1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
Product Name: BRAKE FLUID DOT 4

Other means of identification
Common Name: 12032
UN/ID No: Not Regulated
Synonyms: Mixture of glycol ethers, Glycols, Polyglycols.
Product Categories: Brake Fluid

Recommended use of the chemical and restrictions on use
Sale and Use Restrictions: Not applicable
Recommended Use: Restricted to professional users.
Uses advised against: Consumer use

Details of the supplier of the safety data sheet
Supplier Address: ACEL, LLC.
6826 Hill Park Dr. Suite #100
Lorton, VA 22079

Emergency telephone number
Company Phone Number: ACEL, LLC. (888) 801-2507
Emergency Telephone: CHEMTREC 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification
Acute toxicity - Oral
- Category 4
Serious eye damage/eye irritation
- Category 2A
Reproductive toxicity
- Category 2
Specific target organ toxicity (repeated exposure)
- Category 2

Label elements

Emergency Overview

Warning

Hazard statements
Harmful if swallowed
Causes severe eye irritation
Suspected of damaging fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure

Appearance: Glycol Ether based solution
Physical state: Liquid
Odor: Mild
Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear eye/face protection
Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response
If exposed or concerned: Get medical advice/attention

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF SWALLOWED: Call a POISON CONTROL CENTER or doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Other information
• May be harmful in contact with skin
• Harmful to aquatic life with long lasting effects
4.99 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms
Mixture of glycol ethers, Glycols, Polyglycols.

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Weight %</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethylene Glycol Monomethyl Ether Borate ester</td>
<td>30989-05-0</td>
<td>0-40.0</td>
<td>*</td>
</tr>
<tr>
<td>Triethylene Glycol Monomethyl Ether Borate Ester</td>
<td>71243-41-9</td>
<td>0-40.0</td>
<td>*</td>
</tr>
<tr>
<td>Triethylene Glycol Monomethyl Ether</td>
<td>112-35-6</td>
<td>15.0-40.0</td>
<td>*</td>
</tr>
<tr>
<td>Triethylene Glycol Monobutyl Ether</td>
<td>143-22-6</td>
<td>20.0-40.0</td>
<td>*</td>
</tr>
<tr>
<td>Triethylene Glycol</td>
<td>112-27-6</td>
<td>10.0-20.0</td>
<td>*</td>
</tr>
<tr>
<td>Polyethylene Glycol Monomethyl Ether</td>
<td>9004-74-4</td>
<td>0-28.0</td>
<td>*</td>
</tr>
<tr>
<td>Tetraethylene Glycol</td>
<td>112-60-7</td>
<td>1.0-10.0</td>
<td>*</td>
</tr>
<tr>
<td>Diethylene Glycol</td>
<td>111-46-6</td>
<td>5.0-10.0</td>
<td>*</td>
</tr>
<tr>
<td>Polyethylene Glycol Monobutyl Ether</td>
<td>9004-77-7</td>
<td>1.0-5.0</td>
<td>*</td>
</tr>
<tr>
<td>Diisopropanolamine</td>
<td>110-97-4</td>
<td>1.0-5.0</td>
<td>*</td>
</tr>
<tr>
<td>Tetraethylene Glycol Monobutyl Ether</td>
<td>1559-34-8</td>
<td>0-3.0</td>
<td>*</td>
</tr>
<tr>
<td>Diethylene Glycol Monomethyl Ether</td>
<td>111-77-3</td>
<td>0.1-1</td>
<td>*</td>
</tr>
<tr>
<td>2,6-Di-tert-butyl-p-cresol</td>
<td>128-37-0</td>
<td>0.1-1</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

Skin contact
Immediately flush skin with plenty of water for at least 15 (30 or 60) minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Thoroughly clean shoes before reuse.
Inhalation
If affected, remove to fresh air. Get medical attention if symptoms occur. If breathing is labored, administer oxygen. If not breathing, give artificial respiration. Seek immediate medical attention/advice.

