

SAFETY DATA SHEET

1. Product And Company Identification

SDS ID: SDS893
PRODUCT NAME: Subaru DOT 3 Brake Fluid
PRODUCT NUMBER: SOA868V9222
FORMULA NUMBER: 2913-75, 2482-138.

MANUFACTURER:
Prestone Products Corporation
69 Eagle Rd.
Danbury, CT 06810

CANADIAN OFFICE:
Prestone Canada
33 MacIntosh Blvd.
Concord, ON L4K 4L5

MEXICO OFFICE:
ASG Operations Mexico S. de R.L. de C.V.
Carretera Mexico Cuautitlan, Kilometro 31.5,
Nave Industrial 5,
Loma Bonita, Cuautitlan, Mexico, 54800

MEDICAL EMERGENCIES AND ALL OTHER INFORMATION PHONE NUMBER:

(888)269-0750 (in the US and Canada)
01-800-715-4135 (in Mexico)

TRANSPORTATION EMERGENCY PHONE NUMBER (Chemical Spills and Transport Accidents only):

CHEMTREC 1-800-424-9300 (in the US and Canada) +1 703 741-5970 (outside the US and Canada)

PRODUCT USE: Automobile brake fluid – consumer product
RESTRICTIONS ON USE: None identified

2. Hazards Identification

GHS/HAZCOM 2012 Classification:

Health	Physical
Acute Toxicity Category 4 Eye Damage Category 1 Specific Target Organ Toxicity – Repeated Exposure Category 2 Toxic to Reproduction Category 2	Not Hazardous

Label Elements



DANGER!

H302 Harmful if swallowed.
H318 Causes serious eye damage.
H361 Suspected of damaging the unborn child.
H373 May cause damage to kidneys through prolonged or repeated exposure by ingestion.

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe mist, vapors or spray.
P264 Wash exposed skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves and eye protection.

Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

P330 Rinse mouth.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor.

P308 + P313 IF exposed or concerned: Get medical attention.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents and container in accordance with local and national regulations.

The exact concentrations are a trade secret.

3. Composition/Information On Ingredients

Component	CAS No.	Amount
Triethylene glycol monomethyl ether	112-35-6	0-85%
Triethylene glycol monobutyl ether	143-22-6	0-70%
Diethylene glycol	111-46-6	1-60%
2-(2-propoxyethoxy)ethanol	6881-94-3	0-60%
Polyethylene glycol monomethyl ether	9004-74-4	0-50%
Triethylene glycol monoethyl ether	112-50-5	0-40%
Polyalkylene glycol monomethyl ether	23783-42-8	0-30%
Diethylene glycol monobutyl ether	112-34-5	1-30%
Pentaethylene glycol	4792-15-8	0-30%
Tetraethylene glycol	112-60-7	0-25%
Triethylene glycol	112-27-6	0-20%
Triethylene glycol monobutyl ether	1559-34-8	0-20%
Polyethylene glycol monobutyl ether	9004-77-7	0-9%
Polyethylene glycol	25322-68-3	0-5%
Diethylene glycol monomethyl ether	111-77-3	0-5%
Tetraethylene glycol monoethyl ether	5650-20-4	0-5%
Diisopropanolamine	110-97-4	0-5%

The exact concentrations are a trade secret.

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 20 minutes. Seek immediate 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.

MOST IMPORTANT SYMPTOMS: Eye contact causes severe irritation with possible corneal injury. May cause skin irritation. 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. Prolonged overexposure may cause damage to the kidneys. May cause developmental

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED: Seek immediate medical attention for eye contact, or large ingestions.

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. 4-Methyl pyrazole (Fomepizole®) shows some promise as treatment because of its apparent lack of toxicity. Consult your poison control center.

5. Firefighting Measures

SUITABLE EXTINGUISHING MEDIA: Use water spray or fog, foam, carbon dioxide or dry chemical. Cool fire exposed containers with water.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: A solid stream of water or foam directed into hot, burning liquid can cause frothing. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Burning may produce carbon monoxide, carbon dioxide, and nitrogen oxides.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

6: Accidental Release Measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Wear appropriate protective clothing and equipment (See Section 8).

