

# MATERIAL SAFETY DATA SHEET

## SECTION 1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: Hydro-Balance Mineral Refrigeration Oil #4

Date Prepared May 15, 2009

Product Number(s): H-2401, H-2405, H-2455

Replaces Feb. 28, 2007

Product Use: Compressor lubricant

Company Name: North American Research Corporation  
P.O. Box 1318  
Lewisville, TX 75067

Telephone Numbers: (972) 492-1800, (800) 527-7520, Fax (972) 394-6755

Emergencies: Infotrac (800) 535-5053 (24 hours, everyday)

## SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

	CAS Registry No.	OSHA PEL	ACGIH TLV	Other Limits	% (Optional)
Naphthenic Petroleum Oil	64742-44-5	5 mg/m <sup>3</sup> (oil mist)	5 mg/m <sup>3</sup> (oil mist)	None	100

## SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Not expected to cause a severe emergency hazard. Use of adequate ventilation will avoid aspiration of oil mists. Wash skin after contact; prolonged contact with any oils can cause irritation in some individuals.

### POTENTIAL HEALTH EFFECTS

PRIMARY ROUTE(S) OF ENTRY: Skin

INHALATION: No acute effects are expected in normal use.

SKIN: No significant adverse health effects are expected to occur upon short-term exposure.

EYES: Tests on similar materials suggest that no eye effect be expected.

INGESTION: No significant adverse health effects expected. Practically non-toxic.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Personnel with pre-existing skin disorders should avoid contact with this product

CHRONIC EFFECTS: Prolonged and/or repeated contact with this material may produce irritation and inflammation.

Not listed as a carcinogen by NTP, IARC, OSHA, or ACGIH.

This product does not require a cancer hazard warning in accordance with the OSHA Hazard Communication Standard.

## SECTION 4 FIRST AID MEASURES

INHALATION: Not likely to occur except as mist. Remove patient to fresh air and consult a physician. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.

SKIN: Remove contaminated clothing and shoes. Thoroughly wash contact area with soap and water. Get medical attention if irritation or rash develops. Wash clothing before reuse.

EYES: Immediately flush eyes with large amounts of water for at least 15 minutes while frequently lifting the upper and lower eyelids. If irritation persists, call a physician.

INGESTION: Product is practically non-toxic. DO NOT induce vomiting. Contact a physician or emergency medical facility immediately.

## SECTION 5 FIRE-FIGHTING MEASURES

FLASHPOINT: &gt;350°F (177°C) METHOD: COC ASTM D92 LEL: Not determined UEL: Not determined

FLAMMABILITY CLASS: IIIB

AUTOIGNITION TEMP: &gt;650°F (343°C)

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, water fog and foam. NOTE: Water fog and foam may cause frothing and spattering

HAZARDOUS COMBUSTION PRODUCTS: Fumes, smoke, and carbon monoxide.

### FIRE FIGHTING INSTRUCTIONS

Use flooding quantities of water as fog or spray to keep fire-exposed containers cool. Firefighters should wear self-contained breathing apparatus.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

Shut off ignition sources. Contain spill and keep from entering waterways or sewers. Use personal protective equipment. Absorb with inert material. Shovel, sweep, or vacuum spill.

## SECTION 7 STORAGE AND HANDLING

### STORAGE CONDITIONS:

Store in labeled, sealed containers in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Do not remove or deface label. Prevent water or moist air from entering containers. Do not reuse containers.

**HANDLING PROCEDURES:**

Wash hands before eating, drinking, or using the restroom. Any clothing or shoes which become contaminated should be removed immediately and thoroughly washed before wearing again.

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**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

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EXPOSURE LIMITS: See section 2.

RESPIRATORY PROTECTION: Normally not required. If used where mist may occur at high levels, use NIOSH/MSHA approved apparatus.

EYE PROTECTION: Wear safety glasses. Have suitable eyewash water available.

SKIN PROTECTION: Avoid prolonged and/or repeated contact. If prolonged contact cannot be avoided, wear protective impervious gloves and clothing. Acceptable materials for gloves are PVC, Neoprene, Nitrile, Polyvinyl Alcohol, or Viton.

ENGINEERING CONTROLS (Ventilation): Use adequate ventilation to keep oil mist below 5 mg/m<sup>3</sup>.

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**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

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APPEARANCE AND ODOR: Clear, pale, straw-colored liquid; light bland petroleum odor.

SPECIFIC GRAVITY: 0.91

VAPOR PRESSURE: <0.001 mm Hg @ 20°C/68°F

MOLECULAR WEIGHT: 381.00

MELTING POINT: -30°F (-34°C) D97

VAPOR DENSITY: >5 (Air = 1)

SOLUBILITY IN WATER: Negligible

pH: Not applicable

BOILING POINT: >500°F (260°C) D86

VISCOSITY: 300 SUS @ 100°F

VOLATILES, % BY VOLUME: nil

EVAPORATION RATE: 1000X slower than ethyl ether

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**SECTION 10 STABILITY AND REACTIVITY**

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STABILITY: Stable

CONDITIONS TO AVOID: Ignition sources (sparks, open flame, heated surfaces).

INCOMPATIBILITY (Materials to Avoid): Strong oxidizers.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion may produce carbon monoxide and other asphyxiants.

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**SECTION 11 TOXICOLOGICAL INFORMATION**

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ACUTE TOXICITY: Minimal irritation on contact.

CHRONIC TOXICITY: This product has not been found to be carcinogenic or a potential carcinogen. It is not listed by NTP, IARC, OSHA, or ACGIH. Nevertheless, good industrial hygienic practices are recommended.

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**SECTION 12 ECOLOGICAL INFORMATION**

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No specific data are available.

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**SECTION 13 DISPOSAL CONSIDERATIONS**

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Dispose of in accordance with federal, state, and local regulations. Not an RCRA hazardous waste if uncontaminated. If used, RCRA criteria must be determined.

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**SECTION 14 TRANSPORT INFORMATION**

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U.S. Department of Transportation:

Not regulated

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**SECTION 15 REGULATORY INFORMATION**

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TSCA: All components of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA: No reportable ingredients

SARA TITLE III:

Section 311/312 Hazard Category: Acute: Yes      Chronic: No      Fire: No      Pressure: No      Reactive Hazard: No

Section 313 Reportable Ingredients: None

CALIFORNIA (Proposition 65): No reportable ingredients.

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**SECTION 16 OTHER INFORMATION**

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NFPA RATING: Health – 0, Flammability – 1, Reactivity – 0

HMIS® RATING: Health – 0, Flammability – 1, Reactivity – 0

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