

Material Safety Data Sheet



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

General Phone: 317-580-8282

EPA Reg. No.: 67690-37

Revision Date: 12/23/2008

CuPRO* 2005 T/N/O Fungicide/Bactericide

SePRO Corporation Carmel, IN 46032-4565

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

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

2. HAZARDOUS IDENTIFICATIONS

EMERGENCY OVERVIEW

- **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

POTENTIAL HEALTH EFFECTS: No adverse effects are expected from incidental skin contact. While there are no reports of human sensitization with CuPRO 2005, there are inconclusive or unverified reports of human sensitization with the active ingredient, copper hydroxide.

Eye contact may cause substantial, but temporary eye injury.

Inhalation may cause irritation of the upper respiratory passages, with coughing.

Ingestion may cause nonspecific discomfort, such as nausea, or weakness, central nervous system depression, which, if severe enough, may lead to death.

CARCINOGENICITY INFORMATION: 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.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component Name	CAS #	%
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

IF IN 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.

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

IF INHALED: 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.

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

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For medical emergencies involving this product, call toll free **1-800-535-5053**. See label for additional precautions and *Directions for Use*.

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 FIGHTING HAZARDS & PROCEDURES

GENERAL HAZARD: Negligible fire hazard when exposed to heat or flame.

EXTINGUISHING MEDIA: Use dry chemicals, CO₂, water spray or foam. No incompatible fire fighting media known.

FIRE FIGHTING EQUIPMENT: Wear protective clothing and self-contained breathing apparatus.

HAZARDOUS COMBUSTION PRODUCTS: Decomposes to CuO and H₂O above 140°C.

Material Safety Data Sheet



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

General Phone: 317-580-8282

EPA Reg. No.: 67690-37

Revision Date: 12/23/2008

CuPRO* 2005 T/N/O Fungicide/Bactericide

SePRO Corporation Carmel, IN 46032-4565

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.

SPILL CLEAN UP:

Land Spill: Sweep up and place in suitable (fiberboard) containers for later disposal.

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

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.

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.

Do not store near feed, food or within reach of children.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING CONTROLS:

PESTICIDE APPLICATORS & WORKERS

These workers must 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, & PACKAGING WORKERS:

Ventilation: Control enclosed spaces with adequate ventilation to prevent exceedances 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 Protection: Wear protective eyewear 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; and
- 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; and
- Protective eyewear.

EXPOSURE GUIDELINES:

Copper hydroxide

- PEL (OSHA): 1 mg/m³, dusts and mists, as Cu, 8 Hr. TWA
- TLV (ACGIH): 1 mg/m³, dusts and mists, as Cu, 8 Hr. TWA
- AEL (TWA)[†]: 1.5 mg/m³, 8 & 12 Hr. TWA (approximately 1 mg/m³, as Cu).

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

Material Safety Data Sheet



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

General Phone: 317-580-8282

EPA Reg. No.: 67690-37

Revision Date: 12/23/2008

CuPRO* 2005 T/N/O Fungicide/Bactericide

SePRO Corporation Carmel, IN 46032-4565

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

CHEMICAL STABILITY

GENERAL: This material is stable under normal storage conditions.

INCOMPATIBLE MATERIALS: None known

HAZARDOUS DECOMPOSITION: Decomposes to CuO and H₂O above 140°C.

HAZARDOUS POLYMERIZATION: Material not known to polymerize.

11. TOXICOLOGICAL INFORMATION

For CuPRO 2005 T/N/O:

Oral LD₅₀: 1,346 mg/kg in rats
Dermal LD₅₀: > 5,000 mg/kg in rabbits
4-Hour Inhalation LC₅₀: 1,311 mg/m³ in rats

CuPRO 2005 T/N/O caused substantial, but temporary eye injury. It was not a skin irritant or skin sensitizer in animals.

CuPRO 2005 T/N/O did not produce any adverse effects at 1,000 mg/kg in a 28-day oral feeding study in rats.

No animal data are available to define the carcinogenic, mutagenic, developmental, or reproductive hazards of CuPRO 2005 T/N/O.

For Copper Hydroxide:

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.

No animal data are available to define carcinogenic, reproductive, or mutagenic hazards of copper hydroxide. Animal data show developmental effects only at exposure levels producing other toxic effects in the adult animal.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGY INFORMATION

Test Type	Species	Value
Aquatic LC ₅₀ (96 hr)	Rainbow Trout	7.99 mg/L
Aquatic EC ₅₀ (48 hr)	<i>Daphnia magna</i>	1.61 mg/L
Aquatic EC ₅₀ (96 hr)	Freshwater algae	0.0157 mg/L
Avian Acute oral LD ₅₀	Quail	722 mg/kg
Avian Acute oral LD ₅₀	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 out of 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 by DOT unless shipped in bulk or by water.
See IMO/IMDG description.

IMO/IMDG:

Proper Shipping Name: Environmentally Hazardous Substance, Solid, n.o.s., (Copper Hydroxide).

Hazard Class: 9

UNNA Number: UN 3077

Packing Group: III

Marine Pollutant: Yes

Reportable Quantity: Not

IATA/IAO:

Not regulated

Material Safety Data Sheet



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

General Phone: 317-580-8282

EPA Reg. No.: 67690-37

Revision Date: 12/23/2008

CuPRO* 2005 T/N/O Fungicide/Bactericide

SePRO Corporation Carmel, IN 46032-4565

15. REGULATORY INFORMATION

SARA TITLE III:

311/312 Hazard Categories: This product has been reviewed according to the EPA "Hazard Categories" and is categorized as an acute health hazard (40 CFR 370.41).

313 Reportable Ingredients: This product contains a percentage of metallic copper (CAS No. 7440-50-8) that is listed in Section 313 above de minimis concentrations.

OSHA: This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

TSCA: All product components are on the TSCA Chemical Inventory.

CERCLA: Reportable quantity under CERCLA is 5,000 lbs. for copper (CAS No. 7440-50-8). No reportable quantities found for copper containing pesticide (CAS No. 10290-12-7) or copper hydroxide (CAS No. 20427-59-2). No reportable quantities found for other components of this product.

RCRA: When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity or reactivity and is not listed in 40 CFR 261.33.

STATE REGULATIONS:

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.

16. OTHER INFORMATION

NFPA, NPCA-HMIS:

Hazard Classification: (0 - minimal, 1 - slight, 2 - moderate, 3 - serious, 4 - severe)

NFPA: Health - 2, Fire - 1, Reactivity - 0

HMIS: Health - 2, Fire - 1, Reactivity - 0

MSDS STATUS:

Revised – 12/23/2008 (DP090208)

Sections: 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 14, 15, 16

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not related to use in combination with any other material or in any process.

The information herein is given in good faith, but no warranty, express or implied, is made. Consult SePRO Corporation for further information.