



Material Safety Data Sheet

The Armor All/STP Products Company

44 Old Ridgebury Road
Suite 300
Danbury, CT 06810
Tel. 1-203-205-2900

1. Product And Company Identification

Product Name: STP® Synthetic Brake Fluid DOT 4

Responsible Party: The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810

Information Phone Number: +1 203-205-2900

Emergency Phone Number:

For Medical Emergencies, call 1-866-949-6465 / +1 303-389-1332 (Outside US and Canada)
For Transportation Emergencies, call 1-800-424-9300 (Chemtrec) +1-703-527-3887 for
Outside US and Canada (call collect)

MSDS Date Of Preparation: 12/06/12

Product Use: Automotive maintenance product – For consumer and professional use

2. Hazards Identification

EMERGENCY OVERVIEW

WARNING: Severe eye irritant. Avoid eye and prolonged skin contact. May be harmful if swallowed. Do not ingest. Inhalation of mists or vapors generated at elevated temperatures may cause respiratory irritation. Prolonged skin contact may cause dryness and defatting.

3. Composition/Information On Ingredients

| Component | CAS No. | Amount |
|--|------------|-----------|
| Triethylene glycol monomethyl Borate Ester | 71243-41-9 | 30 - 40% |
| Triethylene glycol monomethyl ether | 112-35-6 | 28 - 31% |
| Polyethylene glycol monomethyl ether | 9004-74-4 | 14 - 28% |
| Diethylene Glycol | 111-46-6 | 0 - 5% |
| Triethylene glycol monobutyl ether | 143-22-6 | 0 – 3.25% |
| Tetraethylene glycol | 112-60-7 | 0 - 2% |
| Polyethylene glycol | 25322-68-3 | 0 - 2% |
| Tetraethylene glycol monobutyl ether | 1559-34-8 | 0 – 1.5 |

4. First Aid Measures

Inhalation: If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. If breathing has stopped, administer artificial respiration. Get medical attention if symptoms appear and persist.

Skin Contact: Remove contaminated clothing and launder before reuse. Wash exposed skin with soap and water. If skin irritation or redness develops, get medical attention.

Eye Contact: Immediately flush eyes with large amounts of water for 15 minutes. Get immediate medical attention.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. If the victim is fully conscious, have them rinse their mouth with water. Get medical assistance by calling a doctor or poison center. Never give anything by mouth to a person who is unconscious or drowsy.



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5. Firefighting Measures

Extinguishing Media: Use water fog, alcohol-resistant foam, carbon dioxide or dry chemical. Cool fire exposed containers with water. Do not use direct water stream.

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: Closed containers may rupture if exposed to extreme heat.

Hazardous Combustion Products: Burning may produce carbon monoxide, carbon dioxide, and trace amounts of nitrogen oxides.

6: Accidental Release Measures

Personal Precautions: Caution – slip hazard. Eliminate all ignition sources and ventilate the area. Wear appropriate protective equipment.

Environmental Precautions: Prevent entry into soil, storm sewers, waterways, and ground water. Report spill as required by local and national regulations.

Methods for Containment and Clean-Up: Stop spill at the source if it is safe to do so. Absorb with an inert material. Collect into a suitable container for disposal. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard.

7. Handling and Storage

Avoid contact with eyes. Avoid prolonged contact with skin and clothing. Avoid breathing vapors and mists. Wash exposed skin thoroughly with soap and water after use. Keep containers closed when not in use. Do not permit smoking in use or storage areas. Keep out of the reach of children.

Store in a cool, dry, well ventilated area. Store away from oxidizing agents and other incompatible materials.

Empty containers retain product residue and may be hazardous. Do not reuse empty containers.

8. Exposure Controls / Personal Protection

| CHEMICAL | EXPOSURE LIMIT |
|--|------------------------------------|
| Triethylene glycol monomethyl Borate Ester | None Established |
| Triethylene glycol monomethyl ether | None Established |
| Polyethylene glycol monomethyl ether | None Established |
| Diethylene Glycol | 10 mg/m ³ TWA AIHA WEEL |
| Triethylene glycol monobutyl ether | None Established |
| Tetraethylene glycol | None Established |
| Polyethylene glycol | 10 mg/m ³ TWA AIHA WEEL |
| Tetraethylene glycol monobutyl ether | None Established |

Ventilation: General ventilation should be adequate for all normal use. For operations where mists are excessive and irritation is experienced, forced ventilation such as local exhaust may be needed to maintain exposures below applicable limits.



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Respiratory Protection: None under normal use conditions. For operations where mists are excessive and irritation is experienced, 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: Impervious gloves such as neoprene or nitrile are recommended if needed to avoid prolonged or repeated skin contact.

Eye Protection: Safety glasses or goggles are recommended if eye contact is possible.

Other Protective Equipment/Clothing: Appropriate protective clothing as needed to prevent prolonged/ repeated skin contact.

9. Physical and Chemical Properties

Appearance And Odor: Amber liquid with a mild odor.

| | |
|--|---|
| pH: 8.6 (25% Aqueous Solution) | Specific Gravity: 1.06 |
| Boiling Point: >449°F (>232°C) | Vapor Pressure: Not determined |
| Freezing Point: -58°F (-50°C) | Vapor Density: Not determined |
| Solubility In Water: Soluble | Percent Volatile: Not determined |
| Viscosity: Not determined | Evaporation Rate: Not determined |
| Coefficient Of Water/Oil Distribution: Not determined | Viscosity: Not determined |
| Flash Point: >249.8°F (>121°C) PMCC | Autoignition Temp: 590°F (310°C) |
| Flammability Limits: LEL: Not determined | UEL: Not determined |

10. Stability and Reactivity

Stability: Stable

Conditions To Avoid: Keep away from excessive heat and open flames.

