



MATERIAL SAFETY DATA SHEET

MSDS # TF4

ARCTIC FIRE ATF TYPE F

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: ATF TYPE F

PRODUCT CODES: 525-000

SYNONYMS: Transmission Fluid, Transmission Oil

EMERGENCY PHONE: CHEMTREC – (800) 424-9300 or (703) 527-3887 (collect)

SUPPLIER: Sinclair Oil Corporation
P.O. Box 30825
Salt Lake City, Utah 84130

TELEPHONE / FAX: (888) 340-3466 / (801) 524-2740

2. COMPOSITION, INFORMATION ON INGREDIENTS

| COMPONENTS: | CAS# | Typical wt.% |
|--|-------------|--------------|
| Lubricant Base Oil – The base oil for this product can be a mixture of any of the following highly refined petroleum streams: | 64741-88-4 | 89-90 |
| | 64741-89-5 | |
| | 64741-96-4 | |
| | 64741-97-5 | |
| | 64742-01-4 | |
| | 64742-52-5 | |
| | 64742-53-6 | |
| | 64742-54-7 | |
| | 64742-55-8 | |
| | 64742-56-9 | |
| | 64742-57-0 | |
| | 64742-62-7 | |
| | 64742-63-8 | |
| 64742-65-0 | | |
| 72623-85-9 | | |
| 72623-86-0 | | |
| 72623-87-1 | | |
| Additives | Proprietary | 10-11 |

3. HAZARDS IDENTIFICATION

APPEARANCE: Red clear

PHYSICAL STATE: liquid

ODOR: Mild petroleum odor

EMERGENCY OVERVIEW: Avoid aspiration of product into lungs. Minute quantities aspirated into lungs during ingestion or vomiting may cause severe pulmonary injury and possibly death. Effects of overexposure may include irritation of the nose and throat, irritation of the digestive tract, nausea and diarrhea. Inadequate evidence was available to evaluate the cancer hazard of this material.

POTENTIAL HEALTH EFFECTS: Practically non-toxic

INHALATION: Low risk of inhalation at ambient temperatures. In enclosed spaces or when hot, vapors may reach concentrations sufficient to cause drowsiness, dizziness, headache, nausea or lung irritation. Misting above TLV may cause chemical pneumonitis.

EYE CONTACT: Mild irritant

SKIN CONTACT: Contact may cause mild skin irritation including redness, and a burning sensation. Prolonged or repeated contact can worsen irritation by causing drying and cracking of the skin leading to dermatitis (inflammation). No harmful effects from skin absorption are expected.

INGESTION: Generally low toxicity. If less than one ounce is ingested, material may pass through the system without harm. Very large amounts may cause generalized depression, headache, drowsiness, nausea, vomiting or diarrhea. Small dose may produce irritation and diarrhea.

CHRONIC: Prolonged and/or frequent contact may cause drying, cracking (dermatitis) or folliculitis.

CARCINOGENICITY: The petroleum base oils contained in this product have been highly refined by a variety of processes including solvent extraction, hydrotreating, and dewaxing to remove aromatics and improve performance characteristics. The oils used in this product are not listed as a carcinogen by NTP, IARC, or OSHA.

4. FIRST AID MEASURES

INHALATION: If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

EYE CONTACT: Flush immediately with water for at least 15 minutes. Seek medical attention promptly.

SKIN CONTACT: Wash contact areas with soap and water. Launder contaminated clothing before reuse.

INGESTION: Not expected to be a problem, however, if greater than ½ liter (pint) ingested, immediately give 1 to 2 glasses of water and call a physician, hospital emergency room or poison control center for assistance. **DO NOT INDUCE VOMITING** or give anything by mouth to an unconscious person.

INJECTION: Seek medical aid.

Notes to Physician: High-pressure hydrocarbon injection injuries may produce substantial necrosis of underlying tissue despite an innocuous appearing external wound. Often these injuries require extensive emergency surgical debridement and all injuries should be evaluated by a specialist in order to assess the extent of injury.

5. FIRE FIGHTING MEASURES

FLASH POINT: 352°F (COC)

FLAMMABLE LIMITS: Not Determined

AUTOIGNITION TEMPERATURE: Not Determined

FLAMMABILITY CLASSIFICATION: NFPA Flammability =1

FIRE FIGHTING INSTRUCTIONS: Special Fire Fighting Procedure: Use water spray to cool fire exposed surfaces and to protect personnel. Isolate "fuel" supply from fire. Avoid spraying water directly into storage containers due to danger of boil over. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus.

COMBUSTIBLE LIQUID: Can form combustible mixtures at temperatures at or above the flashpoint.

UNUSUAL FIRE OR EXPLOSION HAZARD: Water may cause frothing containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture. Container areas exposed to direct flame contact should be cooled with large quantities of water as needed to prevent weakening of container structure. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. This material may burn, but will not ignite readily. Vapors are heavier than air and can accumulate in low areas. If container is not properly cooled, it can rupture in the heat of a fire. **DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.** Empty drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner, or properly disposed of.

FIRE FIGHTING MEDIA: CO₂, dry chemical, foam, water fog, (water may cause frothing)

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon, sulfur nitrogen, and phosphorous

6. ACCIDENTAL RELEASE MEASURES

SPILL PROCEDURES: This material may burn, but will not ignite readily. Keep all sources of ignition away from spill/release. Stay upwind and away from spill/release. Notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant.

Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal. Spilled material may be absorbed into an appropriate absorbent material. Notify fire authorities and appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify Sinclair Oil Corporation at (888) 340-3466 or Chemtrec Emergency Spill (800) 365-7300

7. HANDLING AND STORAGE

STORAGE: "Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1 and other references pertaining to cleaning, repairing, welding, or other contemplated operations. Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas away from heat and all sources of ignition. Store only in approved containers. Keep away from any incompatible material. Protect container(s) against physical damage.

HANDLING: Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Sections 2 and 8). Do not wear contaminated clothing or shoes. Use good personal hygiene practice. Do not use this product or other hydrocarbon-based lubricants in non-diaphragm compressors that produce "breathing air" unless the outlet air is monitored continuously for carbon monoxide. These lubricants can produce carbon monoxide when subjected to high temperatures. High pressure injection of hydrocarbon fuels, hydraulic oils or greases under the skin may have serious consequences even though no symptoms or injury may be apparent. This can happen accidentally when using high pressure equipment such as high pressure grease guns, fuel injection apparatus or from pinhole leaks in tubing of high pressure hydraulic oil equipment.

8. EXPOSURE CONTROLS, RESPIRATORY & PERSONAL PROTECTION

ENGINEERING CONTROLS: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional ventilation or exhaust systems may be required.

PERSONAL PROTECTION:

PROTECTIVE CLOTHING: Wear body-covering work clothes to avoid prolonged or repeated exposure. Launder soiled work clothes before reuse. Safety goggles, or chemical splash goggles if splashing is anticipated. Wear oil impervious gloves if frequent or prolonged contact is expected.

RESPIRATOR: A NIOSH certified air purifying respirator with a Type 95 (R or P) particulate filter may be used under conditions where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a positive pressure air supplied respirator if there is potential for uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

OCUPATIONAL EXPOSURE LIMITS

| COMPONENT | LIMIT | TWA | STEL | CEILING | NOTATION | OTHER |
|-----------|-----------|--------------------|---------------------|---------|----------|-------|
| Oil mist | OSHA PEL | 5mg/M ³ | | | | |
| Oil mist | ACGIH TLV | 5mg/M ³ | 10mg/M ³ | | | |

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE: Liquid

COLOR: Clear red

DENSITY/SPECIFIC GRAVITY (g/ml): 7.27 lbs/gal / 0.86 – 0.87

VAPOR DENSITY (air=1): >5

VAPOR PRESSURE: < 0.01

BOILING POINT/RANGE: >490°F

SOLUBILITY IN WATER: Negligible

VISCOSITY sus@100°F: Not Determined

pH : NA

EVAPORATION RATE (Butyl Acetate=1): <1

10. STABILITY AND REACTIVITY

GENERAL: This product is stable and will not react violently with water. Extended exposure to high temperatures can cause decomposition. Stable under normal conditions of storage and handling. Avoid contact with strong oxidizing agents. Combustion can yield carbon, nitrogen, sulfur and phosphorus oxides.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID: Strong oxidants, strong acids

HAZARDOUS DECOMPOSITION: Combustion can yield carbon, nitrogen, sulfur and phosphorus oxides.

11. TOXICOLOGICAL INFORMATION

Dermal LD 50- >3 G/KG IN RATS

ORAL LD 50- 5G/KG IN RATS

AVOID OIL MISTS- TLV 5 MG/ CUBIC METER

Carcinogenicity: The petroleum base oils contained in this product have been highly refined by a variety of processes including solvent extraction, hydrotreating, and dewaxing to remove aromatics and improve performance characteristics. None of the oils used are listed as a carcinogen by NTP, IARC, or OSHA.

12. DISPOSAL INFORMATION

WASTE DISPOSAL:

This material under most intended uses would become used oil due to contamination by physical or chemical impurities. RECYCLE ALL USED OIL. While being recycled, used oil is regulated by 40 CFR 279. Use resulting in chemical or physical change or contamination may also subject it to regulation as hazardous waste. Under federal regulations, used oil is a solid waste managed under 40 CFR 279. However, in California, used oil is managed as hazardous waste until tested to show it is not hazardous. Consult state and local regulations regarding the proper handling of used oil. In the case of used oil, the intent to discard it may cause the used oil to be regulated as hazardous waste. Contents should be completely used and containers emptied prior to discard. Rinsate may be considered a RCRA hazardous waste and must be disposed of with care and in compliance with federal, state and local regulations. Large empty containers, such as drums, should be returned to the distributor or a drum reconditioner. To assure proper disposal of small empty containers, consult with state and local regulations and disposal authorities.

Protective Measures During Repair and Maintenance of Contaminated Equipment:

-Wash exposed skin thoroughly with soap and water.

-Use polymer gloves if extended, direct contact is expected.

-Avoid prolonged contact with used oil.

- Supplied air respiratory protection should be used for cleaning large spills or upon entry into tanks, vessels, or other confined spaces

Dispose of in accordance with Federal, State, and Local regulations.

13. TRANSPORT INFORMATION

DOT (Department of Transportation):

PROPER SHIPPING NAME: Non-regulated

HAZARD CLASS: Non-Hazardous (Not regulated by US DOT)

IDENTIFICATION NUMBER: None

14. REGULATORY INFORMATION

This material contains the following chemicals subject to the reporting requirements of **SARA** 313 and 40 CFR 372:

Warning: This material contains the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of **California Proposition 65** (CA Health & Safety Code Section 25249.5):

NONE

15. OTHER INFORMATION

NFPA 704/HMIS:

Health – 1 Flammability – 1 Reactivity – 0
(0 = insignificant, 1 = slight, 2 = moderate, 3 = high, 4 = extreme)

REVISION SUMMARY:

Complete review of MSDS, December 2005.

THIS PRODUCT MATERIAL SAFETY DATA SHEET PROVIDES HEALTH AND SAFETY INFORMATION. THE PRODUCT SHOULD BE USED IN APPLICATIONS CONSISTENT WITH THIS PRODUCT LITERATURE. FOR ANY OTHER USES, EXPOSURES SHOULD BE EVALUATED SO THAT APPROPRIATE HANDLING PRACTICES AND TRAINING PROGRAMS CAN BE ESTABLISHED TO ENSURE SAFE WORKPLACE OPERATIONS.

THIS MATERIAL SAFETY DATA SHEET IS PROVIDED IN GOOD FAITH AND MEETS THE REQUIREMENTS OF THE HAZARDOUS COMMUNICATION PROVISIONS OF SARA TITLE III AND 29CFR1910.1200(g) OF THE OSHA REGULATIONS. THE ABOVE INFORMATION IS BASED ON REVIEW OF AVAILABLE INFORMATION SINCLAIR BELIEVES IS RELIABLE AND IS SUPPLIED FOR INFORMATIONAL PURPOSES ONLY. SINCLAIR DOES NOT GUARANTEE ITS COMPLETENESS OR ACCURACY. SINCE CONDITIONS OF USE ARE OUTSIDE THE CONTROL OF SINCLAIR, SINCLAIR DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, AND ANY LIABILITY FOR DAMAGE OR INJURY WHICH RESULTS FROM THE USE OF THE ABOVE DATA. NOTHING HEREIN IS INTENDED TO PERMIT INFRINGEMENT OF VALID PATENTS AND LICENSES.

DATE: December 2005