

# MSDS

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## MATERIAL SAFETY DATA SHEET

### PRODUCT IDENTIFICATION

**Product Name:** CUPRIC SULFATE  
**Chemical Name:** Cupric Sulfate  
**Synonyms:** Copper Sulfate, "Blue Vitriol", "Bluestone"  
**Chemical Family:** Copper Compounds  
**Molecular Formula:**  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$

### HAZARDOUS INGREDIENTS OF MATERIALS

Name	%	LD <sub>50</sub> (or LC <sub>50</sub> )	TLV/TWA	CAS NO.
cupric sulfate	100			7758-99-8

(mg/m<sup>3</sup>)

Not a controlled product

### PHYSICAL PROPERTIES

<b>Appearance and Odour:</b>	Blue crystals or blue crystalline powder, odourless	<b>Vapour Density:</b>	--
<b>Boiling Point/Range:</b>	-5H <sub>2</sub> O at 150°C	<b>Evaporation Rate:</b>	Not applicable
<b>Melting/Freezing Point:</b>	Not applicable	<b>Solubility:</b>	Soluble: 203.3 g/100 g H <sub>2</sub> O at 100°C; 31.6 g/100 g H <sub>2</sub> O at 0°C
<b>Vapour Pressure:</b>	Not determined	<b>% Volatile by Volume:</b>	Not applicable
<b>Specific Gravity:</b>	2.284	<b>pH:</b>	Not applicable

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**FIRST AID PROCEDURES**


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<b>Inhalation:</b>	None reported
<b>Contact with Skin:</b>	Wash promptly and thoroughly with soap and water
<b>Contact with Eyes:</b>	Wash with water immediately for at least 15 minutes
<b>Ingestion:</b>	Drink 1-2 glasses of water to dilute and induce vomiting
<b>Other Medical Care:</b>	Not available/reported

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**REACTIVITY DATA**


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<b>Stability:</b>	Stable (under normal conditions)
<b>Hazardous Polymerization:</b>	Will not occur
<b>Conditions to Avoid:</b>	Not applicable
<b>Materials to Avoid:</b>	Not applicable
<b>Hazardous Decomposition or Combustion Products:</b>	If heated above 400°C, it can decompose to evolve toxic sulfur

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**FIRE AND EXPLOSION DATA**


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<b>Flash Point (method):</b>	Not determined	<b>Autoignition Point:</b>	Not applicable
<b>Flammability Limits in air:</b>	UEL (%): Not determined	LEL(%):	Not determined
<b>Fire Extinguishing Media:</b>	Copper sulfate does not burn, nor will it support combustion.		
<b>Fire Fighting Procedures:</b>	Not determined		
<b>Other Fire or Explosion Hazards:</b>	If heated above 400°C, it can decompose and evolve sulfur dioxide (toxic!).		

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**TOXICOLOGICAL AND HEALTH DATA**


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<b>Recommended Exposure Limit (ACGIH TLV-TWA):</b>	1 mg/m <sup>3</sup> (as Cu) ACGIH-TWA daily 8-hour exposure
<b>Toxicological Data:</b>	LD <sub>50</sub> (oral, rat) = 950 mg/kg;
<b>Carcinogenicity Data:</b>	None reported
<b>Reproductive Effects:</b>	None reported

<b>Mutagenicity Data:</b>	None reported
<b>Teratogenicity Data:</b>	None reported
<b>Synergistic Materials:</b>	None reported
<b>Effects of Exposure from:</b>	
<b>Inhalation:</b>	Not reported
<b>Skin Contact:</b>	Dermatitis
<b>Eye Contact:</b>	Irritation
<b>Ingestion:</b>	Gastric irritation - vomiting
<b>Other Health Effects:</b>	Irritation at mucous membrane, pharynx; nasal ulceration.

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### ***PREVENTATIVE MEASURES***

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<b>Engineering Controls:</b>	Local exhaust
<b>Respiratory Protection:</b>	NIOSH-approved respirator
<b>Skin Protection:</b>	Rubber gloves, avoid skin contact
<b>Eye Protection:</b>	Goggles
<b>Other Personal Protective Equipment:</b>	Wear protective clothing to prevent repeated or prolonged skin contact.
<b>Handling Procedures and Equipment:</b>	Not applicable
<b>Storage Requirements:</b>	Store in a dry place
<b>Other Precautions:</b>	Not determined
<b>Steps to be taken in the event of a spill or leak:</b>	Recover dry - do not generate dust. Vacuum loose material.
<b>Environmental Effects:</b>	Not available/reported
<b>Deactivating Chemicals:</b>	Not applicable
<b>Waste Disposal Methods:</b>	In accordance with federal, provincial, state, and local regulations on chemical waste disposal.

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**TDG: SHIPPING INFORMATION**

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**Shipping Name:** Cupric Sulfate

**Shipping Class:** 9    **UN:** 3077    **Packing Group:** III

**WHMIS Class:** D2B

**Date Issued:** October 31, 1988    **Date Revised:** July 11, 2012

**Prepared By:** Thomas Kyron    **MSDS Index No.:**

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