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SAFETY DATA SHEET

Section 1 - PRODUCT IDENTIFIER/CHEMICAL IDENTITY

1.1 PRODUCT IDENTIFIER: LHM Plus1.2 PRODUCT CODE: LHMP

1.3 RELEVANT IDENTIFIED USES OF THE MIXTURE AND USES ADVISED AGAINST:

RELEVANT IDENTIFIED USES: Suspension and hydraulic fluid

RESTRICTIONS ON USE: None known

1.4 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:

SUPPLIER NAME: PENRITE OIL Company Pty Ltd (ABN: 25005 001 525)

ADDRESS (Australia): 110-116 Greens Rd, Dandenong South, VIC, Australia, 3175

TELEPHONE (Australia): 1300 736 748; +61 3 9801 0877; Fax 1800 736 748

ADDRESS (New Zealand): 75 Lady Ruby Dr, East Tamaki, Auckland, New Zealand, 2013

TELEPHONE (New Zealand): 0800 533 698; Fax 0800 533 698

EMAIL: <u>tech@penriteoil.com</u> (Aust and NZ)

1.5 EMERGENCY TELEPHONE: Australia: 1300 736 748 New Zealand: 0800 533 698

Poisons information Centre: Australia: 131 126 New Zealand: 0800 764 766

1.6 HSNO APPROVAL NUMBER: HSR002605

HSNO GROUP TITLE: Lubricants (Low Hazard) Group Standard, 2006

Section 2 - HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE HAZARDOUS CHEMICAL:

GHS CLASSIFICATION HAZARD CLASS AND CATEGORY: Under the Work Health and Safety

Regulations (Safe Work Australia), the product is classified as hazardous:

Aspiration Toxicity - Category 1

2.2 LABEL ELEMENTS INCLUDING PRECAUTIONARY STATEMENTS:

SIGNAL WORD: DANGER

PICTOGRAMS:



HAZARD STATEMENTS:

H304 May be fatal if swallowed and enters airways

PRECAUTIONARY STATEMENTS:

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PREVENTION:

P261 Avoid breathing mist/vapours/spray

RESPONSE:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician

P331 Do NOT induce vomiting

STORAGE:

P405 Store locked up

DISPOSAL:

P501 Dispose of contents/container in accordance with local regulations

2.3 OTHER HAZARDS:

The mixture has a low order of toxicity associated with it. Excessive exposure may result in mild irritation to the skin or respiratory system as well as possible irritation to the eye. People with pre-existing skin conditions, such as eczema or dermatitis, should take precautions so as not to exacerbate the condition.

Section 3 - COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS	CONC (%W/W)	GHS	Code
Lubricating ail natroloum C1E 20				
Lubricating oil, petroleum, C15-30, hydrotreated, neutral oil based	72623-86-0	60 - 90	Asp Tox Cat 1	H304
Distillates (petr), hydrotreated middle	64742-46-7	10 - 30	Asp Tox Cat 1	H304
Dithiophosphoric acid ester	71735-74-6	<1	Aq Chron Tox Cat.2	H411
Other ingredients	-	up to 100	Non hazardous	

Section 4 - FIRST AID MEASURES

4.1 DESCRIPTION OF NECESSARY FIRST AID MEASURES:

GENERAL INFORMATION: Take affected persons out of danger area and lay down.

INGESTION: Rinse mouth out with water. Do NOT induce vomiting. Seek medical help immediately. For advice, contact a Poisons Information Centre (Phone Australia 131 126; New Zealand 0800 764 766) or a doctor at once. Bring the Safety Data Sheet with you. If vomiting occurs, lean victim forward or place on left side (head-down position if possible) to maintain open airway and prevent aspiration. Within 6 hrs of ingestion, if delayed symptoms such as fever, shortness of breath, chest congestion or continued coughing/wheezing occurs, transport immediately to a medical facility.

EYE: If in eyes, hold eyelids apart and flush the eye immediately with large amounts of running water. Continue flushing for at least 15 minutes or until advised to stop by a doctor. Check for contact lenses. If there are contact lenses, these should be removed after several minutes of rinsing by the exposed person or medical personnel if it can be done easily. After flushing, if irritation develops or persists, seek medical assistance.

SKIN CONTACT: Remove any contaminated clothing/footwear. Wash affected skin/hair thoroughly with soap and water. If skin irritation develops or persists, consult a doctor.

