



Safety Data Sheet
According to the (US) Hazard Communication Standard (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name Copper Sulfate Solution, 2% (w/v)
NCL Catalog Number C-38A
Product Description Laboratory chemical
Supplier
NCL of Wisconsin, Inc. **Telephone:** 1-800-648-7836 **Fax:** 715-449-2454
P.O. Box 8 **Emergency Contact:** 1-800-424-9300 (Chemtrec)
Biramwood, WI 54414 **Email:** nclabs@nclabs.com

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

Aquatic Acute Category 3
Aquatic Chronic Category 3

Signal Word Not applicable

Hazard Statements

H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements

P273 Avoid release to the environment.
P501 Dispose of contents/container to comply with local, state and federal regulations.

Other Hazards Not Contributing to the Classification

None under normal conditions.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identity Not applicable

Common Name Not applicable

Mixture

Name	CAS #	Approximate %
Water	7732-18-5	98
Copper (II) Sulfate, Pentahydrate	7758-99-8	2

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General First Aid Measures Never give anything by mouth to an unconscious person. Seek medical advice if you feel unwell.

If Inhaled Remove person to fresh air and keep comfortable for breathing. Allow victim to rest.

In Case of Skin Contact Remove all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell.

In Case of Eye Contact Rinse carefully with water for several minutes. Remove contact lenses, if present and easy to do. If eye irritation persists: get medical advice/attention.

If Swallowed Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Most Important Symptoms/Effects Acute and Delayed Not expected to present a significant hazard under anticipated conditions of normal use and storage.

Indication of Immediate Medical Attention and Special Treatment Needed

Seek medical attention if exposed.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media Foam. Dry powder. Sand. Carbon dioxide. Water spray.

Unsuitable Extinguishing Media Do not use high pressure water stream.

Special Hazards Arising from the Chemical No information available.

Special Protective Actions for Fire-Fighters Wear self-contained breathing apparatus and protective clothing. Keep exposed containers cool with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Use personal protective equipment (see section 8). Evacuate area of non-essential personnel. Eliminate ignition sources. Ventilate area.

Environmental Precautions Prevent entry to surface and ground waters.

Methods and Materials for Containment and Cleaning Up Clean up spill with inert absorbent material. Collect spillage. Store away from other materials. Ensure compliance with local, state and federal regulations.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling Avoid contact with eyes and skin. Avoid breathing vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Conditions for Safe Storage Including any Incompatibilities Keep in a tightly closed container, stored in a cool, dry, ventilated area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters No data available.

Appropriate Engineering Controls Material should be handled or transferred in a fume hood or with equivalent ventilation. Maintain eye-wash fountain and quick-drench facilities in work area.

Individual Protection Measures Avoid all unnecessary exposure.

Eye/Face Protection Use chemical safety goggles and /or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material.

Skin Protection Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

Respiratory Protection Wear appropriate mask.

Other Information Do not eat, drink, or smoke when using this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Color	Clear light blue
Odor	Odorless
Odor Threshold	Not determined
pH	Not determined
Melting Point/Freezing Point	Not determined
Initial Boiling Point and Boiling Range	Not determined
Flash Point	Not determined
Evaporation Rate	Not determined
Flammability (Solid, Gas)	Not determined
Upper/Lower Flammability/Explosive Limits	Not determined
Vapor Pressure	Not determined
Vapor Density	Not determined

Relative Density	1 g/ml
Solubility	Soluble in water
Partition Coefficient: n-octanol/water	Not determined
Auto-Ignition Temperature	Not determined
Decomposition Temperature	Not determined
Viscosity	Not determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Not available
Chemical Stability	Stable under ordinary conditions of use and storage.
Possibility of Hazardous Reactions	Not available
Conditions to Avoid	Extremely high or low temperatures. Heat and sunlight can contribute to instability.
Incompatible Materials	None found
Hazardous Decomposition Products	Toxic gases

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity	Not classified
Copper (II) Sulfate, Pentahydrate (7758-99-8)	
LD50 oral rat	300 mg/kg
LD50 dermal rabbit	>2000 mg/kg
Water (7732-18-5)	
LD50 oral rat	≥90000 mg/kg
Skin Corrosion/Irritation	Not classified
Serious Eye Damage/Irritation	Not classified
Respiratory or Skin Sensitization	Not classified
Germ Cell Mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive Toxicity	Not classified
Specific Target Organ Toxicity (Single Exposure)	Not classified
Specific Target Organ Toxicity (Repeated Exposure)	Not classified
Aspiration Hazard	Not classified
Potential Adverse Human Health Effects and Symptoms	No data available
Likely Routes of Exposure	Skin and eye contact
Other Information	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecology – Water Toxicity Harmful to aquatic life with long lasting effects.

Copper (II) Sulfate, Pentahydrate (7758-99-8)	
LC50 fishes 1	1.5 mg/l
EC50 daphnia 1	0.109-0.798 mg/l
LC50 fishes 2	0.17 mg/l
TLM fish 1	3.8 ppm
Threshold limit algae 1	0-01-0.28
Threshold limit algae 2	0.368 mg/l

Persistence and Degradability	Not established
Bioaccumulative Potential	Not established

Log Pow	2.449
Mobility in Soil	May be harmful to plant growth, blooming, and fruit formation.
Other Adverse Effects/Information	Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Methods of Disposal

Disposal Recommendations	Dispose of contents/containers in accordance with local, state and federal regulations.
Other Information	Avoid release to the surrounding environment.

SECTION 14: TRANSPORT INFORMATION

UN Number	Not applicable
UN Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not applicable
Transport in Bulk	Not applicable
Other Precautions	Not applicable

SECTION 15: REGULATORY INFORMATION

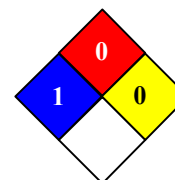
Copper (II) Sulfate, Pentahydrate (7758-99-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
Reportable Quantity	10 lb
Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

SECTION 16: OTHER INFORMATION

Revision Date: 03/25/2015

NFPA Hazards

Health Hazard	1: Exposure would cause irritation with only minor residual injury.
Fire Hazard	0: Materials that will not burn.
Reactivity/Instability	0: Stable



HMIS III Rating

Health	1: Irritation or minor reversible injury possible
Flammability	0: Materials that will not burn.
Physical Hazard	0: Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosives.
Personal Protection	A

C-38A	
Health	1
Flammability	0
Physical Hazard	0
Personal Protection	A

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END OF SAFETY DATA SHEET