

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Altra FR 200 WG
Product Number: 11166
Synonyms: Fire Resistant Hydraulic Fluid
Chemical Family: Glycols
CAS Number: Blend

Company Identification

Allegheny Petroleum Products Co.
999 Airbrake Avenue
Wilmerding, PA 15148
1-800-424-9300 (For questions and emergencies)
1-800-424-9300 or 1-703-527-3887 (CHEMTREC)

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

<u>Chemical Name</u>	<u>Amount</u>	<u>CAS Number</u>
DIETHYLENE GLYCOL	< 50.0 %	111-46-6
WATER	< 45.0 %	7732-18-5
POLYALKYLENE GLYCOL	< 15.0 %	Proprietary
MORPHOLINE	< 2.0 %	110-91-8
ADDITIVES	< 3.0 %	Proprietary

(See Section 8 for exposure guidelines)

(See Section 15 for regulatory information)

HAZARDS DISCLOSURE

As defined under Sara 311 and 312, this product contains materials that are acute, chronic hazards.

MISCELLANEOUS:

This product does not contain any components that are listed as toxic chemicals under Section 313 of SARA.

3. HAZARDS IDENTIFICATION

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***** EMERGENCY OVERVIEW *****
*
*                               WARNING
*
* Harmful or fatal if swallowed. Causes eye
* irritation. Vapor, aerosol or mist of the product
* and thermal degradation products generated at high
* temperature can be irritating and harmful if
* inhaled. May cause liver and kidney damage. Vapor
* may cause temporary blurring of vision.
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*****
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HMIS Rating - Health: 2
Flammability: 1
Reactivity: 0

POTENTIAL HEALTH EFFECTS

EYE:

May cause irritation, experienced as stinging with excess blinking and tear production. Excess redness and swelling of the conjunctiva may occur. Vapor may cause temporary disturbance of vision.

SKIN:

No hazard is expected in normal industrial use.

INHALATION:

Short term effects are not expected in normal industrial use or vapors at room temperature. Vapor or mist from heated material may cause nausea and headache.

INGESTION:

Moderately high toxicity. May cause pain or discomfort in the abdomen, pain in the lumbar region, nausea, vomiting, diarrhea, dizziness, drowsiness, decreased urine production, malaise, and loss of consciousness. Severe kidney damage may occur which can be fatal if not promptly and adequately treated. Liver injury may also occur.

CHRONIC EFFECTS:

Repeated overexposure to vapor or mist may cause headache, nausea, and dizziness. May also result in eye and respiratory tract irritation. Skin contact may cause sensitization and an allergic skin reaction. Short term repeated ingestion of diethylene glycol may produce renal failure.

TARGET ORGAN:

Kidneys. Liver.

(section 3 continued)

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

A knowledge of the available toxicology information and of the physical and chemical properties of the material suggests that overexposure is unlikely to aggravate existing medical conditions.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if worn. Get medical attention.

SKIN CONTACT FIRST AID:

Wash skin with plenty of soap and water while removing contaminated clothing and shoes. Thoroughly wash (or discard) clothing and shoes before reuse.

INHALATION FIRST AID:

Remove to fresh air. If symptoms develop or persist, obtain medical attention.

INGESTION FIRST AID:

If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. If conscious, immediately give 2 glasses of water. If medical advice is delayed, give three to four ounces of hard liquor, such as whiskey. For children, give proportionally less liquor, according to weight.

NOTES TO PHYSICIAN:

Lethal oral dose for adults is 1.0 - 1.2 ml/kg. diethylene glycol produces metabolites that cause an elevated anion-gap metabolic acidosis and renal tubular injury. Liver injury may occur but not as severe as kidney injury. The signs and symptoms in diethylene glycol poisoning are those of metabolic acidosis, CNS depression, and kidney injury. Urinalysis may show albuminuria, hematuria, and oxaluria. The currently recommended medical management of diethylene glycol poisoning includes elimination of diethylene glycol and its metabolites, correction of metabolic acidosis, and prevention of kidney injury. It is essential to have immediate and follow-up urinalysis and clinical chemistry. There should be particular emphasis on acid-base balance, and liver and kidney function tests. A continuous infusion of 5% sodium bicarbonate with frequent monitoring of electrolytes and fluid balance status is used to achieve correction of metabolic acidosis and forced diuresis. For severe and/or deteriorating cases, hemodialysis may be required.

(section 4 continued)

Dialysis should be considered for patients who are symptomatic, have severe metabolic acidosis, a blood diethylene glycol concentration greater than 25 mg/dl, or compromise of renal function. There are no reported cases in which ethanol has been used antidotally, although a limited number of laboratory animal studies suggest that it may be effective. If used clinically, a therapeutically effective blood concentration is probably around 100 - 10 mg/dl, although this is unproven; this concentration should be achieved by a rapid loading dose and maintained by intravenous infusion. One animal study has suggested that pyrazole may be an effective early antidote, but its value in human diethylene glycol poisoning is unproven.

