Brake Fluid DOT 3

SECTION 1. IDENTIFICATION

Product Identifier: Brake Fluid DOT 3

Other Means of Identification: R529, R530, R531, R532, R533, R535

Recommended Use: Please refer to Product label.

Restrictions on Use: None known.

Manufacturer / Supplier: Quality Liquid Packaging 50 Tiffield Road Unit 9, Scarborough, ON M1V 5B7

Emergency phone number: (416) 609 - 0828

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Acute toxicity (Oral) - Category 4; Acute toxicity (Dermal) - Category 4; Serious eye damage/eye irritation - Category 2A; Reproductive Toxicity - Category 2

GHS Label Elements

Signal Word: Warning

Hazard Statement(s):
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H319 Causes serious eye irritation.
H361 Suspected of damaging fertility or the unborn child if inhaled, following skin contact and/or if swallowed.

Precautionary Statement(s):

Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P264 Wash hands and skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing.

Date of Preparation: April 18, 2018
Response:
P301 + P312  IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.
P330    Rinse mouth.
P302 + P352  IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313  IF exposed or concerned: Get medical advice/attention.
P312  Call a POISON CENTRE/doctor if you feel unwell.
P321 Specific treatment (see supplemental first aid instruction on this label).
P337 + P313  If eye irritation persists: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

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:
3-7 % of the mixture consists of ingredient(s) of unknown acute toxicity.

Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol</td>
<td>111-46-6</td>
<td>10-30</td>
<td></td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-butyl- omega-hydroxy-</td>
<td>9004-77-7</td>
<td>10-30</td>
<td></td>
</tr>
<tr>
<td>3,6,9,12-Tetraoxahexadecan-1-ol</td>
<td>1559-34-8</td>
<td>7-13</td>
<td></td>
</tr>
<tr>
<td>Diethylene glycol monobutyl ether</td>
<td>112-34-5</td>
<td>7-13</td>
<td></td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-methyl-omega-hydroxy-</td>
<td>9004-74-4</td>
<td>7-13</td>
<td></td>
</tr>
<tr>
<td>Diethylene glycol monoethyl ether</td>
<td>111-90-0</td>
<td>1-5</td>
<td></td>
</tr>
<tr>
<td>Diethylene glycol monomethyl ether</td>
<td>111-77-3</td>
<td>1-5</td>
<td></td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Remove source of exposure or move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse with lukewarm, gently flowing water for 5 minutes.

Product Identifier: Brake Fluid DOT 3

Date of Preparation: April 18, 2018
Eye Contact
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/attention.

Ingestion
Rinse mouth with water. Get medical advice/attention if you feel unwell or are concerned.

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

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

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 Chemical
Does not burn.

In a fire, the following hazardous materials may be generated: toxic chemicals.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
No special precautions are necessary. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment. 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.

Other Information
Report spills to local health, safety and environmental authorities, as required.

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**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>Diethylene glycol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diethylene glycol monobutyl ether</td>
<td>10 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diethylene glycol monoethyl ether</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Appropriate Engineering Controls**

General ventilation is usually adequate.

**Individual Protection Measures**

**Eye/Face Protection**

Not required but it is good practice to wear safety glasses or chemical safety goggles.

**Skin Protection**

Not required, if used as directed.

**Respiratory Protection**

Not normally required if product is used as directed.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Basic Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Light amber. Particle Size: Not applicable</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Odour Threshold</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Melting Point/Freezing Point</strong></td>
<td>Not available (melting); Not available (freezing)</td>
</tr>
<tr>
<td><strong>Initial Boiling Point/Range</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Flash Point</strong></td>
<td>132 ºC (270 ºF) (closed cup)</td>
</tr>
<tr>
<td><strong>Evaporation Rate</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Upper/Lower Flammability or Explosive Limit</strong></td>
<td>Not available (upper); Not available (lower)</td>
</tr>
<tr>
<td><strong>Vapour Pressure Vapour</strong></td>
<td>&lt; 0.013 kPa (0.098 mm Hg)</td>
</tr>
<tr>
<td><strong>Density (air = 1)</strong></td>
<td>Not available</td>
</tr>
</tbody>
</table>

**Product Identifier:** Brake Fluid DOT 3

**Date of Preparation:** April 18, 2018
Relative Density (water = 1) 1.038 - 1.040
Solubility Practically insoluble in water
Partition Coefficient, n-Octanol/Water (Log Kow) Not available
Auto-ignition Temperature Not available
Decomposition Temperature Not available
Viscosity Not available (kinematic); Not available (dynamic)

Other Information
Physical State Liquid
Molecular Formula Not available
Molecular Weight Not available
Surface Tension Not available
Critical Temperature Not available
Electrical Conductivity Not available
Vapour Pressure at 50 deg C Not available
Saturated Vapour Concentration Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions of use.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None expected under normal conditions of storage and use.
Conditions to Avoid
Water, moisture or humidity.
Incompatible Materials
Slightly reactive or incompatible with the following materials: oxidizing agents (e.g. peroxides).
Hazardous Decomposition Products
Very toxic carbon monoxide, carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Skin contact; eye contact.
Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol</td>
<td>4600 mg/m3 (rat)</td>
<td>12565 mg/kg (rat)</td>
<td>11890 mg/kg (rabbit)</td>
</tr>
<tr>
<td>(30-minute exposure)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3,6,9, 12-Tetraoxahexadecan-1-ol</td>
<td>Not available</td>
<td>5300 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Diethylene glycol monobutyl ether</td>
<td></td>
<td>6560 mg/kg (rat)</td>
<td>2764 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-methyl-omega-hydroxy-</td>
<td>39800 mg/kg (rat)</td>
<td>&gt; 20000 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Product Identifier: Brake Fluid DOT 3
Date of Preparation: April 18, 2018
Diethylene glycol monoethyl ether | 5240 mg/m³ (rat) | 10502 mg/kg (rat) | 9143 mg/kg (rabbit)  
Diethylene glycol monomethyl ether | > 50000 mg/m³ (rat) (4-hour exposure) | 6830 mg/kg (rat) | 9404 mg/kg (rabbit)  
Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-hydroxy- | Not available | Not available | Not available  

LC₅₀: Not applicable.  
LD₅₀ (oral): Not applicable.  
LD₅₀ (dermal): Not applicable.  

**Skin Corrosion/Irritation**  
May cause mild irritation based on information for closely related chemicals.  

**Serious Eye Damage/Irritation**  
Causes serious eye damage based on skin corrosion information.  

**STOT (Specific Target Organ Toxicity) - Single Exposure**  
- **Inhalation**  
  No information was located.  
- **Skin Absorption**  
  No information was located.  
- **Ingestion**  
  May be harmful based on information for closely related materials. May cause depression of the central nervous system.  

**Aspiration Hazard**  
Not known to be an aspiration hazard.  

**STOT (Specific Target Organ Toxicity) - Repeated Exposure**  
No information was located.  

**Respiratory and/or Skin Sensitization**  
Not a respiratory sensitizer.  

**Carcinogenicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol</td>
<td>Not Listed</td>
<td>Not designated</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>3,6,9,12-Tetraoxahexadecan-1-ol</td>
<td>Not Listed</td>
<td>Not designated</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Diethylene glycol monobutyl ether</td>
<td>Not Listed</td>
<td>Not designated</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-methyl-omega-hydroxy-</td>
<td>Not Listed</td>
<td>Not designated</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Diethylene glycol monoethyl ether</td>
<td>Not Listed</td>
<td>Not designated</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Diethylene glycol monomethyl ether</td>
<td>Not Listed</td>
<td>Not designated</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-hydroxy-</td>
<td>Not Listed</td>
<td>Not designated</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

Product Identifier: Brake Fluid DOT 3  
Date of Preparation: April 18, 2018
Reproductive Toxicity
Development of Offspring
Not known to harm the unborn child.

Sexual Function and Fertility
May cause effects on sexual function and/or fertility based on limited evidence.

Effects on or via Lactation
Not known to cause effects on or via lactation.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity
Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol</td>
<td>75200 mg/L (Pimephales promelas (fathead minnow); 96-hour; fresh water)</td>
<td>10000 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>3,6,9, 12-Tetraoxahexadecan-1-ol</td>
<td>2400 mg/L (Pimephales promelas (fathead minnow); 96-hour)</td>
<td>2210 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diethylene glycol monobutyl ether</td>
<td>1300 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>100 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-methyl-omega-hydroxy-</td>
<td>10000 mg/L (Pimephales promelas (fathead minnow); 96-hour)</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diethylene glycol monoethyl ether</td>
<td>9650 mg/L (Pimephales promelas (fathead minnow); 96-hour)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diethylene glycol monomethyl ether</td>
<td>5741 mg/L (Pimephales promelas (fathead minnow); 96-hour)</td>
<td>1191 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-butyl- omega-hydroxy-</td>
<td>Not available</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol</td>
<td>Not available</td>
<td></td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>3,6,9, 12-Tetraoxahexadecan-1-ol</td>
<td>Not available</td>
<td></td>
<td>Not available</td>
<td></td>
</tr>
</tbody>
</table>

Product Identifier: Brake Fluid DOT 3
Date of Preparation: April 18, 2018
<table>
<thead>
<tr>
<th>Compound</th>
<th>Persistence</th>
<th>Degradability</th>
<th>Bioaccumulative Potential</th>
<th>Mobility in Soil</th>
<th>Other Adverse Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol monobutyl ether</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>There is no information available.</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-methyl-omega-hydroxy-</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>There is no information available.</td>
</tr>
<tr>
<td>Diethylene glycol monoethyl ether</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>There is no information available.</td>
</tr>
<tr>
<td>Diethylene glycol monomethyl ether</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>There is no information available.</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-hydroxy-</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>There is no information available.</td>
</tr>
</tbody>
</table>

**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


**Environmental Hazards**
Potential Marine Pollutant

**Special Precautions for User**
Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**
Not applicable

### SECTION 15. REGULATORY INFORMATION

### SECTION 16. OTHER INFORMATION

**SDS Prepared By**
Compliance and Regulatory Department

**Phone No.**
905-878-5544

**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.

**Product Identifier:** Brake Fluid DOT 3

**Date of Preparation:** April 18, 2018
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. 

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.