

# Material Safety Data Sheet



Transportation and Medical Emergency Phone: **1-800-535-5053 (INFOTRAC)**

General Phone: 317-580-8282

EPA Reg. No.: 67690-37

Creation Date: 07/28/2005

Revision Date: 07/18/2006

## CuPRO\* 2005 T/N/O Fungicide/Bactericide

SePRO Corporation Carmel, IN 46032-4562

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT:** CuPRO 2005 T/N/O Fungicide/Bactericide

#### COMPANY IDENTIFICATION:

SePRO Corporation

11550 North Meridian Street, Suite 600

Carmel, IN 46032-4565

[www.sepro.com](http://www.sepro.com)

**Information Phone:** 317-580-8282 (Monday - Friday, 8:00 am to 5:00 pm EST)

### 2. HAZARDOUS IDENTIFICATIONS

#### EMERGENCY OVERVIEW

Medium-Blue Granulated Solid. Odor not determined.

- **WARNING!** Causes substantial but temporary eye injury.
- Harmful if swallowed, absorbed through skin or inhaled.
- May cause skin sensitization reactions in certain individuals.
- Avoid contact with skin, eyes and clothing.
- Avoid breathing dust.

**EMERGENCY PHONE NUMBER: 1-800-535-5053**

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component Name	CAS #	% by Wt.
Copper Hydroxide†	20427-59-2	53.8%
Inert Ingredients		46.2%
(†Metallic Copper Equivalent – 35%)		

Components not precisely identified are proprietary or not hazardous.

### 4. FIRST AID MEASURES

**EYES:** Hold eyes open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

**INGESTION:** Call a poison control center or doctor immediately for treatment advice. Have person drink a large quantity of milk, egg white, gelatin solution or if these are not available, large quantities of water. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

**INHALATION:** Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably by mouth to mouth. Call a poison control center or doctor for further treatment advice.

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

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

### 5. FIRE FIGHTING MEASURES

**FLASH POINT & METHOD:** Not determined

**FLAMMABLE LIMITS:** Not determined

**AUTO-IGNITION TEMPERATURE:** Not determined

**FIRE AND EXPLOSION HAZARDS:** Negligible fire hazard when exposed to heat or flame.

**EXTINGUISHING MEDIA:** Use dry chemicals, carbon dioxide, water spray or foam. No incompatible fire fighting media known.

**FIREFIGHTING EQUIPMENT:** Wear self-contained breathing apparatus and full protective clothing.

**HAZARDOUS COMBUSTION PRODUCTS:** Decomposes to CuO and H<sub>2</sub>O above 140°C.

### 6. ACCIDENTAL RELEASE MEASURES

**NOTE:** Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

**ACTION TO TAKE FOR SPILLS/LEAKS:** Contain and sweep up small spills. Dispose of as waste in a suitable (fiberboard) containers. Prevent runoff.

**Water Spills:** If feasible, copper may be precipitated/ultra filtrated with caustics or other chemicals and resulting sludge disposed of in a chemical landfill.

Report large spills to **INFOTRAC** and consult SePRO Corporation for assistance.

### 7. HANDLING AND STORAGE

#### HANDLING (Personnel)

**Users should:** Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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### STORAGE

Do not contaminate water, food or feed by storage. Store in a cool, dry place at a temperature below 35°C (95°F). Average shelf life under proper storage conditions is 2 years.

Keep out of reach of children.

### 8. EXPOSURE CONTROL/PERSONAL PROTECTION

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

**EXPOSURE GUIDELINES:** Copper hydroxide<sup>†</sup>: ACGIH TLV is 1 mg/m<sup>3</sup>, dusts and mists, as Cu, 8 Hr. TWA; OSHA PEL is 1 mg/m<sup>3</sup>, dusts and mists, as Cu, 8 Hr. TWA; AEL<sup>††</sup> is 1.5 mg/m<sup>3</sup>, 8 and 12 Hr. TWA (approximately 1 mg/m<sup>3</sup>, as Cu).