Exposure to the vapor may cause minor transient edema of the corneal epithelium. This condition, referred to as 'glauropsia', 'blue haze', or 'blue-gray haze', produces a blurring of vision against a general bluish haze and the appearance of halos around bright objects. The effect disappears spontaneously within a few hours of the end of an exposure and leaves no sequelae. Although not detrimental to the eye per se, glauropsia predisposes an affected individual to physical accidents and reduces the ability to undertake skilled tasks, such as driving a motorized vehicle.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: None
TCC Flash Point: None
Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A
UEL: N/A

EXTINGUISHING MEDIA:

Neat liquid will not burn. After water evaporates, remaining material will burn. Use alcohol-type or all purpose type foam, applied by manufacturer's recommended techniques for large fires. Carbon dioxide, foam, or dry powder can also be used.

FIRE & EXPLOSION HAZARDS:

Container areas exposed to direct flame contact should be cooled with large quantities of water as needed to prevent weakening of container structure. A direct stream of water or foam onto hot pools may cause frothing and increase fire intensity.

FIRE FIGHTING INSTRUCTIONS:

As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear.

(section 5 continued)

COMBUSTION PRODUCTS:

Hazardous decomposition products are oxides of carbon and nitrogen, including CO and CO₂.

MISCELLANEOUS:

CO is highly toxic if inhaled. In sufficient quantities CO₂ is considered an asphyxiant. Overexposure to the products of combustion may result in irritation of the respiratory tract.

6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):

Wear appropriate personal protective equipment as outlined in section 8.

SMALL SPILLS PROCEDURE:

Absorb spills with inert material and flush with water. Avoid disposal into waste water treatment facilities. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

7. HANDLING AND STORAGE

HANDLING (PHYSICAL ASPECTS):

Store in a cool dry area.

STORAGE PRECAUTIONS:

Keep away from food and drinking water. Keep container tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

General mechanical ventilation is normally sufficient when handling or using this product to keep exposure to airborne contaminants below the exposure limit. If the product is used at elevated temperatures, special local ventilation or a NIOSH approved respirator may be required to keep exposure levels below TLV.

EYE / FACE PROTECTION REQUIREMENTS:

When splashing of the material may occur, chemical goggles and a face shield are recommended.

SKIN PROTECTION REQUIREMENTS:

Wear polyvinyl chloride coated gloves.

RESPIRATORY PROTECTION REQUIREMENTS:

Use a NIOSH approved respirator when exposed to vapor from heated material if limits are exceeded.

(section 8 continued)

EXPOSURE GUIDELINES:

DIETHYLENE GLYCOL

OSHA TWA: 50 ppm, 10 mg/m³

MORPHOLINE

OSHA TWA: 20 ppm, 70 mg/m³

ACGIH TWA: 20 ppm, 71 mg/m³

OSHA STEL: 30 ppm, 105 mg/m³

MISCELLANEOUS:

Diethylene glycol Exposure Limit: 50 ppm (10mg/cubic meter) TWA8 AIHA
WEEL for aerosol and vapor.

Morpholine exposure limit: 20 ppm TWA (skin), OSHA & ACGIH 30 ppm STEL
(Skin).

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid
COLOR: Transparent Red
ODOR: Mild
BOILING POINT: 105 C
SOLUBILITY IN WATER ...: Complete
SPECIFIC GRAVITY: 1.06 at 60 Deg F (Water = 1)
BULK DENSITY: 8.81 Pounds per Gallon at 60 Deg F
PH: 9.5
VISCOSITY: at 40 Deg C: 41.0 cSt

10. STABILITY AND REACTIVITY

STABILITY:

Stable.

POLYMERIZATION:

Hazardous polymerization will not occur.

INCOMPATIBILITY WITH OTHER MATERIALS:

Avoid nitrites or other nitrosating agents because nitrosamine, which may cause cancer, can be formed. Avoid strong bases, strong acids, oxidizing agents and hydroxyl reactive compounds.

DECOMPOSITION:

Oxides of carbon (including carbon monoxide) and nitrogen may be formed.

11. TOXICOLOGICAL INFORMATION

MISCELLANEOUS:

Please contact supplier for toxicological information.

12. ECOLOGICAL INFORMATION

MISCELLANEOUS:

Please contact supplier for ecological information.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Incineration is recommended. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

CONTAINER DISPOSAL:

Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORTATION INFORMATION

PRODUCT LABEL: Altra FR 200 WG
D.O.T. SHIPPING NAME: Not Regulated by DOT
TECHNICAL SHIPPING NAME ...: Diethylene Glycol Solution

15. REGULATORY INFORMATION

REGULATORY DISCLOSURES:

This product contains no listed substances known to the State of California to cause cancer, birth defects, or other reproductive harm, at levels which would require a warning under the statute.

Canadian Disclosure List

MORPHOLINE (110-91-8)

16. OTHER INFORMATION

APPROVAL DATE: November 13, 2007
SUPERCEDES DATE ...: January 30, 2007
RTN NUMBER: 00310136 (Official Copy)

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END OF MSDS
