1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier
Product Name: THE GRINDER
Product Number: 2992
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

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

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.

- Inhalation:
  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

- Specific Treatment:
  See Safety Data Sheet Section 4: “FIRST AID MEASURES” for additional information.

Storage:
Store locked up.
Disposal:
Dispose of contents and container in accordance with local, state and federal regulations.

Hazards Not Otherwise Classified:
Not Applicable

Other Information:
• May be harmful if swallowed.
• 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>40-70</td>
</tr>
<tr>
<td>triethanolamine</td>
<td>102-71-6</td>
<td>10-30</td>
</tr>
<tr>
<td>boric acid</td>
<td>10043-35-3</td>
<td>3-7</td>
</tr>
<tr>
<td>diethanolamine</td>
<td>111-42-2</td>
<td>0.1-1</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. Do not rinse spill onto the ground, into storm sewers or bodies of water.

- Environmental Precautions:
  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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>triethanolamine</td>
<td>TWA: 5mg/m³</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>boric acid</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</td>
<td>TWA: 1 mg/m³ inhalable fraction and vapor S* (vacated) TWA: 3 ppm (vacated) TWA: 15 mg/m³</td>
<td>TWA: 3 ppm TWA: 15 mg/m³</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.


### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Light blue</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>pH</td>
<td>8.6-9.1</td>
</tr>
<tr>
<td>Melting Point / Freezing Point</td>
<td>No information available.</td>
</tr>
<tr>
<td>Boiling Point / Boiling Range</td>
<td>&gt; 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>&gt; 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>1.064</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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>This material is considered to be non-reactive under normal conditions of use.</td>
</tr>
<tr>
<td>Chemical Stability</td>
<td>Stable under normal conditions.</td>
</tr>
<tr>
<td>Possibility of Hazardous Reactions</td>
<td>Not expected to occur with normal handling and storage.</td>
</tr>
</tbody>
</table>
Conditions to Avoid: Extremes of temperature and direct sunlight.
Hazardous Decomposition: 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>

Persistence 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

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

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
Acute Health Hazard: Yes
Chronic Health Hazard: Yes
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

NFPA Health Hazards: 2  Flammability: 0  Instability: 0  Special: N/A
HMIS Health Hazards: 2*  Flammability: 0  Physical Hazards: 0

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