

# SA-50 BRAND LIQUID COPPER FUNGICIDE MATERIAL SAFETY DATA SHEET

## Manufacturer's Name & Address

Southern Agricultural Insecticides, Inc.  
P.O. Box 218, Palmetto, Fla. 33561

Phone: 941-722 3285  
Chemtrec: 1-800-424-9300

## I. NOMENCLATURE

**Product Name:** LIQUID COPPER FUNGICIDE  
**Chemical Name:** Copper Ammonium Complex  
**Chemical Family:**

EPA Reg. No. 10465-3-829

## II. INGREDIENTS

Copper ammonium complex 5-10% CAS No. 23087-46-9 T.L.V. N.A.

## III. PHYSICAL PROPERTIES

**Boiling Point:** > 100° C (>212°F) **Specific Gravity@ 15°C (59°F):** 1.16  
**Percent Volatile:** (by volume) N/A **Vapor Density:** Not established.  
**Evaporation Rate (n-BuAc=1):** Similar to water. **Vapor Pressure:** Not established.  
**Freezing Point or Range:** < 0°C (< 32°F) **Solubility In Water:** Completely  
**pH@ 15°C (59°F):** Not established.  
**Appearance/Odor:** Dark blue, aqueous liquid with an odor of vinegar.

## IV. FIRE AND EXPLOSION DATA

**Flash Point:** Not flammable.  
**Autoignition Temperature:** Not flammable.  
**Flammable Limits (in air volume, %):** **Lower (LEL):** Not applicable.  
**Upper (UEL):** Not applicable.

### **Fire Extinguishing Materials:**

**Water Spray:** Yes **Carbon Dioxide:** Yes  
**Foam:** Yes **Dry Chemical:** Yes  
**Halon:** Yes **Other:** Any "ABC" Class.

**Special Fire Fighting Procedures:** Incipient fire responders should wear eye protection. Structural fire fighters must wear Self-Contained Breathing Apparatus and full protective equipment. Chemical resistant clothing may be necessary. Move containers from fire if they have not been exposed to heat and if it can be done without risk to personnel. If this product is involved in a fire, fire run-off water should be contained to prevent possible environmental damage. Rinse contaminated equipment thoroughly before returning to service.

**Unusual Fire and Explosion Hazards:** When involved in a fire, this material may decompose and produce copper compounds, ammonia, and nitrogen oxides.

**Explosion Sensitivity to Mechanical Impact:** Not sensitive.

**Explosion Sensitivity to Static Discharge:** Not sensitive.

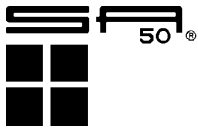
## V. FIRST AID

**First Aid for EYE Exposure:** If this product liquid or vapors enter the eyes, open victim's eyes while under gentle running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Victim must seek immediate medical attention.

**First Aid for SKIN Exposure:** If this product contaminates the skin, immediately begin decontamination with running water. Minimum flushing for 15 minutes. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victim must seek immediate medical attention.

**First Aid for INHALATION:** If vapors, mists, or sprays of this product are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers.

**FIRST AID IF SWALLOWED:** Call a physician or poison control center immediately for the most current information. Victim should drink milk, egg whites, or large quantities of water. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow.



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**Symptoms of Overexposure:** Depending on the duration of contact, overexposure can cause mild to moderate irritation of the respiratory system, skin and eyes.

**Chronic:** Prolonged or repeated skin contact can lead to dermatitis and skin sensitization reactions (e.g., rashes, welts). Liver and kidney disorders, and adverse effects on the lungs, may also occur as a result of chronic exposure.

### VI. REACTIVITY

**Stability:** Stable

**Materials with which Substance is Incompatible:** Many copper compounds form highly unstable acetylides. This solution will not be compatible with strong oxidizers and water-reactive materials.

