Material Safety Data Sheet

ORGANIC TURPENTINE ESSENTIAL OIL – PORTUGAL

(\textit{Pinus pinaster} Solander)

1. IDENTIFICATION OF SUBSTANCE/MIXTURE AND OF THE COMPAGNY/UNDERTAKING

<table>
<thead>
<tr>
<th>LABEL NAME</th>
<th>ORGANIC TURPENTINE ESSENTIAL OIL - PORTUGAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOTANICAL NAME</td>
<td>\textit{Pinus pinaster} Solander</td>
</tr>
<tr>
<td>INCI NAME</td>
<td>TURPENTINE OIL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME SUPPLIER</th>
<th>NHR Organic Oils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>24 CHATHAM PLACE, BRIGHTON BN1 3TN (UK)</td>
</tr>
<tr>
<td>Phone:</td>
<td>(UK) 0845 310 8066 FAX (UK) 0845 310 8068</td>
</tr>
<tr>
<td>EMAIL</td>
<td><a href="mailto:info@nhroorganicoils.com">info@nhroorganicoils.com</a></td>
</tr>
</tbody>
</table>

| Use product | Fragrant or/and flavour substance |

2. HAZARD IDENTIFICATIONS

<table>
<thead>
<tr>
<th>Classification</th>
<th>Hazards</th>
<th>Symbol of danger</th>
<th>References of danger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 3 (FL3)</td>
<td>H226</td>
<td>H226</td>
<td>Flammable liquid and vapour</td>
</tr>
<tr>
<td>Acute Tox. 4</td>
<td>H30 2</td>
<td>H31 5</td>
<td>H302 : Harmful if swallowed</td>
</tr>
<tr>
<td>Skin Sens. 1 (SS 1)</td>
<td>H31 7</td>
<td></td>
<td>H315: Cause skin irritation</td>
</tr>
<tr>
<td>Skin Irrit. 2 (SCI 2)</td>
<td></td>
<td></td>
<td>H317: May cause an allergic skin reaction</td>
</tr>
<tr>
<td>Eyes Irrit. 2</td>
<td></td>
<td></td>
<td>H319: Cause severe eyes irritation</td>
</tr>
<tr>
<td>Acute Tox. 4</td>
<td></td>
<td></td>
<td>H332: Harmful by inhalation</td>
</tr>
<tr>
<td>Asp. Tox. (AH1)</td>
<td>H304</td>
<td></td>
<td>H304: May be fatal if swallowed and enters airway</td>
</tr>
<tr>
<td>Aquatic chronic 2 (EH C2)</td>
<td>H411</td>
<td></td>
<td>H411: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment</td>
</tr>
</tbody>
</table>

Warnings | HAZARDS |
Precaution advises:

P210  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280  Wear protective gloves/protective clothing/eye protection/face protection.
Wash contaminated clothing before reuse.

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

Dispose of contents/container according to regulation in force

If irritation or rash occurs: Consult a doctor.

If on skin: Wash with plenty of soap and water.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water, shower.

If swallowed: immediately call a poison center or a physician.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if the victim has and if they can be easily removed. Continue rinsing.

Skin contact:

P362 : Remove contaminated clothing and wash before reuse.

Eyes contact:

P332+P313 : IF SKIN IRRITATION OR RASH OCCURS: Consult a doctor.

P362 : Remove contaminated clothing and wash before reuse.

Ingestion:

P305+P351+P338 : IF ON SKIN: Wash with plenty of soap and water.

P301+P310 : IF SWALLOWED: immediately call a poison center or a physician.

4. FIRST AID MEASURES

5. FIREFIGHTING MEASURES

Class : Flammable, Harmful

Products of hazard combustion : In case of fire, harmful gas may be formed such as CO, CO2

Advice : Avoid breathing vapors and fumes. Use a mask if necessary.

3. COMPOSITION / INFORMATIONS ON INGREDIENT

CNS, Complex natural substance (100% pure and natural).

