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MATERIAL SAFETY DATA SHEETS

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

GENERIC NAME: Automatic Transmission Fluid – Type F

ISSUE DATE: MARCH 2006

THIS GENERIC MSDS REPRESENTS THE FOLLOWING ENGINE ARMOUR PRODUCTS:

1. Ford Type F ATF

COMPONENTS	CAS#	%	HAZARD DATA
1) HIGHLY-REFINED LIGHT MINERAL BASE OILS	64742-55-8	0-95	ORAL (LD50): >1500 mg/kg
2) PETROLEUM ADDITIVES	MIXTURE	<10	DERMAL (LD50): >2000 mg/kg
3) DYE, RED	MIXTURE	<0.1	

Skin: Non-Irritating Practically Non-Irritating 1hIn LC50/4H(rat): >5mg/L

SYNONYMS / GENERAL NAMES: Automatic Transmission Fluid

24 HOUR EMERGENCY TELEPHONE: (CHEMTREC) 800-424-9300

TECHNICAL INFORMATION: 813-248-1988

2. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS: None

CAS NUMBER: NA

3. HAZARDOUS IDENTIFICATION

ROUTES OF ENTRY: Inhalation of incidental mists or vapors.

TARGET ORGANS: NA

IRRITANCY: Eye contact might result in slight irritation. Skin contact might result in slight irritation, possible mild allergen. Subcutaneous or intramuscular injection may cause irritation, erythema, or edema.

REPRODUCTIVE EFFECTS: NA

CANCER INFORMATION: NA

SEE SECTION 11 FOR COMPLETE HAZARD INFORMATION

4. FIRST AID MEASURES

EYES: Flush with large volumes of water.

DERMAL: Wash with soap and water, until all traces of material are removed.

INGESTION: Do not induce vomiting. Seek medical aid.

INHALATION: Remove from exposure to incidental fumes and provide respiratory support if necessary.

INJECTION: Seek medical aid.

NA - NOT APPLICABLE

ND - NO DATA

NE - NOT ESTABLISHED

5. FIRE FIGHTING MEASURES

REVISED: 00/00

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FLASH POINT, °C(°F): 186°C (367°F)

FLAMMABLE LIMITS (% BY VOLUME IN AIR): LOWER: NA UPPER: NA

EXTINGUISHING MEDIA: CO₂, dry chemical, foam, water fog

SPECIAL FIRE FIGHTING PROCEDURES: None

AUTOIGNITION TEMPERATURE: NA

EXPLOSION DATA: NA

NFPA RATING¹: HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0

6. ACCIDENTAL RELEASE MEASURES

SPILL PROCEDURES: Small Spills - Take up with non-combustible absorbent such as Fuller's earth or sand. Place into containers for later disposal. Large Spills: Contain spill of product or used oil in earthen dikes for later recovery. Control ignition sources around spill area. Report spills as required to appropriate authorities.

7. HANDLING AND STORAGE

HANDLING PROCEDURES: Inspect empty containers before use. They may contain product residue which could include flammable and explosive vapors.

STORAGE PROCEDURES: Keep container away from heat and flame.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use in well ventilated area. In confined space, mechanical ventilation may be required to keep levels of certain components below mandated standards, as evaluated by designated personnel.

GLOVES PROTECTION: Oil impervious gloves, rubber or polymer, if frequent or prolonged contact is expected.

EYE PROTECTION: Safety glasses

RESPIRATORY PROTECTION: If high concentrations of mists or fumes are expected, use approved organic respirator.

