SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product (material) name: White Mineral Oil
Other Names: Paraffin Liquid, Mineral Oil, Petrolatum, Liquid Paraffin Oil
Recommended use: Pharmaceutical ingredient
Supplier Details:
Pharmachem
Unit 6, 70 Fison Ave West
Eagle Farm QLD 4009
Telephone: (07) 3868 0333
Facsimile: (07) 3868 0344
Contact Person: Mr Gray Boston
Emergency Telephone: (07) 3630 1654

SECTION 2 HAZARDS IDENTIFICATION

This product is dangerous goods under the Australian Dangerous Goods (ADG) Code and is classified as hazardous according to the classification criteria of NOHSC:1008(2004), Approved Criteria For Classifying Hazardous Substances and the National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]:

Health Effects (Acute)
Swallowed: Minute amounts aspirated into the lungs during ingestion or vomiting may cause severe pulmonary injury or death. May cause laxative effects when ingested.
Excessive ingestion of white mineral oils has been associated with oil droplet formation in tissues, a condition which is considered to be clinically unimportant in humans.
Eye: Not a primary eye irritant, but minor irritation may be noticed following contact.
Skin: Frequent or prolonged contact may cause dermatitis.
Inhaled: Negligible hazard at normal handling temperatures. Vapour mists or fumes due to elevated temperatures or mechanical action may form vapours, mists, or fumes which may be irritating to the eyes, nose, throat and lungs. Avoid breathing vapours, mists or fumes.

Health Effects (Chronic)
The base oil component of this white oil has shown no carcinogenic activity in laboratory animals (long term repeated skin painting tests). In addition, white mineral oils of similar composition and refining history have not exhibited chronic toxicity in laboratory animals.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Cas No.</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraffin Oil</td>
<td>8012-95-1</td>
<td>100%</td>
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SECTION 4 FIRST AID MEASURES

Swallowed: DO NOT induce vomiting since it is important that no amount of material should enter the lungs (aspiration). Keep at rest. Get prompt medical attention.
Eye: If irritation should occur, flush eyes with water and obtain medical advice.
Skin: Wash with plenty of water. Remove grossly contaminated clothing and wash it before reuse.
Inhaled: At ambient handling temperatures inhalation of vapours is not normally a problem. Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

First Aid Facilities: Ensure an eye bath and safety shower are available and ready for use.

Advice To Doctor: Treat symptomatically based on judgement of doctor and individual reactions of patient.

SECTION 5 FIRE FIGHTING MEASURES

Suitable extinguishing media: Use water spray to cool fire exposed surfaces and to protect personnel. Use foam, dry chemical, or water spray to extinguish fire. Avoid spraying water directly into storage containers due to damage or boilover.

Hazards from combustion products: Keep away from ignition sources (NO SMOKING). Material can form flammable mixtures or can burn only upon heating to temperatures at or above the flash point. Product can accumulate static charges which can cause an incendiary electrical discharge.

Special protective precautions and equipment for fire fighters: Shut off "fuel" to fire. Fire fighters should wear full protective clothing including self-contained breathing apparatus.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Emergency procedures: Clean up personnel should wear full protective clothing including breathing apparatus. Eliminate all sources of ignition (NO SMOKING). DO NOT wash untreated material down drain/sewer.

Methods and materials for containment and clean up: Contain spilled liquid with sand or earth. Recover by pumping (use an explosion proof or hand pump) or with a suitable absorbent. If liquid is too viscous for pumping, scrape up with shovels or pails and place into suitable containers for recycle or disposal.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling: Keep container closed. Handle container with care. Open slowly in order to control possible pressure release. Material will accumulate static charges which may cause an electrical spark (ignition course). Use proper grounding procedures. DO NOT pressurise, cut, heat or weld containers. DO NOT reuse empty containers without commercial cleaning or reconditioning.