CAS TSCA : 8006-64-2
EINECS : 232-350-7
FEMA : 340n
CoE : 3089

Hazardous components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Proportions</th>
<th>CAS</th>
<th>EINECS</th>
<th>Classification according to Directive CE 1272/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha-Pinène</td>
<td>≤ 79 %</td>
<td>80-56-8</td>
<td>201-291-9</td>
<td>H226, H304, H315, H317</td>
</tr>
<tr>
<td>Béta-Pinène</td>
<td>≤ 19 %</td>
<td>127-91-3</td>
<td>204-872-5</td>
<td>H304, H226, H315, H317</td>
</tr>
<tr>
<td>D-Limonène</td>
<td>≤ 5,0 %</td>
<td>5989-27-5</td>
<td>224-813-5</td>
<td>H304, H226, H315, H317 ; H410</td>
</tr>
<tr>
<td>Longifolène</td>
<td>≤ 4,0 %</td>
<td>475-20-7</td>
<td>207-491-2</td>
<td>H304, H317, H410</td>
</tr>
<tr>
<td>Béta-Caryophyllène</td>
<td>≤ 3,0 %</td>
<td>87-45-5</td>
<td>201-746-1</td>
<td>H304</td>
</tr>
<tr>
<td>Alpha-Terpinéol</td>
<td>≤ 3,0 %</td>
<td>98-55-5</td>
<td>202-680-6</td>
<td>H315, H319</td>
</tr>
<tr>
<td>Camphène</td>
<td>≤ 3,0 %</td>
<td>79-92-5</td>
<td>201-234-8</td>
<td>H228, H319, H410</td>
</tr>
<tr>
<td>Myrcène</td>
<td>≤ 3,0 %</td>
<td>123-35-3</td>
<td>204-622-5</td>
<td>H304, H319, H226, H315</td>
</tr>
</tbody>
</table>

Turpentine Date of application : 04/09/14 Version 1 Page : 2/4
Extinguishing methods: Carbon dioxide extinguishers or dry (Class ABC) fire extinguisher foam. Avoid stream of water. Protective equipment: In case of fire, use a respiratory protective device with an independent air supply.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid all flammable sources. Ventilate premises. Do not smoke.
Environmental precautions: Avoid contamination of drains, surface water and groundwater.

Methods and material for containment and cleaning up: Large spills should be cleaned with inert absorbent material that will be destroyed in accordance with existing regulations.

7. HANDLING AND STORAGE

7.1 Handling
To avoid splashing into the eyes and mucous membranes and following the arrangement of the workplace and manipulations, wearing glasses and special clothing (gloves...) may be indicated.
It is prohibit smoking in areas where they are handled. Do not heat the perfumery products with a naked flame or expose their vapors to a flame or other sources of ignition (eg electrical equipment).
Do not abundantly breathe vapors.
Get quickly rid of sponges, etc... used to absorb perfumery products: this will be done by incineration because we know cases of auto-oxidation with spontaneous combustion of some of these products.
Large spillages should be contained with sand or inert powder.
For incorporation into the final product, the products must be kept at relatively low temperatures.

7.2 Storage
It is recommended to store in containers original, closed, or in glass containers, protected from heat, air and light and avoiding too large temperature differences. Do not reuse empty containers.
Perfumery products should under no circumstances be ingested. Keep away from food or drink.
An adequate ventilation is desirable.

8. EXPOSURE CONTROLS/EXPOSAL PROTECTION

To avoid splashing into the eyes and mucous membranes and following the arrangement of the workplace and manipulations, wearing glasses and special clothing (gloves...) may be indicated.

Do not reuse empty containers. Get quickly rid of sponges, etc... used to absorb perfumery products.

Health and Safety: comply with the measures and safety practice in the implementation of chemicals.