Eye contact
Immediately flush eyes for at least 15 minutes. Get medical attention.

Ingestion
CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY A PHYSICIAN. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Notes to Physician
Treat for Diethylene Glycol poisoning.

Most important symptoms and effects, both acute and delayed

Symptoms
Eye irritation, Skin irritation, Dizziness, Drowsiness, Nausea, Impairment of vision.

Indication of any immediate medical attention and special treatment needed

Self-protection of the first aider
No action shall be taken involving any personal risk without suitable training. It may be dangerous to the person providing first aid to give mouth-to-mouth resuscitation.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:
Use dry chemical, CO2, water spray (fog) or alcohol resistant foam.

Small Fire
Alcohol resistant foam, Dry chemical or CO2.

Large Fire
Water spray or fog; Alcohol resistant foam.

Explosive properties:
Explosive when mixed with oxidizing substances. Container may rupture from gas generation in a fire situation.

Specific hazards arising from the chemical
COMBUSTIBLE MATERIAL. In the event of fire and/or explosion do not breathe fumes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

Hazardous combustion products
Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx).

Specific methods:

Sensitivity to Mechanical Impact
None.

Sensitivity to Static Discharge
May be ignited by heat, sparks or flames.

Special firefighting procedures:
Combustible liquid. Keep away from heat, sparks and flame. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions:
Isolate area. Keep unnecessary and unprotected personnel away. Contaminated surfaces will be extremely slippery. Do not touch or walk through spilled material. Use spark-proof tools and explosion-proof equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin and eyes. Use personal protective equipment. See Section 8 for information on appropriate personal protective equipment.
For emergency responders

Use personal protection recommended in Section 8. Ventilate the area. Remove all sources of ignition.

Environmental precautions

Environmental precautions:

Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Water runoff can cause environmental damage. Prevent from entering into soil, ditches, sewers, waterways or groundwater. Avoid subsoil penetration. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for Containment

Prevent further leakage or spillage if safe to do so. Dike far ahead of spill; use dry sand to contain the flow of material. Prevent from entering into soil, ditches, sewers, waterways or groundwater.

Methods for clean-up:

Clean-up methods - small spillage. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to state, local, federal regulations. Clean-up methods - large spillage: Dike to collect large liquid spills. Pump into suitable and properly labeled containers.

Prevention of secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling:

Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Keep product and empty container away from heat and sources of ignition. Protect from physical damage. Keep away from any incompatible materials (See Section 10). Empty containers retain product residue and can be hazardous. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion. Do not store at temperatures above 95°F (35°C).

Conditions for safe storage, including any incompatibilities

Technical measures/precautions:

Eye wash and safety shower should be easily accessible. Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Materials to avoid:

Oxidizing agents: Acids, Strong bases, Light and/or alkaline metals; Zinc.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Components</th>
<th>ACGIH TLV</th>
<th>OSHA Exposure Limits:</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethylene Glycol Monomethyl Ether Borate ester 30989-05-0</td>
<td>-</td>
<td>Not established</td>
<td>-</td>
</tr>
<tr>
<td>Triethylene Glycol Monomethyl Ether Borate Ester 71243-41-9</td>
<td>-</td>
<td>Not established</td>
<td>-</td>
</tr>
<tr>
<td>Triethylene Glycol Monomethyl Ether 112-35-6</td>
<td>-</td>
<td>Not established</td>
<td>-</td>
</tr>
<tr>
<td>Triethylene Glycol Monobutyl Ether 143-22-6</td>
<td>-</td>
<td>Not established</td>
<td>-</td>
</tr>
<tr>
<td>Triethylene Glycol</td>
<td>-</td>
<td>Not established</td>
<td>-</td>
</tr>
</tbody>
</table>
### Other information
WEEL (Workplace Environmental Limit) 8 hr TWA AIHA: Diethylene Glycol = 10 mg/m³; Diethylene Glycol Monobutyl Ether = 30 ppm; Diisopropanolamine = 10 ppm. Manufacturer: Diethylene glycol monomethyl ether = 30 ppm; Triethylene glycol (TWA total) = 100 mg/m³; Diisopropanolamine = 10 ppm.

