

## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** DOT 4 Brake Fluid

**1.2. Intended Use of the Product** No additional information available

**1.3. Name, Address, and Telephone of the Responsible Party**

**Company**

Third Coast Chemicals

P.O. Box 239

Pearland, TX 77588

T 281-412-0275

[www.thirdcoastchemicals.com](http://www.thirdcoastchemicals.com)

### 1.4. Emergency Telephone Number

**Emergency Number** : +1-800-424-9300

CHEMTREC – TOLL FREE 24 HOUR EMERGENCY TELEPHONE NUMBER

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

**Classification (GHS-US)**

Eye Dam. 1 H318

STOT RE 2 H373

Full text of H-phrases: see section 16

### 2.2. Label Elements

**GHS-US Labeling**

**Hazard Pictograms (GHS-US)** :



**Signal Word (GHS-US)** :

Danger

**Hazard Statements (GHS-US)** :

H318 - Causes serious eye damage.

H373 - May cause damage to organs through prolonged or repeated exposure.

**Precautionary Statements (GHS-US)** :

P260 - Do not breathe vapors, mist, spray.

P280 - Wear eye protection, protective clothing, protective gloves.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER, a doctor.

P314 - Get medical advice/attention if you feel unwell.

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

### 2.3. Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

### 2.4. Unknown Acute Toxicity (GHS-US)

2 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapors))

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product Identifier	%	Classification (GHS-US)
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, ester with boric acid (H3BO3), methyl ether	(CAS No) 71243-41-9	30 - 40	Not classified
Triethylene glycol monomethyl ether	(CAS No) 112-35-6	28 - 31	Not classified
Polyethylene glycol methyl ether	(CAS No) 9004-74-4	14 - 28	Not classified

# DOT 4 Brake Fluid

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Diethylene glycol	(CAS No) 111-46-6	< 5	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Triethylene glycol monobutyl ether	(CAS No) 143-22-6	< 5	Eye Dam. 1, H318
Tetraethylene glycol	(CAS No) 112-60-7	< 3	Not classified
Polyethylene glycol	(CAS No) 25322-68-3	< 3	STOT SE 3, H335
3,6,9,12-Tetraoxahexadecan-1-ol	(CAS No) 1559-34-8	< 3	Eye Irrit. 2A, H319

Full text of H-phrases: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First Aid Measures

**First-aid Measures General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First-aid Measures After Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**First-aid Measures After Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

**First-aid Measures After Eye Contact:** Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

**First-aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting. Get medical advice and attention if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms/Injuries:** Causes serious eye damage. There are potential chronic health effects to consider.

**Symptoms/Injuries After Inhalation:** May cause respiratory irritation.

**Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation.

**Symptoms/Injuries After Eye Contact:** Causes serious eye damage.

**Symptoms/Injuries After Ingestion:** May cause gastrointestinal irritation.

**Chronic Symptoms:** Causes damage to organs through prolonged or repeated exposure.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>). Water spray, fog.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Product is not explosive. Containers may rupture when exposed to excessive heat.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. Do not allow run-off from fire fighting to enter drains or water sources. Do not breathe fumes or vapors from fire.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Other Information:** Refer to Section 9 for flammability properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

#### 6.1.1. For Non-emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Responders

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and Material for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

# DOT 4 Brake Fluid

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Contact competent authorities after a spill.

## 6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection. Concerning disposal/elimination after cleaning, see item 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Precautions for Safe Handling:** Avoid contact with eyes, skin and clothing.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Observe all Federal, State, and local regulations when storing this substance.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

**Incompatible Products:** Strong acids. Strong bases. Strong oxidizers.

### 7.3. Specific End Use(s) No additional information available

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), or OSHA (PEL).

### 8.2. Exposure Controls

**Appropriate Engineering Controls** : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

**Personal Protective Equipment** : Protective goggles. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.



**Materials for Protective Clothing** : Chemically resistant materials and fabrics.

**Hand Protection** : Wear chemically resistant protective gloves.

**Eye Protection** : Chemical safety goggles.

**Skin and Body Protection** : Wear suitable protective clothing.

**Respiratory Protection** : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

**Environmental Exposure Controls** : Avoid release to the environment.

**Consumer Exposure Controls** : Do not eat, drink or smoke during use.

**Other Information** : When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

**Physical State** : Liquid

**Appearance** : Slight yellow to yellow

**Odor** : Mild odor

**Odor Threshold** : No data available

**pH** : 8.6 (25% Aqueous Solution)

**Evaporation Rate** : No data available

**Melting Point** : No data available

**Freezing Point** : < -50 °C (-58.00 °F)

**Boiling Point** : > 232 °C (449.60 °F)

**Flash Point** : > 121 °C (249.80 °F) (PMCC)

**Auto-ignition Temperature** : 310 °C (590.00 °F)

**Decomposition Temperature** : No data available

**Flammability (solid, gas)** : No data available

# DOT 4 Brake Fluid

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Vapor Pressure	: No data available
Relative Vapor Density at 20 °C	: No data available
Relative Density	: 1.06
Solubility	: Soluble in water
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available

9.2. Other Information No additional information available

## SECTION 10: STABILITY AND REACTIVITY

- 10.1. **Reactivity:** Hazardous reactions will not occur under normal conditions.
- 10.2. **Chemical Stability:** Stable under normal ambient conditions.
- 10.3. **Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. **Conditions to Avoid:** Direct sunlight. Extremely high or low temperatures.
- 10.5. **Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers.
- 10.6. **Hazardous Decomposition Products:** Thermal decomposition generates : Carbon oxides (CO, CO<sub>2</sub>).

