

Version: 1.2 Revision Date: 2024-09-05

1. IDENTIFICATION OF THE SUBSTANCE / APPLICATION AND THE COMPANY

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

Released: 2017-12-12

Product Name: DOT 4 Brake Fluid Article Number:

Applications: Brake Fluid

+1 619 449 5000

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

2. HAZARDS IDENTIFICATION

GHS Classification

Eye Irritant Category 2 Toxic to Reproduction Category 2



GHS Pictogram

Signal Word Hazard Stateme	Warning! hts H319 Causes eye irritation. H361 Suspected of damaging fertility or the unborn child.
Precautionary St	atements
Prevention	P201 Obtain special instructions before use.
	P202 Do not handle until all safety precautions have been read and understood.
	P280 Wear eye protection.
Response	P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.
	P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove
	contact lenses, if present and easy to do. Continue rinsing.
	P337 + P313 If eye irritation persists: Get medical attention.
Storage	P405 Store locked up.
Disposal	P501 Dispose of contents and container in accordance with local and national
	regulations.
Other Hazards	None

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	Content %	CAS Number
n-Butyl triglycol	20-<30	143-22-6
2,2'-oxybisethanol	15-<25	111-46-6
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl]- orthoborate	5-20	30989-05-0



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Butyl polyglycol	5-10	9004-77-7	
2-(2-butoxyethoxy)ethanol	0-< 3	112-34-5	
2-(2-methoxyethoxy)ethanol	0-< 3	111-77-3	

The specific identity and/or exact percentage has been withheld as a trade secret.

4. FIRST-AID MEASURES Inhalation If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist. Skin Contact Wash skin with soap and water. Remove clothing and shoes if contaminated. Launder clothing before reuse. If irritation or rash develops, get medical attention. Flush eyes with large quantities of water, holding the eyelids apart. Get **Eye Contact** medical attention if irritation develops or persists. Ingestion If conscious, rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention. Most Important Causes eye irritation. Prolonged skin contact may cause irritation. Inhalation of vapors or mist may cause respiratory irritation. Swallowing may cause Symptoms gastrointestinal irritation, nausea, vomiting, blurred vision, irritability, back pain, and central nervous system effects. Swallowing may cause damage to kidneys through prolonged or repeated exposure. Possible developmental hazard. May adversely affect the developing fetus or cause birth defects based on animal data. Indication of Get immediate medical attention if large amounts have been swallowed. Immediate Medical Attention Needed **Notes to Physician** Treat symptomatically

5. FIRE FIGHTING MEASURES

Suitable Extinguishing	Use water fog, alcohol-resistant foam, dry chemical or carbon dioxide (CO2)
Media	to extinguish flames. A solid stream of water or foam can cause frothing.
Specific Hazards	This product is not flammable but may form explosive mixtures in air.
Arising From The	Combustion will produce carbon oxides, aldehydes and ethers.
Chemical	
Special Protective	Firefighters should wear full emergency equipment and approved positive
Equipment And	pressure self-contained breathing apparatus. Do not enter fire area without
Precautions For Fire-	proper protection. Cool exposed intact containers with water.
Fighters	

6. ACCIDENTAL RELEASE MEASURES



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Wear appropriate protective equipment. Wash thoroughly after handling.
See also: "Personal Protection "section 8.
Avoid release into the environment. Report spill as required by local and
federal regulations.
Dike spill and collect with an inert absorbent. Place into closable containers
for disposal. Collected material is handled in accordance with section 13 "Disposal Considerations".

7. HANDLING AND STORAGE

Precautions for Safe	Harmful if swallowed in large amounts. Do not drink the product. Avoid		
Handling:	contact with eyes, skin and clothing. Avoid breathing vapors and mists		
	Wash thoroughly with soap and water after handling. Remove soaked		
	clothing and launder before re-use.		
Conditions for Safe	Store in a cool, dry, well-ventilated area. Store away from oxidizers and		
Storage	other incompatible materials. Protect from physical damage.		

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits	n-Butyl triglycol	None Established	
	2,2'-oxybisethanol	None Established	
	Tris[2-[2-(methoxyethoxy)ethoxy]ethyl]- orthoborate	None Established	
	Butyl polyglycol	None Established	
	2-(2-butoxyethoxy)ethanol	None Established	
	2-(2-methoxyethoxy)ethanol	None Established	
Appropriate	Good general room ventilation (equivalent	to outdoors) should be adequate	
Engineering Controls	under normal conditions. If the recommend	ded exposure limit is exceeded	
	increased mechanical ventilation such as lo	cal exhaust may be required.	
Personal Protection			
Respiratory Protection:	None needed under normal use conditions with adequate ventilation. If exposure limits are exceeded, use a NIOSH approved respirator with organic vapor cartridges and particulate pre-filter. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.		
Eye Protection:	Safety glasses or goggles recommended if s	plashing is possible.	
Skin/Body Protection: Hand Protection:	Appropriate protective clothing as needed to minimize skin contact. Suitable eye flushing facilities should be available in the work area. Contaminated clothing should be removed and laundered before re-use. Use nitrile or butyl rubber gloves for prolonged or repeated skin contact.		

