MATERIAL SAFETY DATA SHEET

SECTION 1 ◆ PRODUCT AND COMPANY IDENTIFICATION

Explorer Pipeline Company
6846 South Canton
P.O. Box 2650
Tulsa, Oklahoma 74101

FOR EMERGENCY SOURCE INFORMATION CONTACT:
➤ (918) 493-5100
➤ CHEMTREC: (800) 424-9300 (24 hour contact)
➤ CANUTEC: (613) 996-6666
➤ SETIQ: 91-800-00214

TRADE NAMES/SYNONYMS: Jet Fuel Grade JP-8
CHEMICAL FAMILY: Petroleum, Hydrocarbons, Diethylene Glycol Monomethyl Ether
EPL Code: 50

This material safety data sheet represents the composite characteristics and properties of fungible petroleum hydrocarbons and other related substances transported by Explorer Pipeline Company. The information presented was compiled from one or more product shipper sources and is intended to provide health and safety guidance for these fungible products. Individual shipper and manufacturer MSDSs are available at Explorer Pipeline Company’s, Tulsa, Oklahoma, offices.

SECTION 2 ◆ HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Combustible Liquid!!
➤ Clear, water-white liquid with faint petroleum hydrocarbon odor;
➤ Harmful or fatal if swallowed, inhaled or absorbed through skin.
➤ May cause CNS depression.
➤ Can produce skin irritation upon prolonged or repeated contact.
➤ Keep away from heat, sparks and open flame;
➤ Wash thoroughly after handling;
➤ Contains petroleum distillates! If swallowed, do not induce vomiting since aspiration into the lungs will cause chemical pneumonia;
➤ Avoid breathing vapors or mist;
➤ Use only with adequate ventilation; and
➤ Obtain prompt medical attention. Keep Out of Reach of Children!

SECTION 3 ▼ COMPOSITION/INFORMATION OF INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NUMBER</th>
<th>PERCENTAGE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>84742-47-8</td>
<td>100%</td>
</tr>
<tr>
<td>Antioxidant, anti-static, corrosion inhibitor and metal deactivator</td>
<td>As approved</td>
<td>Added at less than 100 ppm</td>
</tr>
<tr>
<td>Ethanol, 2-(2-methoxyethoxy)-</td>
<td>111-77-3</td>
<td>0.10-0.15 % by volume normally added as an anti-icing agent as required by military specification.</td>
</tr>
</tbody>
</table>

ACUTE

SUMMARY OF ACUTE HAZARDS: Minute amounts aspirated into the lung during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

GETTING IT IN YOUR EYE...
➤ High vapor concentrations are irritating to the eyes.

GETTING IT ON YOUR SKIN...
➤ Repeated tests on laboratory mice have shown that liquid concentrations could lead to produce skin tumors and/or skin cancer.
Prolonged or repeated skin contact with this product tends to remove skin oils, possibly leading to irritation and dermatitis. Repeated liquid contact with skin will dry and defat the skin, leading to irritation.

**Swallowing It...**
- May be harmful or fatal if swallowed. Minute amounts of aspirated into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

**Breathing It...**
- Inhalation of components of exhaust from burning, such as carbon monoxide, may cause death at high concentrations. Exposure to the exhaust of this fuel should be minimized. Exposure to the respiratory tract may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects.

**Chronic**
- See signs and symptoms above.

**Cancer, Reproductive and Genetic Effects**
- See signs and symptoms above.

See Toxicological Information (Section 11) For More Information

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**Section 4: First Aid Measures**

**Eyes:** If splashed into the eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

**Skin:** In case of skin contact, remove any contaminated clothing and wash skin with soap and water. Launder or dry-clean clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial treatment within the first few hours may significantly reduce the ultimate extent of injury.

**Ingestion:** If ingested, DO NOT induce vomiting; call a physician immediately.

**Inhalation:** If overcome by vapor, remove from exposure and call a physician immediately. If breathing is irregular or has stopped, start resuscitation, administer oxygen, if available.

**Note to Physician:** Treat symptomatically and supportively

**Section 5: Fire Fighting Measures**

This liquid is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.

**Flash Point:** (Method Used) 100 °F  
**Flammable Limits:**  
  - LEL: 0.9%  
  -UEL: 7.0%

**Autoignition Temperature:** 410 °F

**Extinguishing Media:** Foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this type of product, depending on size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists.