METHODS AND MATERIALS FOR CONTAINMENT/CLEANUP: Collect with absorbent material and place in appropriate, labeled container for disposal.

7. Handling and Storage

PRECAUTIONS FOR SAFE HANDLING: 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.

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. Spills of this product on hot, fibrous insulation may result in spontaneous combustion.

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.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Keep away from excessive heat and open flames. Do not add nitrites or other nitro sating agents. Nitrosamine, which may cause cancer, may be formed. Keep containers closed when not in use. Store in a cool, dry area.

NFPA CLASSIFICATION: Not Applicable

8. Exposure Controls / Personal Protection

EXPOSURE GUIDELINES

Triethylene glycol monomethyl ether	None Established
Triethylene glycol monobutyl ether	None Established
Diethylene glycol	25 mg/m ³ TWA AIHA WEEL
2-(2-propoxyethoxy)ethanol	None Established
Polyethylene glycol monomethyl ether	None Established
Triethylene glycol monoethyl ether	None Established
Polyalkylene glycol monomethyl ether	None Established
Diethylene glycol monobutyl ether	35 ppm TWA Manufacturer 10 ppm TWA ACGIH TLV (Inhalable fraction and vapor)
Pentaethylene glycol	10 mg/m ³ TWA Manufacturer
Tetraethylene glycol	None Established
Triethylene glycol	None Established
Triethylene glycol monobutyl ether	None Established
Polyethylene glycol monobutyl ether	None Established
Polyethylene glycol	10 mg/m ³ TWA AIHA WEEL
Diethylene glycol monomethyl ether	None Established
Tetraethylene glycol monoethyl ether	None Established
Diisopropanolamine	10 ppm Manufacturer

APPROPRIATE ENGINEERING CONTROLS: 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.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: None under normal use conditions. For operations where exposures may be excessive, a NIOSH 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.

9. Physical and Chemical Properties

APPEARANCE:	Clear amber or yellow liquid	ODOR:	Mild odor
ODOR THRESHOLD:	Not determined	pH:	Not determined
MELTING/FREEZING POINT:	<-60°F (<-51°C)	BOILING POINT/RANGE:	>401°F (>205°C)
FLASH POINT:	> 203°F (>118.3°C) PMCC	EVAPORATION RATE:	Not determined
FLAMMABILITY (SOLID, GAS)	Not Applicable	FLAMMABILITY LIMITS:	LEL: Not determined UEL: Not determined
VAPOR PRESSURE:	< 0.01 mmHg @20°F	VAPOR DENSITY:	>1
RELATIVE DENSITY:	1.00 – 1.07	SOLUBILITIES	Water: 100%



PARTITION COEFFICIENT (n-octanol/water)	Not determined	AUTOIGNITION TEMPERATURE:	Not determined
DECOMPOSITION TEMPERATURE:	Not determined	VISCOSITY:	Not determined

10. Stability and Reactivity

REACTIVITY: Normally unreactive.

CHEMICAL STABILITY: Stable

POSSIBILITY OF HAZARDOUS REACTIONS: Reaction with strong oxidizers will generate heat.

CONDITIONS TO AVOID: Product may oxidize at elevated temperatures. Generation of gas during composition can cause pressure in closed systems.

INCOMPATIBLE MATERIALS: Strong oxidizing agents, acids and strong alkalis.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition will product carbon monoxide, carbon dioxide, nitrogen oxides, aldehydes, ketones, organic acids.

11. Toxicological Information

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, liver dysfunction or kidney damage.

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

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, cardiopulmonary effects (metabolic acidosis), unconsciousness and liver or kidney damage.

CHRONIC EFFECTS: 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, blood, lung, liver or kidneys. Adverse reproductive effects may also occur. Prolonged or widespread contact may result in the absorption of potentially harmful amounts resulting in effects similar to those listed under ingestion. Massive contact with damaged skin or with material sufficiently hot to burn the skin may result in absorption of potentially lethal amounts.

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

ACUTE TOXICITY VALUES:

Calculated ATE for product: LD50: Oral 833 mg/kg

Triethylene glycol monobutyl ether

Polyethylene glycol monomethyl ether

LD50: Oral Rat 5,300 mg/kg

LD50: Skin Rabbit 3,540 mg/kg

LD50: Oral Rat 22 mL/kg

LD50: Skin Rabbit: >20 mL/kg

Tetraethylene glycol monoethyl ether	LD50: Oral Rat 10,610 mg/L LD50: Skin Rabbit 3,540 mg/kg
Triethylene glycol monomethyl ether	LD50: Oral Rat >10,500 mg/kg LD50: Skin Rabbit: 2,700 mg/kg
Triethylene glycol monomethyl ether borate ester	LD50: Oral Rat >2,000 mg/kg LD50: Skin Rabbit: 2,000 mg/kg
Pentaethylene glycol	LD50: Oral Guinea pig: 22,500 mg/kg
Tetraethylene glycol	LD50: Oral Rat >18,000 mg/kg LD50: Skin Rabbit: 20,000 mg/kg
Polyethylene glycol monobutyl ether	LD50: Oral Rat >2,000 mg/kg LD50: Skin Rabbit: 3,540 mg/kg
Triethylene glycol	LD50: Oral Rat >2,000 mg/kg LD50: Skin Rabbit: 16,000 mg/kg
Polyethylene glycol monobutyl ether	LD50: Oral Rat >2,000 mg/kg LD50: Skin Rabbit: 3,540 mg/kg
Triethylene glycol	LD50: Oral Rat >2,000 mg/kg LD50: Skin Rabbit: 16,000 mg/kg
Polyethylene glycol	LD50: Oral Rat >4,000 mg/kg LD50: Skin Rabbit: >20,000 mg
Triethylene glycol monobutyl ether	LD50: Oral Rat >5170 mg/kg LD50: Skin Rabbit: 3540 mg
Diethylene glycol	LD50: Oral Rat 5,660 mg/kg LD50: Skin Rabbit: 2,700 mg/kg
Diethylene glycol monobutyl ether	LD50: Oral Rat 5,660 mg/kg LD50: Skin Rabbit: 2,700 mg/kg
Tetraethylene glycol monoethyl ether	No toxicity data available
Diethylene glycol monomethyl ether	LD50: Oral Rat >7128 mg/kg LC0 Inhalation rat >12 mg/L/6 hr (maximum vapor concentration LD50: Skin Rabbit 9404 mg/kg
Triethylene glycol monoethyl ether	LD50: Oral Rat 10,610 mg/kg LD50: Skin Rabbit: 3,540 mg/kg
Diisopropanolamine	LD50: Oral Rat >4,000 mg/kg LD50: Skin Rabbit: >20,000 mg/kg

12. Ecological Information

ECOTOXICITY:

Triethylene glycol monobutyl ether	LC50: Pimephales promelas (Fathead minnow) 2400 mg/L/96 hr. LC50: Daphnia magna 2210 mg/L /48 hr.
Polyethylene glycol monomethyl ether	No data available
Triethylene glycol monoethyl ether	LC50: Pimephales promelas (Fathead minnow) >10,000 mg/L/96 hr. EC50 Daphnia magna (Water flea) >10,000 mg/L
Triethylene glycol monomethyl ether	LC0 Brachydanio rerio >5000 mg/L/96 hr. LC50 Daphnia magna (Water flea, neonate) >10,000 mg /L/48 hr.
Triethylene glycol monomethyl ether borate ester	LC50: Oncorhynchus mykiss >2222 mg/L/96 hr\ EC50 Daphnia magna (Water flea) >500 mg/L EC50: Pseudokirchneriella subcapitata 731 mg/L/96 hr
Pentaethylene glycol	No data available
Tetraethylene glycol	LC50 Pimephales promelas (fathead minnow) >10,000 mg/L/96 hr. LC50 Daphnia magna (Water flea, neonate) 7746 mg /L/48 hr.
Polyethylene glycol monobutyl ether	LC50: Scophthalmus maximus >1800 mg/L/96 hr EC50 Daphnia magna (Water flea) >3200 mg/L/48 hr EC50: Scenedesmus capricornutum 1075 mg/L/72 hr
Triethylene glycol	LC50 Lepomis macrochirus >10,000 mg/L/96 hr. EC50 Daphnia magna (Water flea, neonate) >10,000 mg /L/48 hr