CLOTHING RECOMMENDATION: Wear body-covering garments to prevent prolonged or repeated direct dermal exposure. Launder work clothes before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Red liquid

ODOR: Mild petroleum odor

pH of Undiluted Product: NA

VAPOR PRESSURE, mm Hg (25 °C): $\sim 2 \times 10^{-3}$

VAPOR DENSITY: >1

MELTING POINT: NA

BOILING POINT, 760 mm Hg, °C: $\sim 308^{\circ}\text{C}$ ($\sim 587^{\circ}\text{F}$)

SOLUBILITY IN WATER: Negligible

SPECIFIC GRAVITY (60/60 °F)(H₂O = 1): 0.87

EVAPORATION RATE (n-BUTYL ACETATE = 1): <1

VISCOSITY: NA

PERCENT VOLATILE: Negligible

10. STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBILITY: Strong Oxidants

POLYMERIZATION: None

HAZARDOUS DECOMPOSITION PRODUCTS: CO₂ (CO under incomplete combustion)

11. TOXICOLOGICAL INFORMATION**-- ACUTE EXPOSURE --**

ORAL TOXICITY: Low toxicity. If less than 1 oz. is ingested, material may pass through the system without harm. On ingestion of large quantities, slight GI discomfort, diarrhea, and/or headache may occur.

EYE IRRITATION: Transient, slight irritation.

INJECTION: Subcutaneous or intramuscular injection may cause irritation, erythema, or edema.

INHALATION TOXICITY: Low risk at ambient temperatures. Mists or fumes may cause dizziness, headache, nausea, respiratory irritation, or chemical pneumonitis.

DERMAL CONTACT: Transient, slight irritant, possible mild allergen.

-- CHRONIC EXPOSURE --

CHRONIC TOXICITY: NA

CARCINOGENICITY: NA

MUTAGENICITY: NA

DERMAL: Prolonged and repeated exposure may cause drying of the skin.

12. HEALTH INFORMATION

HMIS CODE^{II}: HEALTH: 1 FIRE: 1 REACTIVITY: 0

PRECAUTIONARY LABELS: CAUTION: Possible minor allergen.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: It is the responsibility of the user to determine if the material is a hazardous waste at the time of disposal. Check before disposing to be sure you are in compliance with all applicable laws and regulations. RCRA Emergency Hotline Number: 800-424-9346.

14. TRANSPORT INFORMATION**DOT (DEPARTMENT OF TRANSPORTATION)**

PROPER SHIPPING NAME:	Petroleum Lubricating Oil
HAZARD CLASS:	Non-Hazardous
HAZARD IDENTIFICATION NUMBER:	None assigned
DOT PLACARD:	None
COMPATIBILITY CATEGORY:	ND

15. REGULATORY INFORMATION**SARA SECTION 313 - TOXIC CHEMICALS:**

This product does not contain toxic chemicals under SARA Section 313 and 40 CFR Part 372.

<u>COMPONENTS</u>	<u>CAS #</u>	<u>%</u>
NA	NA	NA

SARA SECTION 311 - HAZARD CATEGORIES:

This product may meet one or more of the criteria for the hazard categories defined in 40 CFR Part 370 as established by Sections 311 and 312 of SARA as indicated below:

NO	IMMEDIATE (ACUTE) HEALTH HAZARD	NO	SUDDEN RELEASE OF PRESSURE HAZARD
NO	DELAYED (CHRONIC) HEALTH HAZARD	NO	REACTIVE HAZARD
NO	FIRE HAZARD		

SARA SECTION 302 - EXTREMELY HAZARDOUS WASTE

This product is not known to contain any components in concentrations greater than one percent that are listed as Extremely Hazardous Substances in 40 CFR Part 355 pursuant to the requirements of Section 302(a) of SARA.

CLEAN WATER ACT (CWA):

Under the CWA, discharges of crude oil and petroleum products to surface water without proper Federal and State permits must be reported immediately to the National Response Center at (800) 424-8802.

As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance.

U.S. TSCA INVENTORY:

All components of this material are on the US TSCA Inventory.

16. OTHER INFORMATION

THE INFORMATION IN THIS MATERIAL SAFETY DATA SHEET SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ENGINE ARMOUR BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION, BUT MAKES NO WARRANTY THAT IT IS.

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NFPA HAZARD RATING: least - 0 slight - 1 moderate - 2 high - 3 extreme - 4

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HMIS HEALTH RATING: least - 0 slight - 1 moderate - 2 high - 3 extreme - 4