1. Product and Company Identification

Product name: Root Clear™
CAS #: Mixture
Product use: Sewer and Septic Treatment
Manufacturer: Iron Out dba Summit Brands
7201 Engle Road
Fort Wayne, IN 46804-5875 US
Phone: 260-483-2519
Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. Hazards Identification

Emergency overview: DANGER -- POISON
May cause chronic toxic effects.
CAUSES EYE IRRITATION. CAUSES SKIN IRRITATION.

Potential short term health effects:

Routes of exposure:
- Eyes: Causes irritation.
- Skin: Causes irritation.
- Inhalation: Dusts of this product may cause irritation of the nose, throat, and respiratory tract.
- Ingestion: Harmful if swallowed. May cause stomach distress, nausea or vomiting.

Target organs:

Chronic effects:
- Overexposure causes kidney and liver damage. Prolonged or repeated exposure can cause drying, defatting and dermatitis.

Signs and symptoms:
- Symptoms are prostration, gasping, pallor, and uncoordinated movements. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

OSHA regulatory status:
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential environmental effects:
See section 12.

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper (II) sulfate pentahydrate</td>
<td>7758-99-8</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. First Aid Measures

First aid procedures:
- Eye contact: Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention if irritation develops or persists.
- Skin contact: Brush away excess of dry material. Immediately flush with cool water for 15 minutes. Obtain medical attention if irritation persists. Wash contaminated clothing well before reuse or discard.
- Inhalation: If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.
5. Fire Fighting Measures

Flammable properties
Not flammable by WHMIS/OSHA criteria.

Extinguishing media
Suitable extinguishing media
Treat for surrounding material.

Unsuitable extinguishing media
Not available

Protection of firefighters
Specific hazards arising from the chemical
Not available

Protective equipment and precautions for firefighters
Firefighters should wear full protective clothing including self contained breathing apparatus.

Hazardous combustion products
May include and are not limited to: Copper oxides. Oxides of sulfur.

Explosion data
Sensitivity to mechanical impact
Not available.

Sensitivity to static discharge
Not available.

6. Accidental Release Measures

Personal precautions
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Methods for containment
This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up
Should not be released into the environment. Large Spills: Wet down with water and dike for later disposal. Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. Rinse area with water. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. After removal flush contaminated area thoroughly with water.

7. Handling and Storage

Handling
Use good industrial hygiene practices in handling this material. Do not get this material in your eyes, on your skin, or on your clothing. Use only with adequate ventilation. Avoid breathing dust. Keep container tightly closed. Wash thoroughly after handling.

Storage
Store in a closed container away from incompatible materials. Keep out of the reach of children.

8. Exposure Controls/Personal Protection

Exposure limits
There are no established ACGIH or OSHA PEL exposure limits for the hazardous chemicals listed in section 3 of the MSDS.

Engineering controls
Provide adequate ventilation. Use only under good ventilation conditions or with respiratory protection.

Personal protective equipment
Eye / face protection
Wear chemical goggles.

Hand protection
Rubber gloves. Confirm with a reputable supplier first.

Skin and body protection
As required by employer code.
9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Crystals</td>
</tr>
<tr>
<td>Color</td>
<td>Blue</td>
</tr>
<tr>
<td>Form</td>
<td>Solid.</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>Physical state</td>
<td>Solid.</td>
</tr>
<tr>
<td>pH</td>
<td>3.7 - 4.2 (10% solution)</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Pour point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability limits in air, upper, % by volume</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability limits in air, lower, % by volume</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>VOC</td>
<td>Not available</td>
</tr>
<tr>
<td>Percent volatile</td>
<td>Not available</td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

- Reactivity: This product may react with strong reducing agents.
- Possibility of hazardous reactions: Hazardous polymerization does not occur.
- Chemical stability: Stable under recommended storage conditions.
- Conditions to avoid: Avoid high temperatures. Do not mix with other chemicals.
- Hazardous decomposition products: May include and are not limited to: Sulfur oxide. Copper oxides.

