# PRIME F-R Hydraulic Fluid
# Material Safety Data Sheet

**Prime Lube, Inc.**
**P.O. Box 539**
**Carteret, NJ 07008**

**MSDS No:** **40-799985**
**Revision Date:** **01/2 1/2012**

**IMPORTANT: This MSDS is prepared in accordance with 29 CFR 1910.1200. Read this MSDS before transporting, handling, storing or disposing of this product and forward this information to employees, customers and users of this product.**

## Emergency Overview

| | |
|---|---|
| **Technical Contact** | (800) 248-4684 |
| **Medical Emergency** | (832) 486-4700 |
| **CHEMTREC** | (800) 424-9300 |
| **Color** | Fluorescent, Pink. |
| **Physical State** | Liquid |
| **Odor** | Musty, ammonia-type odor |

**Minimum Recommended See Section 8 for Details**

## SECTION 1 - PRODUCT IDENTIFICATION

| | |
|---|---|
| **Trade Name:** | PRIME LUBE F-R Hydraulic Fluid |
| **Product Number** | 40-799985 |
| **CAS Number** | Mixture |
| **Product family** | Fire-resistant hydraulic fluid |
| **Synonyms** | Hydraulic fluid; Prime Lube Material Code No.:40-799985 |

### Hazard Rankings

| | HMIS | NFPA |
|---|---|---|
| **Health Hazard** | * 2 | 1 |
| **Fire Hazard** | 0 | 0 |
| **Reactivity** | 0 | 0 |

*** = Chronic Health Hazard**

**CHEMTREC Emergency (United States Only)** (800) 424-9300*

## SECTION 2 - COMPOSITION

| Component Name(s) | CAS Registry No. | Concentration (%) |
|---|---|---|

| | | |
|---|---|---|
| Diethylene glycol | 111-46-6 | 40 - 50 |
| Water | 7732-18-5 | 35 - 50 |
| Alkyl alkoxy amine | NJTS: 648325001 | <5 |
| Proprietary Ingredients | Proprietary | <2 |

# SECTION 3 - HAZARDS IDENTIFICATION

**Also see Emergency Overview and Hazard Ratings on the top of Page 1 of this MSDS.**
**Major Route(s) of Entry** Skin contact. Eye contact. Inhalation. Ingestion.
**Signs and Symptoms of Acute Exposure**

**Inhalation -** Short-term harmful health effects are not expected from vapor generated at ambient temperatures. Overexposure to glycol and glycol ether vapors or mists can cause respiratory tract irritation. In general, this effect becomes noticeable with airborne concentrations of approximately 60 ppm. Cough and a burning sensation in the trachea are symptoms of inhalation exposures above 80 ppm. Overexposure to glycols and glycol ethers can causecentral nervous system depression. Symptoms include headache, weakness, nausea,vomiting, dizziness, loss of coordination and increased heart rate. Seisures, convulsions, coma and death are possible at extremely high concentrations.

**Eye Contact -** This product can cause eye irritation with short-term contact with liquid, mists or vapor. Symptoms include stinging, watering, redness, and swelling.

**Skin Contact -** This product can cause mild, transient skin irritation. The severity of irritation will depend on the amount of material that is applied to the skin and the speed and thoroughness that it is removed. Symptoms include redness, itching, and burning of the skin. Repeated or prolonged skin contact can produce moderate irritation (dermatitis).

**Ingestion -** The predominant hazard associated with this product is ingestion of large quantities at a single time. During the first 12 hours, the patient may experience central nervous system effects such as headache, weakness, nausea, dizziness, loss of judgement and coordination. In mild cases, the patient may appear to be drunk but without the breath odor of alcohol. In more severe cases the patient will experience cardiopulmonary symptoms including mild high blood pressure, abnormally fast heartbeat and elevated breathing rate. Convulsions and coma are possible. Kidney complications, including slow or no production of urine may be expected 24 to 72 hours after ingestion. Also, injury to the liver can occur.

**Chronic Health Effects Summary -** Certain glycols and glycol ethers have been associated with birth defects in laboratory animals at doses which were toxic to the mother. In repeated exposure studies, certain glycols produced skin irritation and severe eye irritation with corneal damage in laboratory animals. Chronic ingestion studies with lower molecular weight glycols resulted in kidney damage with calcium deposits. Also, calcium oxalate crystals were identified in brain tissue of experimental animals. Limited information is available regarding the effects of chronic inhalation of glycol and glycol ethers in humans. Overexposure to vapor, aerosol or mist generated can result in eye and respiratory tract irritation, dizziness and nausea.

**Conditions Aggravated by Exposure -** Persons with preexisting kidney or liver diseases may have their conditions aggravated by ingestion of or overexposure to this product.

**Target Organs -** May cause damage to the following organs: kidneys, liver, skin, eye, lens or cornea

**Carcinogenic Potential -** this product is not known to contain any components at concentrations above 0.1% which are considered carcinogenic by OSHA, IARC or NTP.

**OSHA Hazard Classification is indicated by an "X" under the hazard title. If no "X" is present, the product does not exhibit the hazard as defined in the OSHA Hazard Communication Standard (29 CFR1910.1200).**

**OSHA Health Hazard Classification** **OSHA Physical Hazard Classification**

**X - Irritant**

# SECTION 4 - FIRST AID MEASURES

**Take proper precautions to ensure your own health and safety before attempting rescue or providing first aid. For more specific information, refer to Exposure Controls and Personal Protection in Section 8 of this MSDS.**

**Inhalation -** Move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If breathing is difficult, 100 percent humidified oxygen should be administered by a qualified individual. Seek medical attention immediately. Keep the affected individual warm and at rest.

**Eye Contact -** Flush eyes with cool, clean, low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. If easily accomplished, check for and remove contact lenses. If contact lenses cannot be removed, seek immediate medical attention. Do not use eye ointment. Seek medical attention.

**Skin Contact -** Remove contaminated shoes and clothing. Wash exposed skin with mild soap and water. Seek medical attention if tissue appears damaged or if pain or irritation persists. Thoroughly clean contaminated clothing before reuse. Clean or discard contaminated leather goods.

**Ingestion -** If swallowed, give two glasses of water to drink. Never give anything by mouth to a person who is not fully conscious. Induce vomiting only upon the advise of a physician. Seek medical attention immediately.

**Notes to Physician -** INGESTION: Ingestion of lower molecular weight glycols have produced an accumulation of glycolate and glyoxalate which form lactate and results in metabolic acidosis, renal failure, heart failure, and pulmonary edema. Kidney insufficiency has been reported after two to three days of ingestion. The kidney failure may be caused by accumulation of calcium oxalate crystals. Urinalysis may show albuminuria, hematuria and oxaluria. Also, liver injury may occur.

Carefully consider the decision to induce or not to induce emesis in ingestions. Activated charcoal may be useful.

# SECTION 5 - FIRE FIGHTING MEASURES

| | |
|---|---|
| **NFPA Flammability Classification** | Not applicable |
| **Flash Point** | Open cup:149°C (300°F)(Cleveland)(After water component evaporates.) |
| **Lower Flammable Limit** | No data. |
| **Upper Flammable Limit** | No data. |
| **Autoignition Temperature** | Not available. |
| **Hazardous Combustion Products** | Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons, aldehydes and other products of incomplete combustion. |

**Special Properties** This is an aqueous solution. After the water component evaporates, the remaining material will burn. Do not direct a solid stream of water or foam into hot, burning pools as this may cause frothing and increase the intensity of the fire.

**Extinguishing Media** Use dry chemical, "alcohol" foam, Carbon Dioxide or Halon. Carbon dioxide and inert gas can displace oxygen. Use caution when applying carbon dioxide or inert gas in confined spaces

**Protection of Fire Fighters** Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. For more specific information, refer to the Emergency Overview on Page 1, Exposure Controls and Personal Protection in Section 8 and Disposal Considerations in Section 13 of this MSDS.**

Do not touch damaged containers or spilled material unless wearing appropriate protective equipment. Slipping hazard; do not walk through spilled material. Stop leak if you can do so without risk. For small spills, absorb or cover with dry earth, sand, or other inert non-combustible absorbent material and place into waste containers for later disposal. Contain large spills to maximize product recovery or disposal. Prevent entry into waterways or sewers. In urban area, cleanup spill as soon as possible. In natural environments, seek cleanup advice from specialists to minimize physical habitat damage. This material is miscible in water. Comply with all laws and regulations.

## SECTION 7 - HANDLING AND STORAGE

**Handling** Protect from temperature extremes and direct sunlight. Maintain operating temperatures as low as possible. Do not allow operating temperatures to exceed 66º C (150º F). Loss of water through evaporation during use can reduce safety and performance efficiency. To ensure fire resistance, water content must be maintained above 35%. Product container is not designed for elevated pressure. Do not pressurize, cut, weld, braze solder, drill, or grind on containers. Do not expose product containers to flames, sparks, heat or other potential ignition sources. Empty containers may contain product residues that can ignite with explosive force. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product.

