

Brake Fluid DOT4

SECTION 1. IDENTIFICATION

Product Identifier	Brake Fluid DOT4
Other Means of Identification	35-800PRES, 35-820PRES, 35-821PRES, 35-823CQ, 35-823SO, 15-821OEM, 15-801OEM, 15-801OEMA, 15-801OEME, 15-821OEMA, 15-823LAU, 15-821OEME
Recommended Use	Please refer to Product label.
Restrictions on Use	None known.
Manufacturer/Supplier Identifier	Recochem Inc., 850 Montee de Liesse, Montreal, QC, H4T 1P4, Compliance and Regulatory Department, 905-878-5544, www.recochem.com
Emergency Phone No.	CANUTEC, 613-996-6666, 24 Hours
SDS No.	1516

SECTION 2. HAZARD IDENTIFICATION

Classification

Acute toxicity (Oral) - Category 4; Acute toxicity (Dermal) - Category 4; Skin irritation - Category 2; Eye irritation - Category 2A; Reproductive toxicity - Category 2; Specific target organ toxicity (single exposure) - Category 3

Label Elements



Signal Word:
Warning

Hazard Statement(s):

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.

Prevention:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing fume, mist, vapours, spray.
P264	Wash hands and skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

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Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
P330 Rinse mouth.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P312 Call a POISON CENTRE or doctor if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTRE or doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTRE or doctor if you feel unwell.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P308 + P313 IF exposed or concerned: Get medical advice/attention.

Storage:

Store in a well ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Disposal:

Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.

Note:

37.5
. % of the mixture consists of ingredient(s) of unknown acute toxicity.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Mixture:**

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Ethanol, 2-[2-(2-methoxyethoxy)ethoxy]-, triester with boric acid (H3BO3)	30989-05-0	10-30		
TRIETHYLENE GLYCOL MONOMETHYL ETHER	112-35-6	10-30		
Poly(oxy-1,2-ethanediyl), alpha-methyl-omega-hydroxy-	9004-74-4	10-30		
Poly(oxy-1,2-ethanediyl), alpha-butyl- omega -hydroxy-	9004-77-7	7-13		
Triethylene glycol butyl ether	143-22-6	5-10		
TETRAETHYLENE GLYCOL	112-60-7	5-10		
Pentaethylene glycol	4792-15-8	1-5		
Triethylene glycol	112-27-6	1-5		
Diisopropanolamine	110-97-4	0.5-1.5		
Diethylene glycol monomethyl ether	111-77-3	0.1-1		

Notes**Use of Generic SDS:**

If the concentration or actual concentration range of an ingredient of a particular hazardous product in the series is

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different from the concentration or actual concentration range disclosed for the rest of the series, either the concentration or the actual concentration range must be indicated beside that ingredient under item 3 (Composition/Information on ingredients) of the SDS. Furthermore, if any other specific information element(s) (such as flash point, numerical measure of toxicity, etc.) for a particular hazardous product in the series differs from that of the other products in the series (without affecting the classification), the information element relevant to that hazardous product must be disclosed on the SDS with an indication to which hazardous product each relates.

Source: Health Canada - Technical Guidance on the Requirements of the Hazardous Products Act and the Hazardous Products Regulations WHMIS 2015 Supplier Requirements - pg 117

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Call a Poison Centre or doctor if you feel unwell.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If skin irritation occurs, get medical advice or attention. Call a Poison Centre or doctor if you feel unwell. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Quickly and gently blot or brush chemical off the face. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists, get medical advice or attention.

Ingestion

Rinse mouth with water. Call a Poison Centre or doctor if you feel unwell.

First-aid Comments

If exposed or concerned, get medical advice or attention.

Most Important Symptoms and Effects, Acute and Delayed

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Immediate Medical Attention and Special Treatment

Target Organs

Kidneys, skin, eyes.

Special Instructions

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Medical Conditions Aggravated by Exposure

Dermatitis.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Product

Can ignite if strongly heated. Closed containers may rupture violently when heated releasing contents.

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In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides.

Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

No special precautions are necessary.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for Safe Storage

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Triethylene glycol butyl ether	Not established	Not established	Not established	Not established		
Ethanol, 2-[2-(2-methoxyethoxy)ethoxy]-, triester with boric acid (H3BO3)	2 mg/m3	6 mg/m3	Not established	Not established		

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TRIETHYLENE GLYCOL MONOMETHYL ETHER	Not established	Not established	Not established	Not established		
TETRAETHYLENE GLYCOL	Not established	Not established	Not established	Not established		
Pentaethylene glycol	Not established	Not established	Not established	Not established		
Triethylene glycol	Not established	Not established	Not established	Not established		
Diisopropanolamine	Not established	Not established	Not established	Not established		

Appropriate Engineering Controls

The hazard potential of this product is relatively low. General ventilation is usually adequate. For large scale use of this product: provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection

Not normally required if product is used as directed. For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Yellow liquid.
Odour	Ammonia-like
Odour Threshold	Not available
pH	7.7 (estimated)
Melting Point/Freezing Point	< -59 °C (-74 °F) (estimated) (melting); < -59 °C (-74 °F) (estimated) (freezing)
Initial Boiling Point/Range	281.6 °C (538.9 °F)
Flash Point	132.2 °C (270.0 °F) (closed cup)
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	< 0.01 mm Hg (0.00 kPa) at 20 °C (estimated)
Vapour Density (air = 1)	> 10
Relative Density (water = 1)	1.053 at 20 °C
Solubility	Soluble in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	1100 mm ² /s at 25 °C (77 °F) (estimated) (kinematic); Not available (dynamic)
Other Information	
Physical State	Liquid
Molecular Weight	Not available

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SECTION 10. STABILITY AND REACTIVITY

Reactivity

None known.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None known.

Conditions to Avoid

Do not allow product to become dry. High temperatures.

Incompatible Materials

Strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide), strong oxidizing agents (e.g. perchloric acid).

Hazardous Decomposition Products

Very toxic, flammable aldehydes; corrosive, oxidizing nitrogen oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Skin contact; eye contact.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Triethylene glycol butyl ether	Not available	5300 mg/kg (male rat)	3.54 ml/kg bw (rabbit)
Diethylene glycol monomethyl ether	> 50000 mg/m ³ (rat) (4-hour exposure)	6830 mg/kg (rat)	9404 mg/kg (rabbit)
Ethanol, 2-[2-(2-methoxyethoxy)ethoxy]-, triester with boric acid (H ₃ BO ₃)	Not available	Not available	Not available
TRIETHYLENE GLYCOL MONOMETHYL ETHER	Not available	11.8 g/kg (rat)	7100 mg/kg (rabbit)
Poly(oxy-1,2-ethanediyl), alpha-methyl-omega-hydroxy -		39800 mg/kg (rat)	> 20000 mg/kg (rabbit)
Poly(oxy-1,2-ethanediyl), alpha-butyl- omega -hydroxy-	Not available	Not available	Not available
TETRAETHYLENE GLYCOL	Not available	32700 mg/kg (rat)	22570 mg/kg (rabbit)
Pentaethylene glycol	Not available	22500 mg/kg (guinea pig)	Not available
Triethylene glycol	> 3.9 mg/L (rat) (4-hour exposure)	17000 mg/kg (rat)	22460 mg/kg (rabbit)
Diisopropanolamine	Not available	4765 mg/kg (rat)	8000 mg/kg (rabbit)

LC50: Not applicable.

LD50 (oral): Not applicable.

LD50 (dermal): Not applicable.

Skin Corrosion/Irritation

Human experience and animal tests show moderate or severe irritation.

Serious Eye Damage/Irritation

Animal tests show serious eye damage. (Triethylene glycol butyl ether)

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STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May be harmful based on limited evidence. Nose and throat irritation. At high concentrations. (Pentaethylene glycol)

Skin Absorption

May be harmful based on limited evidence. (Poly(oxy-1,2-ethanediyl), alpha-butyl- omega -hydroxy-)

Ingestion

May be harmful based on limited evidence. (Poly(oxy-1,2-ethanediyl), alpha-butyl- omega -hydroxy-)

Aspiration Hazard

Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause Following skin contact: dermatitis. Symptoms may include dry, red, cracked skin (dermatitis). effects similar to STOT (Specific Target Organ Toxicity) - Single Exposure, as described above.

Causes At high concentrations harmful effects on the kidneys.

Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer. Not known to be a skin sensitizer.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Triethylene glycol butyl ether	Not Listed	Not designated	Not Listed	Not Listed
Diethylene glycol monomethyl ether	Not Listed	Not designated	Not Listed	Not Listed
Ethanol, 2-[2-(2-methoxyethoxy) ethoxy]-, triester with boric acid (H3BO3)	Not Listed	Not designated	Not Listed	Not Listed
TRIETHYLENE GLYCOL MONOMETHYL ETHER	Not Listed	Not designated	Not Listed	Not Listed
Poly(oxy-1,2-ethanediyl), alpha-methyl-omega-hydroxy-	Not Listed	Not designated	Not Listed	Not Listed
Poly(oxy-1,2-ethanediyl), alpha-butyl- omega -hydroxy-	Not Listed	Not designated	Not Listed	Not Listed
TETRAETHYLENE GLYCOL	Not Listed	Not designated	Not Listed	Not Listed
Triethylene glycol	Not Listed	Not designated	Not Listed	Not Listed
Diisopropanolamine	Not Listed	Not designated	Not Listed	Not Listed

