

MATERIAL SAFETY DATA SHEET

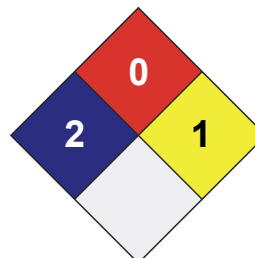
DRAFT VERSION

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)

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	* 2
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	X



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 Eye, Skin contact, Inhalation, Ingestion.

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 Kidneys. Liver. Blood. Eyes. Skin. Respiratory system.

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

Components	CAS #	Percent
Copper (II) sulfate pentahydrate	7758-99-8	60 - 100

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.

Ingestion	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
Notes to physician	Symptoms may be delayed.
General advice	Immediate medical attention is required. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

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.

Respiratory protection

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

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

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.
Incompatible materials	Caustics. Magnesium. Acetylene. Reducing agents.
Hazardous decomposition products	May include and are not limited to: Sulfur oxide. Copper oxides.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
Copper (II) sulfate pentahydrate (CAS 7758-99-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 1000 mg/kg
<i>Oral</i>		
LD50	Rat	300 mg/kg

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

Components		Species	Test Results
Copper (II) sulfate pentahydrate (CAS 7758-99-8)			
Crustacea	EC50	Daphnia	0.187 mg/L, 48 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.006 - 0.007 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	0.66 - 1.15 mg/l, 96 hours

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:**

UN number	UN3077
Proper shipping name	Environmentally hazardous substances, solid, n.o.s. (Copper (II) sulfate pentahydrate)
Hazard class	9
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:**

UN number	UN3077
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Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper (II) sulfate pentahydrate)
Hazard class	9
Packing group	III
Special provisions	16

DOT; TDG



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 Yes
hazardous chemical

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 - California Hazardous Substances (Director's): Listed substance

Copper (II) sulfate pentahydrate (CAS 7758-99-8) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US - Louisiana Spill Reporting List: Reportable quantity (total mass into atmosphere)

Copper (II) sulfate pentahydrate (CAS 7758-99-8) 100 lbs

US - Michigan Critical Materials Register: Parameter number

Copper (II) sulfate pentahydrate (CAS 7758-99-8) 07440-50-8 Listed.

US - New York Release Reporting: Hazardous Substances: Listed substance

Copper (II) sulfate pentahydrate (CAS 7758-99-8) Listed.

US - Texas Effects Screening Levels: Listed substance

Copper (II) sulfate pentahydrate (CAS 7758-99-8) Listed.

US. Massachusetts RTK - Substance List

Copper (II) sulfate pentahydrate (CAS 7758-99-8) Listed.

US. Pennsylvania RTK - Hazardous Substances

Copper (II) sulfate pentahydrate (CAS 7758-99-8) Listed.

US. Rhode Island RTK

Not regulated.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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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Other information

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

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