



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

General Advice	Provide this SDS to medical personnel for treatment.
Eye Contact	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.
Skin Contact	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.
Inhalation	Remove to fresh air and call a physician.
Ingestion	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

Symptoms	Harmful if swallowed. Harmful in contact with skin.
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Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physicians	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

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

Methods and material for containment and cleaning up

Methods for Containment	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.
Methods for Cleaning Up	Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling	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

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

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

Appropriate Engineering Controls

Engineering Controls	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

Eye/Face Protection	Wear safety glasses with side shields, or goggles
Skin and Body Protection	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.
Respiratory Protection	Ensure adequate ventilation, especially in confined areas.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

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

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

Eye Contact	Avoid contact with eyes.
Skin Contact	Harmful in contact with skin.
Inhalation	Do not inhale.
Ingestion	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

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

IATA

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

IMDG

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

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