

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:
Kerosene, No. 1 Fuel Oil

CHEMICAL FAMILY: Petroleum
Hydrocarbon

EPL Code: 55, 56, 60, 62

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

WARNING! Combustible Liquid!!

- Clear, straw-colored liquid with characteristic aromatic odor;
- Avoid prolonged or repeated liquid, mist, and vapor contact with eyes, skin, and respiratory tract;
- Long-term tests show that similar petroleum distillates have produced skin tumors on laboratory animals;
- 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

INGREDIENT	CAS NUMBER	PERCENTAGE (%)
Kerosene	8008-20-6	95+%
Aromatic Hydrocarbons	Mixed	<5%

ACUTE

SUMMARY OF ACUTE HAZARDS: May cause transient irritation to eyes and skin. Extreme exposure or aspiration into the lungs may cause chemical pneumonia. Overexposure may cause weakness, headache, nausea, confusion, blurred vision or other CNS effects.

GETTING IT IN YOUR EYE...

- May cause irritation.

GETTING IT ON YOUR SKIN...

- May cause irritation.
- Prolonged or repeated liquid contact can defat the skin and lead to irritation and/or dermatitis.

SWALLOWING IT...

- May be harmful or fatal if swallowed.

BREATHING IT...

- Extreme overexposure or aspiration into the lungs may cause pneumonia. Overexposure may cause weakness, headache, nausea, confusion, blurred vision, drowsiness, and other nervous system effects.
- Inhalation of vapors can produce pulmonary irritation.

CHRONIC

- Repeated and prolonged overexposure to vapors can cause toxicity to blood-forming tissues including aplastic anemia. May cause liver damage.
- Chronic human health effects would not be expected as long as good personal hygiene and proper safety precautions are practiced.

CANCER, REPRODUCTIVE AND GENETIC EFFECTS

- May cause blood changes possibly leading to aplastic anemia.
- May cause liver damage. Kidney damage in laboratory animals has been reported. No comparable health effect is known for humans.

See Toxicological Information (Section 11) For More Information

SECTION 4 + FIRST AID MEASURES

EMERGENCY MEDICAL TREATMENT PROCEDURES: DO NOT INDUCE VOMITING. Gastric lavage also indicated for complete emptying. Treat symptomatically.

EYES: In case of contact, immediately flush eyes with plenty of water for at least 20-30 minutes. Call a physician.

SKIN: In case of contact, immediately wash skin with soap and water. Wash contaminated clothing before reuse. If irritation develops, consult a physician.

INGESTION: If swallowed, do not induce vomiting. Immediately give two glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

NOTE TO PHYSICIAN: TREAT SYMPTOMATICALLY AND SUPPORTIVELY

SECTION 5 ⌘ FIRE FIGHTING MEASURES

Combustible! When heated above the flash point, this material will release flammable vapors which if exposed to an ignition source can burn in the open or be explosive in confined spaces. Mists or sprays may be flammable at temperatures below the normal flash point.

FLASH POINT:(Method Used) 110 ° - 130 °F

FLAMMABLE LIMITS:
LEL: 0.5%
UEL: 5.0%

AUTOIGNITION TEMPERATURE: 410 – 480 °F

EXTINGUISHING MEDIA: Dry Chemical, Foam, CO₂, Water Fog, or Halon

HAZARDOUS REACTIONS/DECOMPOSITION: Incomplete combustion generates highly poisonous carbon monoxide and perhaps other toxic gases.

SPECIAL INSTRUCTIONS: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of combustion products and oxygen deficiencies. Cool tanks and containers exposed to fire with water.

SECTION 6 ❖ ACCIDENTAL RELEASE MEASURES

- Review FIRE AND EXPLOSION HAZARDS and SAFETY PRECAUTIONS before proceeding with clean up.
- Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up.
- Dike spill.
- Prevent liquid from entering sewers, waterways or low areas.
- Recover free liquid for reuse or reclamation.

- Soak up with sawdust, sand, oil dry or other absorbent material.
- Remove source of heat, sparks, flame, impact, friction, and electricity including internal combustion engines and power tools.
- If equipment is used for spill cleanup, it must be explosion-proof and suitable for flammable liquid and vapors.
NOTE: Vapors released from the spill may create an explosive atmosphere.

SECTION 7 ✂ HANDLING AND STORAGE

- Prior to working with this product workers should be trained on its proper handling and storage
- Store in accordance with National Fire Protection Association regulations.
 - Protect against physical damage to containers.
 - Separate from oxidizing materials.
 - Store in cool, well ventilated area of non-combustible construction away from possible sources of ignition.

