Turpentine
Safety Data Sheet
Date of issue: 02-10-2013  Revision date:  12-06-2014  Version: 1.0

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

1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance name</td>
<td>Turpentine</td>
</tr>
<tr>
<td>EC index no</td>
<td>650-002-00-6</td>
</tr>
<tr>
<td>EC no</td>
<td>232-350-7</td>
</tr>
<tr>
<td>CAS No</td>
<td>8006-64-2</td>
</tr>
<tr>
<td>REACH registration No</td>
<td>01-2119458049-33</td>
</tr>
<tr>
<td>Product code</td>
<td>1102</td>
</tr>
<tr>
<td>Type of product</td>
<td>Solvents</td>
</tr>
</tbody>
</table>

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

1.2.1. Relevant identified uses

<table>
<thead>
<tr>
<th>Industrial/Professional use spec</th>
<th>Industrial</th>
</tr>
</thead>
<tbody>
<tr>
<td>For professional use only</td>
<td></td>
</tr>
</tbody>
</table>

| Use of the substance/mixture | Solvent |
| Use of the substance/mixture | Solvent |
| Function or use category     | Solvents |

1.2.2. Uses advised against
No additional information available

1.3. Details of the supplier of the safety data sheet

Old Holland Classic Colours Since 1664
Nijendal 36
3972 KC Driebergen Rijsenburg - Nederland
T 0031 343 518 224 - F 0031 343 516 342
info@oldholland.com - www.oldholland.com

1.4. Emergency telephone number

<table>
<thead>
<tr>
<th>Country</th>
<th>Organisation/Company</th>
<th>Address</th>
<th>Emergency number</th>
</tr>
</thead>
<tbody>
<tr>
<td>NETHERLANDS</td>
<td>Nationaal Vergiftigingen Informatie Centrum National Institute for Public Health and the Environment, Only available to inform health professionals upon acute intoxication Huispostnummer B.00.118, PO Box 85000 3508 GA Utrecht</td>
<td>+31 30 274 88 88</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

| Flam. Liq. 3 | H226 |
| Acute Tox. 4 (Oral) | H302 |
| Acute Tox. 4 (Dermal) | H312 |
| Acute Tox. 4 (Inhalation:dust,mist) | H332 |
| Skin Irrit. 2 | H315 |
| Eye Irrit. 2 | H319 |
| Skin Sens. 1 | H317 |
| STOT SE 3 | H336 |
| Asp. Tox. 1 | H304 |
| Aquatic Chronic 2 | H411 |

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Xn; R65
N; R51/53
R10
R66
R67

Full text of R-phrases: see section 16
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
- H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled
- 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
- H336 - May cause drowsiness or dizziness
- H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (CLP):
- P210 - Keep away from hot surfaces, open flames, sparks. - No smoking
- P233 - Keep container tightly closed
- P240 - Ground/bond container and receiving equipment
- P241 - Use explosion-proof electrical, ventilating, lighting equipment
- P261 - Avoid breathing vapours, mist, spray
- P264 - Wash hands, forearms and face thoroughly after handling

EUH phrases:
- EUH066 - Repeated exposure may cause skin dryness or cracking

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turpentine (Main constituent)</td>
<td>(CAS No) 8006-64-2 &lt;br&gt;(EC no) 232-350-7 &lt;br&gt;(EC index no) 650-002-00-6 &lt;br&gt;(REACH no) 01-2119458049-33</td>
<td>100</td>
</tr>
</tbody>
</table>

Full text of R- and H-phrases: see section 16

3.2. Mixture

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).

First-aid measures after inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

First-aid measures after skin contact: Repeated exposure may cause skin dryness or cracking. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Remove all contaminated clothing and footwear.

First-aid measures after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

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

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

No additional information available

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

Do not induce vomiting/risk of damage to lungs exceeds poisoning risk.
SECTION 5: Firefighting measures

5.1. Extinguishing media
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.

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

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 naked lights. No smoking.

