

MATERIAL SAFETY DATA SHEET

PETROFERM INC.

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CHEMTREC 24-HOUR EMERGENCY RESPONSE

TOLL FREE NUMBER: (800) 424-9300

INTERNATIONAL CALLS: COLLECT (703) 527-3887

CHEMTREC should only be contacted in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals.

1. PRODUCT NAME

AXAREL® 4100

2. COMPOSITION AND INFORMATION ON INGREDIENTS

| | CAS Number | Weight % | OSHA PEL | ACGIH TLV |
|---|------------|----------|----------|-----------|
| Isoparaffinic hydrocarbon (C ₉₋₁₂ isoalkanes) | 90622-57-4 | 88 - 93 | Not est. | Not est. |
| 1-Propoxy-2-propanol | 1569-01-3 | 7-12 | Not est. | Not est. |

3. HAZARDS IDENTIFICATION

SYMPTOMS/EFFECTS OF OVEREXPOSURE

Inhalation: May cause irritation of the upper respiratory passages with coughing and shortness of breath.

Ingestion: May cause severe irritation of the gastrointestinal tract with nausea, vomiting, abdominal cramps, and diarrhea.

Skin: Contact of several hours may cause mild to moderate local redness and swelling.

Eyes: Liquid or vapor contact may cause eye irritation with tearing or blurring of vision.

Listed Carcinogens: None.

4. FIRST AID MEASURES

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.

Ingestion: Do not induce vomiting; seek medical attention.

Skin: Remove contaminated clothing. Thoroughly wash affected area with soap and water; use skin cream if irritation is severe.

Eyes: Immediately flush eyes with water for 15 minutes. Call a physician if irritation persists.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Dry chemical, chemical foam, carbon dioxide. Class BC, ABC fire extinguisher.

Special Fire Fighting Procedures: Self-contained positive pressure breathing apparatus and protective clothing should be worn in fighting fires involving chemicals.

Unusual Fire and Explosions Hazards: None known.

6. ACCIDENTAL RELEASE MEASURES

Absorb spill with inert material, then place in chemical waste container. For large spills, dike for later disposal. Observe government regulations.

* Registered trademark of Petroferm Inc.

7. HANDLING AND STORAGE

Store in original container, preferably in a cool, ventilated, fire-resistant building. Avoid overheating or freezing. Since empty containers may retain product residues (vapor, liquid, or solid) all label precautions must be observed.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

- Respiratory:** Use NIOSH/MSHA approved respirator if ventilation is not sufficient and if mists are generated.
- Ventilation:** If desirable to reduce odor, mechanical (general) ventilation should have an airflow of 55 CFM or greater. Local exhaust can also be effective in minimizing odor.
- Clothing/Glove:** Chemically resistant gloves should be used with all industrial chemicals.
- Eye Protection:** Safety glasses/goggles are recommended. Provide eye bath near work site.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|--|---|--|
| Boiling Point (760 mm Hg): | > 305°F (> 152°C) | Vapor Density (Air = 1): | 5 |
| % Volatile (By Weight): | Not determined. | Evaporation Rate (BUAC = 1): | < 1 |
| Specific Gravity (H₂O = 1): | 0.76 @ 77°F (25°C) | Solubility in Water: | < 10 % by weight |
| Vapor Pressure (20°C): | 2 mm Hg | Appearance and Odor: | Colorless liquid with a mild hydrocarbon odor. |
| Flash Point: | 116°F (47°C) (ASTM D93-85, Pensky-Martens Closed Cup) | Flammable Limits (% By Volume in Air): | Not determined |

10. STABILITY AND REACTIVITY

- Stability:** AXAREL 4100 is stable.
- Conditions to Avoid:** Heat, sparks, and open flames.
- Incompatibility:** Strong oxidizing agents, strong acids, strong bases.
- Hazardous Decomposition Products:** None, other than normal products of combustion.
- Hazardous Polymerization:** Will not occur.

11. TOXICOLOGICAL INFORMATION

Isoparaffinic hydrocarbon (C₉₋₁₂ isoalkanes)

LD50/oral/rat = >10,000 mg/kg
LD50/dermal/rabbit = > 3,200 mg/kg

1-Propoxy-2-propanol

LD50/oral/rat = 3,250 mg/kg
LD50/dermal/rabbit = 3,560 mg/kg

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treat or incinerate used material in compliance with all applicable government regulations.

14. TRANSPORT INFORMATION UN-No.: 3295

IATA

| | |
|-----------------------|------------------------------|
| UN/ID No.: 3295 | Class: 3 |
| Packaging group: III | IATA-Label: Flammable liquid |
| Proper shipping name: | Hydrocarbons, liquid, N.O.S. |

IMO

| | |
|-----------------------|------------------------------|
| Class: 3 | IMDG Page: 171 |
| Packaging group: III | IMO-Label: Flammable liquid |
| Proper shipping name: | Hydrocarbons, liquid, N.O.S. |

15. REGULATORY INFORMATION

None of the components of AXAREL 4100 appears on any of the EPA's lists of toxic or hazardous substances, or on the SARA 313 toxic chemicals list (40 CFR 372.65).

None of the components of this product is listed in the Threshold Limit Values and Biological Exposure Indices compiled by the American Conference of Governmental Industrial Hygienists.

None of the components of this product is listed in California's Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 as a chemical known to cause cancer, birth defects, or other reproductive harm.

All the components of this product are listed on the TSCA inventory.

The isoparaffinic hydrocarbon (C₉₋₁₂ isoalkanes) is listed on the European Inventory of Existing Commercial Chemical Substances (EINECS) listing as number 292-459-0.

Canadian WHMIS Classification: Class B Division 3 - Combustible liquid
Class D Division 2 Subdivision B - Toxic material

16. OTHER INFORMATION

NFPA Codes: Health: 1 Fire: 2 Reactivity: 0

We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and of these opinions and the conditions of use of the product are not within the control of Petroferm Inc., it is the user's obligation to determine the conditions of safe use of the product.