SAFETY DATA SHEET

1. Product Identification

Champion Brands, LLC
1001 Golden Drive
Clinton, MO 64735
(660) 885-8151

Product line: CHAMPION® DOT5.1 Brake Fluid
Products: 4056
CAS: Not applicable (Mixture)
Synonyms: Glycol-Based Brake Fluid
Recommended use: Disk and drum hydraulic brake fluid
Restrictions: Do not use where DOT5 is specified
Created: 26 April 2012
Revised: 18 November 2019
Emergency phone: CHEMTREC: (+1) 800-424-9300

2. Hazards Identification

Appearance: Clear to amber
Odor: Mild sweet odor
Classification(s): Reproductive toxicity – Category 2
Target organs: None known

Signal Word: Warning
Hazard Statement(s): Suspected of damaging fertility or the unborn child.

Other hazard(s): Combustible liquid. Repeated exposure may cause dryness of the skin. Vapors may cause respiratory irritation.
Precaution(s): Wear eye and skin protection before handling. Do not breathe mist/vapors/spray. Use in a well ventilated area. Wear protective gloves/protective clothing. IF IN EYES: Flush with water for 15 minutes and consult a physician. Do
Disposal:

Keep out of waterways. Check local, national, and international regulations for proper disposal.

HMIS (estimated): Health – 1  Fire – 1  Instability – 0

*Classified based on human experience and epistemological data, not based on strict application of the GHS criteria*

### 3. Composition/Information on Ingredients

**Hazardous Ingredients:**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Conc (wt%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethylene glycol monomethyl ether borate ester</td>
<td>30989-05-0</td>
<td>40 – 70</td>
</tr>
<tr>
<td>Triethylene glycol monomethyl ether</td>
<td>112-35-6</td>
<td>15 – 50</td>
</tr>
<tr>
<td>Tetraethylene glycol monomethyl ether</td>
<td>23783-42-8</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Diethylene glycol monomethyl ether</td>
<td>111-77-3</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Monoethanolamine</td>
<td>141-43-5</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>2,6-di-tert-butyl-p-cresol (BHT)</td>
<td>128-37-0</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>

### 4. First Aid Measures

**Eyes**  
Remove contact lenses, if worn. Rinse with running water for at least 15 minutes, lifting upper and lower eyelids occasionally. Seek medical attention.

**Skin**  
Remove affected clothing and launder before reuse. Wash affected area for at least 15 minutes with soap and running water. Prolonged or repeated exposure may cause defatting of the skin – symptoms include redness, dryness, cracking

**Inhalation**  
Remove exposed person to fresh air immediately. Restore or assist breathing, if necessary. Get medical attention immediately if symptoms of CNS depression or intoxication develop

**Ingestion**  
Do NOT induce vomiting. If conscious, give two full glasses of water. If a significant volume has been swallowed, get medical attention immediately.

**Additional Info**  
Not determined

**Specific Treatments**  
Not determined. Treat symptomatically
5. Fire Fighting Measures

NFPA (estimated): Health – 1  Fire – 1  Instability – 0

Flash Point  Not determined

Extinguishing Media  For small fires use alcohol foam, dry chemical or CO₂. For large fires apply large (flooding) quantities of water from as far away as possible in a spray or mist.

Unsuitable Media  Water jet may be ineffective

Firefighting Procedures:  Wear a self-container breathing apparatus if necessary based on concentrations of smoke. Material will produce primarily oxides of carbon as combustion products.

Unusual Hazards  Not Determined

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures:  Ventilate if released in a confined area. Avoid breathing mists/vapors/spray. Product may present slipping hazard if left on the floor. Beware of vapors pooling in low areas to explosive concentrations.

Environmental precautions:  Avoid release to the environment. Prevent from entering into soil, ditches, sewers, waterways or groundwater

Methods for removal:  Use an pump to remove bulk liquid. Residual liquid can be absorbed on inert material. Wash the area with water after excess product and adsorbent is removed. Dispose of all cleanup materials in accordance with local, state and federal regulations

7. Handling and Storage

Max. Handling Temp:  Not determined

Procedures:  Use in a well ventilated area. Avoid breathing mists/vapors/spray. Avoid handling hot product where possible. Use appropriate personal protective equipment to avoid contact with skin and eyes. Note the location of nearest emergency shower and eye wash station before use.
Store with the lid tightly closed in a cool, dry, well-ventilated place. Product is hygroscopic and effectiveness may diminish if opened product is stored for long periods of time. Dispose of spilled or used material in accordance with local, regional, national, and international regulations.

