SECTION 1: IDENTIFICATION

Product Identifier
Product Name: Pure Propylene Glycol
Product Code: 318XX
Intended Use of the Product
Anti-freeze

Name, Address, and Telephone of the Responsible Party
Company
Star brite Inc.
4041 SW 47th Avenue
Fort Lauderdale, FL 33314
(954)587-6280
www.starbrite.com

Emergency Telephone Number
Emergency Number : US: (800) 424-9300; International: (703) 527-3887 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture
Classification (GHS-US)
Not classified

Label Elements
GHS-US Labeling No labeling applicable

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

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>% (w/w)</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol</td>
<td>(CAS No) 57-55-6</td>
<td>100</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

Description of 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).
Inhalation: If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
Skin Contact: Remove contaminated clothing. Rinse affected area with water for at least 5 minutes. Obtain medical attention if irritation develops or persists.
Eye Contact: Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if redness, pain, or irritation occurs.
Ingestion: Rinse mouth. Do not induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: May cause slight irritation to eyes, respiratory tract, and/or skin.
Inhalation: May cause respiratory irritation.
Skin Contact: May cause mild skin irritation.
Eye Contact: May cause slight irritation.
Ingestion: Acute exposure of humans to ethylene glycol by ingesting large quantities causes three stages of health effects. CNS depression, including such symptoms as vomiting, drowsiness, coma, respiratory failure, convulsions, metabolic changes, and gastrointestinal upset are followed by cardiopulmonary effects and later renal damage.
Chronic Symptoms: Repeated or prolonged skin contact may cause dermatitis and defatting.
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**Indication of Any Immediate Medical Attention and Special Treatment Needed**
If medical advice is needed, have product container or label at hand.

## SECTION 5: FIRE-FIGHTING MEASURES

**Extinguishing Media**
Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

**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.
- **Reactivity:** Reacts with (strong) oxidizers: (increased) risk of fire.

**Advice for Firefighters**
- **Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.
- **Firefighting Instructions:** Do not allow run-off from fire fighting to enter drains or water courses.
- **Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.
- **Hazardous Combustion Products:** Carbon oxides (CO, CO\(_2\)). Phosphorus oxides. Sulfur compounds.

**Reference to Other Sections**
Refer to section 9 for flammability properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures**
**General Measures:** Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, spray).
**For Non-Emergency Personnel**
**Protective Equipment:** Use appropriate personal protection equipment (PPE).
**Emergency Procedures:** Evacuate unnecessary personnel. Ventilate area.

**For Emergency Personnel**
**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.

**Environmental Precautions**
Prevent entry to sewers and public waters.

**Methods and Material for Containment and Cleaning Up**
**For Containment:** Absorb and/or contain spill with inert material, then place in suitable container.
**Methods for Cleaning Up:** Clear up spills immediately and dispose of waste safely.

**Reference to Other Sections**
See Section 8, Exposure Controls and Personal Protection. See Section 13, Disposal Considerations.

## SECTION 7: HANDLING AND STORAGE

**Precautions for Safe Handling**
**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.

**Conditions for Safe Storage, Including Any Incompatibilities**
**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use.
**Incompatible Materials:** Strong acids, strong bases, strong oxidizers.

**Specific End Use(s)**
- Anti-freeze

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control Parameters**
This product contains an ingredient for which there are exposure limits that are not listed below. However, the ingredient does not contribute to the hazard classification and is not released in quantities which would meet those exposure limits. Therefore it is not required to be listed.

<table>
<thead>
<tr>
<th>1,2-Propylene glycol (57-55-6)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ontario</strong></td>
</tr>
<tr>
<td>OEL TWA (mg/m(^3))</td>
</tr>
<tr>
<td>OEL TWA (ppm)</td>
</tr>
</tbody>
</table>
**Pure Propylene Glycol**

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**Exposure Controls**

**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** Protective clothing, Safety glasses, Gloves. Insufficient ventilation: wear respiratory protection.

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

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

**Eye Protection:** Chemical goggles or safety glasses.

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

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

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

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### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Information on Basic Physical and Chemical Properties**

- **Physical State:** Liquid
- **Appearance:** Clear
- **Odor:** None
- **Odor Threshold:** Not available
- **pH:** Available: 8
- **Evaporation Rate:** Not available
- **Melting/Freezing Point:** Not available
- **Boiling Point:** Not available
- **Flash Point:** > 100 °C (212 °F) (212.00 °F)
- **Auto-ignition Temperature:** Not available
- **Decomposition Temperature:** Not available
- **Flammability (solid, gas):** Not available
- **Lower Flammable Limit:** Not available
- **Upper Flammable Limit:** Not available
- **Vapor Pressure:** Not available
- **Relative Vapor Density at 20 °C:** Not available
- **Relative Density / Specific Gravity:** 1.15 g/ml
- **Solubility:** Soluble in water.
- **Partition Coefficient: N-Octanol/Water:** Not available
- **Viscosity:** Not available
- **Explosion Data – Sensitivity to Mechanical Impact:** Not expected to present an explosion hazard due to mechanical impact.
- **Explosion Data – Sensitivity to Static Discharge:** Not expected to present an explosion hazard due to static discharge.

