1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Material Name: Mineral Turpentine

Recommended Uses: Industrial Solvent.

Other names: High Aromatic White Spirit (HAWS) TURPENTINE SUBSTITUTE

Product Code: Q7257, Q7249

Supplier: Auschem (NSW) Pty. Ltd.
ABN: 32 084 260 159
PO Box 6309, Wetherill Park
91 Newton Road, Wetherill Park
NSW 2164 Australia

Telephone: +612 9756 5559
Fax: +612 9756 5558

Local Contact

Telephone: +612 9756 5559
Fax: +612 9756 5558

Emergency Telephone Number: 1800 651 818

2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

Classified as hazardous according to the criteria of NOHSC, and as Dangerous Goods according to the Australian Dangerous Goods Code.

Symbol(s): Xn Harmful.
N Dangerous for the environment.

R-phrase(s): R10 Flammable.
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s): S23 Do not breathe vapour.
S24 Avoid contact with skin.
S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
**Health Hazards:**

Vapours may cause drowsiness and dizziness. May cause moderate irritation to skin. Repeated exposure may cause skin dryness or cracking. Harmful: may cause lung damage if swallowed. Possibility of organ or organ system damage from prolonged exposure; see Chapter 11 for details. Target organ(s): Auditory system. Central nervous system (CNS).

**Signs and Symptoms:**

Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance. Other signs and symptoms of central nervous system (CNS) depression may include headache, nausea, and lack of coordination. Respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, coughing, and/or difficulty breathing. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. Auditory system effects may include temporary hearing loss and/or ringing in the ears.

**Safety Hazards:**

Flammable. In use, may form flammable/explosive vapour-air mixture. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire.

**Environmental Hazards:**

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

**SUSMP Schedule:**

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3. COMPOSITION/INFORMATION ON INGREDIENTS

**Preparation Description:**

Blend of aromatic and aliphatic hydrocarbons.

**Hazardous Components**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS</th>
<th>EINECS</th>
<th>Symbol(s)</th>
<th>R-phrase(s)</th>
<th>Conc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumene</td>
<td>98-82-8</td>
<td>202-704-5</td>
<td>Xn, N</td>
<td>R10; R37; R51/53; R65</td>
<td>&lt;10.00 %W</td>
</tr>
<tr>
<td>Xylene Mixed Isomers</td>
<td>1330-20-7</td>
<td>215-535-7</td>
<td>Xn</td>
<td>R10; R20/21; R38</td>
<td>10.00 - &lt;30.00 %W</td>
</tr>
<tr>
<td>1,3,5-Trimethyl benzene</td>
<td>108-67-8</td>
<td>203-604-4</td>
<td>Xi, N</td>
<td>R37; R51/53</td>
<td>10.00 - &lt;30.00 %W</td>
</tr>
<tr>
<td>1,2,4-Trimethyl benzene</td>
<td>95-63-6</td>
<td>202-436-9</td>
<td>Xi, N</td>
<td>R20; R36/37/38; R51/53</td>
<td>30.00 - &lt;60.00 %W</td>
</tr>
<tr>
<td>1,2,3-Trimethyl benzene</td>
<td>526-73-8</td>
<td>208-394-8</td>
<td></td>
<td></td>
<td>&lt;10.00 %W</td>
</tr>
<tr>
<td>n-Propyl benzene</td>
<td>103-65-1</td>
<td>203-132-9</td>
<td>Xn, N</td>
<td>R10; R37; R51/53; R65</td>
<td>&lt;10.00 %W</td>
</tr>
</tbody>
</table>

**Additional Information:**

Refer to chapter 16 for full text of EC R-phrases.

4. FIRST AID MEASURES

**Inhalation:**

Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.
Skin Contact: Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.

Eye Contact: Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

Ingestion: If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3° C), shortness of breath, chest congestion or continued coughing or wheezing. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Give nothing by mouth. Do not induce vomiting.

Advice to Physician: Causes central nervous system depression. Dermatitis may result from prolonged or repeated exposure. Potential for chemical pneumonitis. Call a doctor or poison control centre for guidance.

5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Specific Hazards: Carbon monoxide may be evolved if incomplete combustion occurs. Will float and can be reignited on surface water. The vapour is heavier than air, spreads along the ground and distant ignition is possible.

Extinguishing Media: Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. Do not discharge extinguishing waters into the aquatic environment.

Unsuitable Extinguishing Media: Do not use water in a jet.

Protective Equipment for Firefighters: Wear full protective clothing and self-contained breathing apparatus.

Additional Advice: Keep adjacent containers cool by spraying with water.

Hazchem Code: •3Y - For fire fighting, use foam (alcohol resistant foam may be required). Risk of explosion. Breathing apparatus, firefighting gear and chemically impervious protective gloves should be worn. Prevent spillage from entering drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

Observe all relevant local and international regulations.

Protective measures: Avoid contact with spilled or released material. Immediately remove all contaminated clothing. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Material Safety Data Sheet. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures.
against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.

**Clean Up Methods:**
For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

**Additional Advice:**
See Chapter 13 for information on disposal. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Vapour may form an explosive mixture with air.

### 7. HANDLING AND STORAGE

**General Precautions:**
Avoid breathing vapours or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. On guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

**Handling:**
Avoid contact with skin, eyes, and clothing. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<= 1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations. Handle and open container with care in a well-ventilated area. Ventilate workplace in such a way that the Occupational Exposure Limit (OEL) is not exceeded. Do not empty into drains.

**Storage:**
Must be stored in a diked (bunded) well-ventilated area, away from sunlight, ignition sources and other sources of heat. Bulk storage tanks should be diked (bunded). Keep away from aerosols, flammables, oxidizing agents, corrosives and from other flammable products which are not harmful or toxic to man or to the environment. Storage Temperature: Ambient.

**Product Transfer:**
Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<= 1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. If positive displacement pumps are used, these must be fitted with a non-integral pressure relief valve.

**Recommended Materials:**
For containers, or container linings use mild steel, stainless steel. For container paints, use epoxy paint, zinc silicate paint.

**Unsuitable Materials:**
Avoid prolonged contact with natural, butyl or nitrile rubbers.
Container Advice: Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits
In the absence of occupational exposure standards for this product, it is recommended that the following are adopted.

<table>
<thead>
<tr>
<th>Material</th>
<th>Source</th>
<th>Type</th>
<th>ppm</th>
<th>Mg/m³</th>
<th>Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Turpentine</td>
<td>AU OEL</td>
<td>TWA (8h)</td>
<td>90 ppm</td>
<td>480 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Additional Information: Adequate ventilation to control airborne concentrations below the exposure guidelines/limits.

Biological Exposure Index (BEI) - See reference for full details

<table>
<thead>
<tr>
<th>Material, Determinant</th>
<th>Sampling Time</th>
<th>BEI</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylene, Mixed Isomers, Methylhippuric acids in urine</td>
<td>End of shift</td>
<td>1.5 g/g creatinine</td>
<td>ACGIH (2003)</td>
</tr>
</tbody>
</table>

Exposure Controls: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits. Eye washes and showers for emergency use.

Personal Protective Equipment: Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Respiratory Protection: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for organic gases and vapours [boiling point >65 °C (149 °F)] meeting EN14387. Where air-filtering respirators are unsuitable (e.g., airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.

Hand Protection: Longer term protection: Nitrile rubber gloves Incidental contact/Splash protection: PVC or neoprene rubber gloves Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Eye Protection: Chemical splash goggles (chemical monogoggles).

Protective Clothing: Chemical resistant gloves/gauntlets, boots, and apron. Skin protection not ordinarily required beyond standard issue work clothes.

9. PHYSICAL AND CHEMICAL PROPERTIES
Material Safety Data Sheet
Mineral Turpentine

Appearance: Colourless Liquid.
Odour: Paraffinic
pH: Not applicable
Boiling point: Typical 148 - 200 °C / 298 - 392 °F
Melting / freezing point: Not applicable
Flash point: Typical 31 - 36 °C / 88 - 97 °F (Abel)
Explosion / Flammability
Limits in air: 0.7 - 6.5 % (V)
Auto-ignition temperature: Typical 300 °C / 572 °F
Vapour pressure: Typical 0.5 kPa
Specific gravity: Data not available
Density: Typical 800-820 kg/m³ @ 15°C / 59°F (ASTM D-4052)
Water solubility: Negligible.
Solubility in other solvents: Soluble.
Vapour density (air=1): Data not available.

10. STABILITY AND REACTIVITY
Stability: Stable under normal conditions of use.
Conditions to Avoid: Avoid heat, sparks, open flames and other ignition sources.
Materials to Avoid: Strong oxidising agents.
Hazardous Decomposition Products: Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.
Sensitivity to Static Discharge: Yes, in certain circumstances product can ignite due to static electricity.

11. TOXICOLOGICAL INFORMATION
Basis for Assessment: Information given is based on product testing, and/or similar products, and/or components.
Acute Oral Toxicity: Low toxicity: LD50 >2000 mg/kg, Rat Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Acute Dermal Toxicity: Low toxicity: LD50 >2000 mg/kg, Rat
Acute Inhalation Toxicity: Low toxicity: LC50 greater than near-saturated vapour concentration / 4 hours, Rat
Skin Irritation: May cause moderate skin irritation (but insufficient to classify).
Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis.
Eye Irritation: Not irritating to eye.
Respiratory Irritation: Inhalation of vapours or mists may cause irritation to the respiratory system.
Sensitisation: Not a skin sensitiser.
Repeated Dose Toxicity: Kidney: caused kidney effects in male rats which are not considered relevant to humans Central nervous system: repeated exposure affects the nervous system.
Mutagenicity: Not mutagenic.
Carcinogenicity: Limited evidence of carcinogenic effect. (Ethylbenzene)
Reproductive and Developmental Toxicity: Not expected to impair fertility. Not a developmental toxicant.
12. ECOLOGICAL INFORMATION

Acute Toxicity
- **Fish:** Toxic: LL/EL/IL50 1-10 mg/l
- **Aquatic Invertebrates:** Toxic: LL/EL/IL50 1-10 mg/l
- **Algae:** Toxic: LL/EL/IL50 1-10 mg/l
- **Microorganisms:** Practically non toxic: LL/EL/IL50 > 100 mg/l

Chronic Toxicity
- **Fish:** NOEC/NOEL expected to be > 0.1 - <= 1.0 mg/l (based on modeled data)
- **Aquatic Invertebrates:** NOEC/NOEL > 0.1 - <=1.0 mg/l (based on test data)
- **Mobility:** Floats on water. Adsorbs to soil and has low mobility.
- **Persistence/degradability:** Readily biodegradable.
  Oxidises rapidly by photo-chemical reactions in air.
- **Bioaccumulation:** Has the potential to bioaccumulate.
- **Other Adverse Effects:** In view of the high rate of loss from solution, the product is unlikely to pose a significant hazard to aquatic life.

13. DISPOSAL CONSIDERATIONS

**Material Disposal:**
Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.
Do not dispose into the environment, in drains or in water courses. Waste product should not be allowed to contaminate soil or water.

**Container Disposal:**
Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums. Send to drum recoverer or metal reclaimer.

**Local Legislation:**
Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

14. TRANSPORT INFORMATION

**ADG**
- **UN number:** 1300
- **Proper shipping name:** TURPENTINE SUBSTITUTE
- **Class:** 3
- **Packing group:** III
- **Hazchem Code:** 3Y

**IMDG**
- **Identification number:** UN 1300
- **Proper shipping name:** TURPENTINE SUBSTITUTE
- **Class / Division:** 3
- **Packing group:** III
Marine pollutant: Yes

IATA (Country variations may apply)

UN No.: 1300
Proper shipping name: Turpentine substitute
Class / Division: 3
Packing group: III

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

SUSMP Schedule: 5
Chemical Inventory Status
- DSL: Listed.
- INV (CN): Listed.
- TSCA: Listed.
- EINECS: Listed. 265-185-4
- KECl (KR): Listed. KE-25620
Other Information: 94/69/EC (21st ATP). The benzene content of this product is less than 0.1%. Nota P applies. Classification and labelling as carcinogen (R45) is not required.

16. OTHER INFORMATION

R-phrase(s)

R10: Flammable.
R20: Harmful by inhalation.
R20/21: Harmful by inhalation and in contact with skin.
R36/37/38: Irritating to eyes, respiratory system and skin.
R37: Irritating to respiratory system.
R38: Irritating to skin.
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.

MSDS Version Number: 3.0
MSDS Effective Date: 10.04.2013
MSDS Revisions: A vertical bar (|) in the left margin indicates an amendment from the previous version.

MSDS Regulation:
Uses and Restrictions: Industrial Solvent.

MSDS Distribution: The information in this document should be made available to all who may handle the product.

Disclaimer: 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.