9. PHYSICAL AND CHEMICAL PROPERTIES

*B* basic informations
Odor: Woody, rising, resinous
Appearance: Mobile liquid
Color: Colorless to light amber

*Other informations (health, security, environment)*

\[\begin{array}{ll}
\text{pH} & : \text{N.A.} \\
\text{Segregation coefficient (n-octanol/water)} & : \text{N.A.} \\
\text{Boiling point} & : +150°C à +180°C \\
\text{Viscosity} & : 4,6 à 4,8 \\
\text{Flash point} & : + 38°C \\
\text{Vapour density} & : +38°C \\
\text{Solubility} & : \text{Insoluble} \\
\text{Evaporation rate} & : 0,4 \\
\text{Solubility in alcohol} & : \text{Soluble} \\
\text{Explosion limits} & : 0,535kPa \\
\text{Vapour pressure} & : -Lower : 0,8 \% \\
\text{Density at 20 °C} & : -Upper : 6 \% \\
\end{array}\]
Combustive properties: Do not contain any known substance as liable to ignite spontaneously.
Explosion Hazard: No risk at ambient temperature, to comply with ATEX requirements.

Other data:

- Refractive index at 20 °C: 1.465 to 1.475
- Melting point: N.A.
- Rotation: -35° to -10°
- Auto-ignition: N.A.

10. STABILITY AND REACTIVITY

This product does not present a danger of violent reaction. It is stable in time and does not react with water.
Advices: Avoid contact or contamination with strong acids, bases or oxidizing agents.

11. TOXICOLOGICAL INFORMATION

No significant effects or critical hazards.

- Harmful effect by swallowing: DL50 for the rat > 5,760 mg/kg
- Harmful effect by skin contact: N.A.
- Sensitization: N.A.
- Irritant effect: N.A.
- Phototoxicity: N.A.

- Carcinogenicity: No CMR classification according to EC Regulation 1272/2008
- Mutagenicity: No CMR classification according to EC Regulation 1272/2008
- Reproductive toxicity: No CMR classification according to EC Regulation 1272/2008

IFRA restrictions: This material and/or some of its components are covered by the Code of Practice IFRA (website: www.ifraorg.org)

Other information: Handle this product with all the precautions because of given unpredictable synergy effects on sensitive people.

12. ECOLOGICAL INFORMATION

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- Daphnies toxicity (CE50): N.A.
- Mobility: Low mobility in soil
- Persistance and degradability: N.A.
- Bioaccumulation potential: No consequence to our knowledge
- Other critical effects: No other critical effects to our knowledge
- Precautions: Avoid releases to the environment (surface water, sewers, groundwater and water in the air and natural environment). Follow national and regional regulations

- Water hazard class: 2
- Results of PBT and vPvB assessment PBT: Not applicable. VPvB: Not applicable
- Other adverse effects: No further relevant information available.

13. DISPOSAL CONSIDERATIONS

To avoid releasing to the environment. Disposal must be made according to official regulations.

- Releasing to the air: to avoid
- Releasing in the water: to avoid
- Releasing in the natural environment: to avoid
Wastes disposal: incineration
Treatment of empty containers: avoid reuse
May be subject to special treatment, for example, incineration station, if local official regulations are followed.

14. TRANSPORT INFORMATION

Comply with the international regulations of dangerous goods.
Customs rate code: 3301 29 41 00

<table>
<thead>
<tr>
<th>Mode of Transport</th>
<th>Type</th>
<th>Class</th>
<th>UN number</th>
<th>Packing group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land transport</td>
<td>ADR/RID</td>
<td>3</td>
<td>UN 1299</td>
<td>III</td>
</tr>
<tr>
<td>Maritime transport</td>
<td>IMDG</td>
<td>3</td>
<td>UN 1299</td>
<td>III</td>
</tr>
<tr>
<td>Aerial transport</td>
<td>ICAO/IATA</td>
<td>3</td>
<td>UN 1299</td>
<td>III</td>
</tr>
</tbody>
</table>

Expedition names:
- Land transport: ESSENCE DE TEREBENTHINE / TURPENTINE
- Maritime transport: TURPENTINE
- Aerial transport: TURPENTINE

Marine Pollutant: Yes

15. REGULATORY INFORMATION

Labeling: Classification according to the (CE) n°1272/2008 regulation

16. OTHER INFORMATION

The information contained in this safety data sheet is based on the level of our knowledge with regard to the product in question on the date shown. It is given on good faith.

In addition, we must point out to users the risks which may arise if a product is used for purposes other than those for which it is intended.

In any event, the user still has an obligation to be aware of and to apply all the texts governing his activity and shall take, under his own responsibility, all the necessary precautions associated with the use he makes of the product.