

### SECTION 1: IDENTIFICATION

MSDS ID: MSDS029

PRODUCT NAME: PRESTONE Super Heavy Duty Brake Fluid DOT 3  
AS600, AS601  
Formula: 436, 2075-28, 2075-36

MANUFACTURER: Honeywell Consumer Products Group  
39 Old Ridgebury Road  
Danbury, CT 06810-5109

CANADIAN OFFICE: Honeywell Consumer Products Group  
3333 Unity Drive  
Mississauga, Ontario L5L 3S6

INFORMATION PHONE NUMBER: (800)862-7737 (in the US)  
(800)668-9349 (in Canada)

EMERGENCY PHONE NUMBER: CHEMTREC 1-800-424-9300 (in the US)  
CANUTEC (613)996-6666 (in Canada)

MSDS DATE OF PREPARATION/REVISION: 12/15/04

PRODUCT USE: Automobile brake fluid - consumer product

NFPA RATING (NFPA 704) - FIRE: 1  
HEALTH: 2  
REACTIVITY: 0

### SECTION 2: PRODUCT COMPONENTS

HAZARDOUS COMPONENTS	CAS#	PERCENT	EXPOSURE LIMITS
Triethylene glycol monobutyl ether	143-22-6	20-75%	None Established
Triethylene glycol monomethyl ether	112-35-6	2-20%	None Established
Triethylene glycol monoethyl ether	112-50-6	0-35%	None Established
Tetraethylene glycol monobutyl ether	1559-34-8	0-15%	None Established
Diethylene glycol monobutyl ether	112-34-5	1-10%	None Established
Diethylene glycol monoethyl ether	111-90-0	0-2%	25 ppm TWA AIHA WEEL
Tetraethylene glycol	112-60-7	0-15%	None Established
Diethylene glycol	111-46-6	<20%	10 mg/m3 TWA AIHA WEEL
Triethylene glycol	112-27-6	<10%	100 mg/m3 TWA Manufacturer
Polyethylene glycol	25322-68-3	0-20%	10 mg/m3 TWA AIHA WEEL
Polyethylene glycol monomethyl ether	9004-74-4	1-15%	None Established

Polyethylene glycol monobutyl ether	9004-77-7	0-15%	None Established
Polyethylene glycol Monoethyl ether	27879-07-8	0-5%	None Established
Pentaethylene glycol, monobutyl ether	23601-39-0	0-5%	None Established
Inhibitor package	Mixture	0-2%	None Established

### SECTION 3: HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

Clear amber liquid with a mild odor. Eye contact may cause irritation with possible corneal injury. May cause mild skin irritation or sensitization. Breathing high concentrations of vapors or mists may cause irritation, headache, dizziness, drowsiness, nausea, loss of sense of balance and visual disturbances. Swallowing may cause gastrointestinal disturbances including irritation, abdominal pain, back pain, nausea, vomiting, diarrhea, headache, dizziness, drowsiness, nausea, visual disturbances, decreased urine production, malaise, unconsciousness and liver or kidney damage. May cause chronic effects.

#### POTENTIAL HEALTH EFFECTS:

##### ACUTE HAZARDS:

**INHALATION:** None expected from short term exposures at ambient temperatures. At elevated temperatures, product may cause respiratory irritation, headache, dizziness, drowsiness, nausea, loss of sense of balance and visual disturbances. High concentrations of vapors at ambient temperatures may cause lung injury or liver dysfunction.

**SKIN CONTACT:** Prolonged or repeated exposure may cause mild irritation with redness and discomfort. Prolonged contact may cause defatting or drying of the skin.

**DERMAL TOXICITY:** Prolonged or widespread contact may result in the absorption of potentially harmful amounts resulting in effects similar to those listed under ingestion.

**EYE CONTACT:** May cause irritation with tearing, blurred vision and possible corneal damage.

**INGESTION:** Ingestion may cause abdominal pain, back pain, nausea, vomiting, diarrhea, headache, dizziness, drowsiness, nausea, visual disturbances, decreased urine production, malaise, unconsciousness and liver or kidney damage.

**CHRONIC HAZARDS:** Prolonged or repeated skin contact with this product may possibly lead to irritation and dermatitis. Prolonged or repeated exposures may cause damage to the central nervous system, lung, liver or kidneys. Adverse reproductive effects may also occur.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: May aggravate pre-existing skin, lung, liver and kidney disorders.

