

MATERIAL SAFETY DATA SHEET
(NON-HAZARDOUS/NON-DG)

Product name: Nomad Hydrus AW series

1. COMPANY DETAILS AND PRODUCT IDENTIFICATION

COMPANY: Nomad Lubricants LLC

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PRODUCT NAME: Nomad Hydrus AW series

USE: Mineral oil based hydraulic fluid

ADDITIONAL INFORMATION: Refer to the Product Information Sheet for additional information.

OTHER INFORMATION: Visit our website.
www.nomad-lubricants.com
Email: info@nomad-lubricants.com

2. HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION: NON-HAZARDOUS SUBSTANCE NON-DANGEROUS GOODS
Hazard classification according to criteria of NOHSC.
Dangerous goods classification according to Australian Dangerous Goods Code.

RISK PHRASE (S):

IRRITANCY OF PRODUCT: Not classified as an irritant.

SENSITISATION OF PRODUCT: Not known to be a sensitiser.

TERATOGENICITY: No teratogenic effects known.

OTHER INFORMATION: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and environment on disposal. All used oils should be handled with caution and skin contact avoided as far as possible.

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3. IDENTIFICATION / COMPOSITION OF INGREDIENTS

CHEMICAL CHARACTERISTICS: Liquid

INGREDIENTS:-

CHEMICAL ENTITY:	CAS No.	PROPORTION
Mineral Oil	64742-65-0	> 90%
Ingredients determined not to be hazardous	Mixture	To 100%

OTHER INFORMATION: The petroleum oils in this product contain less than 3% DMSO extract as measured by IP 346 test method.

4. FIRST AID MEASURES

HEALTH EFFECTS

SWALLOWED: If a large quantity is ingested seek immediate medical attention. Give water to drink. DO NOT induce vomiting. If vomiting occurs get immediate medical attention due to aspiration into lungs risk.

EYE: Immediately irrigate with copious amounts 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 advice.

SKIN: Remove contaminated clothing and wash skin thoroughly with plenty of soap and water. High pressure injection through the skin requires **URGENT** medical attention for possible incision, irrigation and/or debridement. Contact with molten material will require treatment by a physician for burns (Do not remove material).

INHALED: Remove victim from exposure to fresh air – avoid becoming a casualty. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through face mask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage and seek urgent medical aid.

FIRST AID FACILITIES: Normal washroom facilities are generally suitable. Ensure an eye wash station and safety shower is available and ready for use.

ADVICE TO DOCTOR: Treat symptomatically.

OTHER INFORMATION: Keep water and mild soap near work site.

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5. FIRE FIGHTING MEASURES

FIRE/EXPLOSION HAZARD

HAZARDS OF USE/STORAGE:

Product is a C2 combustible liquid according to AS 1940. This product is combustible if preheated.

HAZARDS FROM COMBUSTION PRODUCTS:

Combustion products may include: oxides of carbon, nitrogen and sulphur, a complex mixture of airborne unidentified organic and inorganic solid and liquid particulates.

FIRE-FIGHTING RECOMMENDATIONS:

If safe to do so, remove containers from path of fire. Keep storage tanks, pipelines, containers, fire exposed surfaces, etc. cool with water spray. Avoid spreading liquid and fire by water flooding.

PRECAUTION:

Water may cause splattering.

SUITABLE EXTINGUISHING MEDIA:

Use foam, carbon dioxide or dry chemical.

PROTECTIVE MEASURES:

Fire fighters should wear self-contained breathing apparatus if risk of exposure to products of combustion.

REACTIVITY:

May react with strong oxidising agents.

6. ACCIDENTAL RELEASE MEASURES

SPILLS & DISPOSAL:

Slippery when spilt. Avoid accidents, clean up immediately.

CLEAN-UP PROCEDURE - SMALL SPILLS (20L or less): Absorb or contain liquid with sand, earth or spill control material. Shovel up using non-sparking tools and place in a sound labelled sealable container for subsequent safe disposal. Place leaking containers in a sound labelled drum. Scrub contaminated surfaces with detergent solution. Retain washings as contaminated waste.
CLEAN-UP PROCEDURES - LARGE SPILLS (Greater than 20L): Transfer to a sound labelled, sealable container for product recovery or safe disposal. Treat residues as for small spills.

PERSONAL PRECAUTIONS: Extinguish naked flames. Remove ignition sources. No smoking. Avoid sparks. Take precautionary measures against static discharges. Avoid contact with skin, eyes and clothing. Evacuate the area of non-essential personnel. Shut off leaks, if possible without personal risk. Do not breathe vapours. Ventilate contaminated area thoroughly. Dispose of according to local regulations.

OTHER INFORMATION:

PROCEDURES IN CASES OF LEAKAGE OR BREAKAGE: Stop the source of the leak or release and contain spill if possible. Ventilate area. Use respirator and protective clothing outlined in this MSDS. Cover spill with inert absorbent earth. Use a stiff brush to mix thoroughly. Sweep up and place in a sound labelled disposable container. Scrub contaminated area with detergent and

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water using a stiff brush. Pick up liquid with additional absorbent material and place in a sound labelled disposable container. Prevent contamination of groundwater or surface water.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:	When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Prevent spillages. Ensure the appropriate personal protective equipment is used when handling this product. Ensure high level of personal hygiene is maintained when using this product. That is, always wash hands before eating, drinking, smoking or using the toilet.
SAFE STORAGE CONDITIONS:	Keep containers closed at all times. Store in a cool place out of direct sunlight. Store away from oxidising agents. Check containers regularly for leaks.
CORROSIVENESS:	Not corrosive.
STORAGE REGULATIONS:	Store in a well-ventilated place away from ignition sources, oxidising agents, foodstuffs and clothing. Keep containers closed when not in use. Refer to AS 1940 – The Storage and Handling of Flammable Liquids, and NOHSC: 1015 – National Standard for Storage and Handling of Workplace Dangerous Goods for further information.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