### Appropriate engineering controls

**Engineering measures:**
Eye wash and safety shower should be easily accessible. Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**
Wear safety glasses with side shields (or goggles). If splashes are likely to occur, wear: Face protection shield.

**Skin and body protection**
Wear normal work clothing. Chemical resistant gloves, Recommended Use: Butyl rubber, Ethyl vinyl alcohol laminate (EVAL). Examples of acceptable glove barrier materials include: Natural rubber, Nitrile, Neoprene, Vinyl. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact: (consult with the specific manufacturer to confirm performance).

**Respiratory protection**
No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. In misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter. A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant a respirator's use.

**General Hygiene Considerations**
Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke. Wear suitable gloves and eye/face protection. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Wash face, hands and any exposed skin thoroughly after handling. Take off contaminated clothing and wash it before reuse.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Appearance</th>
<th>Odor</th>
<th>Odor threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>Glycol Ether based solution</td>
<td>Mild</td>
<td>No information available</td>
</tr>
</tbody>
</table>

| Color | Light yellow to Yellow |
10. STABILITY AND REACTIVITY

Reactivity
Reactivity Stable under normal conditions. Hygroscopic.

Chemical stability
Possibility of Hazardous Reactions May form explosive peroxides. Reacts with oxidizing agents.
Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
Heat, flames and sparks. Product can oxidize at elevated temperatures. Do not distill to dryness. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible materials
Oxidizing agents: Acids, Strong bases, Light and/or alkaline metals; Zinc.

Hazardous Decomposition Products
Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx). Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes, Ketones, Organic acids.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Product Information Harmful if swallowed. Causes severe eye irritation. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.
Inhalation
Not an expected route of exposure: Mist may cause irritation of upper respiratory tract (nose and throat).

Eye contact
Causes severe eye irritation. May cause pain, redness, stinging and tearing. May cause moderate corneal injury.

Skin Contact
Repeated or prolonged contact may cause slight skin irritation. May be absorbed through skin in toxic amounts.

Ingestion
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Oral toxicity is expected to be moderate in humans due to Diethylene glycol (CAS#111-46-6), even though tests with animals show a lower degree of toxicity. Ingestion of quantities (approximately 65 ml (2 oz.) for Diethylene glycol or 100 ml (3 oz.) for ethylene glycol) has caused death in humans. Excessive exposure may cause central nervous system effects, cardiopulmonary effects (metabolic acidosis), and kidney failure.

Components

<table>
<thead>
<tr>
<th>Components</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethylene Glycol Monomethyl Ether Borate ester 30989-05-0</td>
<td>&gt; 5000 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rat)</td>
<td>-</td>
</tr>
<tr>
<td>Triethylene Glycol Monomethyl Ether Borate Esters 71243-41-9</td>
<td>&gt;2000 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>= 200 mg/L (Rat) 1 h</td>
</tr>
<tr>
<td>Triethylene Glycol Monomethyl Ether 112-35-6</td>
<td>= 11800 mg/kg (Rat)</td>
<td>= 7400 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Triethylene Glycol Monobutyl Ether 143-22-6</td>
<td>= 5300 mg/kg (Rat)</td>
<td>= 3480 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Triethylene Glycol 112-27-6</td>
<td>= 17 g/kg (Rat)</td>
<td>&gt; 20 mL/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Polyethylene Glycol Monomethyl Ether 9004-74-4</td>
<td>=39800 mg/kg (Rat)</td>
<td>&gt;20000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Tetraethylene Glycol 112-60-7</td>
<td>=32484 mg/kg (Rat)</td>
<td>&gt; 20 g/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Diethylene Glycol 111-46-6</td>
<td>= 12565 mg/kg (Rat)</td>
<td>= 11890 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Polyethylene Glycol Monobutyl Ether 9004-77-7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Diisopropanolamine 110-97-4</td>
<td>= 4765 mg/kg (Rat)</td>
<td>= 8000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Tetraethylene Glycol Monobutyl Ether 1559-34-8</td>
<td>= 5175 mg/kg (Rat)</td>
<td>&gt; 4000 mg/kg (Rat)</td>
<td>-</td>
</tr>
<tr>
<td>Diethylene Glycol Monomethyl Ether 111-77-3</td>
<td>= 4 mL/kg (Rat)</td>
<td>= 650 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>2,6-Di-tert-butyl-p-cresol 128-37-0</td>
<td>= 890 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rat)</td>
<td>-</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization
Skin Sensitization: Not expected. Respiratory Sensitization: Not classified.

