



Safety Data Sheet

Issue Date: 2-June-2014

Revision Date: 26-May-2015

Version 1

1. IDENTIFICATION

Product Identifier

Product Name Autoguard Heavy Duty DOT 3 Brake Fluid

Other means of identification

SDS # AG-013

Restrictions on Use:

FOR LABELS FOR THE GENERAL PUBLIC:

If medical advice is needed, have product container or label at hand.

Keep out of reach of children and animals.

Read label before use.

FOR THE INDUSTRIAL WORKER:

Industrial use only.

Details of the supplier of the safety data sheet

Emergency Telephone Number

Company Phone Number 1-800-428-9284
Emergency Telephone (24 hr) CHEMTREC 1-800-424-9300 (North America) 1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Hazard Classification:

OSHA Hazards: Target Organ Effect, Harmful by Ingestion, Irritant, Teratogen, Reproductive hazard.

Target Organs:

Kidney, Liver, Central Nervous System, Female Reproductive System, Male Reproductive System, Blood.

GHS Classification:

Acute toxicity, dermal (Category 5)
Acute toxicity, oral (Category 4)
Skin Irritation (Category 3)
Serious eye damage (Category 1)
Reproductive toxicity (Category 2)

Signal Word: WARNING



Hazard Statements:

- H302 Harmful if swallowed.
- H313 May be harmful in contact with skin.
- H316 Causes mild skin irritation.
- H318 Causes serious eye damage.
- H361 Suspected of damaging fertility or the unborn child.

Precautionary Statements:

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety instructions have been read and understood.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear eye protection / face protection.
- P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor / physician immediately.
- P330 IF SWALLOWED: Rinse mouth.
- P312 IF ON SKIN: Call a POISON CENTER or doctor / physician if you feel unwell.
- P332 + P313 If skin irritation occurs: Get medical advice / attention.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
- P310 IF IN EYES: Immediately call a POISON CENTER or doctor / physician/
- P308 + P313 If exposed or concerned: Get medical advice / attention.

20-80% of the mixture consists of ingredients of unknown acute toxicity.

HMIS Classification: Health Hazard: 1
 Chronic Health Hazard
 Flammability: 1
 Physical Hazards: 0

NFPA Rating: Health Hazard: 1
 Fire: 1
 Reactivity: 0

Description of Any Other Hazards Not Otherwise Classified: none known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT Name</u>	<u>CAS NUMBER</u>	<u>%wt. or %V</u>
Triethylene Glycol Monomethyl Ether	112-35-6	5 – 50
Triethylene Glycol Monoethyl Ether	112-50-5	5 – 50
Triethylene Glycol Monobutyl Ether	143-22-6	5 – 50
Tetraethylene Glycol Monobutyl Ether	1559-34-8	5 – 20
Polyethylene Glycol	25322-68-3	5 – 20
Diethylene Glycol Monobutyl Ether	112-34-5	5 – 20
Diethylene Glycol	111-46-6	5 – 15
Diethylene Glycol Monomethyl Ether	111-77-3	< 5
Diethylene Glycol Monoethyl Ether	111-90-0	< 5
Polyalkylene Glycol Monobutyl Ether	9004-77-7	5 – 20
Polyalkylene Glycol Monomethyl Ether	23783-42-8	5 – 20
Polyalkylene Glycol	9038-95-3	5 – 20
Trade Secret Inhibitor Package	Trade Secret	3

Three percent (3%) of the composition of this material has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

EYES	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation continues or persists, get medical advice / attention.
SKIN:	Wash with plenty of soap and water. If skin irritation occurs, get medical advice / attention.
INHALATION	Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.
INGESTION	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

NOTES TO PHYSICIANS OR FIRST AIR PROVIDERS: Treatment should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA

Dry chemical, foam, or carbon dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak, and disperse vapors.

UNSUITABLE EXTINGUISHING MEDIA

Direct water stream.

SPECIAL FIRE FIGHTING PROCEDURES

Evacuate area. Do not use direct water stream to extinguish fires. Do not release runoff from fire control methods to sewers or waterways.

