1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** TOUGH DUTY  
**Product Number:** 2040, 2041  
**Recommended Use:** Cleaning agent  
**Uses Advised Against:** For Industrial and Institutional Use Only  
**Manufacturer/Supplier:** Spartan Chemical Company, Inc.  
1110 Spartan Drive  
Maumee, Ohio 43537 USA  
800-537-8990 (Business hours)  
www.spartanchemical.com

24 Hour Emergency Phone Numbers:  
**Medical Emergency/Information:** 888-314-6171  
**Transportation/Spill/Leak:** CHEMTREC 800-424-9300

2. HAZARDS IDENTIFICATION

**GHS Classification**  
Skin Corrosion/Irritation: Category 2  
Serious Eye Damage/Eye Irritation: Category 2B

**GHS Label Elements**  
**Signal Word:** Warning  
**Symbols:**

**Hazard Statements:**  
Causes skin irritation.  
Causes eye irritation.

**Precautionary Statements:**  
**Prevention:** Wash hands and any exposed skin thoroughly after handling.  
Wear protective gloves  
**Response:**  
- **Eyes**  
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 attention.  
- **Skin**  
IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash before reuse  
- **Specific Treatment:** See Safety Data Sheet Section 4: "FIRST AID MEASURES" for additional information.

**Storage:** Not Applicable  
**Disposal:** Not Applicable  
**Hazards Not Otherwise Classified:** Not Applicable  
**Other Information:**  
- May be harmful if swallowed.  
- Inhalation of vapors or mist may cause respiratory irritation.  
- Keep out of reach of children.
3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>water</td>
<td>7732-18-5</td>
<td>60-100</td>
</tr>
<tr>
<td>diethylene glycol monobutyl ether</td>
<td>112-34-5</td>
<td>1-5</td>
</tr>
<tr>
<td>alcohol ethoxylate</td>
<td>34398-01-1</td>
<td>1-5</td>
</tr>
</tbody>
</table>

Specific chemical identity and/or exact percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

- **Eye Contact:** Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
- **Skin Contact:** Wash with plenty of soap and water Take off contaminated clothing and wash before reuse If skin irritation occurs: Get medical attention.
- **Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or physician if you feel unwell.
- **Ingestion:** Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if you feel unwell.

**Note to Physicians:** Treat symptomatically.

5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Product does not support combustion, Use extinguishing agent suitable for type of surrounding fire

**Specific Hazards Arising from the Chemical:** Dried product is capable of burning. Combustion products are toxic.

**Hazardous Combustion Products:** May include Carbon monoxide Carbon dioxide and other toxic gases or vapors.

**Protective Equipment and Precautions for Firefighters:** Wear MSHA/NIOSH approved self-contained breathing apparatus (SCBA) and full protective gear. Cool fire-exposed containers with water spray.

6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

**Environmental Precautions:** Do not rinse spill onto the ground, into storm sewers or bodies of water.

**Methods for Clean-Up:** Prevent further leakage or spillage if safe to do so. Collect and contain spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

7. HANDLING AND STORAGE

**Advice on Safe Handling:** Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.

**Storage Conditions:** Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

**Suggested Shelf Life:** Minimum of 2 years from date of manufacture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Occupational Exposure Limits:** None established.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>diethylene glycol monobutyl ether</td>
<td>TWA: 10 ppm inhalable fraction and vapor</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Engineering Controls: Provide good general ventilation.
If work practices generate dust, fumes, gas, vapors or mists which expose workers to chemicals above the occupational exposure limits, local exhaust ventilation or other engineering controls should be considered.

Personal Protective Equipment
Eye/Face Protection: Wear splash goggles.
Skin and Body Protection: Wear rubber or other chemical-resistant gloves.
Respiratory Protection: Not required with expected use.
If occupational exposure limits are exceeded or respiratory irritation occurs, use of a NIOSH/MSHA approved respirator suitable for the use-conditions and chemicals in Section 3 should be considered.

