



Material Safety Data Sheet

ENERPAC HYDRAULIC OIL

Issue Date November 2005

Not classified as hazardous according to criteria of NOHSC

COMPANY DETAILS

Company Name Actuant Australia Ltd (ABN 14 008 462 271)
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IDENTIFICATION

Product Code HF105L, HF102L & HF104L
Product Name Enerpac Hydraulic Oil
Proper Shipping Name None Allocated
Other Names None Listed
UN Number None Allocated
DG Class None Allocated
Packing Group None Allocated
Hazchem Code None Allocated
Poisons Schedule Not Scheduled
Product Use Hydraulic oil.

Physical Data

Appearance Clear Blue Liquid.
Boiling Point > 316°C
Vapour Pressure < 0.1 mmHg @ 25°C
Specific Gravity 0.85 - 0.89 @ 15°C/typical
Flash Point 180°C/typical
Flamm. Limit LEL Not applicable
Explosion Data Not applicable

Other Properties

Volatile Component None
Viscosity 28.8 - 35.3 cSt
Other Information Coefficient of Volumetric Thermal Expansion: $6.7 \times 10^{-4}/^{\circ}\text{C}$

Ingredients

Ingredients	Name	CAS	Proportion
	Refined mineral oil	N\Alloc.	60-100 %
	Additives and/or other ingredients	Mixture	0-10 %



CONTACT POINT

User Information

Issue Date: 01/11/2005. Supercedes Issue Date: March 2003

Reason(s) for issue: Product Update

Safety data sheets are updated frequently. Please ensure that you have a current copy.

Contact

Actuant Australia Ltd (02) 9743 8988

This data sheet and the health, safety and environmental information it contains is considered to be accurate as of the date specified above. We have reviewed any information contained herein which we received from sources outside Enerpac and the Actuant Corp. However, no warranty or representation, express 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.

No statement made in this data sheet shall be construed as a permission, recommendation or authorization given or implied to practice any patented invention without a valid license. Enerpac and the Actuant Corp. shall not be responsible for any damage or injury 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.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

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End of MSDS

ENERPAC

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Wash contaminated clothing and protective equipment before storing/re-using.

Avoid carrying contaminated rags in pockets or wearing of soaked clothing.

If risk of inhalation of spray mist exists, wear combined organic vapour/particulate respirator meeting the requirements of AS1715 and AS1716.

If using a respirator ensure that the cartridges are correct for the potential air contamination and are in good working order.

Flammability

Fire Hazards

Will burn if involved in a fire.

SAFE HANDLING INFORMATION

Storage and Transport

Storage and Transport

Store in cool place and out of direct sunlight. Protect containers against physical damage and check regularly for leaks.
Do not store in open or unlabelled containers. Store away from oxidizing agents or combustible material.

Proper Shipping Name

None Allocated

Spills and Disposal

Spills & Disposal

Contain - prevent contamination of drains and waterways.
Use absorbent (soil or sand, sawdust, inert material, vermiculite).
Collect and seal in properly labelled drums for disposal.
Dispose of waste as per Local, State and Federal Land Waste Management Authorities.

Fire/Explosion Hazard

Fire/Explos. Hazard

Extinguish fire with the following: Use CO₂, dry chemical or foam. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition. On burning will emit toxic fumes of carbon monoxide, acrid smoke and carbon dioxide.

Hazardous Reaction Hazchem Code

Store away from strong oxidizing or combustible materials.
None Allocated

OTHER INFORMATION

Toxicology

No adverse effects expected if this product is used in accordance with this Safety Data Sheet.

Environment Protection

Non-biodegradable. Avoid contaminating waterways.
* For mineral oil: Acute LC/EC50 Fish - Juvenile Rainbow Trout
- Practically non-toxic. Based on testing with similar products.

Pkg. & Labelling References

Not regulated
Commonwealth of Australia, 'Australian Code for the Transport of Dangerous Goods by Road and Rail' AGPS (1998) 6th edition





HEALTH HAZARD INFORMATION

Health Effects

Acute - Swallowed	May be harmful if swallowed. Ingestion can result in diarrhoea.
Acute - Eye	May cause slight eye irritation.
Acute - Skin	Contact with skin may result in irritation if exposure is prolonged.
Acute - Inhaled	Not normally a hazard due to the non-volatile nature of the product. Inhalation of oil mist may cause irritation to the upper respiratory system. Inhalation hazard is increased at higher temperatures.
Chronic	Repeated or prolonged skin contact can result in Irritation and in severe cases dermatitis.

First Aid

Swallowed	DO NOT induce vomiting. Rinse mouth thoroughly with water immediately. Give water to drink and seek immediate medical assistance.
Eye	Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. In all cases of eye contamination it is a sensible precaution to seek medical assistance. Transport to hospital or medical centre.
Skin	Wash with plenty of soap and water. Seek medical advice if effects persist.
Inhaled	Remove victim from exposure - avoid becoming a casualty. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. For all but the most minor symptoms arrange for patient to be seen by a doctor as soon as possible - either on site or at the nearest hospital.
First Aid Facilities	Normal washroom facilities.

Advice to Doctor

Advice to Doctor	Treat symptomatically.
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Other Health Hazard Information

PRECAUTIONS FOR USE

Exposure Limits	No value assigned for this specific material by the National Occupational Health and Safety Commission (NSA). Maintain exposure to a minimum. For oil mist, mineral: TLV TWA: 5mg/m ³ ; STEL 10mg/m ³
Eng. Controls	Maintain concentration below recommended exposure limit. If risk of overexposure exists, wear SAA approved respirator.
Other Information	Observe standard safety precautions and good work practices. Do not continue to use contaminated clothing

Personal Protection

Protective Equip.	Overalls, safety glasses and impervious gloves, eg. PVC. Avoid skin and eye contact, and inhalation of mists/aerosols.
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