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information On Toxicological Effects

Acute Toxicity: Not classified

<b>Polyethylene glycol methylether (9004-74-4)</b>	
LD50 Oral Rat	22 ml/kg
LD50 Dermal Rabbit	> 20 ml/kg
<b>Diethylene glycol (111-46-6)</b>	
LD50 Oral Rat	1120 mg/kg
LD50 Dermal Rabbit	11890 mg/kg
<b>Triethylene glycol monobutyl ether (143-22-6)</b>	
LD50 Oral Rat	5300 mg/kg
LD50 Dermal Rabbit	3480 mg/kg
<b>Tetraethylene glycol (112-60-7)</b>	
LD50 Dermal Rabbit	> 20 g/kg
<b>Polyethylene glycol (25322-68-3)</b>	
LD50 Oral Rat	47000 mg/kg
LD50 Dermal Rabbit	> 20 ml/kg
<b>3,6,9,12-Tetraoxahexadecan-1-ol (1559-34-8)</b>	
LD50 Oral Rat	5175 mg/kg
LD50 Dermal Rat	> 4000 mg/kg

**Skin Corrosion/Irritation:** Not classified **pH:** 8.6 (25% Aqueous Solution)

**Serious Eye Damage/Irritation:** Causes serious eye damage. **pH:** 8.6 (25% Aqueous Solution)

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** Not classified

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** May cause damage to organs through prolonged or repeated exposure.

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** May cause respiratory irritation.

**Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation.

**Symptoms/Injuries After Eye Contact:** Causes serious eye damage.

**Symptoms/Injuries After Ingestion:** May cause gastrointestinal irritation.

**Chronic Symptoms:** Causes damage to organs through prolonged or repeated exposure.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

<b>Triethylene glycol monomethyl ether (112-35-6)</b>	
LC50 Fish 1	> 5000 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])

# DOT 4 Brake Fluid

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

EC50 Daphnia 1	> 500 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	> 10000 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
<b>Diethylene glycol (111-46-6)</b>	
LC50 Fish 1	75200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	84000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>Triethylene glycol monobutyl ether (143-22-6)</b>	
LC50 Fish 1	2400 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	> 500 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	2400 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
<b>Tetraethylene glycol (112-60-7)</b>	
LC50 Fish 1	> 1000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>3,6,9,12-Tetraoxahexadecan-1-ol (1559-34-8)</b>	
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

## 12.2. Persistence and Degradability

<b>DOT 4 Brake Fluid</b>	
Persistence and Degradability	Not established.

## 12.3. Bioaccumulative Potential

<b>DOT 4 Brake Fluid</b>	
Bioaccumulative Potential	Not established.

<b>Triethylene glycol monomethyl ether (112-35-6)</b>	
Log Pow	1.13 (at 25 °C)

<b>Diethylene glycol (111-46-6)</b>	
BCF fish 1	100 - 180
Log Pow	-1.98 (at 25 °C)

<b>Triethylene glycol monobutyl ether (143-22-6)</b>	
BCF fish 1	(no significant bioaccumulation)
Log Pow	0.51 (at 25 °C)

<b>Tetraethylene glycol (112-60-7)</b>	
BCF fish 1	(no bioconcentration expected)

<b>3,6,9,12-Tetraoxahexadecan-1-ol (1559-34-8)</b>	
BCF fish 1	(no significant bioaccumulation)

**12.4. Mobility in Soil** No additional information available

## 12.5. Other Adverse Effects

Other Information : Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Sewage Disposal Recommendations:** Do not empty into drains. Do not dispose of waste into sewer.

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, and international regulations.

## SECTION 14: TRANSPORT INFORMATION

**14.1. In Accordance with DOT** Not regulated for transport

**14.2. In Accordance with IMDG** Not regulated for transport

**14.3. In Accordance with IATA** Not regulated for transport

## SECTION 15: REGULATORY INFORMATION

### 15.1 US Federal Regulations

<b>DOT 4 Brake Fluid</b>	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard

<b>Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, ester with boric acid (H3BO3), methyl ether (71243-41-9)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

# DOT 4 Brake Fluid

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

<b>Triethylene glycol monomethyl ether (112-35-6)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>EPA TSCA Regulatory Flag</b>	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
<b>Polyethylene glycol methyl ether (9004-74-4)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Diethylene glycol (111-46-6)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>EPA TSCA Regulatory Flag</b>	Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.
<b>Triethylene glycol monobutyl ether (143-22-6)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>EPA TSCA Regulatory Flag</b>	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
<b>Tetraethylene glycol (112-60-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Polyethylene glycol (25322-68-3)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>3,6,9,12-Tetraoxahexadecan-1-ol (1559-34-8)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

## 15.2 US State Regulations

<b>Diethylene glycol (111-46-6)</b>
U.S. - Pennsylvania - RTK (Right to Know) List

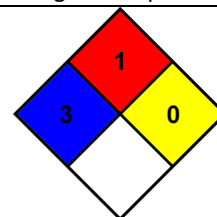
## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Revision Date** : 05/18/2015  
**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

### GHS Full Text Phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H302	Harmful if swallowed
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure

**NFPA Health Hazard** : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.  
**NFPA Fire Hazard** : 1 - Must be preheated before ignition can occur.  
**NFPA Reactivity** : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



**HMIS III Rating**  
**Health** : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given  
**Flammability** : 1 Slight Hazard  
**Physical** : 0 Minimal Hazard

# DOT 4 Brake Fluid

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According to Federal Register/ Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

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