



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: COPPER SULPHATE (GREEN)
SDS Number: SDS-HG4065 **Revised Date:** 21 DECEMBER 2018
Product Use: Industrial Use - Copper sulfate solution

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2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

XEye

XInhalation

XSkin

XIngestion

NTP

Carcinogen listed in

IARC

OSHA

XNot Listed

GHS



Signal Word: Danger

Hazard statement(s):

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H335 May cause respiratory irritation

H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s):

P233 Keep container tightly closed

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P270 Do not eat, drink or smoke when using this product

P273 Avoid release to the environment

P280 Wear protective gloves/protective clothing/eye protection/face protection

P362 +P364 Take off contaminated clothing and wash before reuse

P301 + P314 IF SWALLOWED: Get Medical advice/attention if you feel unwell

P302 +P352 IF ON SKIN: Wash with plenty of soap and water

P304 + 341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

P305 + 351 IF IN EYES: Rinse continuously with water for several minutes (15 mins)

Classification:

Skin corrosion –Category 1B

Serious eye damage-Category 1

Specific target organ toxicity-single exposure-Category 3, respiratory system

Acute aquatic toxicity-Category 1

Chronic aquatic toxicity-Category 1

POTENTIAL HEALTH EFFECTS:

Eye Contact: Vapors may be irritating, liquid may damage eye tissue or cause burns.

Ingestion: May result in gastric disturbances such as nausea and vomiting.

Inhalation: May cause throat irritation or burns.

Skin Contact: May cause irritation or burns.

Chronic: Not established. Copper sulfate target organ effect: liver, kidney, blood.

NOTE: The Indium Corporation does not recommend, manufacture, market or endorse any of its products for human consumption.

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: DO NOT allow material to enter sewer system or waterway. Wear personal protective equipment, such as gloves and depending on the quantity a respirator with acid vapor cartridges may be required. Clean up by absorption or neutralization. Keep unnecessary personnel away. Put clean-up materials in a properly labeled plastic/poly drum. Dispose of following all Federal, State and Local regulations. In the EU refer to the Special Waste Regulations.

7. HANDLING AND STORAGE

Handling Precautions: Keep containers tightly closed when not in use. Use care to avoid spills. Wear personal protective equipment.

Storage Precautions: Store product in tightly capped original containers in a cool, dry area. Refer to product label for specific storage temperature requirements. Rotate stock to ensure use before expiration date on the label.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Face velocity >2.1 cubic feet/minute in confined areas. Exhaust ventilation is recommended to keep exposure limits as low as possible. Use ventilation.

Personal protection:

Eyes: Chemical safety glasses/goggles. Face shield for splash hazards.

Respirator: An authority approved or compliant marked air-purifying respirator with a acid vapor chemical cartridge is recommended where airborne concentrations are expected to be elevated.

Skin: Compatible chemical resistant gloves for handling acids.

Other: Lab coat, eyewash fountain/shower unit in work area. Avoid the use of contact lenses.

Work/Hygienic Practices: Maintain good housekeeping. Clean up spills immediately. Good personal hygiene is essential. Avoid eating, smoking or drinking in the work area. Wash hands thoroughly with soap and water immediately upon leaving the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Green	Boiling Point:	212°F
Odor:	Sharp pungent	Melting Point:	N/A
Specific Gravity:	1.160 @60F	pH:	0.68 Corrosive
Vapor Pressure:	ND	Solubility in Water:	Soluble
Vapor Density:	ND	Evaporation Rate:	<1
Volatile by Volume:	80%		

10. STABILITY AND REACTIVITY

General: Stable.

Conditions to Avoid: Direct heat, open flames.

Incompatible Materials:	Strong oxidizing agents
Hazardous Decomposition / Combustion:	Hydrogen bromide
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity: **NTP:** No
 OSHA: No
 IARC: No

LD50: Not established. **LC50:** Not established.

Copper sulphate:
 LD50 Oral Rat rat – 300 mg/kg
 LD50 Intraperitoneal – rat – 20mg/kg
 LD50 Subcutaneous – rat –43 mg/kg
 Genotoxicity in vitro – rat – liver DNA damage

Signs and Symptoms of Exposure

Copper poisoning (systemic) may include: capillary damage, headache, cold sweat, weak pulse and kidney and liver damage. Chronic copper poisoning is typified by hepatic cirrhosis, brain damage and kidneys defects and copper deposition in the cornea as exemplified by humans with Wilson's disease. To the best of our knowledge the chemical, physical and toxicological properties of copper have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Product not tested.

Copper sulfate: toxicity to fish – mortality LC50 – other fish – 1.0-2.5 mg/l – 96h

Copper sulfate: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATION

Waste Disposal Method: Dispose of in accordance with all Federal, State and Local environmental regulations. In Europe follow the Special Waste Regulations.

14. TRANSPORT INFORMATION

Transport in accordance with applicable international regulations and requirements.

UN3264, Corrosive Liquid, acidic, inorganic, N.O.S., 8, PGIII (hydrochloric acid, copper sulfate)



North American Emergency Guide Book – Guide # 154

Reportable quantity Copper Sulfate: 10 lbs. If shipping amounts exceed this RQ must be added to in front of the name.

Note product contains approx 20% copper sulfate. Calculate shipping quantity to determine proper name.

IMDG:

RQ, UN3264, Corrosive Liquid, acidic, inorganic, N.O.S., 8, PGIII (hydrochloric acid, copper sulfate) (Marine Pollutant) (Copper Sulfate)

Copper Sulfate is listed as a Severe Marine Pollutant. Follow applicable shipping rules and markings.

**15. REGULATORY INFORMATION**

The information in this Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated hereunder (29 CFR 1910.1200 ET. SEQ.).

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation (CPR).



Canadian WHMIS: Class E Corrosive

This product has been classified in accordance with the guidelines set by the Dept of Industrial Health of the Republic of Singapore.

Malaysia:

This product has been classified in accordance with: Malaysian – OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATION OCTOBER 2013 – (CLASS). (GHS)

In China:

Decree No. 591: Regulations on the Control over Safety of Hazardous Chemicals

GB 30000.2-29-2013, Rules for classification and labeling of chemicals. (GHS)

GB/T 16483-2008, GB/T 17517-2013

This product has been classified using the Chinese Occupational Limit for Hazardous Agents in the Workplace, GBZ2-2007.

This product has been classified in accordance with the Mexican guidelines, NOM-018-STPS-2015 and NOM-010-STPS-2014.

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

SARA 313 Listing - 40 CFR 372.65: Copper CAS#7440-50-8

All ingredients are listed on the EPA TSCA Inventory.

Superfund Reportable Quantity (RQ): 10lbs Copper Sulfate (CuSO₄)

16. OTHER INFORMATION

HMIS Hazard Rating: **Health:** 2
 Fire: 1
 Reactivity: 0

Revised Date: 21 DECEMBER 2018

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