Incompatibility: Strong oxidizing agents.

Hazardous Decomposition Products: Burning may produce carbon monoxide, carbon dioxide, and hydrocarbons.

11. Toxicological Information

Acute Hazards:

Inhalation: Inhalation of mists or vapors generated at elevated temperatures may cause upper respiratory tract irritation.

Skin Contact: Prolonged contact may cause skin irritation with local redness. May cause more severe response on covered skin (under clothing, gloves). May cause more severe response if skin is abraded (scratched or cut).

Eye Contact: Direct contact may cause severe eye irritation with redness, tearing and pain. May cause moderate corneal injury.

Ingestion: Swallowing may cause gastrointestinal irritation with nausea, vomiting and diarrhea and central nervous system depression with symptoms of dizziness, drowsiness and nausea.

Chronic Hazards: In oral studies with laboratory animals, ingredients caused effects on bladder, and kidney.



Medical Conditions Aggravated By Exposure: None known.

Carcinogen: None of the components at greater than 0.1% is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA.

Acute Toxicity Values:

Triethylene glycol monomethyl Borate Ester: No data available
Triethylene glycol monomethyl ether: LD50 Oral Rat: 11,800 mg/kg; LD50 Skin Rabbit: 7400 mg/kg
Polyethylene glycol monomethyl ether: LD50 Oral Rat: 39,800 mg/kg; LD50 Skin Rabbit: >20,000 mg/kg
Diethylene Glycol: LD50 Oral Rat: 12,565 mg/kg; LD50 Skin Rabbit: 11,890 mg/kg
Triethylene glycol monobutyl ether: LD50 Oral Rat: 5,300 mg/kg; LD50 Skin Rabbit: 3540 mg/kg
Tetraethylene glycol: LD50 Oral Rat: >18,056 mg/kg; LD50 Skin Rabbit: >20,000 mg/kg
Polyethylene glycol: LD50 Oral Rat: >2,000 mg/kg; LD50 Skin Rabbit: >3,000 mg/kg
Tetraethylene glycol monobutyl ether: LD50 Oral Rat: 5,175 mg/kg; LD50 Skin Rabbit: >4,000 mg/kg

12. Ecological Information

Triethylene glycol monomethyl Borate Ester: No data available
Triethylene glycol monomethyl ether:
 LC50: Danio rerio (zebra fish) > 5,000 mg/l/96h
 EC50: Daphnia magna (Water flea) > 500 mg/l/48h
Polyethylene glycol monomethyl ether
 LC50: Pimephales promelas (fathead minnow) > 10,000 mg/l/96h
 LC50: Daphnia magna (Water flea) > 10,000 mg/l/48h
Diethylene Glycol
 LC50: Lepomis macrochirus (Bluegill sunfish) 1,000 mg/l/96h
 LC50: Daphnia magna (Water flea) > 10,000 mg/l/48h
Triethylene glycol monobutyl ether:
 LC50: Leuciscus idus (Golden orfe) 2,200 - 4,600 mg/l/96h
 EC50: Daphnia magna (Water flea) > 500 mg/l/48h
Tetraethylene glycol:
 LC50: Oncorhynchus mykiss (rainbow trout) > 1,000 mg/l/96h
 LC50: Daphnia magna (Water flea) 7,746 mg/l/48h
Polyethylene glycol
 LC50: Oncorhynchus mykiss (rainbow trout) > 20,000 mg/l/96h
Tetraethylene glycol monobutyl ether
 LC50: Daphnia magna (Water flea) >1,000 mg/l/48h

PRODUCT INFORMATION

This material is highly soluble in water. Laboratory toxicity tests indicate that it is not significantly toxic to fish and aquatic invertebrates, although amphibians may be more sensitive. Wildlife species may be more susceptible since mammals and birds do not readily metabolize this material. The odor and flavor of this material may attract some wildlife and cause them to consume spilled material.

This material will biodegrade rather rapidly in both soil and water, and will not persist in the environment. Due care should be taken to avoid accidental releases to aquatic or terrestrial systems.

Bioaccumulation: This material is highly soluble in water and should not bioaccumulate in aquatic or terrestrial organisms.



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13. Disposal Considerations

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

14. Transport Information

DOT Hazardous Materials Description: Not Regulated

Canadian TDG Hazardous Materials Description: Not Regulated

IMDG Dangerous Goods Description: Not Regulated

15. Regulatory Information

United States:

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

CERCLA Section 103: This product has no RQ, however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Acute Health, Chronic Health

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Triethylene glycol monomethyl ether 112-35-6 28 - 31 %
Triethylene glycol monobutyl ether 143-22-6 < 3.25 %

Canada:

Canadian WHMIS Classification: Class D - Division 2 - Subdivision B - (Toxic material causing other toxic effects)

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List (DSL), or Non Domestic Substances List (NDSL).

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.

16. Other Information

| | | | |
|-------------------------|-----------|---------|----------------|
| NFPA Rating (NFPA 704): | Health: 2 | Fire: 1 | Instability: 0 |
| HMIS Rating: | Health: 2 | Fire: 1 | Reactivity: 0 |

REVISION SUMMARY: New formula update.

DATA SUPPLIED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH