Bioaccumulative potential	Not established.
<b>BETA-CARYOPHYLLENE (87-44-5)</b>	
Bioaccumulative potential	Not established.
<b>P-CYMENE (99-87-6)</b>	
Log Kow	4.1
<b>BORNEOL (507-70-0)</b>	
Log Kow	2.69
Bioaccumulative potential	Not established.
<b>D-LIMONENE (5989-27-5)</b>	
Bioaccumulative potential	Not established.
<b>4-TERPINEOL (562-74-3)</b>	
Bioaccumulative potential	Not established.
<b>CAMPHENE (79-92-5)</b>	
BCF fish 1	922 mg/l - 56 d - Cyprinus carpio (Carp) - not significantly accumulate
<b>NEROLIDOL ISOMERS (7212-44-4)</b>	
Log Pow	4.7



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<b>NEROLIDOL ISOMERS (7212-44-4)</b>	
Log Kow	5.32
Bioaccumulative potential	Not established.
<b>MYRCENE (123-35-3)</b>	
Log Kow	4.17
Bioaccumulative potential	Not established.
<b>ALPHA-TERPINEOL (98-55-5)</b>	
Bioaccumulative potential	Not established.
<b>CITRONELLOL (106-22-9)</b>	
Log Pow	3.41
Bioaccumulative potential	Not established.
<b>EUGENOL (97-53-0)</b>	
Log Pow	2.7
Log Kow	2.27
Bioaccumulative potential	Not established.
<b>CITRAL (5392-40-5)</b>	
Bioaccumulative potential	Not established.
<b>LINALOOL (78-70-6)</b>	
Log Pow	2.97
Bioaccumulative potential	Not established.
<b>GERANIOL (106-24-1)</b>	
Log Pow	2.5 at 25 °C
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

<b>CAMPHOR (76-22-2)</b>	
Log Koc	env. 2.67

### 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 disposal recommendations	: 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.
Ecology - waste materials	: Hazardous waste due to toxicity.

## SECTION 14: Transport information

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

### 14.1. UN number

Not regulated for transport	
UN-No. (ADR)	: 1169
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable

### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: EXTRACTS, AROMATIC, LIQUID
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
Transport document description (ADR)	: UN 1169 EXTRACTS, AROMATIC, LIQUID, 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS

### 14.3. Transport hazard class(es)

ADR

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Transport hazard class(es) (ADR) : 3  
Danger labels (ADR) : 3



### IMDG

Transport hazard class(es) (IMDG) : Not applicable  
:



### IATA

Transport hazard class(es) (IATA) : Not applicable  
:



### ADN

Transport hazard class(es) (ADN) : Not applicable  
:



### RID

Transport hazard class(es) (RID) : Not applicable  
:



#### 14.4. Packing group

Packing group (ADR) : III  
Packing group (IMDG) : Not applicable  
Packing group (IATA) : Not applicable  
Packing group (ADN) : Not applicable  
Packing group (RID) : Not applicable

#### 14.5. Environmental hazards

Dangerous for the environment : Yes  
Marine pollutant : Yes  
Other information : No supplementary information available

#### 14.6. Special precautions for user

##### - Overland transport

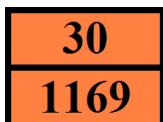
Classification code (ADR) : F1  
Special provisions (ADR) : 601, 640E  
Limited quantities (ADR) : 5I  
Excepted quantities (ADR) : E1  
Packing instructions (ADR) : P001, IBC03, LP01, R001  
Mixed packing provisions (ADR) : MP19

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Portable tank and bulk container instructions (ADR) : T2  
Portable tank and bulk container special provisions (ADR) : TP1  
Tank code (ADR) : LGBF  
Vehicle for tank carriage : FL  
Transport category (ADR) : 3  
Special provisions for carriage - Packages (ADR) : V12  
Special provisions for carriage - Operation (ADR) : S2  
Hazard identification number (Kemler No.) : 30  
Orange plates :



Tunnel restriction code (ADR) : D/E

### - Transport by sea

No data available

### - Air transport

No data available

### - Inland waterway transport

No data available

### - Rail transport

No data available

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 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

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	ALPHA-PINENES - ALPHA-TERPINEOL - BETA-PINENES - NEROLIDOL ISOMERS - EUCALYPTOL - D-LIMONENE - MYRCENE - SABINENE - P-CYMENE - 4-TERPINEOL - CITRONELLOL - GERANIOL - LINALOOL - CITRAL - EUGENOL
3.a. 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	YARROW MILFOIL OIL - ALPHA-PINENES - BETA-PINENES - EUCALYPTOL - D-LIMONENE - MYRCENE - SABINENE - P-CYMENE
3.b. 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	YARROW MILFOIL OIL - ALPHA-PINENES - ALPHA-TERPINEOL - BETA-PINENES - NEROLIDOL ISOMERS - D-LIMONENE - MYRCENE - 4-TERPINEOL - CITRONELLOL - GERANIOL - LINALOOL - CITRAL - EUGENOL
3.c. 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	YARROW MILFOIL OIL - ALPHA-PINENES - NEROLIDOL ISOMERS - D-LIMONENE - P-CYMENE - CITRONELLOL - EUGENOL
40. 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.	ALPHA-PINENES - BETA-PINENES - BORNEOL - CAMPHENE - CAMPHOR - EUCALYPTOL - D-LIMONENE - MYRCENE - SABINENE - P-CYMENE

YARROW MILFOIL OIL is not on the REACH Candidate List

Contains no substance on the REACH candidate list

YARROW MILFOIL OIL is not on the REACH Annex XIV List

Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

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### Germany

VwVwS Annex reference : Water hazard class (WGK) 2, hazard to waters (Classification according to VwVwS, Annex 3;ID No. 6378)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

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
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, 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
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

SDS EU (REACH Annex II)

*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*