UNUSUAL FIRE AND EXPLOSION HAZARDS

None known.

HAZARDOUS COMBUSTION PRODUCTS

Carbon monoxide, carbon dioxide, and unidentified organic compounds.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

Wear full protective clothing and NIOSH – approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive breathing mode.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Use appropriate personal protective equipment. Avoid breathing vapors, mist or gas. Avoid contact with spilled material. Insure adequate ventilation. Remove all sources of ignition. Use non-sparking tools and equipment.

PROTECTIVE CLOTHING

Standard work uniform. Impervious gloves. Safety glasses. Personnel should increase PPE level as deemed appropriate in any given situation.

EMERGENCY PROCEDURES

SMALL SPILLS

Contain and recover liquid when possible. Collect liquid in appropriate container or absorb with an inert material (such as vermiculite or dry sand) and place in chemical waste container. Do not use combustible materials such as sawdust for the cleanup.

LARGE SPILLS**Containment**

Shut off source of leak if safe to do so. Dike far ahead of liquid spill for later disposal. Do not allow material to enter sewers or waterways.

Cleanup

Contain and recover liquid when possible. Collect liquid in appropriate container. Absorb residue with an inert material (such as vermiculite or dry sand) and place in chemical waster container. Do not use combustible materials such as sawdust for the cleanup.

7. HANDLING AND STORAGE**HANDLING PRECAUTIONS**

May be harmful or fatal if swallowed.

STORAGE REQUIREMENTS

Store in a cool, dry, ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**ENGINEERING CONTROLS**

Controls should be such that adequate ventilation is provided.

VENTILATION

Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work place by controlling it at its source.

RESPIRATORY PROTECTION

Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA / NIOSH approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (e.g. cleaning spills, reactor vessels, or storage tanks), wear an SCBA. ***WARNING! Air purifying respirators do not protect workers in oxygen-deficient atmospheres!*** If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

EYE PROTECTION

Wear protective eyeglasses or chemical safety goggles, per OSHA eye and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with, contact lenses.

SKIN PROTECTON

Wear chemically protective gloves, boots, aprons and gauntlets to prevent prolonged or repeated skin contact.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Make emergency eyewash stations, safety / quick drench showers and washing facilities available in work areas.

WORK HYGIENE PRACTICES

Never eat, drink or smoke in work areas. Practice good personal hygiene after using this material especially before eating, drinking or smoking, using the toilet, or applying cosmetics. Separate contaminate work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment. Discard belts and shoes that cannot be cleaned.

EXPOSURE GUIDELINES:

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		USA WEEL
	TWA	STEL	TWA	STEL	TWA	STEL	
	Triethylene Glycol Monomethyl Glycol	None established	None established	None established	None established	None established	
Triethylene Glycol Monoethyl Ether	None established	None established	None established	None established	None established	None established	None established
Triethylene Glycol Monobutyl Ether	None established	None established	None established	None established	None established	None established	None established
Tetraethylene Glycol Monobutyl Ether	None established	None established	None established	None established	None established	None established	None established
Polyethylene Glycol	None established	None established	None established	None established	None established	None established	10 mg / m3
Diethylene Glycol Monobutyl Ether	None established	None established	None established	None established	None established	None established	None established
Diethylene Glycol	None established	None established	None established	None established	None established	None established	10 mg / m3
Diethylene Glycol Monomethyl Ether	None established	None established	None established	None established	None established	None established	25 ppm
Diethylene Glycol Monoethyl Ether	None established	None established	None established	None established	None established	None established	None established
Diethylene Glycol Monobutyl Ether	None established	None established	None established	None established	None established	None established	None established
Polyalkylene Glycol Monobutyl Ether	None established	None established	None established	None established	None established	None established	None established
Polyalkylene Glycol Monomethyl Ether	None established	None established	None established	None established	None established	None established	None established
Polyalkylene Glycols	None established	None established	None established	None established	None established	None established	None established
Inhibitor Package	None established	None established	None established	None established	None established	None established	None established

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Appearance and Color: Yellow to Amber
Odor: Mild
Flash Point: >275°F (>135°C)
Upper / Lower Flammability or Explosive Limits Not available

Auto Ignition Temperature:	Not available
Decomposition Temperature:	Not available
Vapor Pressure:	Not available
Odor Threshold:	Not available
Vapor Density (air=1)	> 1
pH:	10.0 – 11.5
Relative Density:	8.33 – 9.02 lb/gal
Specific Gravity (H2O=1 AT 4 C):	1.000 – 1.070
Melting Point / Freeze Point:	Not available
Water Solubility:	Soluble
Other Solubilities:	Not available
Initial Boiling Point And Boiling Range:	480°F (248.9°C), boiling range not available
Evaporation Rate (BuAc = 1):	<0.01
Partition Coefficient: n-OCTANOL / WATER	Not available
Viscosity:	Not available
Refractive Index:	Not available
Formula Weight:	Mixture

10. STABILITY AND REACTIVITY

REACTIVITY

None under normal handling.

STABILITY

Stable at room temperature in closed containers under normal storage and handling conditions.

CONDITIONS TO AVOID (STABILITY): None known.

INCOMPATIBILITY (MATERIAL TO AVOID)

None known.

HAZARDOUS DECOMPOSITION BY-PRODUCTS

Thermal oxidative decomposition can produce carbon monoxide, carbon dioxide and unknown organic compounds.

HAZARDOUS POLYMERIZATION

Hazardous polymerization will not occur.

CONDITIONS TO AVOID (POLYMERICATION)

Hazardous polymerization will not occur.

HAZARDOUS POLYMERICATION BY-PRODUCT

Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

SIGN AND SYMPTOMS OF OVEREXPOSURE: Swallowing larger amounts may cause nausea and vomiting, abdominal discomfort or diarrhea. May cause dizziness and drowsiness.

ACUTE EFFECTS:

EYE CONTACT

May cause slight eye irritation. May cause slight corneal injury.

SKIN CONTACT

Brief contact is essentially nonirritating to skin.

INHALATION

At room temperature, exposure to vapor is minimal due to low volatility. Mist may cause irritation of the upper respiratory tract.

Ingestion

Toxic or fatal if ingested. For diethylene glycol, a component of this mixture, a lethal dose can be as little as two ounces. Symptoms of diethylene glycol poisoning include severe abdominal cramping, diarrhea, vomiting, sweating, confusion, cardiac abnormalities, neurological abnormalities, infrequent urination, intoxication or CNS depression. If left untreated, product will metabolize to cause metabolic acidosis, renal failure, hyperkalemia, hyponatremia, paralysis, cardiac failure or death. Seek medical attention immediately for poisoning. If ingested, DO NOT wait for symptoms to develop before getting treatment.

TARGET ORGAN EFFECTS

Product is toxic to kidneys, liver, central nervous system and heart. Metabolic products of diethylene glycol produce acidosis and organ toxicity effects.

CHRONIC EFFECTS

May cause dryness or defatting of the skin, dermatitis, or may aggravate existing skin conditions.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Various skin conditions.