Mutagenic effects:
No data available to indicate product or any components present at or greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity
Category 3: Not Classifiable.

Reproductive toxicity
Contains component(s) which have been shown to interfere with reproduction in animal studies. (CAS#111-46-6) Diethylene Glycol: Did not interfere with reproduction in animal studies except in very high doses.

Teratogenicity
Diethylene glycol has caused toxicity to the fetus and some birth defects at maternally toxic, high doses in animals. Other animal studies have not reproduced birth defects even at much higher doses that caused severe maternal toxicity. Triethylene glycol did not cause birth defects in animals; reduced fetal body weight effects were seen only at very high doses. 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. Contains component(s) which did not cause birth defects in animals; other fetal effects occurred only at doses toxic to the mother.

STOT - single exposure
Not classified.

STOT - repeated exposure
Category 2. May cause damage to organs through prolonged or repeated exposure; Ingestion: Kidney, Gastrointestinal tract (GI).

Chronic toxicity
Prolonged skin contact may defat the skin and produce dermatitis.

Subchronic toxicity
No information available.

Target Organ Effects
Skin, Eyes, Reproductive System. Kidney, Gastrointestinal tract (GI), Central nervous system. In animals, effects have been reported on the following organs: Liver.

Neurological effects
Excessive exposure may cause central nervous system effects.

Other adverse effects

Aspiration hazard
This material, if ingested or vomited can cause lung injury.

Numerical measures of toxicity - Product Information
Unknown Acute Toxicity
4.99 % of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

- **ATEmix (oral)**: 2368 mg/kg
- **ATEmix (dermal)**: 2875 mg/kg
- **ATEmix (inhalation-vapor)**: 10480 mg/l

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Chronic Aquatic Toxicity: Harmful to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Components</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethylene Glycol Monomethyl Ether Borate ester 30989-05-0</td>
<td>430: 96 h Pseudokirchneriella subcapitata mg/L EC50</td>
<td>590: 96 h Salmo gairdneri mg/L LC50 static</td>
<td>1000: 48 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
<tr>
<td>Triethylene Glycol Monomethyl Ether 112-35-6</td>
<td>500: 72 h Desmodesmus subspicatus mg/L EC50</td>
<td>5000: 96 h Brachydanio rerio mg/L LC50 static 10000: 96 h Pimephales promelas mg/L LC50 static</td>
<td>500: 48 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
<tr>
<td>Triethylene Glycol Monobutyl Ether 143-22-6</td>
<td>500: 72 h Desmodesmus subspicatus mg/L EC50</td>
<td>2400: 96 h Pimephales promelas mg/L LC50 static 2400: 96 h Pimephales promelas mg/L LC50 static</td>
<td>500: 48 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
<tr>
<td>Triethylene Glycol 112-27-6</td>
<td>56200 - 63700: 96 h Pimephales promelas mg/L LC50 flow-through 10000: 96 h Lepomis macrochirus mg/L LC50 static 61000: 96 h Lepomis macrochirus mg/L LC50 flow-through</td>
<td>42426: 48 h Daphnia magna mg/L EC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetraethylene Glycol 112-60-7</td>
<td>1000: 96 h Pseudokirchneriella subcapitata mg/L EC50</td>
<td>1000: 96 h Oncorhynchus mykiss mg/L LC50 static</td>
<td>1000: 48 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
<tr>
<td>Diethylene Glycol 111-46-6</td>
<td>75200: 96 h Pimephales promelas mg/L LC50 flow-through</td>
<td>84000: 48 h Daphnia magna mg/L EC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diisopropanolamine 110-97-4</td>
<td>270: 72 h Desmodesmus subspicatus mg/L EC50</td>
<td>1000 - 2200: 96 h Brachydanio rerio mg/L LC50 static</td>
<td>277.7: 48 h Daphnia magna Straus mg/L EC50</td>
<td></td>
</tr>
<tr>
<td>Tetraethylene Glycol Monobutyl Ether 1559-34-8</td>
<td>1000: 96 h Pseudokirchneriella subcapitata mg/L EC50</td>
<td>1000: 48 h Daphnia magna mg/L EC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diethylene Glycol Monomethyl Ether 111-77-3</td>
<td>500: 72 h Desmodesmus subspicatus mg/L EC50</td>
<td>7500: 96 h Lepomis macrochirus mg/L LC50 static 7500: 96 h Lepomis</td>
<td>500: 48 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
</tbody>
</table>
Persistence and degradability
This product contains components which may be persistent in the environment.