Polyethylene glycol	LC50 Poecilia reticulata >100 mg/L /96 hr.
Tetraethylene glycol monobutyl ether	No data available
Diethylene glycol	LC50 Western mosquitofish >32,000 mg/L/96 hr
Tetraethylene glycol monoethyl ether	No data available
Diethylene glycol monomethyl ether	LC50: Pimephales promelas (Fathead minnow) 5741 mg/L/ 96 hr
	EC50 Daphnia magna 1192 mg/L/ 48 hr
Triethylene glycol monoethyl ether	LC50: Pimephales promelas (Fathead minnow) >10,000 mg/L/96 hr.
	LC50: Daphnia magna 10,000 mg/L /48 hr.
Diisopropanolamine	LC50 Brachydanio rerio (Zebra Fish) >1000 -2200 mg/L/ 96 hr

PERSISTENCE AND DEGRADABILITY: Triethylene glycol monobutyl ether: The theoretical BODs for triethylene glycol monobutyl ether are 0, 5, and 24% for 5 days, 10 days, and 20 days, respectively. Diethylene glycol, triethylene glycol monoethyl ether, diethylene glycol monobutyl ether, triethylene glycol monomethyl ether, tetraethylene glycol, triethylene glycol, polypropylene glycol and polyethylene glycol are readily biodegradable. Diisopropanolamine: Achieved 39% of its theoretical oxygen demand using a sewage sludge following a 20 day incubation period.

BIOACCUMULATIVE POTENTIAL:

Triethylene glycol monobutyl ether: An estimated BCF of 3 was calculated in fish for triethylene glycol monobutyl ether. This BCF suggests the potential for bio concentration in aquatic organisms is low.

Diethylene glycol: An estimated BCF of 3 suggests the potential for bio concentration in aquatic organisms is low.

Triethylene glycol monoethyl ether: An estimated BCF of 3 suggests the potential for bio concentration in aquatic organisms is low.

Diethylene glycol monobutyl ether: An estimated BCF of 3 suggests the potential for bio concentration in aquatic organisms is low.

Triethylene glycol monomethyl ether: An estimated BCF of 3 suggests the potential for bio concentration in aquatic organisms is low.

Tetraethylene glycol: An estimated BCF of 3 suggests the potential for bio concentration in aquatic organisms is low.

Triethylene glycol: An estimated BCF of 3 suggests the potential for bio concentration in aquatic organisms is low.

Diisopropanolamine: An estimated BCF of 3 suggests the potential for bio concentration in aquatic organisms is low.

MOBILITY IN SOIL: Triethylene glycol monobutyl ether, diethylene glycol, triethylene glycol monoethyl ether, diethylene glycol monobutyl ether, triethylene glycol monomethyl ether, tetraethylene glycol, triethylene glycol and diisopropanolamine are expected to be high mobile in soil.

OTHER ADVERSE EFFECTS: None known

13. Disposal Considerations

Dispose of product in accordance with all local, state/provincial and federal regulations.

14. Transport Information

U.S. DOT HAZARD CLASSIFICATION: Not Regulated

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

IMDG CODE SHIPPING CLASSIFICATION: Not Regulated

CANADIAN TDG CLASSIFICATION: Not Regulated

15. Regulatory Information

EPA SARA 311/312 HAZARD CLASSIFICATION: Refer to Section 2 for OSHA GHS Classification.



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

Glycol Ethers	NA	<100%
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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 contains chemicals known to the State of California to cause reproductive toxicity.

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.

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

CHINA: All of the ingredients of this product are listed on the Inventory of Existing Chemical Substance in China (IECSC).

16. Other Information

NFPA Rating: Fire: 1 Health: 3 Instability: 0

REVISION SUMMARY: New

SDS Date of Preparation/Revision: April 21, 2022

This SDS 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 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.