ACUTE TOXICITY VALUES**Triethylene Glycol Monomethyl Ether**

ORAL LD50 (rat): 11,842 mg/kg

DERMAL LD50 (rabbit): 7,441 mg/kg

INHALATION LC50 (state animal): data unavailable

Triethylene Glycol Monoethyl Ether

ORAL LD50 (state animal): data unavailable

DERMAL LD50 (state animal): data unavailable

INHALATION LC50 (state animal): data unavailable

Triethylene Glycol Monobutyl Ether

ORAL LD50 (rat): 5,300 mg/kg

DERMAL LD50 (rabbit): 3,505 mg/kg

INHALATION LC50 (state animal): data unavailable

Tetraethylene Glycol Monobutyl Ether

ORAL LD50 (rat): data unavailable

DERMAL LD50 (rabbit): data unavailable

INHALATION LC50 (state animal): data unavailable

Polyethylene Glycol

ORAL LD50 (state animal): data unavailable

DERMAL LD50 (state animal): data unavailable

INHALATION LC50 (state animal): data unavailable

Diethylene Glycol Monobutyl Ether

ORAL LD50 (rat): 5,660 mg/kg

DERMAL LD50 (rabbit): 2,700 mg/kg

INHALATION LC50 (state animal): data unavailable

Diethylene Glycol

ORAL LD50 (rat): 12,565 mg/kg

DERMAL LD50 (rabbit): 11,890 mg/kg

INHALATION LC50 (state animal): data unavailable

Diethylene Glycol Monomethyl Ether

ORAL LD50 (rat): >7,000 mg/kg

DERMAL LD50 (rabbit): >20,400 mg/kg

INHALATION LC50 (state animal): data unavailable

Diethylene Glycol Monoethyl Ether

ORAL LD50 (rat): 10,502 mg/kg
DERMAL LD50 (rabbit): 9,143 mg/kg
INHALATION LC50 (state animal): data unavailable

Polyalkylene Glycol Monobutyl Ether

ORAL LD50 (rat): >2,000 mg/kg
DERMAL LD50 (rabbit): >2,000 mg/kg
INHALATION LC50 (state animal): data unavailable

Polyalkylene Glycol Monomethyl Ether

ORAL LD50 (state animal): data unavailable
DERMAL LD50 (state animal): data unavailable
INHALATION LC50 (state animal): data unavailable

Polyalkylene Glycols

ORAL LD50 (state animal): data unavailable
DERMAL LD50 (state animal): data unavailable
INHALATION LC50 (state animal): data unavailable

LISTED CARCINOGEN**NATIONAL TOXICOLOGY PROGRAM REPORT ON CARCINOGENS**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC LISTED AS POTENTIAL CARCINOGEN

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA LISTED AS POTENTIAL CARCINOGEN

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

12. ECOLOGICAL INFORMATION**DATA FROM TOXICITY TESTS ON AQUATIC AND/OR TERRESTRIAL ORGANISMS:**

Triethylene Glycol Monomethyl Ether: data unavailable

Triethylene Glycol Monoethyl Ether: data unavailable

Triethylene Glycol Monobutyl Ether: data unavailable

Tetraethylene Glycol Monobutyl Ether: data unavailable

Polyethylene Glycol

Fish: LC50 – *Leuciscus idus* (Golden orfe) <500 mg/l
Daphnia: data unavailable

Diethylene Glycol Monobutyl Ether

Fish: LC50 – *Lepomis macrochirus* – 1,300 mg/l – 96h
LC50 – *Leuciscus idus* (Golden orfe) - >1,000 mg/l – 48h
Daphnia: data unavailable

Diethylene Glycol

Fish: LC50 – *Pimephales promelas* (fathead minnow) – 75,200 mg/l – 96h
LC50 – *Carassius auratus* (goldfish) – 5,000 mg/l – 24h
Daphnia: EC50 – *Daphnia magna* (Water flea) - >10,000 mg/l – 24h

Diethylene Glycol Monomethyl Ether

Fish: LC50 – Lepomis macrochirus – 7,500 mg/l – 96h
Daphnia: data unavailable

Diethylene Glycol Monoethyl Ether

Fish: LC50 – Pimephales promelas (fathead minnow) – 9,650 mg/l – 96h
Daphnia: EC50 – Daphnia magna (Water flea) - >3,340 mg/l – 24h

Polyalkylene Glycol Monobutyl Ether: data unavailable

Polyalkylene Glycol Monomethyl Ether: data unavailable

Polyalkylene Glycols: data unavailable

ENVIRONMENTAL FATE: data unavailable for mixture

BIOACCUMULATION POTENTIAL: data unavailable for mixture

POTENTIAL TO MOVE FROM SOIL TO GROUNDWATER: data unavailable for mixture

OTHER ADVERSE ENVIRONMENTAL EFFECTS: data unavailable for mixture

13. DISPOSAL CONSIDERATIONS

CONTAINERS TO USE

No specific recommendations.

RECOMMENDED DISPOSAL METHODS

Whatever cannot be saved for recovery or recycling should be disposed of in an approved waste facility in accordance with Federal, State/Provincial and Local requirements.

PHYSICAL AND CHEMICAL PROPERTIES THAT MAY AFFECT DISPOSAL ACTIVITIES

No specific information available/

WHENEVER POSSIBLE, MATERIAL SHOULD NOT BE ALLOWED TO ENTER SEWAGE DISPOSAL SYSTEMS.

SPECIAL PRECAUTIONS FOR LANDFILL OR INCINERATION ACTIVITIES

No specific information available.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (49 CFR 172.101)

PROPER SHIPPING NAME: DOT 3 Brake Fluid
DOT Non-Bulk: Not Regulated
DOT Bulk: Not Regulated

IATA

Not Dangerous Goods

IMDG

Not Dangerous Goods

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (Toxic Substance Control Act): all components are listed on the TSCA Inventory.

CERCLA (Comprehensive Response Compensation and Liability Act): None. However, this product contains various ethylene glycols and glycol ethers which are each included as a broad category on the CERCLA Hazardous Substance list.

SARA TITLE III (Superfund Amendments and Reauthorization Act): No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

311/312 HAZARD CATEGORIES:

Immediate Hazard: yes
Delayed Hazard: yes
Fire Hazard: no
Pressure Hazard: no
Reactivity Hazard: no

313 REPORTABLE INGREDIENTS: The following components are subject to reporting levels established by SARA Title III, Section 313:

2-(2-Ethoxyethoxy) ethanol	CAS Number: 111-90-0
2-(2-methoxyethoxy) ethanol	CAS Number: 111-77-3
2-(2-Butoxyethoxy) ethanol	CAS Number: 112-34-5

CLEAN WATER ACT (CWA): None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

CLEAN AIR ACT (CAA): None of the chemicals in the product are listed as Hazardous Air Pollutants.

STATE REGULATIONS:

California: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Massachusetts:

2-(2-Methoxyethoxy) ethanol	CAS Number: 111-77-3
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New Jersey:

Triethylene glycol monobutyl ether	CAS Number: 143-22-6
Polyethylene glycol	CAS Number: 25322-68-3
2-(2-Butoxyethoxy) ethanol	CAS Number: 112-34-5
Diethylene glycol	CAS Number: 111-46-6
2-(2-Methoxyethoxy) ethanol	CAS Number: 111-77-3
2-(2-Ethoxyethoxy) ethanol	CAS Number: 111-90-0

Pennsylvania:

Triethylene glycol monobutyl ether	CAS Number: 143-22-6
Polyethylene glycol	CAS Number: 25322-68-3
2-(2-Butoxyethoxy) ethanol	CAS Number: 112-34-5
Diethylene glycol	CAS Number: 111-46-6
2-(2-Methoxyethoxy) ethanol	CAS Number: 111-77-3
2-(2-Ethoxyethoxy) ethanol	CAS Number: 111-90-0

INTERNAL REGULATIONS:

Persistent Organic Pollutants (United Nations): not listed
Initial List of Prior Informed Consent Chemicals (United Nations): not listed
Ozone Depleting Substance (Montreal Protocol): not listed
Greenhouse Gases (Intergovernmental Panel on Climate Change): not listed

AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES: All components are listed

CANADA: DOMESTIC SUBSTANCES LIST: All components are listed

CANADA WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS): D2B – Toxic Material at >1%

CANADIAN ENVIRONMENTAL PROTECTION AGENCY TOXICS LIST: None of the components of this mixture are listed

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES: This material contains a component not listed on the EINECS Inventory: Polyalkylene glycol, CAS Number 9038-95-3.

NEW ZEALAND: All components are listed.

PHILLIPPINE INVENTORY OF CHEMICALS AND CHEMICAL SUBSTANCES: All components are listed.

16. OTHER INFORMATION

Issue Date: 2-June-2014
Revision Date: 26-May-2015
Revision Note: New format

Disclaimer

This product is FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN AND ANIMALS. DO NOT TAKE INTERNALLY.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet