Material Safety Data Sheet

Section 1: Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>Catalog Number:</th>
<th>3240, G-116, SG039240</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Identity:</td>
<td>GENTIAN VIOLET, HUCKER FORMULA</td>
</tr>
<tr>
<td>Manufacturer's Name:</td>
<td>RICCA CHEMICAL COMPANY LLC</td>
</tr>
<tr>
<td>Emergency Contact(24 hr) -- CHEMTREC®</td>
<td>Domestic: 800-424-9300, International: 703-527-3887</td>
</tr>
<tr>
<td>CAGE Code:</td>
<td>0V553</td>
</tr>
<tr>
<td>Address:</td>
<td>448 West Fork Dr, Arlington, TX 76012</td>
</tr>
<tr>
<td>Telephone Number For Information:</td>
<td>817-461-5601</td>
</tr>
<tr>
<td>Date Prepared:</td>
<td>10/27/00</td>
</tr>
<tr>
<td>Revision:</td>
<td>2</td>
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</tbody>
</table>

Section 2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Registry #</th>
<th>Concentration</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gentian (Crystal) Violet</td>
<td>548-62-9</td>
<td>1 - 3</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Ammonium Oxalate</td>
<td>6009-70-7</td>
<td>&lt; 1</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Ethyl Alcohol (Ethanol)</td>
<td>64-17-5</td>
<td>18 - 20</td>
<td>1000 ppm</td>
<td>1000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1880 mg/m3</td>
<td>1900 mg/m3</td>
</tr>
<tr>
<td>Methanol (Methyl Alcohol)</td>
<td>67-56-1</td>
<td>&lt; 1</td>
<td>200 ppm</td>
<td>200 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>262 mg/m3</td>
<td>260 mg/m3</td>
</tr>
<tr>
<td>Water, Deionized</td>
<td>7732-18-5</td>
<td>balance</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Section 3: Hazard Identification

Emergency Overview: WARNING! Gentian Violet contains a material reasonably anticipated to be a carcinogen. May be harmful if swallowed. If ingested, give large quantity of water or milk. Do not induce vomiting. Call a physician. Avoid contact with skin, eyes, or clothing. Wash areas of contact with plenty of water. For eyes, get medical attention.

Target Organs: eyes, skin, gastrointestinal tract, liver, pancreas, central nervous system, respiratory system, kidneys.

Eye Contact: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.

Inhalation: May cause mild irritation.
**Skin Contact:** May result in drying and cracking, which can lead to secondary infections and dermatitis. Oxalates can be absorbed through the lungs. Symptoms of poisoning include nervousness, cramps, central nervous system depression.

**Ingestion:** Symptoms can include sleep disorders, hallucinations, distorted perceptions, ataxia, motor function changes, convulsions and tremors, coma, headaches, pulmonary changes, alteration of gastric secretions. The soluble oxalates are readily absorbed from the gastrointestinal tract and can cause severe damage to the kidneys.

**Chronic Effects/Carcinogenicity:** None

**IARC** - No.

**NTP** - No.

**OSHA** - No.

**Reproductive Information:** Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Gentian (Crystal) Violet. Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Methanol (Methyl Alcohol). Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Ethyl Alcohol (Ethanol).

**Section 4: First Aid Measures** - In all cases, seek qualified evaluation.

**Eye Contact:** Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.

**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**Skin Contact:** Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops.

**Ingestion:** Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

**Section 5: Fire Fighting Measures**

**Flash Point:** Not Available.

**LFL:** Not Available.

**Method Used:** Not Available.

**UFL:** Not Available.

**Extinguishing Media:** Use any means suitable for extinguishing surrounding fire.

**Fire & Explosion Hazards:** At temperatures near the boiling point, alcohol fumes could accumulate thus causing a fire hazard.

**Fire Fighting Instructions:** Vapors can flow along surfaces to distant ignition source and flash back. Use water spray to blanket fire, cool fire exposed containers, and to flush non-ignited spills or vapors away from fire.

**Fire Fighting Equipment:** Use protective clothing and breathing equipment appropriate for the surrounding fire.

**Section 6: Accidental Release Measures**

Remove all sources of ignition. Contain spill. Do not flush to sewer. Absorb with suitable inert material (vermiculite, dry sand, etc) and place in a chemical waste container for proper disposal in an approved waste disposal facility. Ventilate area of spill. Have extinguishing agent available in case of fire. Use non-sparking tools and equipment. Dispose of in accordance with local regulations.

**Section 7. Handling and Storage**

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Empty containers may be hazardous since they retain product residues. Store at room temperature.

**Safety Storage Code:** Health

**Section 8: Exposure Control/Personal Protection**

**Engineering Controls:** A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

**Respiratory Protection:** Normal room ventilation is adequate. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn.

**Skin Protection:** Chemical resistant gloves.

**Eye Protection:** Safety glasses or goggles.
Section 9: Physical and Chemical Properties

**Appearance:** Clear, dark blue-purple liquid  
**Odor:** Mild Alcohol  
**Solubility in Water:** Infinite  
**Specific Gravity:** Approximately 1.01  
**pH:** Not Available.  
**Boiling Point (°C):** Approximately 87  
**Melting Point (°C):** Approximately -10  
**Vapor Pressure:** Not Applicable.

Section 10: Stability and Reactivity

**Chemical Stability:** Stable under normal conditions of use and storage.  
**Incompatibility:** Oxidizers, platinum, Sodium, Potassium Dioxide, Bromine Pentafluoride, Acetyl Bromide, Acetyl Chloride, heat, sparks, open flame.  
**Hazardous Decomposition Products:** Acid and irritating fumes, including toxic oxides of carbon, when heated to decomposition.  
**Hazardous Polymerization:** Will not occur.

Section 11. Toxicological Information

LD50, Oral, Rat: (Methanol) 5628 mg/kg, (Gentian Violet) 420 mg/kg, details of toxic effects not reported other than lethal dose value; (Ethanol) 7060 mg/kg, respiration changes noted.

Section 12. Ecological Information

**Ecotoxicological Information:** Ethanol has moderate chronic toxicity to aquatic life.  
**Chemical Fate Information:** This material is not expected to significantly bioaccumulate. Ethanol is slightly persistent in water, with a half-life of between 2 to 20 days.

Section 13. Disposal Considerations

Do not flush to sewer. Absorb with suitable inert material (vermiculite, dry sand, earth) and place in a chemical waste container for proper disposal in an approved waste disposal facility for incineration in a chemical incinerator equipped with scrubber and afterburner. Ventilate area of spill. Have extinguishing agent available in case of fire. Eliminate all sources of ignition. Use non-sparking tools and equipment. Always dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

Part Numbers:

This product is not regulated.

Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)

**OSHA Status:** These items meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.  
**TSCA Status:** All components of this solution are listed on the TSCA Inventory or are mixtures (hydrates) of items listed on the TSCA Inventory.  
**Sara Title III:**

- **Section 302 Extremely Hazardous Substances:** Not Applicable.  
- **Section 311/312 Hazardous Categories:** Acute, Chronic: Yes, Fire, Pressure, Reactivity: No  
- **Section 313 Toxic Chemicals:** Not Applicable.

**California:** None Reported.  
**Pennsylvania:** Methanol (Methyl Alcohol) is listed as an Environmental Hazard on the state’s Hazardous Substances List. Ammonium Oxalate is listed as an Environmental Hazard on the state’s Hazardous Substances List. Ethyl Alcohol (Ethanol) is listed as a Basic Hazard on the state’s Hazardous Substances List.

**RCRA Status:** U154  
**CERCLA Reportable Quantity:** Methanol (Methyl Alcohol) - 5,000 pounds. Ammonium Oxalate - 5000 pounds.

Section 16. Other Information

NFPA Ratings:

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Special Notice Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
<td>None</td>
</tr>
</tbody>
</table>

HMIS Ratings:

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Protective Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2*</td>
<td>1</td>
<td>0</td>
<td>B (Protective Eyewear, Gloves)</td>
</tr>
</tbody>
</table>

Rev 1, 10-09-2001: Reformatted to electronic data format.

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.
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