<sup>†</sup>Metallic Copper Equivalent = 35%

<sup>††</sup>AEL = Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits, which are lower than the AEL are in effect, such limits shall take precedence.

**PESTICIDE APPLICATORS & WORKERS:** Refer to the product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170.

### MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

- **VENTILATION:** Control enclosed spaces with adequate ventilation to prevent exceedance of ACGIH TLV or OSHA PEL.
- **RESPIRATORY PROTECTION:** In enclosed spaces where the TLV or PEL may be exceeded, wear NIOSH/OSHA approved dust or mist respirator.
- **EYE/FACE PROTECTION:** Wear safety glasses to prevent contact with this substance.

**PERSONAL PROTECTIVE EQUIPMENT:** Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instruction for Category A on an EPA chemical-resistant category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber, or butyl rubber.
- Shoes plus socks.
- Protective eyewear.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Follow manufacturer's instruction for cleaning /maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours without required PPE.

The following equipment and precautions must be followed for 7 days following the application of this product:

- An eye-flush container, designed specifically for flushing eyes, must be available at the WPS decontamination site for workers entering the area treated with copper hydroxide.
- Notify workers of the application by warning them orally that residue in the treated areas may be highly irritating to their eyes and to take precautions such as refraining from rubbing their eyes and if they get residues in their eyes they should immediately flush their eyes using the eye-flush container.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber, or butyl rubber.
- Shoes plus socks.
- Protective eyewear.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**COLOR:** Medium blue

**PHYSICAL STATE:** Granulated solid

**ODOR:** Not determined

**VAPOR PRESSURE:** Not determined

**DENSITY:** 1.0417 g/mL

**SOLUBILITY IN WATER:** 2.9 mg/L (copper hydroxide)

**pH:** 8.61

**BOILING POINT:** Not determined

**MELTING POINT:** Decomposes at >140°C

### 10. STABILITY AND REACTIVITY

**STABILITY** Stable under normal storage conditions.

**INCOMPATIBILITY (Specific materials to avoid):** None known

**HAZARDOUS DECOMPOSITION PRODUCTS:** Decomposes to CuO and H<sub>2</sub>O above 140°C.

**HAZARDOUS POLYMERIZATION:** Material not known to polymerize.

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### 11. TOXICOLOGICAL INFORMATION

**POTENTIAL HEALTH EFFECTS:** This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

**EYES:** Eye contact may cause substantial, but temporary eye injury.

**SKIN:** No adverse effects are expected from incidental skin contact. While there are no reports of human sensitization with this product, there are inconclusive or unverified reports of human sensitization with the active ingredient, copper hydroxide. This product was not a skin irritant or skin sensitizer in animals. Acute dermal LD<sub>50</sub> > 5,000 mg/kg.

**INGESTION:** Ingestion may cause nonspecific discomfort, such as nausea, weakness, or central nervous system depression, which; if severe enough may lead to death. This product did not produce any adverse effects at 1000 mg/kg in a 28-day oral feeding study in rats. Oral LD<sub>50</sub> = 1,346 mg/kg. Repeated oral ingestion of copper hydroxide via gavage produced reduced body weights and food consumption at 15 mg/kg/day and mortality at 30 mg/kg/day in rabbits.

**INHALATION:** Inhalation may cause irritation of the upper respiratory passages, with coughing. Acute inhalation LC<sub>50</sub> = 1311 mg/m<sup>3</sup> in rats (4 hour).

**CARCINOGENICITY:** None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen. No animal data are available to define the carcinogenic hazards of this product or Copper Hydroxide.

**NOTE:** No animal data are available to define the mutagenic, developmental or reproductive hazards of this product or Copper Hydroxide. Animal data show developmental effects only at exposure levels producing other toxic effects in the adult animal.