INHALATION: Remove victim from further exposure and supply fresh air, if safe to do so. In the event of irritation of the respiratory tract, dizziness, nausea or unconsciousness, seek medical assistance immediately. If irritation develops or persists, consult a doctor.

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PROTECTION FOR FIRST AIDERS: No special measures required, however, no personnel shall place themselves in a situation that is potentially hazardous to themselves. Always ensure that you are wearing gloves when carrying out first aid procedures involving chemicals and/or blood.

FIRST AID FACILITIES: Eye wash fountain and safety showers are recommended in the area where the product is used.

4.2 MOST IMPORTANT SYMPTOMS & EFECTS, BOTH ACUTE & DELAYED, CAUSED BY EXPOSURE:

ACUTE: Ingestion may cause nausea and diarrhoea. If product is aspirated into the lungs it may cause coughing, wheezing, congestion or fever. Inhalation of high vapour concentrations may cause dizziness, headache, drowsiness or nausea. Inhalation of vapours may cause irritation of the mouth and respiratory tract, a burning sensation in the nose/throat, coughing or breathing difficulty. Eye contact may lead to localised burning, redness and watering. Skin contact may lead to redness or itching.

CHRONIC: Skin contact may aggravate existing skin conditions such as dermatitis.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NECESSARY:

ADVICE TO DOCTOR: Treat symptomatically. As product is hydrocarbon based and of low viscosity, if vomiting has occurred after ingestion the patient should be monitored to ensure that aspiration into the lungs has not occurred. Inhalation of high vapour concentrations may cause depression of central nervous system.

Section 5 - FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

SUITABLE MEDIA: Use extinguishing media appropriate for surrounding fire. Use carbon dioxide, alcohol resistant foam, dry chemical or water spray. Spray down fumes resulting from fire.

UNSUITABLE MEDIA: Avoid using full water jet directed at residual material that may be burning. Water may cause splattering on hot residues. Product will float on water.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

COMBUSTION HAZARDS: Combustion may produce oxides of carbon, as well as smoke and irritating vapours.

5.3 ADVICE FOR FIRE FIGHTERS

FIRE: This product is not flammable under conditions of use. It is a hydrocarbon based liquid which will burn if preheated. Keep storage tanks, pipelines, fire exposed surfaces, etc. cool with water spray.

HAZCHEM CODE: Not applicable

EXPLOSION: No information to indicate that the product is an explosion hazard. Closed containers may explode when exposed to extreme heat.

PROTECTIVE EQUIPMENT: In the event of a fire, wear full protective clothing and self-contained breathing equipment with full-face piece operated in the pressure demand or other positive pressure mode.

Section 6 - ACCIDENTAL RELEASE MEASURES

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6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

PERSONAL PROTECTION: For small spills, wear Nitrile gloves, glasses/goggles, boots and full-length clothing. During routine operation for a small spill in the open a respirator is not required. However, if mists or vapours are generated, an approved organic vapour/particulate respirator is required. For large spills, or in confined spaces, a full chemically resistant body-suit is recommended and the atmosphere must be evaluated for oxygen deficiency and whether the atmosphere is flammable. If in doubt about potential oxygen deficiency, wear self-contained breathing apparatus. Never enter an environment with a flammable atmosphere.

CONTROL MEASURES: Ventilate area and extinguish and/or remove all sources of ignition. Stop the leak if safe to do so. CAUTION: The spilled product will be slippery. Avoid contact with the spilled material.

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

6.2 ENVIRONMENTAL PRECAUTIONS:

SPILL ADVICE: Do not allow product to enter drains, surface water, sewers or watercourses inform local authorities if this occurs. Take precautions against static discharge. Ensure all equipment is grounded and use non-sparking tools during clean-up operations.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

CONTAINMENT: Contain the spill and absorb with a proprietary absorbent material, sand or earth. CAUTION: The spilled product will be slippery. For large spills prepare a bund/barrier/dyke ahead of the spill to confine the spill and allow later recovery. If there is the possibility of spills to enter drains, surface water, sewers or watercourses ensure bunding, or that drains are covered, to minimise the potential for this to occur.

CLEANING PROCEDURES: Having contained the spill, as mentioned above, collect all material quickly and place used absorbent in suitable containers. CAUTION: The spilled product will be slippery. Follow local regulations for the disposal of waste. For large spills that have been bunded, the material can be pumped into vessels and returned for reprocessing or destruction. Personnel must wear the appropriate clothing as required in Section 6.1 during cleaning procedures; after the environment has been evaluated. Wash contaminated area and objects with detergent and water after spill has been cleared. Rinse the cleaned area with water. Do not allow wash water or rinsing to enter drains, surface water, sewers or water courses.

Section 7 - HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

7.1 PRECAUTIONS FOR SAFE HANDLING:

SAFE HANDLING: Avoid contact with the product by using appropriate protective equipment such as gloves, glasses or goggles and full-length clothing. Prevent small spills and leakage to avoid slip hazards. Properly dispose of any contaminated rags or cleaning materials in order to prevent fire hazards. Eating, drinking, and smoking should be prohibited in the area where this material is handled, stored and processed. Workers should follow good personal hygiene practices, such as washing hands before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Keep containers tightly

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closed when not in use. Please note that flammable mixtures may be formed when residual material remains in empty containers. Prevent product from entering waterways, drains or sewers.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATABILITIES:

SAFE STORAGE: This product is a hydrocarbon based liquid which will burn if preheated. Store in a dry, well ventilated area away from direct sunlight, ignition sources, oxidising agents, foodstuffs and clothing. Keep containers closed when not in use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

INCOMPATIBILITIES: Strong oxidizing substances including strong acids.

Section 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 EXPOSURE CONTROL MEASURES

EXPOSURE LIMIT VALUES: Exposure standards for the product have not been established. However, in the operation of certain equipment or at elevated temperatures, if oil mists or aerosols are generated the following Exposure Standard should be observed:

TWA: 5 mg/m3

STEL: 10 mg/m3 (ACGIH)

- **8.2 BIOLOGICAL MONITORING:** No data available
- **8.3 CONTROL BANDING:** No data available
- **8.4 ENGINEERING CONTROLS:** Special ventilation is not normally required when using this product in normal use scenarios. However, in the operation of certain equipment, at elevated temperatures, or in confined spaces mists or vapour may be generated and local exhaust ventilation should be provided to maintain airborne concentration levels below the nominated exposure standard and at an acceptable level that does not cause irritation.
- 8.5 INDIVIDUAL PROTECTION MEASURES:

EYE & FACE PROTECTION: Wear safety glasses/goggles to avoid eye contact when handling. If there is a risk of splashing during use, a full face shield is recommended. Use eye protection in accordance with AS 1336 and AS 1337.

SKIN (HAND) PROTECTION: If there is the chance of contact with the material wear gloves to provide hand protection. Nitrile rubber gloves are recommended.

SKIN (CLOTHING) PROTECTION: During normal operating procedures, long sleeved clothing is recommended to avoid skin contact. Soiled clothing should be washed with detergent prior to re-use.

RESPIRATORY PROTECTION: During routine operation a respirator is not required. However, if mists or vapours are generated, an approved half face organic vapour/particulate respirator is required. Use respirators in accordance with AS 1715 and AS 1716.

THERMAL PROTECTION: Not Applicable

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 PHYSICAL AND CHEMICAL PROPERTIES:

APPERANCE: Green coloured liquid

ODOUR: Characteristic lubricating oil

ODOUR THRESHOLD: No data available ph: No data available

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MELTING/FREEZING POINT: No data available
INITIAL BOILING POINT: No data available
BOILING RANGE (°C): No data available

FLASH POINT (°C): > 200

DANGER OF EXPLOSION:

EVAPORATION RATE:

FLAMMABILITY LIMITS (%):

VAPOUR PRESSURE (kPa):

VAPOUR DENSITY:

DENSITY (g/mL @ 15 °C):

Not determined

No data available

Typically 0.845

SOLUBILITY IN WATER (g/L): Insoluble

PARTITION COEFFICIENT: No data available for n-octanol/water

AUTO-IGNITION TEMP (°C): No data available DECOMPOSITION TEMP (°C): Not data available

VISCOSITY (cSt @ 40 °C): Typically 19

VISCOSITY (cSt @ 100 °C): No data available

Section 10 - STABILITY AND REACTIVITY

- **10.1 REACTIVITY:** The product does not pose any further reactivity hazards other than those listed in the following sub-sections
- **10.2 CHEMICAL STABILITY:** Stable under recommended storage and handling conditions (see section 7)
- **10.3 POSSIBILITY OF HAZARDOUS REACTION:** Keep away from strong oxidising agents, such as strong acids, chlorates, nitrates and peroxides. Hazardous polymerisation does not occur.
- 10.4 CONDITIONS TO AVOID: Observe the usual precautionary measures for handling chemicals.
 Do not heat the container or leave the container open when not in use. Avoid ignition sources including heat and sparks.
- **10.5 INCOMPATIBLE MATERIALS:** Strong oxidising agents including strong acids.
- 10.6 HAZARDOUS DECOMPOSITION PRODUCTS: Hazardous decomposition products are not expected to form during normal storage requirements. See Section 5.2 for Hazardous Combustion products.

