



**Material Safety Data Sheet**

**FIR No.:** 135454  
**Version Number:** US-US-8

**Level:** 4  
**Release Date:** 2010-12-07

**1. Product and Company Identification**

**Product Name:** Additive Friction Modifier  
**Product Code:** See Attachment  
**Application:** For use on limited slip differentials to reduce hypoid gear noise  
**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
PETROLEUM DISTILLATES, HYDROTREATED HEAVY NAPHTHENIC	64742-52-5	30-60	HAZCOM RSMS_P_SOM RSMS_D_ALL

**3. Hazards Identification**

**Health:** Inhalation of mist and vapors may irritate the nose, throat, and lungs. May cause eye irritation. Ingestion may cause slight stomach irritation and discomfort. Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis.

**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.

**Skin Contact:** Immediately take off all contaminated clothing. Wash skin 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:** This material, if aspirated into the lungs, may cause chemical pneumonitis; treat the affected person appropriately.



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**5. Fire-Fighting Measures**

**Extinguishing Media:** Dry chemical, foam, carbon dioxide.

**Specific Methods:** Water may be used to cool exposed containers to prevent pressure build-up and explosion when exposed to extreme heat.

**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 container(s) may retain product residue -- solid, liquid, and/or vapor -- and can be dangerous. 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.

**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.  
Surfaces may become slippery after spillage.  
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.  
Do not allow this material to drain into sewers/water supplies.

**Methods for Cleaning Up:** Dike the spilled material, where this is possible.  
Absorb the spilled material with an inert absorbent (nonflammable) material.  
Sweep up spilled material.  
In case of large spills, follow all facility Emergency Response Procedures.

**7. Handling and Storage**

**Handling:**

**Technical Measures:** Avoid the generation of oil mists.  
Keep this product from heat, sparks, or open flame.

**Precautions and Advice for Safe Handling:** Avoid contact with skin, eyes and clothing.  
Use with adequate ventilation.  
Keep the container closed when not in use.



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**Storage: Technical Measures:** Do not reuse the empty container.

**Storage Conditions:** Store this product in a cool, dry, well-ventilated place.  
Store this product away from strong oxidizing agents.

**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. Local exhaust is suggested for use, where possible, in enclosed or confined spaces. Eyewash and emergency showers are recommended.

**Control Parameters:** If oil mist is generated, observe the OSHA exposure limit of 5 mg/m<sup>3</sup> (TWA) and the ACGIH exposure limit of 5 mg/m<sup>3</sup> (TWA) and the ACGIH short term exposure limit (STEL) of 10 mg/m<sup>3</sup>. Ford Motor Company recommends an exposure limit of 1.0 mg/m<sup>3</sup>.

**Personal Protective Equipment:**

**Respiratory Protection:** When respiratory protection is determined to be necessary, use a NIOSH (or Canadian Z94.4) approved elastomeric sealing surface facepiece respirator outfitted with organic vapor cartridges and paint spray (dust/mist) prefilters. Consult 29 CFR1910.134 for selection of respirator in U.S. For Canadian standard see CSA Z94.4

**Hand Protection:** Use of impervious gloves is required, such as neoprene or nitrile rubber gloves.

**Eye Protection:** Wear safety glasses with side shields.

**Skin and Body Protection:** Wash thoroughly after handling.

**Hygiene Measures:** Remove contaminated clothing and wash the skin thoroughly with soap and water after work. Wash clothing separately and rinse washing machine afterwards. When using this material, do not eat, drink or smoke.



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**9. Physical and Chemical Properties**

**Specific Gravity:** 0.912 H2O=1  
**Physical State:** LIQUID  
**Form:** LIQUID  
**Odor:** CHARACTERISTIC  
**Color:** CLEAR BLUE  
**pH:** N.AP

**Temperature Range During which Changes in Physical State Occur:**

Boiling Point: >148.8 °C (>300°F)

**Flash Point:** 178 °C ASTM D93

**Auto-ignition Temperature:** N.AV

**Explosion Properties:**

UEL: N.AV

LEL: N.AV

**Vapor Pressure:** N.AV

**Vapor Density:** N.AV

**Solubility:** INSOLUBLE IN WATER

**Viscosity:** 59@40°C cSt ASTM D445

**Evaporation Rate:** <1 (BuAc = 1)

**10. Stability and Reactivity**

**Stability:** Hazardous polymerization will not occur.

**Conditions and Materials to Avoid:** This product may react with strong oxidizing agents (bleach--sodium hypochlorite, calcium hypochlorite, hydrogen peroxide, permanganate, nitric acid, concentrated OXYGEN, perchlorates).

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, and other low molecular weight hydrocarbons.  
 Decomposition of this product may emit oxides of sulfur.  
 Decomposition of this product may yield oxides of nitrogen upon decomposition.  
 Decomposition of this product may yield oxides of phosphorus.



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**11. Toxicological Information**

3658-48-8 DIISOCTYL PHOSPHITE  
Oral, adult rat, LD50 = 11900 mg/kg  
3658-48-8 DIISOCTYL PHOSPHITE  
Skin, adult rabbit, LD50 = 4500 mg/kg

**Inhalation:** Aspiration may cause pulmonary edema.  
Exposure to oil mist/fume/vapor may cause respiratory tract irritation.

**Skin Contact:** Prolonged or repeated contact with this product may dry and/or defat the skin.  
Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis.

**Chronic (Long Term) Toxicity:** Base oil severely refined: Not carcinogenic in animal studies.  
Representative material passes IP-346, Modified Ames test, and/or other screening tests.

**12. Ecological Information**

Ecological testing has not been conducted on this product.

**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.



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**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**

Don't pollute. Conserve resources. Return used oil to collection centers.

This product contains NONE of the substances 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**

Petroleum distillate base oils used in the product are severely hydrotreated and/or solvent refined.

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)



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The following sections contain revisions OR  
NEW statements.

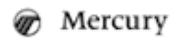
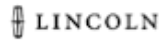
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**Preparation Information:**

The chemical identification and properties for this material were provided by the manufacturer. For Canadian locations, a manufacturer'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.

**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.



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**Attachment**

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<b>Product Code</b>	<b>Container Size</b>	<b>Part of Kit</b>	<b>Kit Product Code</b>
CM-19546-A1	3.8 fl. oz. (114 mL)		
M-19546-A12	3.8 fl. oz. (114 mL)		
XL-3	4 fl. oz.		