

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identity: CS 2005
EPA Registration Number: 66675-3

Recommended use: Fungicide/Bactericide
Restrictions on Use:

Supplier: Magna-Bon II, LLC
 1531 NW 25th Drive
 Okeechobee, FL 34972
 1-863-357-0400 // 1-800-845-1357

Emergency Phone: 1-800-424-9300 (CHEMTREC, 24 Hours)

2. HAZARDS IDENTIFICATION

OSHA Hazard Classification (29CFR1910.1200):

Physical:	Health:	Environmental:
Corrosive to Metals Category 1	Skin Corrosion Category 1C Eye Damage Category 1	Aquatic Acute Category 1 Aquatic Chronic Category 2

GHS Label Elements:
 DANGER!



Statements of Hazard

May be corrosive to metals.
 Causes severe skin burns and eye damage.
 Very toxic to aquatic life.
 Toxic to aquatic life with long lasting effects.

Prevention

Do not breathe mists.
 Wash exposed skin thoroughly after handling.
 Wear protective clothing, protective gloves, eye protection and face protection.
 Avoid release to the environment.

Disposal

Dispose of contents and container in accordance with local, regional, and national regulations.

Response

Absorb spillage to prevent material damage.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor.
IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a poison center or doctor.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.
 Collect spillage
Storage:
 Store in corrosive resistant container. Store locked up.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount
Copper sulfate pentahydrate	7758-99-8	18.81-20.79%
Trade Secret*	Proprietary	<5%

Proprietary, non-hazardous ingredients	Proprietary	>76.19%
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The specific chemical identity of ingredients listed as “trade secret” and the exact percentages are withheld in accordance with the provisions of 29CFR1910.1200.

4. FIRST AID MEASURES

Eye: Flush eyes with water for 15-20 minutes, holding the eye open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Get immediate medical attention.

Skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison center or doctor for treatment advice..

Ingestion: Call a poison center or doctor immediately for treatment advice. Have the person sip a glass of water, if able to swallow. Do not induce vomiting unless directed to do so by the poison center or doctor. Do not give anything to an unconscious person.

Inhalation: Move person to fresh air. If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison center or doctor for treatment advice.

Most important Symptoms: Causes severe skin burns and eye damage. Inhalation of mists may irritate the upper respiratory tract. Swallowing may cause irritation and burns to the gastrointestinal tract. May be harmful if swallowed.

Indication of immediate medical attention/special treatment: Immediate medical attention is recommended. Have the product container or label with you when calling a Poison Center or doctor or when going for treatment. You may also contact CHEMTREC 1-800-424-9300 for medical treatment advice.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE FIGHTING MEASURES

Suitable (and Unsuitable) Extinguishing Media: Use any media that is suitable for the surrounding fire.

Specific hazards arising from the chemical: This product is not classified as flammable or combustible. Thermal decomposition will generate copper oxides, sulfur oxides and nitrogen oxides. Releases hydrogen on reaction with metals. Hydrogen is flammable and explosive.

Special Protective Equipment and Precautions for Fire-Fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Do not allow run-off from firefighting to enter drains or water courses. Use water spray to cool fire-exposed containers.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: Evacuate spill area and keep unprotected personnel away. Do not breathe mists or vapors. Prevent contact with the eyes, skin and clothing. Wear appropriate protective clothing. Ventilate the area.

Methods and Materials for Containment and Cleaning Up: Stop the leak if it is safe to do so. Contain and collect using an inert absorbent material. Neutralize with limestone or baking soda before disposal. Place in a suitable container for disposal. Do not flush to sewer! Report releases as required by local, state and federal authorities. Contact your local pesticide, environmental control agency, or hazardous waste representative for advice.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Wear protective clothing and equipment as described in Section 8 and on the product label. Use only with adequate ventilation. Do not eat, drink or smoke when using this material. Launder contaminated clothing before re-use. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Use approved containers only. Do not use corrosion-sensitive materials such as mild steel. Do not expose containers to open flame, excessive heat, or direct sunlight. Keep material out of reach of children and pets.

Conditions for Safe Storage, Including Any Incompatibilities: Do not contaminate water, food or feed by storage or disposal. Store in a safe place away from PETS AND KEEP OUT OF THE REACH OF CHILDREN. Store away from excessive heat. CS 2005 will freeze. Always keep container closed. Store CS 2005 in its original container only. [Bulk CS 2005 shall be stored and handled in 316L stainless steel, fiberglass, PVC's, polypropylenes or plastic equipment.] Keep away from galvanized pipe and any nylon storage handling equipment.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Copper sulfate pentahydrate (as copper dusts and mists)	1 mg/m ³ TWA OSHA PEL and ACGIH TLV
Trade Secret*	0.1 mg/m ³ TWA ACGIH TLV 1 mg/m ³ TWA OSHA PEL
Proprietary, non-hazardous ingredients	None Established

Engineering Controls: Use with adequate ventilation to maintain exposures below the occupational exposure limits.

Personal Protective Equipment: Refer to the product label for additional requirements for pesticide use. Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with product's concentrate. Do not re-use them.

Respiratory Protection: In operations where exposure levels are excessive, an approved respirator with dust/mist cartridges or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

Skin Protection: Applicators and handlers should wear chemical resistant gloves and clothing.

Eye Protection: Chemical goggles and face shield.

Other: Users should: Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. User should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. User should remove PPE immediately after handling product. As soon as possible, wash thoroughly and change into clean clothing. Wash the outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing. Follow manufacturer's instructions for cleaning maintaining PPE if no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, blue liquid.

Physical State: Liquid	Odor Threshold: No data available
Odor: Mild	Particle Characteristics: Not applicable
Vapor Density: No data available	Initial Boiling Point/Range: 104.4 °C (220.0 °F)
Solubility In Water: 100%	Vapor Pressure: 0.1 mmHg @ 20°C
Relative Density: 1.18 g/mL	Evaporation Rate: No data available
Melting/Freezing Point: No data available	pH: 2.05
VOC Content: 0 g/L	Partition Coefficient n-octanol/water: No data available
Kinematic Viscosity: No data available	Decomposition Temperature: No data available
Flashpoint: No data available	Flammability (solid, gas): Not applicable
Flammable Limits: LEL: Not applicable UEL: Not applicable	Autoignition Temperature: No data available

10. STABILITY AND REACTIVITY

Reactivity: Not normally reactive

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: Reaction with metals may generate flammable hydrogen gas.

Conditions to Avoid: High temperatures. Direct sunlight.

Incompatible Materials: Strong bases, strong oxidizing agents, organic materials, Carbides, Fulminates, Picrates, Cyanides, Chlorates, Alkali Halides, Azides, Nitromethane, Phosphorous, Cyclopentadiene, Cyclopentanone Oxime, Nitroaryl Amines, Hexalithium Disilicide, Phosphorous(III) Oxide, Hydroxylamine, reactive metals (Zinc & Aluminum) and their alloys (Brass, etc.), powdered metals and metals salts. Concentrate may deteriorate concrete.

Hazardous Decomposition Products: Thermal decomposition yields oxides of nitrogen, copper and sulfur.

11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS:

Eye: Causes severe irritation and possible damage.

Skin: Causes severe irritation and burns.

Ingestion: Ingestion may cause mouth, throat and gastrointestinal burns. May be harmful if swallowed.

Inhalation: Inhalation of vapors or mists will irritate the upper respiratory tract. Sever exposure may cause lung damage.

Chronic: None known.

Sensitization: Not classified.

Carcinogenicity: None of the components present at 0.1% or greater are listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, OSHA or the EU Substance Directive.

Germ Cell Mutagenicity: Components are not germ cell mutagens.

Reproductive Toxicity: Components are not reproductive toxins.

Numerical Measures of Toxicity: Product oral ATE = 2326 mg/kg

Copper sulfate: Oral rat LD50 481 mg/kg; Dermal rabbit LD50 >2000 mg/kg

12. ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects.

Ecotoxicity:

Copper sulfate: LC50 *Pimephales promelas* 0.193 mg/L/96h; Chronic NOEC fish 0.055 mg/L; EC50 daphnia magna 0.117 mg/L/48h, Chronic NOEC daphnia magna 0.118 mg/L; ErC50 algae 0.043 mg/L/72h

Persistence and Degradability: Inorganic substances are not biodegradable.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other Adverse Effects: No data available

This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has potential for runoff for several months or more after application. Do not apply directly to water or areas where surface water is present or to intertidal areas below the mean high mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This product may contaminate water through runoff. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Waters treated with this product may be hazardous to aquatic organisms. Treatment of aquatic weeds and algae can result in oxygen loss from decomposition of dead algae and weeds. This oxygen loss can cause fish and invertebrate suffocation.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

13. DISPOSAL CONSIDERATIONS

Pesticide Disposal: Excess CS 2005 should be disposed of through label use. Do not contaminate lakes, rivers or streams as this may cause fish kill. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance

Container Recycling and Disposal Information: Non-refillable containers: Do not reuse or refill this container. Offer for recycling, if available. Do not reuse the container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. For containers 5 gallons or less: Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat two more times. For containers of more than 5 gallons, i.e. drums: Triple rinse as follows: Empty the remaining contents into the application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll back and forth, ensuring at least one complete revolution, for 30 seconds. Stand container on end and tip back and forth several times. Turn the container over on its other end and tip back and forth several times. Empty rinsate into application equipment or mix tank or store rinsate for later use or disposal. Repeat procedure two more times. For large containers, i.e. IBC's or totes: Pressure washing may be an alternative. Pressure rinsing is as follows: Empty remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after flow begins to drip. Rinsing and reuse of totes is permissible.

14. TRANSPORT INFORMATION

	UN-No.	Proper Shipping Name	Hazard Class	Packing group	Environmental hazards
DOT	UN3264	Corrosive liquid, acidic, inorganic, n.o.s. (copper sulfate pentahydrate)	8	III	Yes, RQ=52 lbs Marine Pollutant
IMDG	UN3264	Corrosive liquid, acidic, inorganic, n.o.s. (copper sulfate pentahydrate)	8	III	Marine Pollutant
IATA	UN3264	Corrosive liquid, acidic, inorganic, n.o.s. (copper sulfate pentahydrate)	8	III	No

15. REGULATORY INFORMATION

EPA FIFRA INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

DANGER, Corrosive. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking chewing gum or using tobacco. Remove and wash contaminated clothing before re-use.

US EPA TSCA Status: Pesticides are not subject to TSCA.

CERCLA 103 Reportable Quantity: This product has a RQ of 52 lbs (based on the RQ for cupric sulfate of 10 lbs). Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

Hazard Category for Section 311/312: Refer to section 2 for the OSHA Hazard Classification.

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: Copper sulfate pentahydrate (as Cu compd) 18.81-20.79%

Section 302 Extremely Hazardous Substances (TPQ): None

California Proposition 65: This product is not known to contain listed chemicals.

16. OTHER INFORMATION

SDS Date of Preparation: November 27, 2021

Disclaimer:

The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material in any process. The information set forth herein is furnished free of charge and is based on technical data that Magna-Bon II, LLC believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside of Magna-Bon II, LLC's control, Magna-Bon II, LLC makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under, or a recommendation to infringe upon, any patents.