

Material Safety Data Sheet

1. Product and Company Identification

Effective Date: 05-04-2004

Revision: 00

Copper 7, Copper Algaecide, Algitec Plus

Principal Use: Algaecide

Description: Dark blue liquid

N. Jonas and Co., Inc.

4520 Adams Circle

P.O. Box 425

Bensalem, PA 19020-0425

Telephone: (215) 639-8071

Only in the Event of a Transportation Emergency Involving Spills, Leaks, Fires or Accidents, call CHEMTREC at (800) 424-9300.

2. Composition/Information on Ingredients

<u>Ingredients:</u>	<u>%(w/w)</u>	<u>OSHA PEL</u>
Elemental copper from copper triethanolamine complex	8.0	Not Listed

Ingredients not precisely identified are proprietary or non hazardous. Values are not product specifications.

3. Hazards Identification

Emergency Overview

Appearance:

Dark blue liquid

Physical Hazards:

None

Health Hazards:

May cause moderate irritation to the eyes.

* Hazard summary defined by OSHA Hazard Comm. Std., 29 CFR 1910.1200.

Potential Health Effects:

General:

This health hazard assessment based on information from commercial and scientific literature.

Ingestion:

Slightly toxic if swallowed.

Eye Contact:

Considered to be a moderate irritant.

Skin Contact:

Considered to be a negligible irritant to the skin of a rabbit.

Skin Absorption:

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Moderately toxic dermally.

Inhalation:

May be toxic if mists are inhaled.

4. First Aid Measures:

First Aid - Eyes:

Hold eyelids open and flush with water for 15-20 minutes until no evidence of chemical remains. Get professional medical attention if irritation persists.

First Aid - Skin:

Remove contaminated clothing and shoes. Wash with plenty of soap and water for 15-20 minutes until no evidence of chemical remains. Get professional medical attention if irritation persists.

First Aid - Ingestion:

If ingested, contact physician or call Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Get professional medical attention.

First Aid - Inhalation:

Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth.

5. Fire Fighting Measures

Flashpoint and Method:

Will not flash.

Autoignition Temperature:

Not applicable.

Explosive Limits:

Not applicable.

General Hazards:

Prevent human exposure to fire, smoke, flames or products of combustion.

Fire Fighting Instructions:

Use media suitable for surrounding fire.

Fire Fighting Equipment:

Self-contained breathing apparatus with full facepiece and protective clothing.

Hazardous Combustion Products:

Decomposes above 200 deg. C.

6. Accidental Release Measures

Spill Measures:

Cover the spill with an absorbent material such as sweeping compound or lime. Sweep up and place in suitable (fiberbord) containers for later disposal.

7. Handling and Storage

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Handling:

Wear skin and eye protective equipment. Avoid breathing vapors or spray mists.

Storage:

Store in a clean, dry area. Do not store near feed, food or within reach of children. Store below 35 deg. C. (95 deg.F). Decomposed above 200 deg. C. Average shelf life under proper storage is two years.

8. Exposure Controls/Personal Protection

Exposure Guidelines:

No ACGIH TLV or OSHA PEL assigned to this product. Minimize exposure in accordance with good hygiene practice.

Engineering Controls:

Use ventilation adequate to maintain safe levels. Provide eyewash station and safety shower in work area.

Respiratory Protection:

Wear dual cartridge respirator for dusts and mists.

Protective Clothing:

Wear rubber gloves.

Eye Protection:

Wear protective eyewear to prevent contact with this substance.

9. Chemical and Physical Properties

<u>Appearance:</u>	Dark blue liquid
<u>Boiling Point:</u>	Loses water and decomposes at high temperatures
<u>Vapor Pressure:</u>	No appreciable vapor pressure. Open containers can lose small amounts of water by volatilization.
<u>Vapor Density:</u>	No data
<u>Solubility in Water:</u>	Soluble in water and alcohols
<u>pH:</u>	8.4
<u>Specif. Grav./Density:</u>	1.18
<u>% Volatile:</u>	82

10. Stability and Reactivity

Stability:

Stable under normal conditions.

Incompatibility:

Do not use where pH of water is below 6. Copper chelate may dissociate and release copper ions which could subsequently be precipitated as insoluble copper salts. Should not be applied when water temperature is below 60 deg. F.

Hazardous Decomposition Products:

Decomposes above 200 deg. C.

Hazardous Polymerization:

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Will not occur.

11. Toxicological Information

Possible Human Health Effects:

Inhalation:

Acute inhalation LC50 = 0.4 mg/L (rat - 4 hour mist). May be toxic if mists are inhaled.

Skin Contact:

Considered to be a negligible irritant to the skin of a rabbit.

Eye Contact:

Moderately irritating to the eyes.

Ingestion:

Oral LD50 = 1.312 mg/kg. Slightly toxic if swallowed.

Other Effects of Overexposure:

None known

Note to Physician:

Not applicable

12. Ecological Information

This product is completely soluble in water. Care should be taken to minimize release of undiluted product into the environment.

13. Disposal Consideration

Disposal Method:

Discarded product is not a hazardous waste under RCRA, 40 CFR 261.

Container Disposal:

Empty container retains product residue. Observe all hazard precautions. Do not distribute, furnish, reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy container before disposal.

14. Transport Information

DOT Hazard Description:

Not regulated

15. Regulatory Information

TSCA (Toxic Substances Control Act) Regulations, 40 CFR 710:

All ingredients are listed on the TSCA Chemical Substances Inventory.

CERCLA and SARA Regulations (40 CFR 355, 370, 372):

This product does not contain any chemicals subject to the reporting requirements of SARA Section 313.

California Proposition 65:

None

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16. Other Information

The information herein is given in good faith, but no warranty, expressed or implied, is made.

HMIS and NFPA Ratings

<u>Hazard:</u>	<u>HMIS Ratings:</u>	<u>NFPA Ratings:</u>
<u>Health:</u>	1	1
<u>Flammability:</u>	1	1
<u>Reactivity:</u>	0	0

<u>HMIS and NFPA Hazard Rating Codes:</u>
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0 - Least	1 - Slight	2 - Moderate	3 - High	4 - Severe
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NOTE: These HMIS and NFPA Ratings are for "new" product. See appropriate sections of this MSDS for specific hazard information and safe handling instructions.