6.1.1. For non-emergency personnel
Emergency procedures: Evacuate personnel to a safe area.

6.1.2. For emergency responders
Protective equipment: Equip cleanup crew with proper protection. Avoid breathing vapors, mist, spray.
Emergency procedures: Ventilate area.

6.2. Environmental precautions
Prevent entry to sewers and public waters. If the product enters drains or sewers the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the National Rivers Authority. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Provide adequate ventilation.

6.4. Reference to other sections
Concerning personal protective equipment to use, see item 8. Concerning disposal elimination after cleaning, see item 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. Vapours may form explosive mixtures with air. Vapours are heavier than air and spread above ground.
Precautions for safe handling: 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 naked lights. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid breathing spray, mist, vapors.

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. Explosion-free electrical equipment and lighting with earth.
Storage conditions: Keep container tightly closed. Containers which are opened should be properly resealed and kept upright to prevent leakage. Never use pressure to empty container. No smoking. Not for non-authorised person. Keep only in the original container in a cool, well-ventilated place.
Incompatible materials: Remove all sources of ignition. Protect material from direct sunlight. Heat sources.

7.3. Specific end use(s)
Solvent.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Turpentine (8006-64-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL/DMEL (Workers)</td>
</tr>
<tr>
<td>Acute - local effects, inhalation</td>
</tr>
<tr>
<td>Long-term - systemic effects, inhalation</td>
</tr>
</tbody>
</table>

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8.2. Exposure controls


Hand protection: Chemical resistant gloves (according to European standard NF EN 374 or equivalent). Since the product consists of several substances, it is possible to estimate the durability of the glove material beforehand and it therefore needs to be tested before use. Gloves must be replaced after each use and whenever signs of wear or perforation appear. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed. PVC: penetration time > 480’, thickness > 0.35 mm; Butylrubber: penetration time > 480’, thickness > 0.5 mm; Natural rubber: penetration time > 480, thickness> 0.5 mm.

Eye protection: Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection: In case of possible repeated skin contact wear protective clothing.

Respiratory protection: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear gas mask with filter type A if conc. in air > exposure limit.

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: Colourless.
Odour: pine oil.
Odour threshold: No data available
pH: 6,9 - 7,1
Relative evaporation rate (butylacetate=1): No data available
Melting point: No data available
Freezing point: No data available
Boiling point: 150 - 180 °C (1013hPa)
Flash point: 35 °C
Auto-ignition temperature: ca. 220 °C
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: No data available
Density: 0,86 g/cm³
Solubility: Insoluble.
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: 0,7 - 6,1 vol %

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

Not established.
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10.4. Conditions to avoid

10.5. Incompatible materials
Oxidizing agents. Strong acids. strong alkalis.

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turpentine (8006-64-2)</td>
<td></td>
</tr>
<tr>
<td>LD50 oral rat</td>
<td>5,76 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skin corrosion/irritation</th>
<th>Causes skin irritation. Repeated exposure may cause skin dryness or cracking pH: 6.9 - 7.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/irritation</td>
<td>Causes serious eye irritation. Based on available data, the classification criteria are not met pH: 6.9 - 7.1</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>May cause an allergic skin reaction. Based on available data, the classification criteria are not met</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified Based on available data, the classification criteria are not met</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified Based on available data, the classification criteria are not met</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified Based on available data, the classification criteria are not met</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>May cause drowsiness or dizziness.</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Not classified Based on available data, the classification criteria are not met</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>May be fatal if swallowed and enters airways. Symptoms may include dizziness, headache, nausea and loss of coordination FOLLOWING SYMPTOMS MAY APPEAR LATER: Coughing Asthmatic complaints.</td>
</tr>
</tbody>
</table>

Potential Adverse human health effects and symptoms: Based on available data, the classification criteria are not met.