Section 11 - TOXICOLOGICAL INFORMATION

- **11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:** Product is a mixture and toxicological test data is not available for the product as a whole.
- 11.2 ACUTE TOXICITY:

IF SWALLOWED/SKIN/INHALED:

Oral - LD50 (Rat): > 2000mg/kg Dermal - LD50 (Rabbit): > 2000mg/kg

Inhalation - not determined

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IF SWALLOWED: This product may cause slight irritation to the mouth, throat and digestive tract. As the product is hydrocarbon based and the viscosity is low, caution should be taken in respect to aspiration into the lungs. Small amounts of this product aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary oedema. Ingestion of large amounts may lead to nausea and vomiting. During normal usage ingestion should not be a means of exposure.

- **SKIN/CORROSION/IRRITATION:** Prolonged or repeated contact may cause defatting of the skin which may lead to dermatitis. Correct handling procedures incorporating appropriate protective clothing and gloves should minimise the risk of skin irritation. People with preexisting skin conditions, such as dermatitis, should take extreme care so as not to exacerbate the condition.
- **11.4 SERIOUS EYE DAMAGE/IRRITATION:** May cause mild, short lasting discomfort to eyes. Correct handling procedures incorporating appropriate eye protection should minimise the risk of eye irritation.
- **11.5 RESPIRATORY OR SKIN SENSITISATION:** This product is not expected to be a skin sensitiser according to OECD Test 406, based on the available data and the known hazards of the components. This product is not expected to be a respiratory tract sensitiser, based on the available data and the known hazards of the components.
- **11.6 GERM CELL MUTAGENICITY:** This product is not expected to be mutagenic according to tests such as OECD Tests 471, 475, 476, 478 and 479, based on the available data and the known hazards of the components.
- **11.7 CARCINOGENICITY:** The product is not classified as carcinogenic.
- **11.8 REPRODUCTIVE TOXICITY:** This product is not expected to be a reproductive hazard according to tests such as OECD Tests 414 and 421, based on the available data and the known hazards of the components.
- 11.9 SPECIFIC TARGET ORGAN TOXICITY (STOT) SINGLE EXPOSURE: Not expected to be a hazard
- 11.10 SPECIFIC TARGET ORGAN TOXICITY (STOT) REPEATED EXPOSURE: There is no data available for the product as a whole. This product is not expected to cause organ damage from prolonged or repeated exposure according to tests such as OECD Tests 410 and 412, based on the available data and the known hazards of the components.
- **11.11 ASPIRATION HAZARD:** This product is classified as Aspiration Toxicity Cat 1 H304 May be fatal if swallowed and enters airways. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary oedema. This can be fatal. As the product is hydrocarbon based, if the product has been ingested or vomiting has occurred after ingestion, the patient must seek urgent medical attention and should be monitored for adverse effects.
- **11.12 OTHER INFORMATION:** None applicable

Section 12 - ECOLOGICAL INFORMATION

12.1 ECOTOXICITY: There is no data available for the product as a whole. However, some of the components have been classified as toxic to aquatic life with long lasting effects and Toxic to aquatic life with long lasting effects. Based upon these nominated values the product is expected to be Toxic to aquatic life with long lasting effects.

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- **12.2 PERSISTENCE & DEGRADABILITY**: Based on the available data the product is not considered to be readily biodegradable. The major constituents are inherently biodegradable, thus the product is considered to be ultimately biodegradable.
- **12.3 BIOACCUMULATIVE POTENTIAL:** No data available
- **MOBILITY IN SOIL:** The product is non volatile. If the product enters soil, based upon similar products it is expected that it will adsorb onto soil particles and will not be mobile.
- 12.5 OTHER ADVERSE EFFECTS: There is no data available for the product as a whole. Based on the available data and the known hazards of the components and similar products the product is not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential. The product is a mixture of non-volatile components, which are not expected to be released to the air in any significant amounts. The product will float on water.

Section 13 - DISPOSAL CONSIDERATION

13.1 DISPOSAL METHODS:

PRODUCT: The product should not be released to the environment, so any unused material should be recycled wherever possible or be disposed of as hazardous waste at an appropriate collection depot. The product is also suitable for incineration at very high temperatures to prevent formation of undesirable combustion products. Spilled product that cannot be recovered should be absorbed and then shovelled into a suitable waste container, such as a plastic drum and then be treated as a solid waste. Follow Government regulations for disposal of such waste.

CONTAINERS: Empty containers may contain residual product. Containers should be completely drained and then stored until reconditioned or disposed of. Empty containers should be taken for recycling or disposal through suitably licensed contractors in accordance with Government regulations. As containers may contain combustible residues, they should not be pressurised, cut by a grinder, drilled or exposed to heat, flames or other sources of ignition. Closed containers when exposed to such conditions/treatment may explode causing serious injury.

Section 14 - TRANSPORT INFORMATION

14.1 LAND (ADG Code):

14.2

UN NUMBER: Not applicable **UN PROPER SHIPPING NAME:** Not applicable TRANSPORT HAZARD CLASS(ES): Not applicable **PACKAGING GROUP:** Not applicable **LIMITED QUANTITIES:** Not applicable **ENVIRONMENTAL HAZARDS:** Not applicable **SPECIAL PROVISIONS:** Not applicable **HAZCHEM CODE:** Not applicable SEA (IMDG): Not applicable **UN NUMBER:** Not applicable **UN PROPER SHIPPING NAME:** Not applicable TRANSPORT HAZARD CLASS(ES): Not applicable

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14.3

PACKAGING GROUP: Not applicable **ENVIRONMENTAL HAZARDS:** Not applicable **SPECIAL PRECAUTIONS FOR USER:** Not applicable Not applicable AIR (IATA): **UN NUMBER:** Not applicable **UN PROPER SHIPPING NAME:** Not applicable TRANSPORT HAZARD CLASS(ES): Not applicable **PACKAGING GROUP:** Not applicable **ENVIRONMENTAL HAZARDS:** Not applicable **SPECIAL PRECAUTIONS FOR USER:** Not applicable

Section 15 - REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS:

APPLICABLE REGULATONS:

SUSMP: Not Scheduled

AICS: All ingredients are listed in the AICS list

MONTREAL PROTOCOL:

STOCKHOLM CONVENTION:

ROTTERDAM CONVENTION:

Not determined

Not determined

Not determined

INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS

(MARPOL): Not determined

OTHER REGULATORY INFORMATION:

GHS CLASSIFICATION HAZARD CLASS & CATEGORY AND HAZARD STATEMENT:

Aspiration Toxicity Cat.1 H304 May be fatal if swallowed and enters airway Chronic aquatic toxicity Cat.2 H411 Toxic to aquatic life with long lasting effects

HSNO APPROVAL NUMBER: HSR002605

HSNO GROUP TITLE: Lubricants (Low Hazard) Group Standard, 2006

Section 16 - ANY OTHER RELEVANT INFORMATION

16.1 SDS INFORMATION:

16.2 Date of SDS Preparation: 16th August 2016

16.3 REVISION CHANGES: Update Aust/NZ address details (Sect.1), Rev 0.2

16.4 ACRONYMS:

SUSMP Standard for the Uniform Scheduling of Medicines and Poisons

CAS Number Chemical Abstract Service Registry Number

EINECS European Inventory of Existing Commercial Chemical Substances

UN Number United Nations Number

OSHA Occupational Safety and Health Administration

ACGIH American Conference of Governmental Industrial Hygienists

IMDG International Maritime Dangerous Goods

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IATA International Air Transport Association

IUCLID International Uniform Chemical Information Database

RTECS Registry of Toxic Effects of Chemical Substances

% W/W Percent weight for weight

OECD Organisation for Economic Co-Operation and Development

ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail

HAZCHEM Code Emergency action code of numbers and letters which gives information to emergency

services

NOHSC National Occupational Health and Safety Commission

AICS Australian Inventory of Chemical Substances

TWA Time – Weighted Average STEL Short term Exposure Limit

HSNO Hazardous Substances and New Organisms Act 1996

GHS Globally Harmonised System of Classification and Labelling of Chemicals

WHS Work Health and Safety

PPE Personal Protective Equipment

All information contained in this Safety Data Sheet and the health, safety and environmental information are considered to be accurate to the best of our knowledge as of the issue date specified above. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the data and information contained in this data sheet. Health and safety precautions and environmental advice noted in this data sheet may not be accurate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The Company accepts no responsibility for any injury, loss or damage, resulting from abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.