

Material Safety Data Sheet

FIR No.: 175246
Version Number: US-US-4

Level: 1
Release Date: 2011-08-02

1. Product and Company Identification

Product Name: Full Synthetic Manual Transmission Fluid
Product Code: See Attachment
Application: Manual Transmission Fluid
Supplier: Ford Motor Company
 Attention: MSDS Information, P.O. Box 1899
 Dearborn, Michigan 48121
 1-800-392-3673

Emergency Telephone: Poison Control Center: 1-800-959-3673
 CHEMTREC: U.S. and Canada: 1-800-424-9300
 CHEMTREC: International: 1-703-527-3887

2. Composition/Information on Ingredients

This chemical product is a preparation.

Chemical Name	CAS Number	Percent Concentration	Hazard Classification
HIGHLY REFINED BASE OIL		10-30	
PHOSPHORODITHIOIC ACID, O,O-DI-C1-14-ALKYL ESTERS, ZINC SALTS	68649-42-3	1-5	HAZCOM LOCAL REV 1 RSMS_METALS SARA 313 DSL LISTED MAN-ENV_REV

3. Hazards Identification

CAUTION

Health: This product is irritating to the eyes and skin. Inhalation of vapors (generated at high temperatures only) may cause mild irritation of the nose, throat, and respiratory tract. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Prolonged or repeated contact with this product may dry and/or defat the skin.

Environment: Material contains a chemical which is a Hazardous Air Pollutant (HAP), regulated by the United States Clean Air Act.

4. First-Aid Measures

Inhalation: If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. If irritation persists, get medical attention.



Material Safety Data Sheet

FIR No.: 175246
Version Number: US-US-4

Level: 1
Release Date: 2011-08-02

Skin Contact: For skin contact, wash immediately with soap and water. If irritation persists, get medical attention.

Eye Contact: In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes and seek medical attention. If irritation persists, get medical attention.

Ingestion: If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting.

Notes to a Physician: If the affected person is not breathing, apply artificial respiration. If the affected person's breathing is difficult, give oxygen.

5. Fire-Fighting Measures

Extinguishing Media: Use any media suitable for the surrounding fires. Dry chemical, foam, carbon dioxide, water fog.

Specific Methods: A solid stream of water may scatter molten product. Use water to cool fire-exposed containers, structures, and to protect personnel.

Specific Hazards: Combustion may produce the following products: Oxides of carbon, nitrogen, and phosphorus. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Empty containers may retain product residue including Flammable or Explosive vapors. Do not cut, drill, grind, or weld near full, partially full, or empty product containers.

Protection of Firefighters: Fire fighters should be equipped with NIOSH-approved, self-contained breathing apparatus (SCBA) and full protective clothing.

6. Accidental Release Measures

Personal Precautions: Provide adequate ventilation. Avoid inhalation of vapors and contact with skin and eyes. Wear appropriate protective equipment and clothing during clean-up.

Environmental Precautions: Do not allow the spilled product to enter public drainage system or open water courses.

Methods for Cleaning Up: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb the spilled material and scrape it up. When product is used to mitigate a hazardous material, the resultant material must be handled in the same fashion as the hazardous material.



Material Safety Data Sheet

FIR No.: 175246
Version Number: US-US-4

Level: 1
Release Date: 2011-08-02

7. Handling and Storage

Handling:

Technical Measures: No special precautions necessary.

Precautions and Advice for Safe Handling: Avoid contact with skin, eyes and clothing. Elevated temperature or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, and lungs. Avoid breathing vapors or mist. Use with adequate ventilation.

Storage: Technical Measures: No special precautions necessary.

Storage Conditions: Avoid prolonged exposure of the container to direct sunlight. Keep the container tightly closed and in a cool, well-ventilated place.

8. Exposure Controls/Personal Protection

Engineering Measures: Use adequate ventilation to control airborne concentrations below the exposure limits/guidelines. If user operations generate a vapor, dust, and/or mist, use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits/guidelines. Eyewash and emergency showers are recommended.

Control Parameters: If oil mist is generated, observe the OSHA exposure limit of 5 mg/m3 (TWA) and the ACGIH exposure limit of 5 mg/m3 (TWA) and the ACGIH short term exposure limit (STEL) of 10 mg/m3. Ford Motor Company recommends an exposure limit of 1.0 mg/m3.

Personal Protective Equipment:

Respiratory Protection: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of OSHA Respiratory Protection Standard 29 CFR 1910.134 and/or Canadian Standard CSA Z94.4.

Hand Protection: The use of neoprene gloves is recommended. The use of nitrile-latex gloves is recommended.

Eye Protection: Wear safety glasses with side shields. Wear chemical goggles; face shield (if splashing is possible).

Skin and Body Protection: Remove contaminated clothing and wash before reuse. Wear protective clothing sufficient to cover exposed skin surfaces.



Material Safety Data Sheet

FIR No.: 175246
Version Number: US-US-4

Level: 1
Release Date: 2011-08-02

Hygiene Measures: Wash thoroughly after handling.
 When using this material, do not eat, drink or smoke.

9. Physical and Chemical Properties

Specific Gravity: 0.872 H₂O=1 @15°C
Physical State: LIQUID
Form: LIQUID
Odor: OIL
Color: AMBER
pH: N.AP ASTM D1293

Temperature Range During which Changes in Physical State Occur:

Melting Point: N.AV

Flash Point: 186 °C COC

Auto-ignition Temperature: N.AV

Explosion Properties:

UEL: N.AV

LEL: N.AV

Solubility: INSOLUBLE IN WATER

Viscosity: 76 cSt @40°C

Evaporation Rate: N.AV

10. Stability and Reactivity

Stability: This is a stable material.
 Hazardous polymerization will not occur.

Conditions and Materials to Avoid: This product can react with oxidizing materials.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, and other low molecular weight hydrocarbons.
 Decomposition of this product may yield metallic oxides.
 Decomposition of this product may yield oxides of phosphorus.



Material Safety Data Sheet

FIR No.: 175246
Version Number: US-US-4

Level: 1
Release Date: 2011-08-02

11. Toxicological Information

122-62-3 2-ETHYLHEXYL SEBACATE
Oral, adult rat, LD50 = 12800 mg/kg

Chronic (Long Term) Toxicity:

Animal testing data indicate that the reproductive effect (Testicular Atrophy) from exposure to ZINC DIALKYL DITHIOPHOSPHATE is a non-specific chemical effect and is caused by stressing the animals due to severe skin irritation and weight loss. In some laboratory animal studies ZINC DIALKYL DITHIOPHOSPHATE compounds are suspect of mutagenic effects. Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. No definitive information available on carcinogenicity, mutagenicity, target organs, or developmental toxicity

12. Ecological Information

No specific aquatic data available for this product.

Mobility:

Bioaccumulation is unlikely to be significant because of the low water solubility of this product.

Persistence/Degradability:

The product is biodegradable.

Ecotoxicity:

The product contains zinc compounds which are estimated to be very toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment.

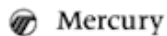
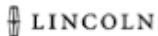
13. Disposal Considerations

Waste from Residues:

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulation.

Contaminated Packaging:

No consideration given when disposed of according to local, state, and Federal regulations.



Material Safety Data Sheet

FIR No.: 175246
Version Number: US-US-4

Level: 1
Release Date: 2011-08-02

14. Transport Information

U.S. Department of Transportation (DOT) 49 - CFR 172.101

This product is not regulated as a dangerous good.

Canadian Transportation of Dangerous Goods (T.D.G.) - TDGR Schedule II

This product is not regulated as a dangerous good.

Secretary of Communication and Transportation (SCT) - NOM-002-SCT2/1994 (Mexico)

This product is not regulated as a dangerous good.

International and Domestic Air Transportation - ICAO & IATA Section 4.2

This product is not regulated as a dangerous good.

International Water Transportation - IMDG Code Amendment 31-02

This product is not regulated as a dangerous good.

15. Regulatory Information

This product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

The components of this product are listed on the TSCA Inventory

Material contains a chemical which is a Ford Motor Company Material of Concern. Use and release of this material should be minimized to the greatest extent possible.

16. Other Information

Key/Legend: N.AP = Not applicable; N.AV = Not available; ND = Not determined or No data; TLV = Threshold limit value; TWA = Time-weighted average; STEL = Short-term exposure limit; C = Ceiling limit

HMIS and NFPA Hazard Class Information:

HMIS Hazard Class: Health: 1 (Slight) Flammability: 1 (Slight) Physical Hazard: 0 (Least)

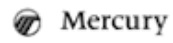
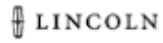
NFPA Hazard Class: Health: 1 (Slight) Flammability: 1 (Slight) Instability: 0 (Least)

The following sections contain revisions OR NEW statements.

- 2
15
16

Preparation Information:

The chemical identification and properties for this material were provided by the manufacturer. For Canadian locations, a manufacture's MSDS is available upon request. Health and safety information has been evaluated by the Occupational and Environmental Health Sciences Department, Ford Motor Company, Diagnostic Service Center II, 1800 Fairlane Drive, Allen Park, MI 48101, USA.



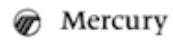
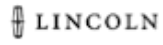
Material Safety Data Sheet

FIR No.: 175246
Version Number: US-US-4

Level: 1
Release Date: 2011-08-02

Disclaimer:

The information on this data sheet represents our current data and is accurate to the best of our knowledge as to the proper handling of this product under normal conditions and in accordance with the application specified on the packaging and/or technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.



Material Safety Data Sheet

FIR No.: 175246
Version Number: US-US-4

Level: 1
Release Date: 2011-08-02

Attachment

Product Code	Container Size	Part of Kit	Kit Product Code
XT-M5-QS	1 qt. (946 mL)		
