

# OSHA-Required Health And Safety Information!

This Material Safety Data Sheet (MSDS) was requested moments ago from Hercules Automated Fax Information System. Please forward it immediately to the person in charge of MSDS's, or retain it at the machine until claimed.

## Section 1

### MATERIAL SAFETY DATA SHEET # 19 R-D Root Destroyer



**MATERIAL  
SAFETY  
INFORMATION  
SERVICE**

Hercules Chemical Company Inc.  
111 South Street  
Passaic NJ 07055  
Phone (800) 221-9330  
Fax (800) 333-3456

Date Prepared: 1/31/1990 Last Reviewed: 9/13/2011

Meets OSHA 29 CFR 1910.1200

## Section 2 - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s), CAS Numbers)	OSHA PEL	ACGIH TLV	Other Limits	Upper Bound Limit if SARA Reportable
Copper Sulphate Pentahydrate (7758-99-8)	1.0mg/M <sup>3</sup>	1.0mg/M <sup>3</sup> (Dust/Mist)	N/A	98%

HMIS Hazard Rating: Health: 2 Flammability: 0 Reactivity: 1 Personal Protection: E

## Section 3 - Physical/Chemical Characteristics

Boiling Point (°F): N/A	pH: 3.7-4.2 (10% solution)	Specific Gravity (H <sub>2</sub> O = 1): 2.284	Vapor Density (Air = 1): 8.6	Vapor Pressure (mm Hg): N/A	VOC Level (g/l): 0
Melting Point (° F): 230°F (110°C)	Evaporation Rate: (Butyl Acetate = 1) N/A	Solubility in Water: Dissolves in water 22.7% @ 0°C, 117.95 @ 100°C			
Appearance And Color: Blue granular crystals.	Odor: Odorless				

## Section 4 - Fire And Explosion Hazard Data

Flash Point: N/A	Flammable Limits: N/A	LEL:	UEL:
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Extinguishing Media: Dry chemical, Carbon Dioxide, Water spray, alcohol foam

### Special Firefighting Procedures:

Use extinguishing media as appropriate for surrounding fire. Use CO<sub>2</sub>, dry chemical, or water. Avoid direct water stream on molten material, splattering may occur. Firefighters should wear self-contained breathing apparatus and full protective clothing.

### Unusual Fire And Explosion Hazards:

Heated above 110° C will melt and flow. Sealed containers may rupture when heated due to release of water from crystals. Material is acidic when dissolved in water. Contact with magnesium metal may evolve hydrogen gas. Anhydrous cupric sulfate formed on water loss (white color). Anhydrous salt will ignite hydroxylamine if present. At temperature greater than 600° C decomposes to cupric oxide and sulfur dioxide.

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**Section 5 - Reactivity Data**

**Stability:** Stable                      **Conditions To Avoid:** High heat and reducing agents

**Incompatibility (Materials To Avoid):** Contact with magnesium metal may generate dangerous level of hydrogen gas.

**Hazardous Decomposition:** Above 600° C SO<sub>2</sub> may evolve; none at normal process temperature and pressure.

**Hazardous Polymerization:** Will Not Occur

**Section 6 - Health Hazard Data**

**Routes of Entry:** Inhalation YES/Primary                      **Skin** YES/Primary                      **Ingestion** YES/Secondary

**Health Hazards:**

May cause nose irritation. Chronic hazard is very rare except in individuals with Wilson's Disease.

**Carcinogenicity:** NTP NO                      IARC NO                      OSHA Regulated NO

**Signs And Symptoms of Exposure:**

Localized skin discoloration, itching, eye irritation, ulceration of nasal septum may occur. Repeated or prolonged skin contact may cause dermatitis.

**Medical Conditions Generally Aggravated By Exposure:**

Wilson's Disease (Individual absorbs, retains and stores copper excessively).

**Emergency And First Aid Procedures:**

Treat most urgent symptoms first. Cessation of breathing, eye injury, skin contact, shock. In all cases seek medical attention. INHALATION: Move to fresh air, administer CPR if required. EYES: Flush with large amounts of water at least 15 minutes. Hold lids open during flushing. SKIN: Flush with large amounts of water at least 15 minutes. Remove contaminated clothing. INGESTION: May cause severe GI tract irritation. Give conscious victim 2-3 glasses of milk and water to drink. Induce vomiting in conscious person. Get medical attention.

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**Section 7 - Precautions For Safe Handling And Use:****Steps To Be Taken In Case Material Is Released Or Spilled:**

Sweep up crystals or powder, vacuum is preferred. Prevent accidental entry of solution into streams and other bodies of water.

**Waste Disposal Method:**

For disposal of large quantities of waste, consult appropriate federal, state and local officials.

**Precautions To Be Taken In Handling And Storing:**

Store in closed containers in cool, dry and well ventilated area away from heat sources and reducing agents. Use good housekeeping practice to prevent dust accumulation.

**Other Precautions:**

Avoid breathing dust or solution mist.

**Section 8 - Control Measures:****Respiratory Protection:**

Where the possibility of dust exists, use NIOSH/MSHA approved dust mask.

Ventilation: Local Exhaust Adequate  
Mechanical N/A

Special N/A  
Other: N/A

Gloves: Rubber

Eye Protection: Chemical goggles where splashing possible.

Other Protective Clothing: Wear protective clothing when necessary.

Work/Hygienic Practices Use good personal hygiene. Wash hands before eating. Avoid inhalation or ingestion.

**Additional Information:**

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For Hercules Material Safety Data Sheets by fax anytime, day or night, just call 1-800-942-INFO (1-800-942-4636) from any Touch-Tone phone. Have your fax number ready. Checking the product label for the correct MSDS # will save time.