Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Common Name/Trade Name: N-(2-Hydroxyethyl)ethylenediaminetriacetic Acid
Catalog Number(s): H1111
CAS#: 150-39-0
RTECS: MB9185000
TSCA: TSCA 8(b) inventory: N-(2-Hydroxyethyl)ethylenediaminetriacetic Acid
CI#: Not available.

Manufacturer: SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

Commercial Name(s): Versenol
Synonym: N-(2-Hydroxyethyl)ethylenediaminetriacetic Acid; N-Carboxymethyl-N'(2-hydroxyethyl)-N,N'-ethylene diglycine; HEDTA

Chemical Name: N-(2-Hydroxyethyl)ethylenediaminetriacetic Acid
Chemical Family: Not available.
Chemical Formula: C10-H18-N2-O7
Supplier: SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) N-(2-Hydroxyethyl)ethylenediaminetriacetic Acid</td>
<td>150-39-0</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients: N-(2-Hydroxyethyl)ethylenediaminetriacetic Acid
LD50: Not available.
LC50: Not available.

Section 3. Hazards Identification

Potential Acute Health Effects: Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects: CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
Repeated or prolonged exposure is not known to aggravate medical condition.

Continued on Next Page
## Section 4. First Aid Measures

<table>
<thead>
<tr>
<th>First Aid Measures</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye Contact</strong></td>
<td>Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.</td>
</tr>
<tr>
<td><strong>Skin Contact</strong></td>
<td>In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.</td>
</tr>
<tr>
<td><strong>Serious Skin Contact</strong></td>
<td>Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.</td>
</tr>
<tr>
<td><strong>Serious Inhalation</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.</td>
</tr>
<tr>
<td><strong>Serious Ingestion</strong></td>
<td>Not available.</td>
</tr>
</tbody>
</table>

## Section 5. Fire and Explosion Data

<table>
<thead>
<tr>
<th>Fire and Explosion Data</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flammability of the Product</strong></td>
<td>May be combustible at high temperature.</td>
</tr>
<tr>
<td><strong>Auto-Ignition Temperature</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flash Points</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flammable Limits</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Products of Combustion</strong></td>
<td>These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).</td>
</tr>
<tr>
<td><strong>Fire Hazards in Presence of Various Substances</strong></td>
<td>Slightly flammable to flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks.</td>
</tr>
<tr>
<td><strong>Fire Fighting Media and Instructions</strong></td>
<td>SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.</td>
</tr>
<tr>
<td><strong>Special Remarks on Fire Hazards</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Special Remarks on Explosion Hazards</strong></td>
<td>Not available.</td>
</tr>
</tbody>
</table>

## Section 6. Accidental Release Measures

<table>
<thead>
<tr>
<th>Accidental Release Measures</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Small Spill</strong></td>
<td>Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.</td>
</tr>
<tr>
<td><strong>Large Spill</strong></td>
<td>Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.</td>
</tr>
</tbody>
</table>

Continued on Next Page
**Section 7. Handling and Storage**

**Precautions**
Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes.

**Storage**
Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24°C (75.2°F).

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**Section 8. Exposure Controls/Personal Protection**

**Engineering Controls**
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection**
Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill**
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits**
Not available.

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**Section 9. Physical and Chemical Properties**

**Physical state and appearance**
Solid. (Powdered solid.)

**Molecular Weight**
278.26 g/mole

**pH (1% soln/water)**
Not available.

**Boiling Point**
Not available.

**Melting Point**
159°C (318.2°F)

**Critical Temperature**
Not available.

**Specific Gravity**
Not available.

**Vapor Pressure**
Not applicable.

**Vapor Density**
Not available.

**Volutility**
Not available.

**Odor Threshold**
Not available.

**Water/Oil Dist. Coeff.**
Not available.

**Ionicity (in Water)**
Not available.

**Dispersion Properties**
See solubility in water, methanol.

**Solubility**
Soluble in methanol. Partially soluble in cold water.

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**Section 10. Stability and Reactivity Data**

**Stability**
The product is stable.

**Instability Temperature**
Not available.

**Conditions of Instability**
Not available.

**Incompatibility with various substances**
Not available.

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*Continued on Next Page*
### Section 11. Toxicological Information

**Routes of Entry**
- Inhalation
- Ingestion

**Toxicity to Animals**
- LD50: Not available
- LC50: Not available

**Chronic Effects on Humans**
- Not available

**Other Toxic Effects on Humans**
- Hazardous in case of skin contact (irritant), of ingestion, of inhalation

**Special Remarks on Toxicity to Animals**
- LD50 [Rat] - Route: Intraperitoneal; Dose: 337 mg/kg
- LD50 [Mouse] - Route: Intraperitoneal; Dose: 259 mg/kg

**Special Remarks on Chronic Effects on Humans**
- Not available

**Special Remarks on other Toxic Effects on Humans**
- Acute Potential Health Effects:
  - Skin: May cause skin irritation.
  - Eyes: Dust may cause eye irritation.
  - Inhalation: Dust may cause respiratory tract irritation.
  - Ingestion: May cause gastrointestinal tract irritation. Considered toxic by ingestion.
- Chronic Potential Health Effects: no information found at this time.
- The toxicological properties of this substance have not been fully investigated.

### Section 12. Ecological Information

**Ecotoxicity**
- Not available

**BOD5 and COD**
- Not available

**Products of Biodegradation**
- Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise

**Toxicity of the Products of Biodegradation**
- The product itself and its products of degradation are not toxic

**Special Remarks on the Products of Biodegradation**
- Not available

### Section 13. Disposal Considerations

**Waste Disposal**
- Waste must be disposed of in accordance with federal, state and local environmental control regulations
## Section 14. Transport Information

**DOT Classification**  
Not a DOT controlled material (United States).

**Identification**  
Not applicable.

**Special Provisions for Transport**  
Not applicable.

**DOT (Pictograms)**

## Section 15. Other Regulatory Information and Pictograms

**Federal and State Regulations**  
TSCA 8(b) inventory: N-(2-Hydroxyethyl)ethylenediaminetriacetic Acid

**California Proposition 65 Warnings**

**Other Regulations**  
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**Other Classifications**  

<table>
<thead>
<tr>
<th>Classification</th>
<th>WHMIS (Canada)</th>
<th>DSCL (EEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not controlled under WHMIS (Canada).</td>
<td>R36/38- Irritating to eyes and skin.</td>
</tr>
</tbody>
</table>

**HMIS (U.S.A.)**

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>Fire Hazard</th>
<th>Reactivity</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
<td>E</td>
</tr>
</tbody>
</table>

**National Fire Protection Association (U.S.A.)**

- Health Hazard: 2
- Flammability: 1
- Reactivity: 0
- Specific hazard: 0

**WHMIS (Canada) (Pictograms)**

**DSCL (Europe) (Pictograms)**

**TDG (Canada) (Pictograms)**

**ADR (Europe) (Pictograms)**

*Continued on Next Page*
Protective Equipment

- Gloves.
- Lab coat.
- Dust respirator. Be sure to use an approved/certified respirator or equivalent.
- Splash goggles.

Section 16. Other Information

| MSDS Code | H3401 |
| References | Not available. |
| Other Special Considerations | Not available. |

Verified by Sonia Owen.  
Printed 9/12/2006.

CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.