

MATERIAL SAFETY DATA SHEET

LIQUI-COP

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Issue Date: 03/00

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Product

LIQUI-COP

EPA Reg. No. 54705-7

Common Name: Liquid fungicide.

Chemical Description: Copper ammonium complex.

TSCA/CAS No.: This primary CAS number is 23087-46-9.

Manufactured For

Lawn & Garden Products, Inc.

P. O. Box 35000

Fresno, CA 93745-5000

Emergency Phone Numbers

Emergency Telephone: DAYS: (559) 499-2100 EVES.: (559) 435-2163

CHEMTREC (24-Hour Emergency Number): (800) 424-9300

EPA National Response Center: (800) 424-8802

SECTION 2. HAZARDOUS INGREDIENTS

CHEMICAL	CAS NO.	%	TLV OR PEL	RQ (lbs)
Copper ammonium complex	23087-46-9	5 - 10	N.A.*	N.P.*

* N.A. - Not Available.

* N.P. - Not Pertinent.

SECTION 3. EMERGENCY/HAZARDS OVERVIEW

Dark blue liquid with vinegar odor. Mild irritation to eyes, skin and other contaminated tissue. May cause some skin sensitization in certain individuals. Non-flammable or reactive. Not D.O.T. regulated.

HEALTH: 2

REACTIVITY: 0

FLAMMABILITY: 0

ENVIRONMENT: 1

(0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme)

SECTION 4. FIRST AID

Eyes: Flush immediately with water for at least 15 minutes. Seek medical attention.

Skin: Wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Seek medical attention.

Ingestion: Call a physician or Poison Control Center immediately. Do not induce vomiting unless so advised by physician or Poison Control Center. Victim should drink milk, egg whites, or large quantities of water to dilute. Do not induce vomiting or give anything by mouth to an unconscious person.

Inhalation: Move to fresh air. If breathing becomes difficult, call a physician.

SECTION 5. FIRE AND EXPLOSION HAZARDS

Flash Point:	Not flammable.
Test Method:	Not pertinent.
LEL Flammable Limits:	Not pertinent.
UEL Flammable Limits:	Not pertinent.
Autoignition Temperature:	Not pertinent.
Flammability Classification:	Not flammable.
Known Hazardous Products of Combustion:	Not known.
Properties that Initiate/Contribute to Intensity of Fire:	None.
Potential For Dust Explosion:	None.
Reactions that Release Flammable Gases or Vapors:	Not known.
Potential For Release of Flammable Vapors:	None.
Unusual Fire & Explosion Hazards:	When heated to decomposition, this product may emit copper compounds, ammonia, and nitrogen oxides.
Extinguishing Media:	Dry chemical, CO ₂ , halon, foam, water.
Special Firefighting Procedures:	Wear positive pressure, self-contained breathing apparatus and goggles. Avoid smoke inhalation. Contain any liquid runoff.

SECTION 6. SPILLS AND LEAKS

Containment:	Prevent product spillage from entering drinking water supplies or streams.
Clean Up:	Collect liquid or absorb onto absorbent material and package for disposal.
Evacuation:	Not necessary.

SECTION 7. STORAGE AND HANDLING

Storage:	Store in plastic or stainless steel container in a cool, well-ventilated, dry place at temperatures above 40°F. Do not store in contact with aluminum or copper. Do not store near food or feeds. Do not stack pallets more than two (2) high.
Transfer Equipment:	Transfer product using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc.
Work/Hygienic Practices:	Keep out of reach of children. Avoid contact with eyes, skin and clothing. Avoid inhalation of spray mists. Wash thoroughly with soap and water after handling.

SECTION 8. PERSONAL PROTECTIVE EQUIPMENT

Eyes:	Chemical dust/splash goggles or full-face shield to prevent eye contact. As a general rule, do not wear contact lenses when handling.
Skin:	Impervious gloves and clothes.
Respiratory:	Not normally needed. If use generates an aerosol mist or respiratory irritation, use NIOSH-approved dust/mist respirator (such as 3M #8710).
Ventilation:	Recommended but no TLV established.

SECTION 9. PHYSICAL AND CHEMICAL DATA

Appearance:	Dark blue liquid.
Odor:	Mild vinegar odor.
pH:	Not established.
Vapor Pressure:	Not established.
Vapor Density (Air = 1):	Not established.
Boiling Point:	> 100°C (> 212°F)
Freezing Point:	Not available.
Water Solubility:	Complete.
Density:	9.67 lbs./gal.
Evaporation Rate:	Similar to water.
Viscosity:	Not available.
% Volatile:	Not available.
Octanol/Water Partition Coefficient:	Not available.
Saturated Vapor Concentration:	Not available.

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable.
Conditions To Avoid:	Extreme heat and contact with incompatible chemicals.
Incompatibility:	Many copper compounds form highly unstable acetylides. Not compatible with strong oxidizers and water-reactive materials.
Hazardous Decomposition Products:	Copper compounds, ammonia and nitrogen oxides.
Hazardous Polymerization:	Will not occur.

SECTION 11. POTENTIAL HEALTH EFFECTS

<u>Acute Effects:</u>	
Eyes:	Mild irritant. May cause redness.
Skin:	Mild irritant. May cause redness and/or cracked skin.
Ingestion:	May cause vomiting, weakness, abdominal cramps, headache, diarrhea, nausea and dizziness.
Inhalation:	May cause congestion of the nasal mucous membranes and, on occasion, ulceration with perforation of the nasal septum.
<u>Subchronic Effects:</u>	None known.
<u>Chronic Effects:</u>	Prolonged contact with skin may lead to dermatitis. Chronic inhalation may lead to ulceration and perforation of the nasal septum. Chronic exposures may cause a problem with individuals with Wilson's disease. Wilson's disease is a potentially fatal condition in which an individual's body stores excessive amounts of copper.

SECTION 12. ECOLOGICAL INFORMATION

Algal/Lemna Growth Inhibition:	Toxic.
Toxicity to Fish and Invertebrates:	Toxic.
Toxicity to Plants:	Toxic.
Toxicity in Birds:	Toxic.

SECTION 13. DISPOSAL

Do not contaminate lakes, streams, ponds, estuaries, oceans or other waters by discharge of waste effluents or equipment washwaters. Dispose of waste effluents according to state and local regulations. Also, chemical additions or other alterations of this product may invalidate any disposal information in this MSDS. Therefore, consult local waste regulators for proper disposal. Do not discharge.

SECTION 14. TRANSPORTATION

D.O.T.:	Not D.O.T. Regulated.
Other Shipping Description:	Insecticides or Fungicides, Liquid. NMFC Item 102120, LTL Class 60

SECTION 15. REGULATORY INFORMATION

CERCLA: None.

SARA TITLE III, Section 313 Toxic Chemicals: Copper compounds (5 - 10%).

Proposition 65: None.

SECTION 16. OTHER

All information appearing in this document was based on data provided by third party sources and was compiled to comply with the Federal Hazard Communication Standard and the California Hazardous Substances Information and Training Act. The information is believed to be accurate as of the preparation date, but is not warranted as being the final authority in the use of this product. This information does not purport to be legal or medical advice.