Other information: Risk of aspiration pneumonia.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - water: Toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Turpentine (8006-64-2)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50 Daphnia 1</td>
<td>14.1 mg/l</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Turpentine (8006-64-2)</th>
<th>May cause long-term adverse effects in the environment.</th>
</tr>
</thead>
</table>

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Turpentine (8006-64-2)</th>
<th>Not established.</th>
</tr>
</thead>
</table>

12.4. Mobility in soil
No additional information available

12.5. Results of PBT and vPvB assessment
No additional information available
12.6. Other adverse effects

: Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to an authorized waste treatment plant.

Additional information : Handle empty containers with care because residual vapours are flammable.

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

SECTION 14: Transport information

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

14.1. UN number

| UN-No. (ADR) | 1299 |
| UN-No. (IMDG) | 1299 |
| UN-No.(IATA) | 1299 |
| UN-No.(ADN) | Not applicable |
| UN-No. (RID) | 1299 |

14.2. UN proper shipping name

| Proper Shipping Name (ADR) | TURPENTINE |
| Proper Shipping Name (IMDG) | Not applicable |
| Proper Shipping Name (IATA) | Not applicable |
| Proper Shipping Name (ADN) | Not applicable |
| Proper Shipping Name (RID) | Not applicable |

14.3. Transport hazard class(es)

ADR

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

IMDG

Transport hazard class(es) (IMDG) : 3

IATA

Transport hazard class(es) (IATA) : 3

ADN

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

RID

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

14.4. Packing group

| Packing group (ADR) | III |
| Packing group (IMDG) | Not applicable |
| Packing group (IATA) | Not applicable |
| Packing group (ADN) | Not applicable |
14.5. Environmental hazards

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

14.6. Special precautions for user

14.6.1. Overland transport

Classification code (ADR): F1
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: 30
Tunnel restriction code (ADR): D/E
EAC code: 3Y

14.6.2. Transport by sea

MFAG-No: 128

14.6.3. Air transport


14.6.4. Inland waterway transport

Not subjected to ADN: No

14.6.5. Rail transport

Classification code (RID): F1
Carriage prohibited (RID): No

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

No REACH Annex XVII restrictions

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
No relevant changes compared to the previous version.

Abbreviations and acronyms:

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).
- ATE: Acute Toxicity Estimated.
- CAS: Chemical Abstracts Service (division of the American Chemical Society).
- CLP: Classification, Labeling and Packaging.
- CMR: Carcinogenic, Mutagenic, Reprotoxic.
- CSA: Chemical Safety Assessment.
- CSR: Chemical Safety Report.
- DNEL: Derived No Effect Level (for human).
- EC50: Median Effective Concentration (required to induce a 50% effect).
- EINECS: European Inventory of Existing Commercial Chemical Substances.
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
- IATA: International Air Transport Association.
- LC50: Lethal concentration, 50 percent.
- LD50: Lethal dose, 50 percent.
- PBT: Persistent, Bioaccumulating and Toxic.
- PNEC: Predicted No Effect Concentration (for environment).
- REACH: Registration, Evaluation and Authorisation of Chemical substances.
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail).
- SVHC: Substances of Very High Concern.
- vPvB: very Persistent, very Bioaccumulating.

Other information:

REACH Disclaimer:
This information is based on current knowledge. Consistency of data in the SDS with CSR is considered, as far as the information is available at the time of compilation (cfr Revision date and Version number).

DISCLAIMER OF LIABILITY
The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of R-, H- and EUH-phrases:

| Acute Tox. 4 (Dermal) | Acute toxicity (dermal), Category 4 |
| Acute Tox. 4 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist), Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Aquatic Chronic 2 | Hazardous to the aquatic environment — Chronic Hazard, Category 2 |
| Asp. Tox. 1 | Aspiration hazard, 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, Narcosis |
| 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 |
| H332 | Harmful if inhaled |
| H336 | May cause drowsiness or dizziness |
| H411 | Toxic to aquatic life with long lasting effects |
| R10 | Flammable |
| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment |
| R65 | Harmful: may cause lung damage if swallowed |
| R66 | Repeated exposure may cause skin dryness or cracking |
| R67 | Vapours may cause drowsiness and dizziness |
| N | Dangerous for the environment |
| Xn | Harmful |

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.