



SAFETY DATA SHEET

Issuing Date 04-Dec-2012

Revision Date 04-Dec-2012

Revision Number 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name DOT 4 Brake Fluid

Other means of identification

Synonyms Automotive brake fluid

Recommended use of the chemical and restrictions on use

Recommended Use Automotive brake fluid

Uses advised against No information available

Supplier's details

Supplier Address
Complex Chemical Co.
177 Complex Chemical
Tallulah, La. 71282
TEL: 318-574-0382

Emergency telephone number

Emergency Telephone Number 800-825-9720

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

Serious Eye Damage/Eye Irritation

Category 2A

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word

Warning

Hazard Statements

• Causes serious eye irritation



The product contains no substances which at their given concentration are considered to be hazardous to health

Appearance Amber

Physical State Liquid.

Odor Etheric

Precautionary Statements

Prevention

- Wash face, hands and any exposed skin thoroughly after handling
- Wear eye/face protection

General Advice

- None

Eyes

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- If eye irritation persists: Get medical advice/attention.

Storage

- None

Disposal

- None

Hazard Not Otherwise Classified (HNOC)

Not applicable

Other information

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms

Automotive brake fluid

Chemical Name	CAS-No	Weight %	Trade secret
Triethylene glycol monoethyl ether	112-50-5	20-30	*
Diethylene glycol monoethyl ether	111-90-0	10-20	*
Diethylene glycol monobutyl ether	112-34-5	5-10	*
Diethylene glycol	111-46-6	3-8	*

**The exact percentage (concentration) of composition has been withheld as a trade secret.*

4. FIRST AID MEASURES

Description of necessary first-aid measures

Eye Contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If irritation persists, call a physician.

Skin Contact

Wash skin with soap and water.

Inhalation

Move to fresh air.

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects Red eyes Irritation.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media None

Specific Hazards Arising from the Chemical

None known

Explosion Data

Sensitivity to Mechanical Impact

None.

Sensitivity to Static Discharge

None

Protective Equipment and Precautions for Firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment. Avoid contact with eyes.

Environmental Precautions

Environmental Precautions See Section 12 for additional Ecological Information

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Dam up. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Wear personal protective equipment. Avoid contact with eyes.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Products Strong oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters**Exposure Guidelines**

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls**Engineering Measures**

Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment**Eye/Face Protection**

Tightly fitting safety goggles.

Skin and Body Protection

Protective gloves.

Respiratory Protection

No special protective equipment required.

Hygiene Measures

Provide regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Appearance	Amber
Odor	Etheric	Odor Threshold	No information available

Property	Values	Remarks/ - Method
pH	10.5	None known
Melting Point/Range	No data available	None known
Boiling Point/Boiling Range	> 230 °C	None known
Flash Point	203 °C	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
upper flammability limit	No data available	
lower flammability limit	No data available	
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known
Relative Density	No data available	None known
Specific Gravity	1.06	None known
Water Solubility	Completely soluble	None known
Solubility in other solvents	Completely soluble.	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	<1500 CST	None known

Flammable Properties

Not flammable

Explosive Properties

No data available

Oxidizing Properties

No data available

Other information**VOC Content (%)**

None

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization does not occur.

Conditions to avoid

None known based on information supplied.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Product Information	No acute toxicity information is available for this product.
Inhalation	May cause irritation of respiratory tract.
Eye Contact	Irritating to eyes.
Skin Contact	Non-irritating during normal use
Ingestion	Ingestion may cause irritation to mucous membranes.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Eye contact with liquid may cause irritation including stinging, burning, tearing, or reddening of the eyes.
-----------------	--

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenicity	There are no known carcinogenic chemicals in this product.
Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration Hazard	No information available.

Numerical measures of toxicity • - Product

The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral	2244 mg/kg; Acute toxicity estimate
LD50 Dermal	2710 mg/kg; Acute toxicity estimate

12. ECOLOGICAL INFORMATION**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Diethylene glycol monoethyl ether		LC50 96 h: 11400-15700 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: 11600-16700 mg/L flow-through (Pimephales promelas) LC50 96 h: 19100-23900 mg/L flow-through (Lepomis macrochirus) LC50 96 h: = 10000 mg/L static (Lepomis macrochirus) LC50 96 h: = 13400 mg/L flow-through (Salmo gairdneri)		EC50 48 h: 3940 - 4670 mg/L (Daphnia magna)
Tetraethylene glycol	EC50 96 h: > 1000 mg/L (Pseudokirchneriella subcapitata)	LC50 96 h: > 1000 mg/L static (Oncorhynchus mykiss)	EC50 > 100 mg/L 6 h	EC50 48 h: > 1000 mg/L (Daphnia magna)
Triethylene glycol		LC50 96 h: 56200-63700 mg/L flow-through (Pimephales promelas) LC50 96 h: = 10000 mg/L static (Lepomis macrochirus) LC50 96 h: = 61000 mg/L flow-through (Lepomis macrochirus)	EC50 = 850 mg/L 5 min	EC50 48 h: = 42426 mg/L (Daphnia magna)
Diethylene glycol monobutyl ether	EC50 96 h: > 100 mg/L (Desmodesmus subspicatus)	LC50 96 h: = 1300 mg/L static (Lepomis macrochirus)		EC50 24 h: = 2850 mg/L (Daphnia magna) EC50 48 h: > 100 mg/L (Daphnia magna)
Diethylene glycol		LC50 96 h: = 75200 mg/L flow-through (Pimephales promelas)	EC50 = 29228 mg/L 15 min	EC50 48 h: = 84000 mg/L (Daphnia magna)

Persistence and Degradability No information available.

Bioaccumulation No information available.

Chemical Name	Log Pow
Diethylene glycol monoethyl ether	-0.8
Diethylene glycol	-1.98

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging

Do not re-use empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

MEX Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Triethylene glycol monoethyl ether	112-50-5	20-30	1.0
Diethylene glycol monobutyl ether	112-34-5	5-10	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Triethylene glycol monoethyl ether			X	X	
Diethylene glycol monoethyl ether			X	X	
Triethylene glycol			X		X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazard 2	Flammability 1	Instability 0	Physical and Chemical Hazards -
<u>HMIS</u>	Health Hazard 2	Flammability 1	Physical Hazard 0	Personal Protection X

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date 04-Dec-2012
Revision Date 04-Dec-2012
Revision Note Initial Release.

General Disclaimer

The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet