



BRAKE FLUID DOT4

Released: 2011-07-18

Version: R1.1
Revision Date: 2011-07-18

1. IDENTIFICATION OF THE SUBSTANCE / APPLICATION AND THE COMPANY

Supplier
Maxima Racing Oils
9266 Abraham Way
Santee, CA 92071
USA
+1 619 449 5000

Product Name: Brake Fluid DOT4
Article Number: 80-86912

Applications: Brake Fluid

Emergency Telephone: CHEMTREC +1 703 527 3887 (24 hours)

2. HAZARDS IDENTIFICATION



Harmful

Health

Classification: Harmful

This product is not classified as dangerous.

May cause mild eye irritation.

Repeated or prolonged skin contact may cause mild irritation, dehydration and the risk of developing non-allergic dermatitis.

Fire

Classification:

This product is not flammable.

Environment

Classification:

This product contains no environmentally hazardous substances.

Other Hazards

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Classification of substances according to EU Directive 2005:7

Hazardous Substances	Content %	CAS Number	EC Number	Symbols	Risk Phrases
Triethylene Glycol	30-40	71243-41-9	265-157-1		
Monomethyl Borate Ester					
Triethylene Glycol	28-31	112-35-6	203-962-1		
Monomethyl Ester					
Diethylene Glycol	0-5	111-46-6	203-872-2	R22	Xn
Triethylene Glycol	0-3.25	143-22-6	205-592-6		
Monobutyl Ether					
Tetraethylene Glycol	0-2	112-60-7	203-989-9		
Polyethylene Glycol	0-2	25322-68-3	NA		
Tetraethylene Glycol	0-1.5	1559-34-8	216-322-1		
Monobutyl Ether					
Polyethylene Glycol	0-5	9004-74-4	NA		
Methyl Ether					



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4. FIRST-AID MEASURES

Inhalation	Move the exposed person to fresh air at once and call emergency medical care. If breathing has stopped, give artificial respiration. If breathing is difficult, give humidified oxygen.
Skin Contact	If the product contacts the skin, promptly wash the contaminated skin with soap and water. Remove clothing and shoes if contaminated. Discard contaminated clothing and shoes or thoroughly clean before reuse.
Eye Contact	If the product contacts the eyes, immediately wash the eyes with large quantities of water for at least 15 minutes. As a precaution, remove contact lenses, if worn. Get medical attention immediately.
Ingestion	If this product is ingested and the person is conscious, have patient drink several glasses of water. Induce vomiting by having patient tickle back of throat with finger, keep airway clear. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Use water fog, foam, dry chemical or carbon dioxide (CO ₂) to extinguish flames.
Special Hazards	This material will burn although it is not easily ignited. Minimize breathing of gases, vapor, fumes or decomposition products. Harmful smoke consisting of carbon oxides formed during the fire.
Protective equipment	Use smoke diving equipment (fire suit, breathing apparatus) when fighting fires.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Eliminate all sources of ignition in vicinity of spilled material. Wear chemical resistant gloves. See also: "Personal Protective Equipment "section 8.
Environmental Precautions	Prevent discharge to sewer of greater quantity. Contain release to prevent further contamination of soil, surface water or groundwater.
Methods/Materials for Cleaning up	Small spills should be flushed with large quantities of water. Larger spills should be collected for disposal. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulation. Dike with sand or earth and collect. Collected material is handled in accordance with section 13 "Disposal Considerations".

7. HANDLING AND STORAGE

Handling	Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water. Wear recommended protective equipment. Practice good personal hygiene after handling.
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Storage Store in closed containers of proper construction. Glycol ethers as a family of solvents can be stored in carbon steel. Store away from sources of ignition and in areas of good ventilation. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Ventilation Use care in the areas of adequate ventilation. Use mechanical exhaust to control vapors or mists.

Gloves Use nitrile or neoprene gloves.

Eye Protection Safety glasses, goggles or face shield recommended.

Respiratory Use NIOSH / MSHA approved respirator with organic vapor cartridge and dust / mist cartridge is recommended if limit is exceeded. Self-contained breathing apparatus for confined entry is recommended.

Clothing Long sleeve t-shirt and apron when potential for skin contact. Neoprene or nitrile rubber boots when necessary to avoid contaminating shoes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Amber liquid
Odor Mild odor
pH 8.6
Vapor Density (Air=1) 9
Vapor Pressure <.01mmHg @ 20 °C
Boiling Point >223° C (>449.6 ° F) @ 760 mmHG
Flash Point 121° C (249.8 ° F) PMCC
Auto-Ignition 310° C (590 ° F)
Relative Density 1.05
Solubility Soluble in water
Freezing Point/Melting Point -50° C (-58 ° F)
Specific Gravity 1.04 – 1.075 @ 20°C / 20°C
Volatile Organic Compounds (VOC) NA
Viscosity NA

10. STABILITY AND REACTIVITY

Chemical Stability This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.



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Incompatibility with other Materials	Avoid contact with acetaldehyde, acids, chlorine, ethylene oxide, isocyanates, strong oxidizing agents, calcium hypochlorite, zinc.
Hazardous Decomposition Products	May generate carbon monoxide and/or oxygenated hydrocarbons.
Hazardous Polymerization	Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicity	Mixture; Not determined.
Eye Irritation	Expected to be a mild to moderate eye irritant.
Skin Irritation	Expected to be a mild skin irritant.
Acute Oral Toxicity	Swallowing material may cause irritation of the gastrointestinal lining, nausea, vomiting, diarrhea and abdominal pain. Toxicological data (for the two main components) Acute oral toxicity LD50 (oral, rat):> 5000 mg / kg Acute dermal toxicity LD50 (dermal, rabbit):> 5000 mg / kg
Carcinogenic	This material has not been identified as a carcinogen by NTP, IARC or OSHA.
Genetic Toxicity	This product gave negative results in the following mutagenicity assays: Microbial/Microsome Reverse Mutation Assay.
ADDITIONAL TOXICOLOGY INFORMATION	This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

12. ECOLOGICAL INFORMATION

Biodegradation	Not readily biodegradable.
Acute Toxicity	Expected to be harmful to aquatic organisms. LC50, aquatic organisms:> 100 mg / l
Bioaccumulation	Not expected to be bioaccumulative in the aquatic environment (BCF<100).

13. DISPOSAL CONSIDERATIONS

Disposal	Unused and Hazardous Waste (SFS 2001:1063, Waste Regulation). Used Product Waste: 16 01 13 (explanation: brake fluids). If spillage or waste can't be recycled in-house (note: permit requirements) contact the municipality or the County Board approved contractor.
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14. TRANSPORT INFORMATION

Not considered dangerous goods by transport regulations.

15. REGULATORY INFORMATION

Classification and labeling according to 2005:7 and CLP, 1272/2008/EG (Table 3.2)



Symbol: Harmful
Risk Phrase: R22, R36 Harmful if swallowed. Irritating to eyes

SARA Title III:

Section 311/312:	Immediate Acute Health	
	Delayed Chronic Health	
	Fire Hazard	
Section 313:	Component Reporting	Threshold
	Triethylene Glycol Monobutyl Ether /	1.0%
	CAS#143-22-6	
	Triethylene Glycol Monomethyl Ether /	1..0%
	CAS#112-35-6	

16. OTHER INFORMATION

NFPA Ratings	Health:	1	Flammability:	1	Reactivity:	0
HMIS Ratings	Health:	2	Flammability:	1	Reactivity:	0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.