



# SAFETY DATA SHEET

Issue Date 01-April-2010

Revision Date 30-October-2019

Version 5

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Identifier

**Product Name** Copper Sulfate Solution (23% - 25%)

### Other Means of Identification

**SDS #** OBC-014

**UN/ID No** UN3082

### Recommended Use of the Chemical and Restrictions on Use

**Recommended Use** For industrial use.

### Details of the Supplier of the Safety Data Sheet

#### **Manufacturer Address**

Old Bridge Chemicals, Inc.  
554 Waterworks Rd.  
Old Bridge, NJ 08857

### Emergency Telephone Number

**Company Phone Number** (732) 727-2225 (normal business hours)  
(800) 275-3924 (24 hour number)

**Emergency Telephone** Chemtrec 1-800-424-9300 (North America) 1-703-527-3887 (International)

## 2. HAZARDS IDENTIFICATION

**Appearance** - Light Blue Liquid

**Physical State** - Liquid

**Odor** - Odorless

### Classification

Acute toxicity - Oral	Category 4
Acute toxicity – Dermal	Category 4
Skin Corrosion/irritation	Category 2
Serious eye damage/ eye irritation	Category 2

### Signal Word

**Warning**

### Hazard Statements

Harmful if swallowed  
Harmful if contact with skin  
Causes serious eye irritation



### Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product  
Wear protective gloves/ protective clothing/ eye protection/ face protection

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present, and easy to do. Continue rinsing.  
If eye irritation persists, get medical attention  
IF ON SKIN: Wash with plenty of soap and water.  
Call a poison control center or doctor if you feel unwell  
If skin irritation occurs, get medical advice/attention  
Take off contaminated clothing and wash it before reuse  
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
Rinse mouth

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Hazards**

Very toxic to aquatic life with long lasting effects

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Water	7732-18-5	76-78
Copper Sulfate	7758-98-7	22-24

### 4. FIRST AID MEASURES

**First Aid Measures**

<b>General Advice</b>	Provide this SDS to medical personnel for treatment.
<b>Eye Contact</b>	Rinse thoroughly with plenty of water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.
<b>Skin Contact</b>	Wash with soap and water. Call a poison center or doctor/physician if you feel unwell. If skin irritation occurs, get medical advice. Remove contaminated clothing and wash before reuse.
<b>Inhalation</b>	Remove to fresh air and call a physician.
<b>Ingestion</b>	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting. Promptly drink large quantities of milk, egg white, gelatin solution, or if these are not available, drink large quantities of water. Never give anything by mouth to an unconscious person. Avoid alcohol

**Most Important Symptoms and Effects, both Acute and Delayed**

<b>Symptoms</b>	Harmful if swallowed. Harmful in contact with skin.
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**Indication of any Immediate Medical Attention and Special Treatment Needed**

<b>Note to Physicians</b>	Treat symptomatically.
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### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

If water is used as an extinguishing media, care should be taken to keep such water out of streams or other bodies of water.

**Specific Hazards Arising from the Chemical**

Not Determined.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures**

<b>Personal Precautions</b>	Wear protective clothing as described in Section 8 of this safety data sheet.
<b>Environmental Precautions</b>	See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

<b>Methods for Containment</b>	Use a water amenable absorbent to absorb any spillage. Sweep up any absorbed material, place in plastic bags and seal with tape. Place in appropriate containers for disposal. Dispose of contents/containers at an approved waste disposal plant. Prevent run off to storm sewers and ditches leading to natural waterways.
<b>Methods for Cleaning Up</b>	Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

<b>Advice on Safe Handling</b>	Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing and eye/face protection.
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**Conditions for Safe Storage, Including any Incompatibilities**

<b>Storage Conditions</b>	Keep the container tightly closed in a dry, cool, and well-ventilated place.
<b>Packaging Materials</b>	Solutions of copper sulfate can be corrosive to steel. Store in plastic or glass.
<b>Incompatible Materials</b>	Potentially aluminum powders, acetylene gas, hydroxylamine, magnesium.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA	NIOSH IDLH
Copper Sulfate	TWA: 1 mg/m <sup>3</sup> Cu dust & mist	TWA: 1 mg/m <sup>3</sup> Cu dust & mist	IDLH: 100 mg/m <sup>3</sup> Cu dust & mist TWA: 1 mg/m <sup>3</sup> Cu dust & mist

**Appropriate Engineering Controls**

<b>Engineering Controls</b>	Use process enclosures, local exhaust ventilation or other engineering controls to control airborne levels below recommended exposure limits. Maintain eyewash / safety shower
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stations in areas where chemical is handled.

### **Individual Protection Measures, such as Personal Protective Equipment**

<b>Eye/Face Protection</b>	Wear safety glasses with side shields, or goggles
<b>Skin and Body Protection</b>	Wear long-sleeved shirt, long pants, and shoes plus socks. Wear waterproof gloves. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with product's concentrate. Do not reuse them. Keep and wash PPE separately from other laundry.
<b>Respiratory Protection</b>	Ensure adequate ventilation, especially in confined areas.
<b>General Hygiene Considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **Information on Basic Physical and Chemical Properties**

<b>Physical State</b>	Liquid		
<b>Appearance</b>	Clear liquid	<b>Odor</b>	Odorless
<b>Color</b>	Colorless and water white	<b>Odor Threshold</b>	Not determined

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>
<b>pH</b>	Not determined	
<b>Melting Point/Freezing Point</b>	Not determined	
<b>Boiling Point/Boiling Range</b>	Not determined	
<b>Flash Point</b>	Will not burn	
<b>Evaporation Rate</b>	Not determined	
<b>Flammability (Solid, Gas)</b>	Not determined	
<b>Upper Flammability Limits</b>	Not determined	
<b>Lower Flammability Limit</b>	Not determined	
<b>Vapor Pressure</b>	Not determined	
<b>Vapor Density</b>	Not determined	
<b>Specific Gravity</b>	1.2	
<b>Water Solubility</b>	32 g / 100 g of water at 20 °C (solute as copper sulfate pentahydrate)	
<b>Solubility in Other Solvents</b>	Not determined	
<b>Partition Coefficient</b>	Not determined	
<b>Autoignition Temperature</b>	Not determined	
<b>Decomposition Temperature</b>	Not determined	
<b>Kinematic Viscosity</b>	Not determined	
<b>Dynamic Viscosity</b>	Not determined	
<b>Explosive Properties</b>	Not determined	
<b>Oxidizing Properties</b>	Not determined	

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to Avoid

Keep out of reach of children.

### Incompatible Materials

Possibly aluminum powders, acetylene gas, hydroxylamine, magnesium

### Hazardous Decomposition Products

For dry copper sulfate solute, if heated above 400 °C., it can decompose to emit toxic fumes of sulfur oxide.

## 11. TOXICOLOGICAL INFORMATION

### Information on Likely Routes of Exposure

#### Product Information

<b>Eye Contact</b>	Avoid contact with eyes.
<b>Skin Contact</b>	Harmful in contact with skin.
<b>Inhalation</b>	Do not inhale.
<b>Ingestion</b>	Harmful if swallowed.

### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg ( Rat )	-	-
Copper sulfate (as Copper II) 7758-98-7	= 482 mg/kg ( Rat )	20 mg/kg (Rat)-	No Data Available

### Information on Physical, Chemical and Toxicological Effects

**Symptoms** Please see section 4 of this SDS for symptoms.

### Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

**Carcinogenicity** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

### Numerical Measures of Toxicity

Not determined

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Very toxic to aquatic life with long lasting effects.

### Persistence and Degradability

Not determined

**Bioaccumulation**

Not determined

**Mobility**

Not determined

**Other Adverse Effects**

Not determined

**13. DISPOSAL CONSIDERATIONS****Waste Treatment Methods****Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations. With prior approval the material can be returned to the manufacturer.

**Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**14. TRANSPORT INFORMATION****Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances. When shipped domestically in non-bulk packages weighing less than 10 lbs., product is NOT REGULATED for ground transportation. ***The following DOT description for shipping as REGULATED only applies when shipping in packages containing more than 10 lbs. of product.*** When this is the case, drivers are required to have Hazmat Certification.

**In packages less than 10 lbs. this material is not Hazardous.**

**DOT**

<b>UN/ID No</b>	UN3082
<b>Proper Shipping Name</b>	Environmentally hazardous substance, liquid, N.O.S. (Copper Sulfate)
<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b>Reportable Quantity (RQ)</b>	10 lbs.
<b>Marine Pollutant</b>	This product contains a chemical which is listed (by the DOT) as a severe marine pollutant.
<b>Emergency Response Guide No.</b>	171

**IATA**

<b>UN/ID No</b>	UN3082
<b>Proper Shipping Name</b>	Environmentally hazardous substance, liquid, N.O.S. (Copper Sulfate)
<b>Hazard Class</b>	9
<b>Packing Group</b>	III

**IMDG**

<b>UN/ID No</b>	UN3082
<b>Proper Shipping Name</b>	Environmentally hazardous substance, liquid, N.O.S. (Copper Sulfate)
<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b>Marine Pollutant</b>	This product contains a chemical which is listed (by the IMDG/IMO) as a marine pollutant.

## 15. REGULATORY INFORMATION

### International Inventories

Not Determined

#### **Legend:**

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*

*DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*

*EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

*ENCS - Japan Existing and New Chemical Substances*

*IECSC - China Inventory of Existing Chemical Substances*

*KECL - Korean Existing and Evaluated Chemical Substances*

*PICCS - Philippines Inventory of Chemicals and Chemical Substances*

### US Federal Regulations

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Cupric sulfate 7758-98-7	10 lb		RQ 10 lb final RQ RQ 4.54 kg final RQ

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Cupric sulfate	7758-98-7	23	1.0

#### **CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Cupric sulfate 7758-98-7 ( 23%)		X		

### US State Regulations

#### **California Proposition 65**

This product contains chemicals known to the State of California to cause cancer and birth defects.

### U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Zinc sulfate 7733-02-0	X	X	X

**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	2	0	0	Not determined
<b><u>HMIS</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical Hazards</b>	<b>Personal Protection</b>
	2	0	0	Not determined

Issue Date: 1-Apr-2010  
Revision Date: 30-October-2019  
Revision Note: SDS Review, Minor changes

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**