



Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product name **Zep Root Kill**
Product code **ZROOT2**
Date of issue **03/11/11** **Supersedes 12/22/06**

This product is a registered pesticide. EPA ID No. 56576-1-40849

Emergency Telephone Numbers

For MSDS Information:
 Compliance Services 404-352-1680

For Medical Emergency
 (877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency
 CHEMTREC: (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

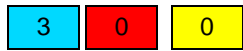
Prepared By
 Compliance Services
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Section 2. Hazards Identification

Emergency overview

*Hazard Determination System (HDS): Health, Flammability, Reactivity

DANGER



CAUSES EYE BURNS. CAUSES RESPIRATORY TRACT AND SKIN IRRITATION. HARMFUL OR FATAL IF SWALLOWED.

Apply this product only as specified on the label.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects **Routes of Entry** Dermal contact. Eye contact. Inhalation.

- Eyes** Causes eye burns. Direct contact with the eyes can cause irreversible damage, including blindness.
- Skin** Causes skin irritation. Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering. May cause skin sensitization.
- Inhalation** Do not breathe dust. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. May cause irritation of respiratory tract, coughing, shortness of breath. Over-exposure by inhalation may cause respiratory irritation.
- Ingestion** May be fatal if swallowed. May cause burns to mouth, throat and stomach.

Chronic effects Contains material which causes damage to the following organs: kidneys, the nervous system.
 No known significant effects or critical hazards.

Product/ingredient name

Not available.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

<u>Name of Hazardous Ingredients</u>	<u>CAS number</u>	<u>% by Weight</u>
Copper Sulfate Pentahydrate; Cupric Sulfate; Blue Vitriol	7758-99-8	99

Section 4. First Aid Measures

- Eye Contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention immediately.
- Skin Contact** Flush affected skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Wash clothing before reuse. Get medical attention if irritation develops.
- Inhalation** Move exposed person to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
- Ingestion** Do not induce vomiting unless directed to do so by medical personnel. If affected person is conscious, give plenty of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

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



Flash Point	Not available.
Flammable Limits	Not available.
Flammability	Non-flammable.
Fire hazard	May emit toxic fumes under fire conditions. Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminum, tin, lead and zinc.
Fire-Fighting Procedures	Use an extinguishing agent suitable for the surrounding fire. Do not release runoff from fire to drains or watercourses.

Section 6. Accidental Release Measures

Spill Clean up Put on appropriate personal protective equipment (see section 8). Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container.

Section 7. Handling and Storage

Handling	Put on appropriate personal protective equipment (see section 8). Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing dust. Observe label precautions. Empty containers retain product residue and can be hazardous. Do not reuse container. Wash thoroughly after handling.
Storage	Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Contains moisture-sensitive material. Store in a dry place. Do not store in unlabeled containers. Keep out of the reach of children.

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

Copper Sulfate Pentahydrate; Cupric Sulfate; Blue Vitriol

Exposure limits**OSHA PEL (United States).**TWA: 1 mg/m³ 8 hour(s). Form: Dusts and mists**ACGIH TLV (United States).**TWA: 1 mg/m³ 8 hour(s). Form: Dusts and mists**Personal Protective Equipment (PPE)**

Eyes	Safety glasses.
Body	Wear appropriate protective clothing to prevent skin contact. Recommended: Neoprene gloves. Nitrile gloves. Synthetic apron.
Respiratory	Avoid breathing dust. If dust is generated and ventilation is inadequate, use respirator that will protect against dust/mist.

**Section 9. Physical and Chemical Properties**

Physical State	Solid. (Crystals.)	Color	Blue.
pH	Not available.	Odor	Odorless.
Boiling Point	560°C (1040°F)	Vapor Pressure	Not available.
Specific Gravity	2.284	Vapor Density	>1 [Air = 1]
Solubility	Soluble in the following materials: cold water and hot water.	Evaporation Rate	Not applicable
		VOC (Consumer)	Not applicable

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility	Incompatible with aluminum and magnesium. Reactive or incompatible with the following materials: metals and alkalis.
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	copper, sulfur oxides (SO ₂ , SO ₃ etc.)

Section 11. Toxicological Information**Acute Toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Copper Sulfate Pentahydrate	LD50 Dermal	Rabbit	>5050 mg/kg	-
	LD50 Oral	Rat	352 mg/kg	-


Section 12. Ecological Information**Environmental Effects** Toxic to aquatic organisms.**Aquatic Ecotoxicity**

Not available.

Section 13. Disposal Considerations**Waste Information**

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

Waste Stream Non-regulated waste**Section 14. Transport Information**

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	UN 3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Cupric Sulfate) or Consumer commodity ORM-D in Limited quantity	9	III	
TDG Classification	Not available.				
IMDG Class	Not determined.				

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

PG* : Packing group

Section 15. Regulatory Information**U.S. Federal Regulations**

SARA 313 toxic chemical notification and release reporting:

Product name

Copper Sulfate Pentahydrate

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: Copper Sulfate Pentahydrate (RQ 10 lbs)

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

All Components of this product are listed or exempt from listing on TSCA Inventory.

United States inventory (TSCA 8b): Not determined.**State Regulations****California Prop 65**

No products were found.

Canada**WHMIS (Canada)**

Class D-1B: Material causing immediate and serious toxic effects (Toxic).

Class D-2B: Material causing other toxic effects (Toxic).

Class E: Corrosive material

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

*NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.