Max Store Temp: Do not store or handle at elevated temperatures.

8. Exposure Controls/Personal Protection

Exposure Limits

US Guidelines by component

- **Triethylene glycol monomethyl ether borate ester**
  - ACGIH TWA: 2 mg/m³
  - ACGIH TWA: 6 mg/m³

- **Monoethanolamine**
  - ACGIH TWA: 3 ppm
  - ACGIH STEL: 6 ppm
  - OSHA PEL: 6 mg/m³; 3 ppm

Other Exposure Limits: Not determined

Engineering Controls: Use in a well ventilated area. Where exposure potential exceeds recommended limits, use a NIOSH/OSHA approved supplied air respirator as recommended.

Personal Protective Equipment

Respiratory: Use a NIOSH or CEN approved full-face respirator with multipurpose combination or type ABEK respirator cartridges as a backup to engineering controls. If the respiratory is the only means of protection, use a full-face supplied air respirator.

Eye: Use tightly-fitting chemical splash goggles. Use face shield, especially where splashing is likely to occur.

Gloves: Use nitrile, butyl, viton, or fluoroelastemer gloves. Even appropriate materials may degrade after prolonged exposure with product.

Clothing: Use chemical resistant pants and jackets, preferably of butyl or nitrile rubber.

Other: Locate the nearest eyewash station and safety shower before handling this product. Limit exposure whenever possible.
**Hygiene:** Wash thoroughly after handling this product.

### 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Clear, pale yellow liquid</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Mild, sweet odor</td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>7 - 9</td>
</tr>
<tr>
<td><strong>Melting Point</strong></td>
<td>&lt; -50°C / -58°F</td>
</tr>
<tr>
<td><strong>Initial Boiling Pt</strong></td>
<td>&gt; 265°C / 509°F</td>
</tr>
<tr>
<td><strong>Flash Point</strong></td>
<td>115°C / 239°F</td>
</tr>
<tr>
<td><strong>Evaporation Rate</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Upper Flammable Lm</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Lower Flammable Lm</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Explosive Data</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Vapor Pressure</strong></td>
<td>0.09 hPa (0.07 mmHg) @ 20° (68°F)</td>
</tr>
<tr>
<td><strong>Vapor Density</strong></td>
<td>&gt; 5 (Air = 1)</td>
</tr>
<tr>
<td><strong>Density</strong></td>
<td>1.067 mg/cu. cm @20.0°C</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>Miscible in water, alcohol; sparingly soluble in some organic solvents</td>
</tr>
<tr>
<td><strong>K&lt;sub&gt;ow&lt;/sub&gt;</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>1.8 mm/s² @ 100°C</td>
</tr>
<tr>
<td><strong>Autoignition Point</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Decomposition Temp</strong></td>
<td>Not determined</td>
</tr>
</tbody>
</table>

### 10. Stability and Reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stability</strong></td>
<td>Material is normally stable at ambient temperatures and pressures.</td>
</tr>
<tr>
<td><strong>Decomposition Temp</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Incompatibility</strong></td>
<td>Keep away from strong oxidizers and strong acids/bases. Keep away from strong reducing agents such as powdered active metals</td>
</tr>
<tr>
<td><strong>Polymerization</strong></td>
<td>Will not occur</td>
</tr>
<tr>
<td><strong>Thermal Decomposition</strong></td>
<td>Primarily oxidizes to carbon dioxide in normal combustion conditions. In lower oxygen environments carbon monoxide, formaldehyde, or formic acid may be formed.</td>
</tr>
<tr>
<td><strong>Conditions to Avoid</strong></td>
<td>Keep away from strong oxidizers, acids, bases as well as heat/sparks/open flames/hot surfaces</td>
</tr>
</tbody>
</table>
11. Toxicological Information

- Acute Exposure –

Eye Irritation Expected to cause mild to moderate irritation of the eye if exposed to liquid or in high vapor concentrations. May cause irritation, tearing, or burning of the eyes.

Skin Irritation Prolonged contact may cause skin irritation with local redness.

Respiratory Irritation High vapor concentrations may cause transient irritation to the respiratory system.

Dermal Toxicity This product can be absorbed through the skin, but is of low order of toxicity. Limit exposure to skin where possible.

Inhalation Toxicity Toxicity is similar to that for oral ingestion, though this exposure mode is far less likely to occur.

Oral Toxicity Not expected to cause injury under normal exposure conditions. If a large amount of material is swallowed, injury may occur. Single dose oral LD50 not determined

Aspiration Hazard This product has a low viscosity and may be fatal if aspirated into the airways. Do NOT induce vomiting, as this increases risk of aspiration.

- Chronic Exposure –

Chronic Toxicity This product may cause dryness or defatting of the skin, dermatitis, or may aggravate existing skin conditions.

Carcinogenicity This product and its components are NOT listed by the IARC, NTP, ACGIH, or OSHA as carcinogens

Mutagenicity Contains a component(s) which were negative for in vitro genetic toxicity studies. Contains a component(s) which were negative in animal genetic toxicity studies

Reproductive Toxicity Minor component(s) were found to cause decreased weight and survival rate of offspring for excessive doses toxic to parent animals.

Teratogenicity Diethylene glycol has produced birth defects in rats at concentrations that are toxic to the mother. In animals, diethylene glycol methyl ether is slightly toxic to the fetus at doses nontoxic to the mother following skin contact; birth defects have been seen only following high oral doses which have little relevance to human exposure

- Additional Information –

Target organ toxicity None known

Synergistic effects None known

Pharmacokinetics No data available
12. Ecological Information

- Environmental Toxicity –
  - Freshwater Fish: Not determined
  - Freshwater Invertebrates: Not determined
  - Algae: Not determined
  - Saltwater Fish: Not determined
  - Saltwater Invertebrates: Not determined
  - Bacteria: Not determined
  - Miscellaneous: Not determined

- Environmental Fate –
  - Biodegradation: No data available. Expected to biodegrade rapidly and degrade by photo-oxidative reactions with the air
  - Bioaccumulation: Product is very mobile in soil and water and is somewhat volatile – it is not expected to bioaccumulate.
  - Soil Mobility: Product has high mobility in soil, slowly evaporates at environmentally relevant temperatures
  - Other Effects: Not determined

13. Disposal Considerations

Disposal Considerations
All disposal practices must be in accordance with local, regional, national, and international regulations. Store material for disposal as indicated in Section 7. Disposal by controlled incineration or by secure land fill may be acceptable – review applicable regulations or regulatory bodies before making disposal decisions.

Contaminated Containers or Packaging
Do NOT weld, cut, or grind empty containers. Rinse empty containers with water and dispose of in accordance with local, regional, national, and international regulations

14. Transportation Information

Description shown may not apply to all shipping situations. Consult applicable shipping codes to determine any additional shipping requirements

- US DOT: Not dangerous goods
- IMDG: Not dangerous goods
- ICAO/IATA: Not dangerous goods
15. Regulatory Information

- Global Chemical Inventories/Regulations –

USA
All components of this material are on the US TSCA
Other TSCA Reg.
None known
EU
Components of this product and similar mixtures are
registered under REACH. Consult the European Chemicals
Agency regarding REACH registration, reporting, and other
legal requirements for methanol solutions before importing to
the EU.
New Zealand
May require notification before sale under New Zealand
Regulations
Canada
All components of this product are listed on the Canadian
Domestic Substances List (DSL).
Canada WHMIS
B3

- Other U.S. Federal Regulations –

No components listed as Extremely Hazardous Substances
list.
SARA Sect. 313
Ethylene glycol monomethyl ether (CAS # 109-86-4) and
triethylene glycol monomethyl ether (CAS # 112-35-6) are
subject to reporting under SARA Title III, Section 313. See
40 CFR 372

SARA 311/312 Class
Acute Hazard - NO
Chronic Hazard - NO
Fire Hazard - NO
Reactivity Hazard - NO
CERCLA Haz. Sub.
No components listed. See 40 CFR 302

- State Regulations –

CA Prop 65
WARNING: This product contains ethylene glycol
monomethyl ether, which is known to the State of California
to cause birth defects or other reproductive harm.

<table>
<thead>
<tr>
<th>Right to Know Component</th>
<th>Right to Know States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethylene glycol monomethyl ether</td>
<td>NJ, PA</td>
</tr>
<tr>
<td>(CAS # 112-35-6)</td>
<td></td>
</tr>
<tr>
<td>Monoethanolamine</td>
<td>NJ, PA</td>
</tr>
<tr>
<td>(CAS # 141-43-5)</td>
<td></td>
</tr>
</tbody>
</table>
16. Other Information

Revision updates may be in many sections and the MSDS should be read in its entirety. Prepared according to the UN Globally Harmonized System for the Classification and Labeling of Chemicals (GHS) by Champion LLC, 1001 Golden Drive, Clinton, Missouri 64735.

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