**Storage** Keep container tightly closed and dry. Protect against physical damage. Do not store with strong oxidizing agents. Keep away from heat, flame and all other potential ignition sources. Do not store at temperatures above 49º C (120° F) or in direct sunlight. Consult appropriate federal, state an+d local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers or waste residues of this product.

## SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

**Engineering Controls -** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits (see below). An eye wash station and safety shower should be located near the work-station.

**Personal Protective Equipment -** Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations. The following pictograms represent the minimum requirements for personal protective equipment. For certain operations, additional PPE may be required.

**Eye Protection –** Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. Wear goggles if splashing or spraying is anticipated. Wear goggles and face shield if material is heated above 125°F (51°C). Have suitable eye wash water available.

**Respiratory Protection -** If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used. Protection factors vary depending upon the type of respirator used.Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).

**Hand Protection –** Use gloves constructed of glycol-resistant materials such as butyl rubber or polyvinyl chloride (PVC). Use heat-protective gloves when handling product at elevated temperatures.

**Body Protection –** Use clean protective clothing if splashing or spraying conditions are present. Protective clothing may include long-sleeve outer garment, apron, or lab coat. If significant contact occurs, remove oil-contaminated clothing as soon as possible and promptly shower. Launder contaminated clothing before reuse or discard. Wear heat protective boots and protective clothing when handling material at elevated temperatures.

**General Comments -** Use good personal hygiene practices. Wash hands and other exposed skin areas with plenty of mild soap and water before eating, drinking, smoking, use of toilet facilities, or leaving work. DO NOT use gasoline, kerosene, solvents, or harsh abrasive skin cleaners.

**Occupational Exposure Guidelines**

| **Substance** | **Applicable Workplace Exposure Levels** |
|---|---|
| Diethylene glycol | **AIHA WEEL (United States).** |
| | TWA: 10 mg/m $_3$ 8 hour(s).**,** AP 130°C (AP 266°F) |

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES (TYPICAL)

| | | | |
|---|---|---|---|
| **Physical State** | Liquid. | **Color** | Fluorescent, Pink. |
| **Odor** | Musty, ammonia-type odor | **Specific Gravity** | AP 1.1 (Water = 1) |
| **pH** | Not applicable. | **Vapor Density** | AP 2.75 (Air = 1) |
| **Boiling Range** | AP 130c (ap 266 F) | **Melting/Freezing Point** | AP -30°C (AP -22°F) |
| **Vapor Pressure** | AP 7 mm of Hg (@ 20°C) | **Volatility** | AP 590 g/l VOC (w/v) |
| **Solubility in Water** | Easily soluble in cold water. | **Viscosity (cSt @ 40°C)** | 41 |
| **Flash Point** | Open cup: 149°C (300°F) (Cleveland.). (After water component evaporates.) | | |
| **Additional Properties** | No Additional Information. | | |

## SECTION 10 - STABILITY AND REACTIVITY

**Chemical Stability** Stable.

**Hazardous Polymerization** Not expected to occur.

**Conditions to Avoid**. Not considered to be reactive. Avoid strong bases, strong acids, strong oxidizing agents and materials reactive with hydroxyl compounds

**Materials Incompatibility** Strong acids, alkalies, and oxidizers such as liquid chlorine and oxygen.

**Hazardous Decomposition Products** No additional hazardous decomposition products were identified other than the combustion products identified in Section 5 of this MSDS.
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# SECTION 11 - TOXICOLOGICAL INFORMATION

**For other health-related information, refer to the Emergency Overview on Page 1 and the Hazards Identification in Section 3 of this MSDS.**

**Toxicity Data** **Diethylene glycol** :
ORAL (LD50): Acute: 12565 mg/kg [Rat]. 13300 mg/kg [Mouse]. 2690 mg/kg [Rabbit].
DERMAL (LD50): Acute: 11890 mg/kg [Rabbit].

The major hazard from diethylene glycol occurs following the ingestion of relatively large single doses. Diethylene glycol can cause central nervous system depression and hydropic degenerative lesions in the liver and kidney. Anuria from tubular degeneration can prove fatal within a few days. In a 1937 case study, 105 fatalities occured among 353 people who ingested a solution of sulfanilamide in an aqueous mixture containing 72% diethylene glycol. The symptoms included nausea, dizziness, and pain in the kidney region. In a few days, oliguria and anuria, with death resulting from uremic poisoning. (Amdur, Doull and Klaasen, 1991). Autopsies revealed that the principal signs of intoxication were in the kidneys and liver (cortical necroses, nephrosis with severe vacuolization of the tubular epithelium, liver congestion and fatty degeneration. (AIHA, 1999) Reproductive toxicity was noted in a mouse continuous breeding study with large doses of diethylene glycol in drinking water. In addition, health effects including liver and kidney disease were noted in studies with pregnant rats receiving undiluted diethylene glycol. The relevance of these large dose studies to human health is not certain.

# SECTION 12 - ECOLOGICAL INFORMATION

**Ecotoxicity** **Diethylene Glycol:**
LC50 Fathead Minnows, >100 ppm/96 hrs (Static Test Environment)
LC50 *Daphnia Magna, 0.3 - 1 ppm/96 hrs (Static Test Environment)*
*No Effect Level, Selenastrum Capricornutum, 100 ppm (Static Test Environment)*

**Environmental Fate** This product is miscible in water and is expected to readily disperse in marine environments.

# SECTION 13 - DISPOSAL CONSIDERATIONS

**Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly, it is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition.**

Conditions of use may cause this material to become a "hazardous waste", as defined by federal or state regulations. It is the responsibility of the user to determine if the material is a "hazardous waste" at the time of disposal. Transportation, treatment, storage, and disposal of waste material must be conducted in accordance with RCRA regulations (see 40 CFR 260 through 40 CFR 271). State and/or local regulations may be more restrictive. Contact your regional US EPA office for guidance concerning case specific disposal issues. Empty drums and pails retain residue. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose this product's empty container to heat, flame, or other ignition sources. DO NOT attempt to clean it. Empty drums and pails should be drained completely, properly bunged or sealed,

and promptly sent to a reconditioner.

## SECTION 14 - TRANSPORT INFORMATION

**The shipping description below may not represent requirements for all modes of transportation, shipping methods or locations outside of the United States.**

| | |
|---|---|
| **US DOT Status** | Not regulated by the U.S. Department of Transportation as a hazardous material. |
| **Proper Shipping Name** | Not regulated. |
| **Hazard Class** | Not regulated. |
| **Packing Group** | Not applicable |
| **Reportable Quantity** | A Reportable Quantity (RQ) has not been established for this material. |
| **UN/NA Number** | Not regulated. |
| **MARPOL III Status** | Not a DOT "Marine Pollutant" per 49 CFR 171.8. |

**Emergency Response Guide No.** Not applicable.

## SECTION 15 - REGULATORY INFORMATION

**TSCA Inventory** This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

**SARA 302/304 Emergency Planning and Notification** The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.

**SARA 311/312 Hazard Identification Additional Remarks**The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: Acute (Immediate) Health Hazard, Chronic (Delayed) Health Hazard

**SARA 313 Toxic Chemical Notification and Release Reporting** This product contains the following components in concentrations above *de minimis* levels that are listed as toxic chemicals in 40 CFR Part 372 pursuant to the requirements of Section 313 of SARA: No components were identified

**CERCLA** The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. This product or refinery stream is not known to contain chemical substances subject to this statute. However, it is recommended that you contact state and local authorities to determine if there are any other reporting requirements in the event of a spill.

**Clean Water Act (CWA)** Discharges or spills of this material onto or in waters of the United States, adjoining shorelines,or into conduits leading to surface waters of the US without proper Federal or State permits should be reported to the National Response Center at (800) 424-8802.

**California Proposition 65** This material may contain the following components which are known to the State of California to cause cancer, birth defects or other reproductive harm, and may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5): Ethylene oxide: <0.0001% 1,4-Dioxane: <0.0001% Propylene oxide: <0.0001%

**New Jersey Right-to-Know Label** New Jersey RTK: 648325001

**Additional Remarks** No additional regulatory remarks.

## SECTION 16 - OTHER INFORMATION

**Refer to the top of Page 1 for the HMIS and NFPA Hazard Ratings for this product.**

**REVISION INFORMATION**
**Version Number** 1.1
**Revision Date** 10/1/2009

**ABBREVIATIONS**

IARC: International Agency for Research on Cancer
NFPA: National Fire Protection Association
AIHA: American Industrial Hygiene Association
ACGIH: American Conference of Governmental Industrial Hygienists
NIOSH: National Institute of Occupational Safety and Health
NPCA: National Paint and Coating Manufacturers Association
EPA: US Environmental Protection Agency
AP: Approximately
EQ: Equal >: Greater Than <: Less Than
NA: Not Applicable
ND: No Data
NE: Not Established

**DISCLAIMER OF LIABILITY**

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