NATIONAL EXPOSURE STANDARDS:	No exposure standard has been established for this product. NOHSC Exposure Standard: Oil mists – time weighted average (TWA) 5 mg/m ³ is recommended.
OTHER EXPOSURE INFORMATION:	Exposure Standard means the average concentration of a particular substance. in the worker's breathing zone, exposure to which, according to current knowledge, should not cause adverse health effects nor cause undue discomfort to nearly all workers. It can be of three forms: time-weighted average (TWA), peak limitation, or short-term exposure limit (STEL).
ENGINEERING CONTROLS:	Maintain concentration below recommended exposure limit. Special ventilation is not normally required. However, in the operation of certain equipment or at elevated temperatures mists or vapour may be generated and localized exhaust ventilation should be provided to maintain airborne concentration levels below the exposure standard or the Manufacturer's recommended exposure standard.

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RESPIRATORY PROTECTION: A respirator is not normally required. Airborne concentrations should be kept at the lowest level possible. If vapours, mists or dusts are generated and the recommended exposure limit for the product is exceeded, use appropriate AS/NZS 1715/1716 approved half –face filter respirator suitable for organic vapours or air supplied respirator are worn. Air supplied respirators should always be worn when the airborne concentration of the contaminant or the oxygen content of the air is unknown.

EYE PROTECTION: Safety glasses, goggles or face shield as appropriate.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION (CONT)

HAND PROTECTION: PVC gloves.

FOOTWEAR: Enclosed footwear.

BODY PROTECTION: Overalls or similar protective apparel.

HYGIENE MEASURES: Always wash hands before eating, drinking, smoking or using the toilet. If contamination occurs, change clothing. Launder contaminated clothing before reuse. Discard internally contaminated gloves.

SPECIAL PROTECTIVE MEASURES: The product will not burn unless preheated. Isolate from sources of heat, naked flames or sparks.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid

APPEARANCE: Clear and bright liquid.

ODOUR: Mild MELTING

POINT: Less than 0°C

BOILING POINT: Greater than 300°C

DENSITY @ 15°C (kg/L): 0.87 typical

FLASHPOINT (ASTM D-93), Closed Cup: >150°C

FLAMMABILITY LIMITS -LOWER: Approximately 1.5%

FLAMMABILITY LIMITS -UPPER: Approximately 6.0%

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FLAMMABILITY:	Combustible Liquid C2 according to AS 1940.
SOLUBILITY IN WATER:	Not soluble.
SOLUBILITY IN ORGANIC SOLVENTS:	Soluble in petroleum solvents.
VAPOUR PRESSURE:	Less than 0.1 kPa
VAPOUR DENSITY (Air = 1):	Greater than 2.0
VISCOSITY @ 40 °C (mm ² /s):	Approximately 46

9. PHYSICAL AND CHEMICAL PROPERTIES (CONT)

EVAPORATION RATE:	Less than 1 (n-butyl acetate = 1)
AUTO-IGNITION TEMPERATURE:	Greater than 250°C
EXPLOSION PROPERTIES:	Not considered an explosion risk under normal conditions of use.
OTHER INFORMATION:	These physical data and other properties do not constitute a specification.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Stable under normal conditions of use.
CONDITIONS TO AVOID:	Heat, direct sunlight, open flames or other sources of ignition.
INCOMPATIBLE MATERIALS:	Strong oxidizing agents.
HAZARDOUS REACTIONS:	Will react with strong oxidizing agents.
HAZARDOUS POLYMERIZATION:	Will not occur.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGY INFORMATION:	This product contains petroleum base oils, which may be refined by various processes including severe solvent extraction, hydro cracking and hydro treating.
INHALATION:	Inhalation of mists or aerosols can produce respiratory irritation. INGESTION: May cause mild irritation of the mouth, throat and stomach with nausea and mild diarrhoea. Large amounts can cause vomiting which can lead to aspiration of vomited material into the lungs.

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SKIN:	Will have a de-fatting effect on the skin. Contact with skin may result in irritation.
EYE:	May cause watering of eyes.
REPRODUCTIVE TOXICITY:	This product contains small amounts of para-dodecylphenol. Rats when given high, repeated daily doses by oral intubation experienced adverse reproductive effects. The relevance of these effects to humans is uncertain.
CHRONIC EFFECTS:	Prolonged or repeated exposure may result in irritation, with the possibility of dermatitis.
MUTAGENICITY:	Mutagenic effects not known.
CARCINOGENICITY:	Product is not a known carcinogen.

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:	Leaching and penetration through soils is generally regarded as resulting in long-term persistence. Fresh or used products may be harmful to aquatic life. Do not allow material to enter drains or watercourses.
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13. DISPOSAL CONSIDERATIONS

DISPOSAL CONSIDERATIONS:	Dispose of according to country regulations.
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14. TRANSPORT INFORMATION

TRANSPORT INFORMATION:	Not classified as a Dangerous Good
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15. REGULATORY INFORMATION

POISON SCHEDULE:	Not scheduled.
PACKING & LABELLING:	No special packaging or labelling requirements.
AUSTRALIAN INVENTORY STATUS:	All components are listed or exempted.

END OF MSDS