9. PHYSICAL AND CHEMICAL PROPERTIES



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Appearance	Clear liquid
Color	Amber
Odor	Mild
Odor Threshold	Testing not relevant or not possible due to nature of the product
рН	7.0 to 10.5
Melting/freezing Point	<-58°F (<-50°C)
Boiling Point	>410°F (>210°C)
Flash Point	>212°F (>100°C)
Evaporation Rate	0.01
Flammability (solid, gas)	Testing not relevant or not possible due to nature of the product
Upper Explosion Limit	Testing not relevant or not possible due to nature of the product
Lower Explosion Limit	Testing not relevant or not possible due to nature of the product
Vapor Pressure	1.0 mbar
Vapor Density (Air=1)	Testing not relevant or not possible due to nature of the product
Relative Density	1.010-1.060 g/ml @68°F
Solubility	Soluble in water
Partition Coefficient: n-	1.50
octanol/water	
Auto Ignition	>536°F (>280°C)
Temperature	
Decomposition	572°F (300°C)
Temperature	
Volatile Organic	Testing not relevant or not possible due to nature of the product
Compounds (VOC)	
Viscosity	Approx. 5-10 cSt @ 68°F

10. STABILITY AND REACTIVITY

Reactivity	Not expected to be reactive.
Chemical Stability	Stable.
Possibility of Hazardous	Glycol ethers can form peroxides on storage. Glycol ethers can react with
Reactions	light metals under the evolution of hydrogen gas.
Conditions to Avoid	Do not distil to dryness without testing for peroxide formation.
Incompatible Materials	Avoid contact with strong oxidizing agents. For user safety, brake fluid
	should never be contaminated with any other substance.
Hazardous Decomposition	Product Thermal decomposition may produce carbon oxides, aldehydes
	and ethers.

11. TOXICOLOGICAL INFORMATION

Potential Health Hazards

Eye Contact: Causes eye irritation with redness, tearing and pain.



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Skin Contact: Prolonged skin contact may cause irritation. May penetrate the skin. **Inhalation:** Excessive inhalation of vapors or mists may cause upper respiratory tract irritation. **Ingestion:** Swallowing large amounts may cause gastrointestinal irritation or pain, nausea, vomiting, central nervous system effects, irregular eye movements, convulsions and coma. May cause severe kidney damage which may be fatal.

Chronic Effects of Overexposure: One of the components (2,2'-oxybisethanol) may have adverse effects on the kidneys after prolonged exposure (ingestion).

Sensitization: None of the components have been found to cause sensitization in animals or humans. **Mutagenicity:** This product is not expected to cause mutagenic activity.

Reproductive Toxicity: This product contains two substances that are expected to cause reproductive or developmental effects (tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl]orthoborate and 2-(2-methoxyethoxy)ethanol).

Carcinogenicity: None of the components of this product are listed as a carcinogen or suspected carcinogen by IARC, NTP, or OSHA.

Acute Toxicity:

Product

Oral rat LD50 >5000 mg/kg Inhalation rat LC50 NA Dermal rabbit LD50 >3000 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity	
Product	96 hr LC50 Oncorhynchus mykiss >100 mg/L
	48 hr EC50 Daphnia magna NA
	72 hr EC50 algae NA
Biodegradation	The product is inherently biodegradable, and is expected to be readily
	biodegradable based on ingredient data (OECD 302B)
Bioaccumulation	Log Pow for all main ingredients < 2 which suggests that the potential for
	bioaccumulation is low
Mobility in soil	Soluble in water and will partition to aqueous phase. Mobile in soil.
Other adverse effects:	None known.

13. DISPOSAL CONSIDERATIONS

Disposal

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

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT					



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TDG					
IMDG					
ΙΑΤΑ					

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form **Special precautions:** None known.

15. REGULATORY INFORMATION

CERCLA: Glycol ethers are regulated as a generic class under this legislation.
EPA SARA 302: This product does not contain chemicals regulated under SARA Section 302.
EPA SARA 311 Hazard Classification: Acute Health, Delayed Chronic Health
EPA SARA 313: This product contains the following chemicals that are regulated under SARA Title III, section 313: Glycol ethers are regulated as a generic class under this legislation.

California Proposition 65: This product contains the following chemicals known to the State of California to cause cancer and reproductive toxicity: None

Chemical Inventories

Toxic Substances Control Act: All of the components of this product are listed on the TSCA inventory

16. OTHER INFORMATION

NFPA Rating (NFPA 704):	Health: 2	Fire: 1	Instability: 0
HMIS Rating:	Health: 2*	Fire: 1	Physical Hazard: 0
*Chronic Health Hazard			

Date of Revision: 05 September, 2024 Date of Previous Revision: 12 November, 2020 Revision History: 12/12/17: New Document Created 11/12/20: the following sections have been revised: 2, 3, 4, 8, 9, 11, 15 and 16 9/5/24: Reviewed all sections to ensure they are up to date

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.



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