Conditions for safe storage, including any incompatibilities: Store in a cool, well-ventilated place away from incompatible materials. Do not handle, store or open near an open flame, sources of heat or ignition. Protect material from direct sunlight.
SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

National exposure standards:
The following exposure limit is recommended:
Oil mists: TWA 5mg/m³ - recommended based on the ACGIH TLV

Biological limit values: None allocated
Engineering controls: Provide general exhaust ventilation to maintain airborne concentrations below standard.
Personal protective equipment: For open systems where contact is likely, wear safety glasses with side shields. Where concentrations in air may exceed the limits given and engineering, work practice or other means of exposure reduction are not adequate, approved respirators (AS/NZS1715 and AS/NZS1716) may be necessary to prevent overexposure by inhalation.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance Clear, colourless liquid with neutral odour
Formula Mixture of hydrocarbons
Boiling Point >350°C
Vapour Pressure N/A
Flash Point (Test Unknown) >175°C
Solubility in Water Insoluble
pH N/A
Melting Point Not available
Specific Gravity N/A (water=1)
Flammability Limits (as % volume in air) Lower Explosion Limit: N/A
Upper Explosion Limit: N/A
Solubility in organics miscible with many
Density @ 15°C 0.851 - 0.869 kg/L
Viscosity @ 20°C 36 - 240 c.St.
Boiling Point 350 - 535°C
Freeze Point -12 - 15°C
Flash point 175 - 220°C
Autoignition temperature >250°C

SECTION 10 STABILITY AND REACTIVITY

Chemical stability: Material is stable. Product does not decompose at ambient temperatures.
Conditions to avoid: Heat, flames, ignition sources, incompatibles
Incompatible materials: Avoid contact with strong oxidising agents.
Hazardous decomposition products: Oxides of carbon
Hazardous reactions: Hazardous polymerisation has not been reported.

SECTION 11 TOXICOLOGICAL INFORMATION

TOXICITY DATA
Oral LD₅₀ (Rat) - >5000 mg/kg
Dermal LD₅₀ (Rabbit) - >5000 mg/kg
Inhalation LC₅₀ (Rat) >4000 mg/m³

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity: Harmful effects to terrestrial and aquatic organisms are expected to be minimal.
Persistence and degradability: White mineral oils are expected to biodegrade and not persist in the environment.
Mobility: White mineral oils released to the environment will remain largely on the soil surface, and in water will remain largely on the water surface.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal methods and containers: This product is not suitable for disposal either by landfill or via municipal sewers, drains, natural streams or rivers.

Special precautions for landfill or incineration: Dispose of in accordance with local authority instructions.

SECTION 14 TRANSPORT INFORMATION

UN Number: 3295
UN Proper Shipping Name: Hydrocarbons, Liquid, N.O.S.
Class and subsidiary risk: 3 (No subsidiary risk allocated)
Packing Group: III
Special precautions for user: None known
Hazchem Code: 3W

SECTION 15 REGULATORY INFORMATION

Although this material appears in the Australian Inventory of Chemical Substances (AICS), it has not been assessed by NICNAS (National Industrial Chemicals Notification and Assessment Scheme)

SECTION 16 OTHER INFORMATION

MSDS version: 2
Date of Revision: March 2011
Update of sections: 2, 4, 10, 15, 16

CONTACT POINT
Mr Gray Boston, General Manager
B/Hrs Phone (07) 3868 0333  A/Hrs (07) 3630 1654

References:
1. FAISD Handbook, Handbook of First Aid Instructions, Safety Directions, Warning Statements, and General Safety Precautions for, Agricultural and Veterinary Chemicals, (as updated)
4. AICS (Australian Inventory of Chemical Substances), Safework Australia
5. APVMA Manual of Requirements and Guidelines for Agricultural Chemicals, Version 4.1, (as updated)
6. ADI [Acceptable Daily Intake] List, Commonwealth Department of Health & Aged Care, TGA, (as updated)
8. The Poisons Standard (as updated), National Drugs and Poisons Schedule Committee
9. Hazardous Substances Information System, Safework Australia (as updated)

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