1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier
Product Name: THE GRINDER
Product Number: 2992C
Recommended Use: Grinding fluid
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

Canadian Agent:
Perley-Robertson, Hill & McDougal, LLP
340 Albert Street, Suite 1400
Ottawa, ON, Canada K1R 0A5

Medical Emergency/Information: 888-314-6171 (24 Hour)

2. HAZARDS IDENTIFICATION

GHS Classification
Acute toxicity - Inhalation (Dusts/Mists) Category 4
Skin Corrosion/Irritation: Category 2
Serious Eye Damage/Eye Irritation: Category 2A
Carcinogenicity: Category 2
Reproductive Toxicity: Category 1B

GHS Label Elements
Signal Word: Danger
Symbols:

Hazard Statements:
Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation
Suspected of causing cancer
May damage fertility or the unborn child

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
Wear eye / face protection
Wear protective gloves
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wash hands and any exposed skin thoroughly after handling.

Response:
If exposed or concerned: Get medical attention.
-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
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>67.5-70.0</td>
</tr>
<tr>
<td>triethanolamine</td>
<td>102-71-6</td>
<td>22.5-25.0</td>
</tr>
<tr>
<td>boric acid</td>
<td>10043-35-3</td>
<td>5.0-7.5</td>
</tr>
<tr>
<td>diethanolamine</td>
<td>111-42-2</td>
<td>0.1-1.0</td>
</tr>
</tbody>
</table>

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. Contain and collect 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 containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep from freezing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION
**Occupational Exposure Limits:**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>triethanolamine 102-71-6</td>
<td>TWA: 5 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>boric acid 10043-35-3</td>
<td>STEL: 6 mg/m³ inhalable particulate matter TWA: 2 mg/m³ inhalable particulate matter</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>diethanolamine 111-42-2</td>
<td>TWA: 1 mg/m³ inhalable fraction and vapor S* (vacated) TWA: 3 ppm (vacated) TWA: 15 mg/m³ TWA: 3 ppm TWA: 15 mg/m³</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. See 29 CFR 1910.132-138 for further guidance.

### 9. PHYSICAL AND CHEMICAL PROPERTIES


### 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:** Extremes of temperature and direct sunlight.

**Incompatible Materials:** Strong oxidizing agents. Strong acids.

**Hazardous Decomposition Products:** May include carbon monoxide, carbon dioxide (CO₂) and other toxic gases or vapors.

### 11. TOXICOLOGICAL INFORMATION

**Likely Routes of Exposure:** Eyes, Skin, Ingestion, Inhalation.
Symptoms of Exposure:
- **Eye Contact:** Pain, redness, swelling of the conjunctiva and blurred vision.
- **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.

- **ATEmix (oral):** 38956 mg/kg
- **ATEmix (dermal):** 29290 mg/kg
- **ATEmix (inhalation-dust/mist):** 2.3 mg/l

**Component Acute Toxicity Information**

<table>
<thead>
<tr>
<th>Chemical Name</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>triethanolamine 102-71-6</td>
<td>= 4190 mg/kg (Rat)</td>
<td>&gt; 20 mL/kg (Rabbit)</td>
<td>Not Available</td>
</tr>
<tr>
<td>boric acid 10043-35-3</td>
<td>= 2660 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>&gt; 0.16 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>diethanolamine 111-42-2</td>
<td>= 780 mg/kg (Rat)</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

**Carcinogenicity:** The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>diethanolamine 111-42-2</td>
<td>Not Listed</td>
<td>Group 2B</td>
<td>Not Listed</td>
<td>Listed</td>
</tr>
</tbody>
</table>

**IARC (International Agency for Research on Cancer):** Group 2B - Possibly Carcinogenic to Humans

### 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>triethanolamine 102-71-6</td>
<td>216: 72 h Desmodesmus subspicatus mg/L EC50 169; 96 h Desmodesmus subspicatus mg/L EC50</td>
<td>10600 - 13000: 96 h Pimephales promelas mg/L LC50 flow-through 1000: 96 h Pimephales promelas mg/L LC50 static 450 - 1000: 96 h Lepomis macrochirus mg/L LC50 static</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>boric acid 10043-35-3</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
<td>115 - 153: 48 h Daphnia magna mg/L EC50</td>
</tr>
<tr>
<td>diethanolamine 111-42-2</td>
<td>7.8: 72 h Desmodesmus subspicatus mg/L EC50 2.1 - 2.3: 96 h Pseudokirchneriella subcapitata mg/L EC50</td>
<td>4460 - 4980: 96 h Pimephales promelas mg/L LC50 flow-through 1200 - 1580: 96 h Pimephales promelas mg/L LC50 static 600 - 1000: 96 h Lepomis macrochirus mg/L LC50 static</td>
<td>Not Available</td>
<td>55: 48 h Daphnia magna mg/L EC50</td>
</tr>
</tbody>
</table>

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

**Bioaccumulation:** No information available.

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

### 13. DISPOSAL CONSIDERATIONS

**Disposal 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

**TDG / DOT:** Not Regulated

**Proper 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

**Proper Shipping Name:** Non Hazardous Product

15. REGULATORY INFORMATION

**DSL / NDSL Status:** (Domestic Substances List / Non-Domestic Substances List)
The chemical substances in this product are included on or exempted from listing on the Canadian DSL / NDSL.

**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 does not contain listed substances above the "de minimus" level

**SARA 311/312 Hazard Categories**

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard:</td>
<td>Yes</td>
</tr>
<tr>
<td>Chronic Health Hazard:</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire Hazard:</td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard:</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard:</td>
<td>No</td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

**NFPA**

<table>
<thead>
<tr>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**HMIS**

<table>
<thead>
<tr>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2*</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Revision Date:** 16-Mar-2017

**Reasons for Revision:** Section 8

**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**