CARCINOGEN: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP or OSHA.

### SECTION 4: FIRST AID MEASURES

INHALATION: Remove to fresh air if effects occur and seek medical attention.

SKIN CONTACT: Remove contaminated clothing. Wash all affected and exposed areas with soap and water. If skin irritation or redness develops or persists, seek medical attention.

EYE CONTACT: Exposed eyes should be immediately flushed with copious amounts of water using a steady stream for a minimum of 15 minutes. If irritation, pain, swelling or tearing develop, seek medical attention.

INGESTION: If swallowed, get immediate medical advice by calling a Poison Control Center or hospital emergency room. If advice is not available, take victim and product container to the nearest emergency treatment center or hospital. Do not attempt to give anything by mouth to an unconscious person.

NOTES TO PHYSICIAN: It is estimated that the lethal oral dose of diethylene glycol in adults is 1.0-1.2 ml/kg. Diethylene glycol may 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 current medical management of diethylene glycol poisoning includes elimination of diethylene glycol, 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. For severe and/or deteriorating cases, hemodialysis may be required. Dialysis should be considered for patients who have severe metabolic acidosis, or compromise of renal function. There is no conclusive evidence that ethanol treatment will be beneficial. Consult your poison control center.

### SECTION 5: FIRE AND EXPLOSION DATA

FLASH POINT: Greater than 250 F (>121 C) PMCC

AUTOIGNITION TEMPERATURE: Not determined

FLAMMABILITY LIMITS: LEL: Not determined UEL: Not determined

NFPA Classification: Not Applicable

EXTINGUISHING MEDIA: Use water spray or fog, foam, carbon dioxide or dry chemical. Cool fire exposed containers with water. A direct stream of water or foam may cause frothing.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

UNUSUAL FIRE HAZARDS: None

HAZARDOUS COMBUSTION PRODUCTS: Burning may produce carbon monoxide, carbon dioxide, and nitrogen oxides.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

Wear appropriate protective clothing and equipment (See Section 8). Collect material with absorbent material and place in appropriate, labeled container for disposal.

### SECTION 7: HANDLING AND STORAGE

Avoid eye contact.  
Avoid prolonged skin contact.  
Avoid breathing vapors and mists.  
Use with adequate ventilation.  
Wash exposed skin thoroughly with soap and water after use.  
Keep away from excessive heat and open flames.  
Do not add nitrites or other nitrosating agents. Nitrosamine, which may cause cancer, may be formed.  
Keep containers closed when not in use.  
Store in a cool, dry area.  
Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without any obvious ignition sources.  
Empty containers retain product residue and may be hazardous. Do not cut, weld, drill, etc. containers, even empty. Do not reuse empty containers unless properly cleaned.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: General ventilation should be adequate for normal use. For operations where the product is heated or misted and exposures may be excessive, mechanical ventilation such as local exhaust may be needed to minimize exposure.

RESPIRATORY PROTECTION: None under normal use conditions. For operations where exposures may be excessive, a NIOSH/MSHA approved respirator with an organic vapor cartridge and a dust/mist prefilter

or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

**GLOVES:** Chemical resistant gloves such as PVC coated gloves are recommended to prevent prolonged/repeated skin contact.

**EYE PROTECTION:** Splash proof goggles are recommended to prevent eye contact.

**OTHER PROTECTIVE EQUIPMENT/CLOTHING:** Protective clothing if needed to avoid prolonged/repeated skin contact. Suitable washing and eye flushing facilities should be available in the work area. Contaminated clothing should be removed and laundered or dry cleaned before re-use.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE AND ODOR:** Clear amber or yellow liquid, mild odor.

pH: Not determined	SPECIFIC GRAVITY: 1.02 - 1.05
BOILING POINT (F): > 450 F	VAPOR PRESSURE: Less than 0.01 mmHg @ 20 C
FREEZING POINT (F): <-60 F	VAPOR DENSITY: >1
SOLUBILITY IN WATER: 100%	EVAPORATION RATE: Not determined
PERCENT VOLATILE: 100%	VISCOSITY: Not determined
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not determined	

## SECTION 10: STABILITY AND REACTIVITY

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Contact with nitrites or other nitrosating agents may produce nitrosamine, a known animal carcinogen.

