SAFETY DATA SHEET
Tough Gard™

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

1.1 Product Identifier:
Trade name: TOUGH GARD™ Anti-Spatter Liquid

1.2 Relevant Identified Users of the Substance or Mixture and Uses Advised Against
Product use: Protect welding torch components from excessive spatter accumulation.

1.3 Details of the Supplier of the Safety Data Sheet:
Manufacturer: Tregaskiss, 2570 North Talbot Road, Windsor, Ontario, Canada N0R 1L0,
Information Phone: 1-855-644-9353, Fax: 1-877-737-2111, email: techsupport@tregaskiss.com

1.4 Emergency Phone Number: Spill information: 1-519-737-3000 (8:00 a.m. to 5:00 p.m., time
zone: -5)

1.5 SDS Date of Preparation: July 31, 2015

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance of Mixture
CLP/GHS Classification (1272/2008): Not classified as hazardous
EU Classification (67/548/EEC): Not classified as dangerous

2.2 Label elements: None required

2.3 Other hazardous: No

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>EINECS#</th>
<th>EU Classification (67/548/EEC)</th>
<th>GHS Classification Regulation (EC) No 1272/2008</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>231-791-2</td>
<td>Not classified as dangerous</td>
<td>Not hazardous</td>
<td>&gt; 80%</td>
</tr>
<tr>
<td>Polymeric Glycol</td>
<td>Proprietary</td>
<td>Not Assigned</td>
<td>Not classified as dangerous</td>
<td>Not hazardous</td>
<td>&lt; 20%</td>
</tr>
</tbody>
</table>

See Section 16 for further information on EU and GHS Classification

4: FIRST AID MEASURES

4.1 Description of First Aid Measures
Eye: Flush with running water for at least 15 minutes. Get medical attention if irritation develops.
Skin: No first aid should be required. Wash with running water and soap.
Inhalation: No first aid should be needed. Remove to fresh air. Assist in breathing if necessary, and get medical attention.
Ingestion: Rinse mouth with water. Seek medical attention.

4.2 Most important Symptoms and Effects, Both Acute and Delayed: May cause slight eye irritation with redness and tearing.

4.3 Indication of Any Immediate Medical Attention and Special treatment Needed: None required.
5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media: Use any media that is suitable for the surrounding fire.

5.2 Special Hazards Arising from the Substance or Mixture:

- Unusual Fire and Explosion Hazards: None, this product is not combustible.
- Hazard Decomposition Products: Combustion of the residue after the water has evaporated will release oxides of carbon.

5.3 Advice for Fire-Fighters:

Firefighters should always wear self-contained breathing apparatus and full protective clothing for fires involving chemicals or in confined spaces. Cool fire exposed containers with water.

6. ACCIDENTAL RELEASE MEASURE

6.1 Personal precautions, Protective Equipment and Emergency Procedures:

- Wear chemical resistant goggles and gloves. Avoid breathing dust / mist. Keep sufficient ventilation. Spilled material may cause a slipping hazard.

6.2 Environmental precautions: Report spill by local and federal regulations.

6.3 Method and Material for Containment and Cleaning Up:

- Contain and collect using an absorbent material and place in a suitable containers for disposal.

6.4 Reference to Other Sections:

- Refer to Section 8 for protective equipment and Section 15 for disposal considerations.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling: Avoid breathing spray mists. Wash hands after use.

7.2 Condition for Safe Storage:

- Keep container tightly closed. Store at 4 - 30 °C. Avoid direct sun shine. Shelf life: two (2) years.

7.3 Specific end use(s): Welding applications

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>None Established</td>
</tr>
<tr>
<td>Polymeric Glycol</td>
<td>10 mg/m3 TWA (total particulate) Manufacturer Recommended</td>
</tr>
</tbody>
</table>

8.2 Exposure Control:

- **Engineering control**: Provide local exhaust ventilation at a spray application.
- **Personal protection**:
  - Respiratory: Wear a NIOSH certified (or equivalent) respirator at spray applications.
  - Skin Protection: Wear Nitrile or Butyle rubber gloves and clean body-covering clothing.
  - Eye Protection: Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.
9. PHYSICAL AND CHEMICAL PROPERTIES

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Green translucent liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>5 – 7</td>
</tr>
<tr>
<td>Solubility in water by wt</td>
<td>100 % water-soluble</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.04 (Water = 1.00)</td>
</tr>
<tr>
<td>Octanol/water partition coefficient</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>1.02 centipoises at 25 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>Non-flammable</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>&lt; 0.01 (n-Butyl acetate = 1.00)</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>17.5 mm Hg @ 20 °C (water)</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>-2 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>100 ºC</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>None</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>None</td>
</tr>
<tr>
<td>Explosion Properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>None</td>
</tr>
<tr>
<td>Octanol/water partition coefficient</td>
<td>Not available</td>
</tr>
<tr>
<td>VOC content</td>
<td>0 %</td>
</tr>
</tbody>
</table>

9.2 Other information: None

10: STABILITY AND REACTIVITY

10.1 Reactivity: Not reactive under normal conditions of use
10.2 Chemical Stability: Stable under normal storage and handling conditions
10.3 Possibility of Hazardous Reactions: None known.
10.4 Conditions to Avoid:
   Avoid temperature extremes (excessive heat or freezing) to protect product quality.
10.5 Incompatible Materials: Avoid contact with oxidizing agents, acids and alkalis.
10.6 Hazardous Decomposition Products:
   Excessive heating can result in decomposition of the polymer generating aldehydes, alcohols, ethers, carbon oxides, carboxylic acids.

11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:
   Eye: May cause slight irritation with redness and tearing. Corneal injury is unlikely.
   Skin: Prolonged or repeated exposure may cause redness, irritation and dryness.
   Inhalation: None known.
   Ingestion: Very low toxicity if swallowed. No adverse effects are expected from swallowing small amounts.

   **Acute Toxicity Values:**
   Polymeric glycol: Oral rat LD50 32,500 mg/kg; Skin rabbit LD50 >20 g/kg; Inhalation rat LC50 >13 mg/L/8 hr (maximum attainable concentration).

   **Irritation:** No data available. Product is expected to cause mild eye and skin irritation.

   **Corrosivity:** This is not a corrosive product.

   **Sensitization:** Polymeric glycol did not cause skin reactions when tested in humans.

   **Repeat Dose Toxicity:** No data available.

   **Carcinogen Status:**
   None of the components are listed as a carcinogen by IARC, NTP, ACGIH, OSHA or EU Substances Directive. Polymeric glycol did not cause cancer in laboratory animals.

   **Germ Cell Mutagenicity:** In-vitro and in-vivo studies were negative for polymeric glycol.

   **Toxicity for Reproduction:**
   Polymeric glycol did not cause birth defects or interfere with reproduction in laboratories.
12. ECOLOGICAL INFORMATION

12.1 Toxicity:
Practically non-toxic to aquatic organisms.
Polymeric glycol: LC50 fathead minnow 87,209 mg/L/96 hr; LC50 daphnia magna 53,484 mg/L/48 hr.

12.2 Persistence and Degradability:
Polymeric glycol is expected to readily biodegrade. BOD 20 40.2-70%.

12.3 Bioaccumulative Potential: Not expected to bioaccumulate.

12.4 Mobility in Soil: No data available.

12.5 Results of PBT and vPvB Assessment: Not required.

12.6 Other Adverse Effects: None known

13. DISPOSAL INFORMATION

Dispose in accordance with federal, state and local environmental control regulations.
Biodegradable in a biological wastewater treatment plant.
Do not release untreated product into natural waters

14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>14.1 UN Number</th>
<th>14.2 UN Proper Shipping Name</th>
<th>14.3 Transport Hazard Class(s)</th>
<th>14.4 Packing Group</th>
<th>14.5 Environmental Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>US DOT</td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU ADR/RID</td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMDG</td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14.6 Special Precautions for User: None

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

15: REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture:
International Inventories:

**US EPA TSCA Inventory**: All of the components are listed on the TSCA inventory.
**European Union**: All of the components of this product are listed on the European Inventory of New and Existing Chemical Substances (EINECS) inventory.
**Australia**: All of the ingredients of this product are listed on the Australian Inventory of Chemical Substances (AICS).
**China**: All of the ingredients of this product are listed on the Inventory of Existing Chemical Substance in China (IECSC).
**Korea**: All of the components of this product are listed on the Korean Existing Chemical List (KECL).
U.S. Regulations:

**OSHA Hazard Classification**: Not Hazardous

**CERCLA**: This product is not subject to CERCLA reporting requirements, however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**EPA SARA 302**: This product does not contain chemicals regulated under SARA Section 302.

**EPA SARA 311 Hazard Classification**: Not Hazardous

**EPA SARA 313**: This product contains the following chemicals that are regulated under SARA Title III, section 313: None

**California Proposition 65**: This product contains the following chemicals which are known to the State of California to cause cancer, reproductive toxicity or birth defects: None

International Regulations:

**WHMIS Classification**: Not a controlled product

**15.2 Chemical Safety Assessment**: Not required

16: OTHER INFORMATION

SDS Revision History:

2015 June: Converted MSDS to EU REACH SDS

GHS Phrases for Reference (See Section 2 and 3): None

EU Classes and Risk Phrases for Reference (See Sections 2 and 3): None

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