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### SECTION 10: STABILITY AND REACTIVITY

- **Reactivity:** Reacts with (strong) oxidizers: (increased) risk of fire.
- **Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).
- **Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- **Conditions to Avoid:** Direct sunlight. Extremely high or low temperatures.
- **Incompatible Materials:** Strong acids, strong bases, strong oxidizers.
- **Hazardous Decomposition Products:** Carbon oxides (CO, CO<sub>2</sub>). Phosphorus oxides. Sulfur compounds.

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### SECTION 11: TOXICOLOGICAL INFORMATION

**Information on Toxicological Effects - Product**

- **Acute Toxicity:** Not classified

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LD50 and LC50 Data: Not available
Skin Corrosion/Irritation: Not classified (pH: 8)
Serious Eye Damage/Irritation: Not classified (pH: 8)
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Teratogenicity: Not available
Carcinogenicity: Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause respiratory irritation.
Symptoms/Injuries After Skin Contact: May cause mild skin irritation.
Symptoms/Injuries After Eye Contact: May cause slight irritation.
Symptoms/Injuries After Ingestion: Acute exposure of humans to ethylene glycol by ingesting large quantities causes three stages of health effects. CNS depression, including such symptoms as vomiting, drowsiness, coma, respiratory failure, convulsions, metabolic changes, and gastrointestinal upset are followed by cardiopulmonary effects and later renal damage.
Chronic Symptoms: Repeated or prolonged skin contact may cause dermatitis and defatting.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Species</th>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol (57-55-6)</td>
<td></td>
<td>LD50 Oral Rat</td>
<td>20000 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 Dermal Rabbit</td>
<td>20800 mg/kg</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

<table>
<thead>
<tr>
<th>Substance</th>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol (57-55-6)</td>
<td>LC50 Fish</td>
<td>51600 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])</td>
</tr>
<tr>
<td></td>
<td>EC50 Daphnia 1</td>
<td>10000 mg/l (Exposure time: 24 h - Species: Daphnia magna)</td>
</tr>
<tr>
<td></td>
<td>EC50 Daphnia 2</td>
<td>1000 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])</td>
</tr>
</tbody>
</table>

Persistence and Degradability: Not available

Bioaccumulative Potential

<table>
<thead>
<tr>
<th>Substance</th>
<th>BCF Fish</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol (57-55-6)</td>
<td>&lt; 1</td>
<td></td>
</tr>
</tbody>
</table>

Log Pow: -0.92

Mobility in Soil: Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

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

SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/DOT/TDG/IMDG

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN Number</td>
<td>Not regulated for transport</td>
</tr>
<tr>
<td>14.2. UN Proper Shipping Name</td>
<td>Not regulated for transport</td>
</tr>
<tr>
<td>14.3. Additional Information</td>
<td>Not regulated for transport</td>
</tr>
</tbody>
</table>

Transport by Sea: Not regulated for transport

Marine Pollutant: No

Air Transport: Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal Regulations: According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

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**1,2-Propylene glycol (57-55-6)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**EPA TSCA Regulatory Flag**
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.

**US State Regulations**

1,2-Propylene glycol (57-55-6)

- U.S. - Minnesota - Hazardous Substance List
- RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
- RTK - U.S. - Pennsylvania - RTK (Right to Know) List
- U.S. - Texas - Effects Screening Levels - Long Term
- U.S. - Texas - Effects Screening Levels - Short Term

**Canadian Regulations**

Pure Propylene Glycol

| WHMIS Classification | Uncontrolled product according to WHMIS classification criteria |

1,2-Propylene glycol (57-55-6)

- Listed on the Canadian DSL (Domestic Substances List)
- Listed on the Canadian IDL (Ingredient Disclosure List)

<table>
<thead>
<tr>
<th>IDL Concentration</th>
<th>1 %</th>
</tr>
</thead>
</table>

| WHMIS Classification | Uncontrolled product according to WHMIS classification criteria |

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

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

**Revision Date**
05/15/2015

**Other Information**
This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

**NFPA Health Hazard**
1 - Exposure could cause irritation but only minor residual injury even if no treatment is 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.

**Party Responsible for the Preparation of This Document**
Starbrite®
Phone Number: (954)587-6280

*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.*

North America GHS US 2012 & WHMIS