MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Material Name: Mechanical Pump Oil.
Catalogue Number: M007.
Other Names: Mobil DTE Oil Medium.
Recommended Use: Turbine Oil.

Supplier Name: **ProSciTech**
Street Address: 1/11 Carlton Street, Kirwan, Qld. 4817 Australia
Telephone Number: (07) 4773 9444 **Fax Number:** (07) 4773 2244
Emergency Contact: (07) 4773 9444 8:30am – 5:00pm, Monday to Friday

SECTION 2 - HAZARDS IDENTIFICATION

Hazard Classification: Not classified as hazardous according to criteria of NOHSC.
Hazardous and/or Dangerous Nature: NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.
Risk Phrases:
Safety Phrases:

SECTION 3 - COMPOSITION /INFORMATION ON INGREDIENTS

SUBSTANCE:
Chemical Identity: -
Common Name(s): -
CAS Number(s): -

MIXTURE:

Ingredients	Cas Number(s)	Proportion (%)
-	-	-

SECTION 4 - FIRST AID MEASURES

Swallowed: First aid is normally not required. Seek medical attention if discomfort occurs.
Eye: Flush thoroughly with water. If irritation occurs, get medical assistance.
Skin: Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.
Inhaled: Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.
First Aid Facilities: Eyebath/eyewash & Safety shower.
Medical Attention & Special Treatment:

ADDITIONAL INFORMATION:

SECTION 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames. DO NOT USE straight streams of water.
Hazards from Combustion Products:
Smoke, Fume, Aldehydes, Sulphur Oxides, Incomplete combustion products, Oxides of carbon.
Precautions for Fire Fighters:
Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.
Hazchem Code: Not available.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Emergency Procedures:

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Containment and clean up:

Land Spill: Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.
Water Spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants. Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.
Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7 - HANDLING & STORAGE

Precautions for Safe Handling:

Prevent small spills and leakage to avoid slip hazard. This material is a static accumulator.

Conditions for Safe Storage:

Do not store in open or unlabelled containers. Keep away from incompatible materials.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: No exposure standard allocated.
Biological Limit Values: No biological limit allocated.

Engineering Controls:

The level of protection and types of controls necessary will vary depending upon potential exposure conditions.
Control measures to consider:
No special requirements under ordinary conditions of use and with adequate ventilation.

Personal Protective Equipment:

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.
Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:
Particulate No special requirements under ordinary conditions of use and with adequate ventilation.
For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.
Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include: Nitrile, Viton.
No protection is ordinarily required under normal conditions of use.
Eye Protection: If contact is likely, safety glasses with side shields are recommended.
Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:
No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.
Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Amber liquid.
Odour:	Characteristic.
pH:	Not available.

Vapour pressure (mm of Hg at 25°C):	< 0.013 kPa (0.1 mm Hg) at 20°C
Vapour density:	(Air = 1): > 2 at 101 kPa
Boiling point/range (°C):	> 316°C
Freezing/melting point (°C):	Not available.
Solubility:	Negligible solubility in water.
Specific gravity or density:	Relative density at 15°C: 0.87
Flash Point:	>200°C.
Flammable (explosive) limits:	LEL: 0.9 UEL: 7.0
Ignition temperature:	Not available.

Additional Information:

Pour Point: -15°C (5°F)
DMSO Extract (mineral oil only), IP-346: < 3 %wt
Viscosity: 43.4 cSt (43.4 mm²/sec) at 40 C | 6.7 cSt (6.7 mm²/sec) at 100C
Log Pow (n-Octanol/Water Partition Coefficient): > 3.5
Evaporation Rate (N-Butyl Acetate = 1): N/D

SECTION 10 - STABILITY AND REACTIVITY

Chemical stability:	Stable under normal conditions of use.
Conditions to avoid:	Excessive heat. High energy sources of ignition and incompatible materials.
Incompatible Materials:	Strong oxidizers.
Hazardous Decomposition Products:	Smoke, Fume, Aldehydes, Sulphur Oxides, Incomplete combustion products, Oxides of carbon.
Hazardous Reactions:	Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Exposure and Health Effects:

Ingestion:

Low order of toxicity – effects unknown.

Inhalation:

Excessive exposure may result in respiratory irritation.

Skin Contact:

Excessive exposure may result in skin irritation; high-pressure injection under skin may cause serious damage.

Eye Contact:

Excessive exposure may result in eye irritation.

Human/Animal data:

INHALATION
Toxicity (Rat): LC50 > 5000 mg/m³
Minimally Toxic. Based on test data for structurally similar materials.
Irritation: No end point data. Negligible hazard at ambient/normal handling temperatures. Based on assessment of the components.

INGESTION
Toxicity (Rat): LD50 > 5000 mg/kg
Minimally Toxic. Based on test data for structurally similar materials.

SKIN
Toxicity (Rabbit): LD50 > 5000 mg/kg
Minimally Toxic. Based on test data for structurally similar materials.
Irritation (Rabbit): Data available. Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials.

EYE
Irritation (Rabbit): Data available. May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

Carcinogenicity: Not listed as carcinogenic.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:	Not expected to be harmful to aquatic organisms.
Persistence and degradability:	Base oil component -- Expected to be inherently biodegradable
Mobility:	Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater

solids.

Additional Information: Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Methods:

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

Special Precautions:

Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14 - TRANSPORT INFORMATION

UN Number: Not regulated.
UN Proper Shipping Name: Not regulated.
Class and Subsidiary risk: Not regulated.
Packing Group: Not regulated.
Special Precautions for User: Not available.
Hazchem Code: Not available.

SECTION 15 - REGULATORY INFORMATION

Poison Schedule Number: None allocated.

SECTION 16 - OTHER INFORMATION

Date of preparation of MSDS: August 10
Comments:

List of Publications referenced when creating this MSDS;

- Hazardous Substances Information System Consolidated Lists: Safe Work Australia.
- APPROVED CRITERIA FOR CLASSIFYING HAZARDOUS SUBSTANCES [NOHSC:1008(2004)] 3rd Edition: National Occupational Health and Safety Commission.
- Dangerous Goods - Initial Emergency Response Guide (SAA/SNZ HB76:1997).
- IATA Dangerous Goods Regulations.
- Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)].
- Australia Standard for the Uniform Scheduling of Drugs and Poisons [SUSPD] (Australian Government Department of Health and Ageing).

This Material Safety Data Sheet (MSDS) has been prepared in compliance with the National code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]. It is the user's responsibility to determine the suitability of this information for adoption of necessary safety precautions. The information published in this MSDS has been compiled from the publications listed in Section 16: to the best of our ability and knowledge these publications are considered accurate. We reserve the right to revise Material Safety Data Sheets as new information becomes available. Copies may be made for non-profit use.

… End of MSDS …