11. Toxicological Information

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper (II) sulfate pentahydrate (CAS 7758-99-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>&gt; 1000 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>300 mg/kg</td>
</tr>
</tbody>
</table>
Effects of acute exposure

**Eye contact** Causes irritation.

**Skin contact** Causes irritation.

**Inhalation** Dusts of this product may cause irritation of the nose, throat, and respiratory tract.

**Ingestion** Harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Sensitization** Non-hazardous by WHMIS/OSHA criteria.

**Chronic effects** Prolonged or repeated overexposure can cause liver and kidney damage.

**Carcinogenicity** Not classified or listed by IARC, NTP, OSHA and ACGIH.

**Mutagenicity** Non-hazardous by WHMIS/OSHA criteria.

**Reproductive effects** Non-hazardous by WHMIS/OSHA criteria.

**Teratogenicity** Non-hazardous by WHMIS/OSHA criteria.

**Name of Toxicologically Synergistic Products** Not available.

12. Ecological Information

**Ecotoxicity** See below

### Ecotoxicological data

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper (II) sulfate pentahydrate (CAS 7758-99-8)</td>
<td><strong>Crustacea</strong></td>
<td>EC50 Daphnia</td>
</tr>
<tr>
<td></td>
<td><strong>Aquatic</strong></td>
<td>Crustacea</td>
</tr>
<tr>
<td></td>
<td><strong>Fish</strong></td>
<td>LC50 Bluegill (Lepomis macrochirus)</td>
</tr>
</tbody>
</table>

**Persistence and degradability** Not available.

**Bioaccumulation / Accumulation** Not available.

**Mobility in environmental media** Not available.

**Environmental effects** Harmful to aquatic life.

**Aquatic toxicity** Not available.

**Partition coefficient** Not available.

**Chemical fate information** Not available.

13. Disposal Considerations

**Disposal instructions** Review federal, state/provincial, and local government requirements prior to disposal.

**Waste from residues / unused products** Not available.

**Contaminated packaging** Not available.

14. Transport Information

**U.S. Department of Transportation (DOT)**

**Basic shipping requirements:**

<table>
<thead>
<tr>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Hazard class</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN3077</td>
<td>Environmentally hazardous substances, solid, n.o.s. (Copper (II) sulfate pentahydrate)</td>
<td>9</td>
</tr>
</tbody>
</table>

**Packing group** III

**Special provisions** 8, 146, B54, IB8, IP3, N20, T1, TP33

**Packaging exceptions** 155

**Packaging non bulk** 213

**Packaging bulk** 240

**Transportation of Dangerous Goods (TDG - Canada)**

**Basic shipping requirements:**

<table>
<thead>
<tr>
<th>UN number</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UN3077</td>
<td></td>
</tr>
</tbody>
</table>

15. Regulatory Information

Canadian federal regulations
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS status
Controlled
WHMIS classification
Class D - Division 1B, 2B
WHMIS labeling

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical
Yes

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration
Copper (II) sulfate pentahydrate (CAS 7758-99-8) 1.0 % N100

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance
Copper (II) sulfate pentahydrate (CAS 7758-99-8) Listed. N100

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

US CWA Section 311 Hazardous Substances: Listed substance
Copper (II) sulfate pentahydrate (CAS 7758-99-8) Listed.

US CWA Section 307(a)(1) Toxic Pollutants: Listed substance
Copper (II) sulfate pentahydrate (CAS 7758-99-8) Listed.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

CERCLA (Superfund) reportable quantity
Copper (II) sulfate pentahydrate: 10

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No
State regulations  This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.


US - Louisiana Spill Reporting List: Reportable quantity (total mass into atmosphere)  Copper (II) sulfate pentahydrate (CAS 7758-99-8)  100 lbs


US. Massachusetts RTK - Substance List  Copper (II) sulfate pentahydrate (CAS 7758-99-8)  Listed.


US. Rhode Island RTK  Not regulated.

Inventory status

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A ”Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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Expiry date  01-April-2017

Prepared by  Dell Tech Laboratories, Ltd.  Phone: (519) 858-5021

Other information  For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.

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