**INCOMPATIBILITY:** Strong oxidizing agents, acids and strong alkalies.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Combustion will product carbon monoxide, carbon dioxide and nitrogen oxides.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## SECTION 11: TOXICOLOGICAL INFORMATION

Triethylene glycol monobutyl ether:	Oral rat LD50: 6.73 ml/kg
	Skin rabbit LD50: 3.4 ml/kg
Triethylene glycol monomethyl ether:	Oral rat LD50: 11,800 mg/kg
	Skin rabbit 7,400 mg/kg
Diethylene glycol monobutyl ether:	Oral rat LD50: 6,540 mg/kg
Diethylene glycol monoethyl ether:	Oral rat LD50: 5,540 mg/kg
Tetraethylene glycol:	Oral rat LD50: 32,800 mg/kg
Diethylene Glycol:	Oral rat LD50: 12,565 mg/kg
	Skin rabbit LD50: 11,890 mg/kg
Triethylene Glycol:	Oral rat LD50: 17 gm/kg
	Skin rabbit LD50: >20 mL/kg

**SECTION 12: ECOLOGICAL INFORMATION**

Diethylene glycol monobutyl ether: LC50 Goldfish 2700 mg/l/24 hr  
Diethylene glycol monoethyl ether: LC50 Fathead minnows 26.5 g/l/96 hr  
Triethylene glycol: LC50 Fathead minnows 59.9 - 77.4 g/l/96 hr

**SECTION 13: DISPOSAL INFORMATION**

Recycle, incinerate, treat or landfill in accordance with all local, state/provincial and federal regulations.

**SECTION 14: TRANSPORT INFORMATION**

U.S. DOT HAZARD CLASSIFICATION

PROPER SHIPPING NAME: Not Regulated  
TECHNICAL NAME: N/A  
UN NUMBER: N/A  
HAZARD CLASS/PACKING GROUP: N/A  
LABELS REQUIRED: N/A

DOT MARINE POLLUTANTS: This product does not contain Marine Pollutants as defined in 49 CFR 171.8.

IMDG CODE SHIPPING CLASSIFICATION

DESCRIPTION: Not Regulated

ID NUMBER: N/A  
HAZARD CLASS: N/A  
PACKING GROUP: N/A  
LABELS REQUIRED: N/A  
PLACARDS REQUIRED: N/A

CANADIAN TDG CLASSIFICATION

PROPER SHIPPING NAME: Not Regulated  
ID NUMBER: N/A  
HAZARD CLASS: N/A  
PACKING GROUP: N/A  
LABELS REQUIRED: N/A  
PLACARDS REQUIRED: N/A

**SECTION 15: REGULATORY INFORMATION**

EPA SARA 311/312 HAZARD CLASSIFICATION: Not applicable

EPA SARA 313: This Product Contains the Following Chemicals  
Subject to Annual Release Reporting Requirements Under SARA Title  
III, Section 313 (40 CFR 372):

Chemical Name	CAS#	Weight %
Glycol Ethers	NA	<100

PROTECTION OF STRATOSPHERIC OZONE: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: This product is not subject to CERCLA reporting requirements, however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

CALIFORNIA PROPOSITION 65: This product does not contain chemicals regulated under California Proposition 65.

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CANADIAN ENVIRONMENTAL PROTECTION ACT: All of the ingredients are listed on the Canadian Domestic Substances List.

CANADIAN WHMIS CLASSIFICATION: Class D - Division 2 - Subdivision B - (Toxic material causing other chronic effects)

CANADIAN WHIMIS HAZARD SYMBOLS: Toxic - Division 2

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS): All of the ingredients are listed on the EINECS inventory.

AUSTRALIA: All of the ingredients of this product are listed on the Australian Inventory of Chemical Substances.

## SECTION 16: OTHER INFORMATION

REVISION SUMMARY: Section 2: Components  
Section 10: Incompatibilities  
Section 11: Toxicological Information  
Section 12: Ecological Information  
Section 15: Australian Chemical Inventory Status

This MSDS is directed to professional users and bulk handlers of the product. Consumer products are labeled in accordance with Federal Hazardous Substances Act regulations.

While Prestone Products Corporation believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of tests conducted, the data are not to



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## MSDS029

be taken as a warranty or representation for which Prestone Products Corporation assumes legal responsibility. They are offered for your consideration, investigation and verification. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

If more information is needed, please contact: Technical Services  
Prestone Products Corporation  
55 Federal Road  
Danbury, CT 06810  
(800)862-7737