**Hazardous Reactions/Decomposition:** Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion. Incomplete combustion generates highly poisonous carbon monoxide, and possibly other toxic gases.

**Special Instructions:** Use water spray, dry chemical, foam or carbon dioxide to extinguish the fire. Use water to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for men attempting to stop a leak. Water spray may be used to flush spills away from exposures. Minimize breathing of gases, vapor, fumes, or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.
SECTION 6  ▶ ACCIDENTAL RELEASE MEASURES
- Shut off and eliminate all ignition sources.
- Keep people away.
- Recover free product.
- Add sand, earth or other suitable absorbent to spill area.
- Minimize breathing vapors.
- Minimize skin contact.
- Ventilate confined spaces.
- Open all windows and doors.
- Keep product out of sewers and watercourses by diking or impounding.
- Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas.
- Assure conformity with applicable governmental regulations.
- Continue to observe precautions for volatile, combustible vapors from absorbed material.

SECTION 7  ♦ HANDLING AND STORAGE
- Prior to working with this product workers should be trained on its proper handling and storage.
- Storage: Protect against physical damage.
- Separate from oxidizing materials.
- Store in a cool, well ventilated area of non-combustible construction away from possible sources of ignition.

SECTION 8  ♡ EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Keep containers closed when not in use. Do not store near heat, sparks, flame, or strong oxidant. In order to prevent fire or explosion hazards, use appropriate equipment.

OTHER HYGIENIC AND WORK PRACTICES: Minimize breathing vapor, mist, or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before re-use. Remove contaminated shoes and thoroughly clean before re-use; discard if oil-soaked. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

PERSONAL PROTECTIVE EQUIPMENT
- EYES: Use splash goggles or face shield when eye contact may occur.
- SKIN: Use chemical-resistant gloves, apron, or other impervious clothing, if needed, to avoid contaminated regular clothing, which could result in prolonged or repeated skin contact.
- RESPIRATORY PROTECTION: Use supplied-air respiratory protection in confine or enclosed spaces, if needed.

SECTION 9 ♡ PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point (760 MM Hg)</td>
<td>320°-572 °F</td>
</tr>
<tr>
<td>Specific Gravity (H₂O = 1)</td>
<td>0.775-0.840 @ 39.2°F</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>-53°F</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>&lt;5 mm Hg @ 20°C</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Clear, water-white liquid. Faint petroleum hydrocarbon odor.</td>
</tr>
</tbody>
</table>

SECTION 10 ♡ STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable

CONDITIONS TO AVOID: Ignition sources, such as heat, sparks, pilot lights, static electricity, and open flames.

OTHER PHYSICAL AND CHEMICAL PROPERTIES: No Data

MATERIALS TO AVOID: Avoid contact with strong oxidant such as liquid chlorine, concentrated oxygen, sodium hypochlorite, etc.

HAZARDOUS POLYMERIZATION: Not expected to occur.

SECTION 11 ♡ TOXICOLOGICAL INFORMATION

No Data Available
SECTION 12  ECOLOGICAL INFORMATION
No Data Available

SECTION 13  DISPOSAL CONSIDERATIONS
Avoid waste contact/breathing harmful vapors. Contaminated product/soil/water may be RCRA hazardous waste.

SECTION 14  TRANSPORTATION INFORMATION
Not Meant To Be All Inclusive - Check Local, State, And Federal Laws And Regulations

<table>
<thead>
<tr>
<th>Agency</th>
<th>Shipping Name</th>
<th>Packing Group</th>
<th>Hazard Class</th>
<th>UN/NA #</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. DOT</td>
<td>Fuel, Aviation, Turbine Engine.</td>
<td>I, II, or III</td>
<td>Combustible Liquid</td>
<td>1863</td>
</tr>
</tbody>
</table>

SECTION 15  REGULATORY INFORMATION
No Data Available

SECTION 16  OTHER INFORMATION

NFPA 704 LABEL: 2 1 0
HMIS LABEL: 1-2-0

MSDS REVISIONS: Change in Format and update of Information
MSDS CREATION DATE: July 1997  REVISION #1: 01/03/06

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This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, such as refined petroleum hydrocarbon mixtures, this MSDS information may not be applicable.

MSDS DEVELOPER: Cass Willard, CIH
DATE: 01/03/06