Reproductive Toxicity

Development of Offspring

Animal studies show effects on the offspring. However, these effects are only seen with significant toxicity in the mothers. Has been associated with: if swallowed: decreased weight. (Triethylene glycol)

Animal studies show effects on the offspring. Following skin contact. (Diethylene glycol monomethyl ether)

Animal studies show effects on the offspring. However, these effects are only seen with significant toxicity in the mothers. If swallowed. (Diethylene glycol monomethyl ether)

May cause effects on the unborn child based on limited evidence. However, these effects are only seen with significant toxicity in the mothers.

Sexual Function and Fertility

Animal studies show effects on sexual function and/or fertility. However, these effects were seen in the presence of significant other toxicity.

Effects on or via Lactation

No information was located.

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Germ Cell Mutagenicity

Not mutagenic.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS.

This section is not required by OSHA HCS 2012.

Ecotoxicity**Acute Aquatic Toxicity**

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Triethylene glycol butyl ether	2400 mg/L (Pimephales promelas (fathead minnow); 96-hour; static)			
Diethylene glycol monomethyl ether	5741 mg/L (Pimephales promelas (fathead minnow); 96-hour)	1191 mg/L (Daphnia magna (water flea); 48-hour)		
Ethanol, 2-[2-(2-methoxyethoxy)ethoxy]-, triester with boric acid (H3BO3)	Not available	Not available		
TRIETHYLENE GLYCOL MONOMETHYL ETHER	> 10000 mg/L (Pimephales promelas (fathead minnow); 96-hour)	Not available		
Poly(oxy-1,2-ethanediyl), alpha-methyl-omega-hydroxy-	10000 mg/L (Pimephales promelas (fathead minnow); 96-hour)	Not available		
Poly(oxy-1,2-ethanediyl), alpha-butyl- omega-hydroxy-	Not available			
TETRAETHYLENE GLYCOL	Not available	Not available		
Pentaethylene glycol	Not available	Not available		
Triethylene glycol	> 100 mg/L (Pimephales promelas (fathead minnow); 96-hour)	46500 mg/L (Daphnia magna (water flea); 48-hour)		
Diisopropanolamine	> 1000-2200 mg/L (Zebra Fish; 96-hour; static)	Not available		

Chronic Aquatic Toxicity

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea
Triethylene glycol butyl ether	Not available		Not available	

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Diethylene glycol monomethyl ether	Not available		Not available	
Ethanol, 2-[2-(2-methoxyethoxy)ethoxy]-, triester with boric acid (H3BO3)	Not available		Not available	
TRIETHYLENE GLYCOL MONOMETHYL ETHER	Not available		Not available	
Poly(oxy-1,2-ethanediyl), alpha-methyl-omega-hydroxy-	Not available		Not available	
Poly(oxy-1,2-ethanediyl), alpha-butyl- omega-hydroxy-	Not available		Not available	
TETRAETHYLENE GLYCOL	Not available		Not available	
Pentaethylene glycol	Not available		Not available	
Triethylene glycol	Not available		Not available	
Diisopropanolamine	Not available		Not available	

Persistence and Degradability

No information was located.

Bioaccumulative Potential

No information was located.

Mobility in Soil

No information was located.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

Environmental Hazards Not applicable

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Proof of Dangerous Goods Classification

Date of Classification February 01, 2017

Technical Name Not Regulated

Classification Not Regulated

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SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

CEPA - National Pollutant Release Inventory (NPRI)

Part 1A. (Diethylene glycol monomethyl ether)

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

Custom Regulatory 1

Consumer Product Safety Improvement Act of 2008 General Conformity Certification

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product container.

SECTION 16. OTHER INFORMATION

SDS Prepared By Compliance and Regulatory Department

Phone No. 905-878-5544

Date of Preparation May 04, 2017

References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

Additional Information We are committed to uphold the Industry Consumer Ingredient Communication Voluntary Initiative.
Please send us your request by visiting our website at www.recochem.com.

Ingredients present (intentionally added ingredients) at a concentration of greater than one percent (1%) shall be listed in descending order of predominance. Ingredients present at a concentration of not more than one percent shall be listed but may be disclosed without respect to order of predominance.

Disclaimer

Notice to reader: To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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