### 12. ECOLOGICAL INFORMATION

#### ECOTOXICOLOGY

Test Type	Species	Value
Aquatic LC <sub>50</sub> (96 hr)	Rainbow Trout	7.99 mg/L
Aquatic EC <sub>50</sub> (48 hr)	<i>Daphnia magna</i>	1.61 mg/L
Aquatic EC <sub>50</sub> (96 hr)	Freshwater algae	0.0157 mg/L
Avian Acute oral LD <sub>50</sub>	Bobwhite Quail	722 mg/kg
Avian Acute oral LD <sub>50</sub>	Honeybee	8.15 ug/be

### 13. DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL:** Do not contaminate water, food, or feed by disposal. Comply with appropriate disposal regulations. Landfill solids at permitted sites. Use registered transporters.

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to fish and aquatic organisms. DO NOT apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not contaminate water by disposal of equipment washwaters.

**CONTAINER DISPOSAL:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay of out smoke.

**PESTICIDE DISPOSAL:** 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 Environment Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### 14. TRANSPORT INFORMATION

Department of Transportation (DOT)	Not Regulated unless shipped in bulk or by water.
International Maritime Organization (IMO)	Regulated <sup>†</sup>
International Air Transport Association (IATA)	Not Regulated

#### IMO<sup>†</sup>/IMDG:

**Proper Shipping Name:** Organotin Pesticides, Solid, Toxic

Class 9  
Identification No. UN 3077  
Packing Group III  
Special Notes MARINE POLLUTANT

For additional shipping information contact SePRO Corporation at 317-580-8282 and speak with the Logistics Manager.

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### 15. REGULATORY INFORMATION

**NOTICE:** The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

#### U.S. REGULATIONS

**SARA TITLE III, SECTION 313:** This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

Chemical Name	CAS Number	Concentration
Metallic copper*	7440-50-8	35.0%

**SARA HAZARD CATEGORY:** This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An Immediate Health Hazard

**OSHA HAZARD COMMUNICATION STANDARD:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

#### COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, OR

**SUPERFUND):** This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA which may require reporting of releases:

Chemical Name	CAS NO.	RQ
Metallic copper	7440-50-8	5000

#### RESOURCE CONSERVATION AND RECOVERY ACT (RCRA):

To the best of our knowledge, this product does not meet the characteristic definition of ignitability, corrosivity or reactivity and is not listed in 40 CFR 261.33.

**STATE RIGHT-TO-KNOW:** The following product component(s) are cited on the hazardous substance list(s) in the states indicated below. Non-listed components may be shown in the composition section of the MSDS.

Chemical Name	CAS Number
Metallic copper*	7440-50-8
(*from Copper hydroxide)	

- **California** – Listed under copper (CAS No. 7440-50-8) with footnotes referencing above federal standards.
- **New Jersey** – Footnotes reference above federal standards plus listing of copper on the New Jersey Environmental Hazardous Substances List (NJ Department of Environmental Protection, Title 7 New Jersey Administrative Code (NJAC) Chapter 1G).
- **Massachusetts** – Listed as copper (CAS No. 7440-50-8) and copper-based pesticide, solid, toxic (no CAS No. assigned).
- **Pennsylvania** – Listed as copper fume or dust (CAS No. 7440-50-8) as an environmental hazard.

#### NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 701) and HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS):

(4=Extreme; 3=High; 2=Moderate; 0=Insignificant)

Category	Rating
Health	2
Flammability	1
Reactivity	0

### 16. OTHER INFORMATION, USES AND RESTRICTIONS

**MSDS STATUS:** New – 07/28/2005  
Revised – 07/18/2006: All Sections

The information in this Material Safety Data Sheet relates to this specific material. It may not be valid for this material if used in combination with any other materials or in any process. It is the users' responsibility to satisfy themselves as to the suitability and completeness of this information for their own particular use.

**The Information Herein Is Given In Good Faith, But No  
Warranty, Express or Implied, Is Made. Consult SePRO  
Corporation for Further Information.**