**Hazardous Decomposition Products:** Copper compounds, ammonia, and nitrogen oxides.

**Hazardous Polymerization:** Will not occur.

**Conditions to Avoid:** Extreme heat and contact with incompatible chemicals.

### VII. SPILL OR LEAK PROTECTION

**Steps To Be Taken If Spilled:** Remove liquid or solidify with absorbent. Contact local, State, and Federal agencies regarding appropriate steps, if spill enters waste treatment plant or stream.

**Waste Disposal:** Remove to an approved landfill for proper disposal.

Product is not listed by EPA in CFR 261.33

### VIII Special Protection

**Respiratory:** Type/Conditions

**Ventilation:** No special requirements necessary. Avoid breathing vapors.

**Gloves:** Not known to be necessary. Should be worn with repeated or prolonged contact.

**Eye Protection:** X Yes No.

**Other Protective Equipment:** Clean clothing

### IX. SPECIAL PRECAUTIONS

**Handling Precautions:** Wash hands after handling this product. Do not eat, drink, smoke or apply cosmetics while handling this product. All work practices should minimize the generation of splashes and aerosols. Remove contaminated clothing immediately.

**Storing and Handling:** All employees who handle this material should be trained to handle it safely. Avoid breathing vapors or mists generated by this product. Use in a well-ventilated location. Open containers slowly, on a stable surface. Containers of this product must be properly labeled. Empty containers may contain residual liquid or vapors therefore, empty containers should be handled with care.

Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials. Material should be stored in secondary containers, or in a dike area, as appropriate. Keep container tightly closed when not in use. Use corrosion-resistant structural materials, lighting, and ventilation systems in the storage area. Floors should be sealed to prevent absorption of this material. If appropriate, post warning signs in storage and use areas. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.

### X EXPOSURE CONTROLS - PERSONAL PROTECTION

**Eye Protection:** Splash goggles or safety glasses.

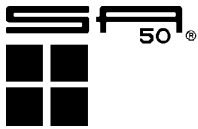
**Hand Protection:** Wear neoprene or rubber gloves for routine industrial use. Use triple gloves for spill response.

**Body Protection:** Use body protection appropriate for task. An apron, or other impermeable body protection is suggested. Full-body chemical protective clothing is recommended for emergency response procedures.

### XI TOXICOLOGICAL INFORMATION

**Medical Conditions Aggravated by Exposure:** Pre-existing dermatitis, other skin disorders, and disorders affecting the Target Organs, respiratory diseases may be aggravated by overexposure to this product.

**Recommendations to Physicians:** Treat symptoms and eliminate overexposure.



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## XII ECOLOGICAL INFORMATION

**Environmental Stability:** The components of this product are relatively stable under ambient, environmental conditions. Additional environmental data for compounds which can be released from this product are available as follows:

**Copper:** Solubility: Insoluble. There is no evidence of any biotransformation for copper compounds. Copper is accumulated by all plants and animals. BCF Algae = 12; plants = 1,000; invertebrate = 1,000, fish = 667 and fish = 200 (Soluble copper salts).

## XIII TRANSPORTATION INFORMATION

This material is not hazardous as defined by 49 cfr 172.101 by the US Department of Transportation.

**Proper Shipping Name:** Not applicable.

**Hazard Class Number and Description:** Not applicable.

**UN Identification Number:** Not applicable.

**Packing Group:** Not applicable.

**DOT Label(s) Required:** Not applicable.

**North American Emergency Response Guidebook Number 1996:** Not applicable.

**Marine Pollutant:** No component of the product is designated by the DOT to be Marine Pollutant (per 49 CFR 172.101, Appendix B).

## XIII REGULATORY INFORMATION

**U.S. SARA Reporting Requirements:** This product is subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the superfund Amendments and Reauthorization Act., as follows:

CHEMICAL NAME	SARA 302 (40 cfr 355, Appendix A)	SARA 304 (40 CFR Table 302.4)	SARA 313 (40CFR 372.65)
Copper Ammonium Complex	NO	YES(as a copper compound)	YES(as a Copper Compound)