General Hygiene Considerations: Wash hands and any exposed skin thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Appearance/Physical State:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Pink</td>
</tr>
<tr>
<td>Odor:</td>
<td>Floral fragrance</td>
</tr>
<tr>
<td>pH:</td>
<td>11.5-12.2</td>
</tr>
<tr>
<td>Melting Point / Freezing Point:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Boiling Point / Boiling Range:</td>
<td>100 °C / 212 °F</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>&gt; 100 °C / &gt; 212 °F ASTM D56</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>&lt; 1 (Butyl acetate = 1)</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available.</td>
</tr>
<tr>
<td>Upper Flammability Limit:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Lower Flammability Limit:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Vapor Density:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Specific Gravity:</td>
<td>1.03</td>
</tr>
<tr>
<td>Solubility(ies):</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Partition Coefficient:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Autoignition Temperature:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Decomposition Temperature:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity: This material is considered to be non-reactive under normal conditions of use.
Chemical Stability: Stable under normal conditions.
Possibility of Hazardous Reactions: Not expected to occur with normal handling and storage.
Conditions to Avoid: Exposure to air or moisture over prolonged periods.
Hazardous Decomposition Products: Thermal decomposition can lead to release of irritating and toxic gases and vapors

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eyes, Skin, Ingestion, Inhalation.
Symptoms of Exposure:
- Eye Contact: Pain, redness and swelling of the conjunctiva.
- Skin Contact: Pain, redness and cracking of the skin.
- Inhalation: Nasal discomfort and coughing.
- Ingestion: Pain, nausea, vomiting and diarrhea.
Immediate, Delayed, Chronic Effects
Product Information: Data not available or insufficient for classification.

Numerical Measures of Toxicity
The following acute toxicity estimates (ATE) are calculated based on the GHS document.

\[ \text{ATE}_{\text{mix (oral)}} = 26794 \, \text{mg/kg} \]
\[ \text{ATE}_{\text{mix (dermal)}} = 68147 \, \text{mg/kg} \]

<table>
<thead>
<tr>
<th>Component Acute Toxicity Information</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>water 7732-18-5</td>
<td>&gt; 90 mL/kg (Rat)</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>diethylene glycol monobutyl ether 112-34-5</td>
<td>= 5660 mg/kg (Rat)</td>
<td>= 2700 mg/kg (Rabbit)</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Carcinogenicity: No components present at 0.1% or greater are listed as to being carcinogens by ACGIH, IARC, NTP or OSHA.

### 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/Aquatic Plants</th>
<th>Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>diethylene glycol monobutyl ether 112-34-5</td>
<td>100: 96 h Desmodesmus subspicatus mg/L EC50</td>
<td>1300: 96 h Lepomis macrochirus mg/L LC50 static</td>
<td>Not Available</td>
<td>100: 48 h Daphnia magna mg/L EC50</td>
</tr>
</tbody>
</table>

**Persistence and Degradability:** No information available.

**Bioaccumulation:** No information available.

**Other Adverse Effects:** No information available.

### 13. DISPOSAL CONSIDERATIONS

**Disposition of Wastes:** Dispose of in accordance with federal, state and local regulations.

**Contaminated Packaging:** Dispose of in accordance with federal, state and local regulations.

### 14. TRANSPORT INFORMATION

**DOT:** Not Regulated

**Proposed Shipping Name:** Non Hazardous Product

**Special Provisions:** Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Check with a trained hazardous materials transportation expert for information specific to your situation.

**IMDG:** Not Regulated

**Proposed Shipping Name:** Non Hazardous Product

### 15. REGULATORY INFORMATION

**TSCA Status:** (Toxic Substance Control Act Section 8(b) Inventory)

All chemical substances in this product are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

**SARA 313**

This product contains the following listed substances:

**diethylene glycol monobutyl ether**

CAS No. 112-34-5 applies to R-(OCH2CH2)n-OR', where n = 1, 2, or 3, R=Alkyl C7 or less, or R = Phenyl or Alkyl substituted phenyl, R’ = H or Alkyl C7 or less, or OR’ consisting of Carboxylic acid ester, Sulfate, Phosphate, Nitrate, or SulfonateChemical Category N230

**SARA 311/312 Hazard Categories**

- **Acute Health Hazard:** Yes
- **Chronic Health Hazard:** No
- **Fire Hazard:** No
- **Sudden release of pressure hazard:** No
Reactive Hazard: No

California Proposition 65
This product is not subject to warning requirements under California Proposition 65.

### 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards: 1</th>
<th>Flammability: 0</th>
<th>Instability: 0</th>
<th>Special: N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>Health Hazards: 1</td>
<td>Flammability: 0</td>
<td>Physical Hazards: 0</td>
<td></td>
</tr>
</tbody>
</table>

Revision Date: 17-Nov-2017

Reasons for Revision: Section 7 and 9

Disclaimer:
The information provided in this 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