Bioaccumulation
Not expected.

Mobility
Soluble in water. If product enters soil, one or more constituents will be mobile and may contaminate ground water.

<table>
<thead>
<tr>
<th>Components</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethylene Glycol Monomethyl Ether Borate ester 30889-05-0</td>
<td>&lt;3</td>
</tr>
<tr>
<td>Triethylene Glycol Monomethyl Ether 112-35-6</td>
<td>-1.12</td>
</tr>
<tr>
<td>Triethylene Glycol Monobutyl Ether 143-22-6</td>
<td>0.51</td>
</tr>
<tr>
<td>Polyethylene Glycol Monobutyl Ether 9504-77-7</td>
<td>0.436</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Dispose of in accordance with federal, state and local regulations.

Contaminated packaging Do not reuse container. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

Legend:

| TSCA | United States Toxic Substances Control Act Section 8(b) Inventory |
| DSL/NDSL | Canadian Domestic Substances List/Non-Domestic Substances List |

Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethylene Glycol Monomethyl Ether</td>
<td>112-35-6</td>
<td>15.0-40.0</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>Triethylene Glycol Monobutyl Ether</td>
<td>143-22-6</td>
<td>20.0-40.0</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>Diethylene Glycol Monomethyl Ether</td>
<td>111-77-3</td>
<td>0.1-1</td>
<td>1.0 % de minimis concentration</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazard Categories**
- Acute health hazard: Yes
- Chronic Health Hazard: Yes
- Fire hazard: Yes
- Sudden release of pressure hazard: No
- Reactive Hazard: No

**CWA (Clean Water Act)**
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**State Regulations (RTK)**

**California Proposition 65**
This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm

**U.S. State Right-to-Know Regulations**

**U.S. EPA Label Information**
- EPA Pesticide Registration Number: Not applicable

### 16. OTHER INFORMATION

**NFPA Rating**
- Health hazards: 2
- Flammability: 1
- Instability: 0

**Physical and Chemical Properties**

**HMIS Rating**
- Health hazards: 2*
- Flammability: 1
- Physical hazards: 0

**Personal protection**
- B

**Chronic Hazard Star Legend**
- * = Chronic Health Hazard

**Prepared by**
Environmental Health and Safety Department

**Issue Date**
04-13-2017

**Revision Date**
04-13-2017

**Revision Note**
The Emergency Overview has changed. SEE SECTION 2. This data sheet contains changes from the previous version in section(s): 3, 4, 5, 6, 7, 8, 10, 11, 12, 15, 16

**Disclaimer**
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The
information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet