



# MATERIAL SAFETY DATA SHEET

## SECTION 1 – IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** PM324 HYDRAULIFE AW HYDRAULIC OIL  
ISO GRADES 46 68 100

**Product Code:** 324

**Product Use:** Hydraulic Oil

**Supplier:** PM Lubrication (ABN 95 880 856 055)  
4/105 Archibald Street, Mackay  
Queensland, 4740 Australia  
Phone: +61 (07) 4998 5851

### EMERGENCY

**TELEPHONE NUMBER:** 1800 033 111 (Australia)

**Chemical Nature:** Petroleum-derived severely refined mineral-base product, in which the polycyclic aromatic hydrocarbons (PCA or PAH) content, measured by IP 346 is less than 3%.

**Creation Date:** Feb. 2016

**This version issued:** Feb. 2021 and is valid for 5 years from this date

## SECTION 2 – HAZARDS IDENTIFICATION

### Statement of Hazardous Nature

This product is classified as: Not classified as Hazardous according to the criteria of SWA. Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Code.

**Risk Phrases:** Not Hazardous – No criteria found.

**Safety Phrases:** S23, S24/25. Do not breathe mists. Avoid contact with skin and eyes.

**SUSMP Classification:** None allocated.

**ADG Classification:** None allocated. Not a Dangerous Good under the ADG Code.

**UN Number:** None allocated

## EMERGENCY OVERVIEW

**Physical Description & Colour:** Red liquid.

**Odour:** Characteristic odour.

**Major Health Hazards:** No significant risk factors have been found for this product.

## POTENTIAL HEALTH EFFECTS

### Inhalation:

**Short Term Exposure:** Available data indicates that this product is not harmful, however, product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term inhalation.

### Skin Contact:

**Short Term Exposure:** Available data indicates that this product is not harmful. It should present no hazards in normal use. In addition, product is unlikely to cause any discomfort in normal use.

**Long Term Exposure:** No data for health effects associated with long term skin exposure.

**POTENTIAL HEALTH EFFECTS (CONT.)****Eye Contact:**

**Short Term Exposure:** This product may be irritating to eyes, but is unlikely to cause anything more than mild transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term eye exposure.

**Ingestion:**

**Short Term Exposure:** Significant oral exposure is considered to be unlikely. This product, while believed to be not harmful, is likely to cause headache and gastric disturbance such as nausea and vomiting if ingested in significant quantities. This product is unlikely to cause any irritation problems in the short or long term.

**Long Term Exposure:** No data for health effects associated with long term ingestion.

**Carcinogen Status:**

**SWA:** No significant ingredient is classified as carcinogenic by SWA

**NTP:** No significant ingredient is classified as carcinogenic by NTP

**IARC:** No significant ingredient is classified as carcinogenic by IARC

**SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Ingredients</b>	<b>CAS No</b>	<b>Conc,%</b>	<b>TWA (mg/m<sup>3</sup>)</b>	<b>STEL (mg/m<sup>3</sup>)</b>
Mineral Oil	8042-47-5	>90	5 (mist)	not set
Zinc alkyl dithiophosphate	68649-42-3	<0.86	not set	not set

This is a commercial product whose exact ratio of components may vary slightly.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

**SECTION 4 – FIRST AID MEASURES****General Information:**

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia, available at all times. Have this MSDS with you when you call.

**Inhalation:** No first aid measures normally required, however, if inhalation has occurred and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists for more than about 30 minutes, seek medical advice.

**Skin Contact:** Gently blot away excess liquid. Irritation is unlikely, however if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

#### **SECTION 4 – FIRST AID MEASURES (CONT.)**

**Eye Contact:** Quickly and gently blot material from eyes. No effects expected, however if irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If product is swallowed or gets in mouth, do **NOT** induce vomiting. Wash mouth with water and give some water to drink. If symptoms develop, or if in doubt, contact the Poisons Information Centre or a doctor.

#### **SECTION 5 – FIRE FIGHTING MEASURES**

**Fire and Explosion Hazards:** This product is classified as a C2 combustible product. There is little risk of an explosion from this product if commercial quantities are involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures. Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

**Extinguishing Media:** Suitable extinguishing media are carbon dioxide, dry chemical, foam, water fog.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade.

**Flash Point:** 235°C, ASTM D92

**Upper Flammability Limit:** No data

**Lower Flammability Limit:** No data

**Autoignition Temperature:** >250°C ASTM E 659-78. This temperature may be significantly lower under particular conditions (slow oxidation on finely divided materials.)

**Flammability Class:** C2

#### **SECTION 6 – ACCIDENTAL RELEASE MEASURES**

**Accidental Release:** Minor spills do not normally need any special clean-up measures. In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the clean-up area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product, however, if you have any doubts consult the Australian Standard mentioned below (Section 8), otherwise, not normally necessary. Stop leak if safe to do so and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES (CONT.)**

**Accidental Release (Cont.):** If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage and dispose of promptly. After spills, wash area preventing run-off from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

**SECTION 7 – HANDLING AND STORAGE**

**Handling:** Keep exposure to this product to a minimum and minimize the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures and make sure that those measures are followed. The measures detailed below under “Storage” should be followed during handling in order to minimize risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** Note that this product is combustible and therefore, for Storage, ensure it meets the definition of Dangerous Goods in some states. If you store large quantities (tonnes) of such products, we suggest that you consult your state’s Dangerous Goods Authority in order to clarify your obligations regarding their storage.

Store packages of this product in a cool place. Make sure that containers of this product are kept tightly closed. Keep containers of this product in a well-ventilated area. Make sure that the product does not come into contact with substances listed under “Incompatibilities” in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging – there may be further storage instructions on the label.

**SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION**

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: **AS/NZS 4501** Set 2008, Industrial Eye Protection: **AS 1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS 2210**.

<b>SWA Exposure Limits</b>	<b>TWA (mg/m3)</b>	<b>STEL (mg/m3)</b>
Mineral Oil	5 (mist)	not set

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** This product should only be used in a well-ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION (CONT.)**

**Eye Protection:** Eye protection such as protective glasses or goggles is recommended when this product is being used.

**Skin Protection:** The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary, however, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: rubber, PVC.

**Respirator:** Usually no respirator is necessary when using this product, however, if you have any doubts, consult the Australian Standard mention above. Otherwise, not normally necessary.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical Description &amp; Colour:</b>	Red liquid
<b>Odour:</b>	Characteristic odour
<b>Boiling Point:</b>	Not available
<b>Freezing/Melting Point:</b>	No specific data
<b>Volatiles:</b>	No data
<b>Vapour Pressure:</b>	No data
<b>Vapour Density:</b>	No data
<b>Specific Gravity:</b>	0.875 at 15°C – ISO 46, 0.880 ISO 68, 0.884 ISO 100
<b>Water Solubility:</b>	Insoluble
<b>pH:</b>	No data
<b>Volatility:</b>	No data
<b>Odour Threshold:</b>	No data
<b>Evaporation Rate:</b>	No data
<b>Coeff Oil/Water Distribution:</b>	No data
<b>Viscosity:</b>	Approx. 8.5 mm <sup>2</sup> /sec at 100°C
<b>Autoignition Temp.</b>	>250°C

**SECTION 10 – STABILITY AND REACTIVITY**

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions, however, if you have any doubts, contact the Supplier for advice on shelf-life properties.

**Conditions to Avoid:** This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Keep containers and surrounding areas well ventilated.

**Incompatibilities:** Strong oxidizing agents.

**Fire Decomposition:** Combustion forms carbon dioxide and if incomplete, carbon monoxide and smoke. Water is also formed. May form nitrogen and its compounds and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. May form oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. May form oxides of phosphorus and other phosphorus compounds. Small quantities of zinc and calcium compounds. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgement and unconsciousness, followed by coma and death.

**Polymerisation:** Polymerisation reactions are unlikely; they are not expected to occur.

## **SECTION 11 – TOXICOLOGICAL INFORMATION**

### **Local Effects:**

There is no data to hand indicating any particular target organs

### **Target Organs:**

#### CLASSIFICATION OF HAZARDOUS INGREDIENTS

#### **Ingredient**

#### **Risk Phrases**

No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.

**Inhalation:** Not classified. Inhalation of vapours or aerosols in high concentration may cause irritation of respiratory system.

**Ingestion:** Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

**Skin contact:** Risk is unlikely under normal conditions of use.

**Sensitization:** No data.

**Carcinogenicity:** During use in engines, contamination of oil with low levels of combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

## **SECTION 12 – ECOLOGICAL INFORMATION**

### **Mobility:**

- **Air:** Loss by evaporation is limited.
- **Soil:** Given its physical and chemical characteristics, the product generally shows low soil mobility
- **Water:** Insoluble. The product spreads on the surface of water.

### **Zinc alkyl dithiophosphate**

EC<sub>50</sub> Daphnia magna (48h) 1 – 1.5 mg/L

LC<sub>50</sub> Pimephales promelas (static) (96h) 1.0 – 5.0 mg/L

LC<sub>50</sub> Pimephales promelas (semi-static) (96h) 10.0 – 35.0 mg/L

## **SECTION 13 – DISPOSAL CONSIDERATIONS**

**Disposal:** This product may be recycled if unused or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. If neither of these options is suitable, consider controlled incineration or landfill

### **SECTION 14 – TRANSPORT INFORMATION**

**ADG Code:** This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations

### **SECTION 15 – REGULATORY INFORMATION**

**AICS Code:** All of the significant ingredients in this formulation are compliant with NICNAS regulations.

### **SECTION 16 – OTHER INFORMATION**

**This MSDS contains only safety related information. For other data see product literature.**

#### **Acronyms:**

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 <sup>th</sup> edition)
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>SWA</b>	Safe Work Australia, formerly ASCC & NOHSC
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Code</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>IARC</b>	International Agency for Research on Cancer
<b>NOS</b>	Not otherwise specified
<b>NTP</b>	National Toxicology Program (USA)
<b>R-Phrase</b>	Risk Phrase
<b>SUSMP</b>	Standard for the Uniform Scheduling of Medicines & Poisons
<b>UN Number</b>	United Nations Number

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