SECTION 8 ⚙ EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Both local exhaust and general room ventilation are usually required in enclosed areas.
OTHER HYGIENIC AND WORK PRACTICES: Emergency eyewash fountains and safety showers should be available in the immediate vicinity of any potential direct exposure. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using the toilet facilities. Promptly remove soiled clothing. Wash thoroughly before reuse. Shower after work using plenty of soap and water.

EXPOSURE LIMITS

OSHA PEL

ACGIH TLV (2005)

Kerosene

TWA	STEL	TWA	STEL
Not Applicable (N.A.)	N.A.	200 mg/M ³	N.A.

PERSONAL PROTECTIVE EQUIPMENT

- **EYES:** Where the possibility of splashing exists, chemical goggles are recommended.
- **SKIN:** Neoprene or NBR recommended protective gloves, coveralls, sleeves, and/or splash aprons.
- **RESPIRATORY PROTECTION:** If exposure may or does exceed occupational exposure limits, use a NIOSH approved respirator to prevent overexposure. In accordance with 29 CFR 1910.134, use either a full-face, air-supplied or air-purifying respirator with organic vapor filters.

SECTION 9 ⚡ PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT (760 MM HG): 300-570 °F	PERCENT VOLATILE BY VOLUME: 100%
SPECIFIC GRAVITY (H₂O = 1): 0.8 (39.2 °F)	VISCOSITY UNITS, TEMP: 1.2 cSt @ 37.7 °C
EVAPORATION RATE (BuAc = 1): Unavailable	VAPOR DENSITY (AIR =1): 4-5
VAPOR PRESSURE AT 20°C: <1 mm Hg	SOLUBILITY IN WATER: Negligible
APPEARANCE AND ODOR: Clear, straw-colored liquid with characteristic aromatic odor.	

SECTION 10 ⚡ STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable

CONDITIONS TO AVOID: Heat, flame, sparks, strong oxidizing conditions.

OTHER PHYSICAL AND CHEMICAL PROPERTIES: No Data

MATERIALS TO AVOID: Oxidizing agents such as oxygen, chlorine, nitric acid.

HAZARDOUS POLYMERIZATION: Has not been reported

SECTION 11 ☠ TOXICOLOGICAL INFORMATION

KEROSENE

Materials similar to some components in this product were found to be mutagenic in "in vivo" tests. The exact relationships between these results and possible human effects is not known.

TOXICITY								
Type Of Dose	Specie	Result	Type Of Dose	Specie	Result	Type Of Dose	Specie	Result
LD ₅₀ (oral)	Rat	28,000 mg/kg	LD ₅₀ (oral)	Rabbit	9,980 ppm	TD _{LO} (oral)	Human	No Data

CARCINOGENICITY			
IARC	Inadequate evidence in animals	Inadequate evidence in humans	Group 3: Not classifiable as a human carcinogen
NTP	Not Listed		
California (Prop 65): Not Listed	NIOSH: Not Listed	ACGIH: A3 - Confirmed animal carcinogen	OSHA: Not listed

MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS

No data available.

SECTION 12 * ECOLOGICAL INFORMATION

ACUTE EFFECTS: No data available.
CHRONIC EFFECTS: No data available.
DISTRIBUTION AND PERSISTENCE IN THE ENVIRONMENT: No Data available.

SECTION 13 † DISPOSAL CONSIDERATIONS

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system. By itself, the liquid is expected to be a RCRA ignitable hazardous waste, when disposed.

SECTION 14 ★ TRANSPORTATION INFORMATION

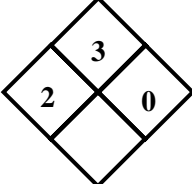
Not Meant To Be All Inclusive - Check Local, State, And Federal Laws And Regulations

Agency	Shipping Name	Packing Group	Hazard Class	UN/NA #
U.S. DOT	Kerosene	III	Combustible Liquid	UN 1223

SECTION 15 › REGULATORY INFORMATION

No Data Available

SECTION 16 ☼ OTHER INFORMATION

<p>NFPA 704 LABEL:</p> <div style="text-align: center;">  </div>	<p style="text-align: center;">HMIS LABEL</p> <p style="text-align: center;">2-3-0</p>
--	--

MSDS REVISIONS: Change in Format and update of Information

MSDS CREATION DATE: July 1997 **REVISION #1:** 07/01/05

DISCLAIMER

The information in this MSDS was obtained from sources which we believe are reliable. **HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS ACCURACY.** Some conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. **FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.** All product measurements such as flash point, *etc.* are considered approximate values. All data provided by Explorer Pipeline Company. 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: <u><i>Cass Willard</i></u> Cass Willard, CIH	DATE: <u>07/01/05</u>
--	------------------------------