

## NEUTRAL COPPER FUNGICIDE MATERIAL SAFETY DATA SHEET

Manufacturer's Name & Address  
Southern Agricultural Insecticides, Inc.  
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### I HAZARD CLASSIFICATION

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

NFPA

HEALTH-2 FIRE-1 REACTIVITY-1

HMIS

HEALTH-2 FIRE-1 REACTIVITY-1

### II NOMENCLATURE

Product Name: NEUTRAL COPPER FUNGICIDE E.P.A.REG.NO. 829-258  
Chemical Name: Copper sulfate, basic  
Synonyms: Tri-Basic Copper Sulfate, Basic Copper Sulfate, Fixed Copper

### III INGREDIENTS

Copper sulfate, basic	98%	CAS No.1332-14-5	ACGIH (TLV)/OSHA (PEL)
Copper as Cu*	53%	CAS No. 7440-50-8	dust/mist as Cu 1 mg/m <sup>3</sup>

\* from basic copper sulfate

### IV PHYSICAL PROPERTIES (ND= Not determined, NA=Not applicable)

<b>Vapor pressure</b> ND	<b>Density</b> 25 lb/ft <sup>3</sup>	<b>Solubility in Water</b> ND
<b>pH</b> 6.93	<b>Boiling point</b> ND	<b>Color</b> Light greenish-blue
<b>Melting point</b> ND	<b>Odor</b> odorless	

**Physical state** Powder

### V FIRE AND EXPLOSION DATA

Flash Point: Not applicable Flammable Limits: Lel: N.D. Uel: N.D.

Extinguishing Media: Dry chemical, CO<sub>2</sub>, water fog, foam.

Special Fire Fighting Procedures: Prevent human exposure to fire, smoke, fumes or products of decomposition. Wear self contained breathing apparatus and full cover protective clothing. Water spray to cool product is preferred to directed high pressure streams.

Hazardous combustion products: Dust- air mixtures may ignite or explode.

### VI FIRST AID

**EYE** Exposure: Hold eyelids open and flush with water, remove contact lenses and then continue flushing until no evidence of chemical remains. (at least 15-20 minutes). Get professional medical attention immediately.

**SKIN** Exposure: Remove contaminated clothing and shoes Wash thoroughly with soap and water until no evidence of chemical remains. If irritation occurs see a physician.

**INHALATION:** Remove victim to fresh air. If not breathing, give artificial respiration preferably mouth to mouth. Get professional medical attention immediately.

**Ingestion:** Wash mouth with water and expectorate. 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 patient.

Get professional medical attention immediately.

### VII POTENTIAL HEALTH EFFECTS:

**Inhalation:** Strong irritant to nose and throat. Inhalation of dust and spray mist may cause irritation of upper respiratory tract. Excessive exposure may cause cough, mucous production, shortness of breath reflecting metal fume fever.

**Eye irritation:** Severe eye irritant. May be corrosive to eyes. Causes substantial but temporary eye injury.

**Skin irritation:** Slight skin irritant. Excessive exposure, especially if prolonged, may produce skin irritation. Repeated exposure may cause allergic contact dermatitis.

**Ingestion:** May result in irritation of the gastrointestinal tract, nausea, vomiting, salivation, gastric pain, hemorrhagic gastritis, diarrhea, capillary damage, liver and kidney damage, and central nervous system stimulation, followed by depression. Jaundice, pain in the liver, and hemolytic anemia have been reported following acute human poisonings.

**Chronic:** Repeated or prolonged inhalation of dust, mist or fumes of copper may cause irritation of the upper respiratory tract and occasionally ulceration and perforation of the nasal septum. Depending on concentration and duration of contact, repeated or exposure to eyes may result in symptoms as in acute exposure Repeated or prolonged exposure may cause dermatitis. Rarely, sensitization to copper may occur. Repeated ingestion of copper salts may result in anemia, liver and kidney damage.

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### VIII TOXICOLOGICAL INFORMATION

#### ACUTE:

INHALATION: Acute inhalation (1-hour) LC50> 11.45 mg/L May cause irritation of mucous membranes.

Eye Irritation: Irritating to eyes, but reversible.

Skin irritation: Mild skin irritant.

Ingestion: Oral LD50 = 1000 mg/kg indicates moderate toxicity. Ingestion of large doses may result in abnormal respiration, posture, and facial staining.

Skin absorption: Acute dermal LD50 > 8000 mg/kg. A single prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amounts.

Special health effects; Copper intolerant individuals should not handle this material.

### IX Reactivity

Stability: Stable under normal storage conditions

Incompatible materials: Magnesium produces hydrogen. Hydroxylamine may ignite when mixed with anhydrous copper sulfate. Sodium hypobromite solutions are decomposed by catalytic action of cupric ions.

Hazardous Decomposition Products: Oxides of copper and sulfur may occur with thermal decomposition.

Hazardous Polymerization: Not known to occur.

### X SPILL OR LEAK

Steps To Be Taken If Spilled: Contain spill. Sweep up or vacuum. Create a minimum of dust in clean up operations.

Observe the personal protective equipment recommendations during clean up.

Waste Disposal: Product that can not be used according to label instructions should be disposed of according to local, State, and Federal regulations. Do not contaminate water sources with product or waste product.

### XI PERSONAL PROTECTION EQUIPMENT

Pesticide applicators and handlers must follow product label and agricultural use requirements in accordance with EPA worker protection standards 40 CFR 170.

Respiratory: Type/Conditions Do not breathe dust or spray mist. Wear appropriate NIOSH/MSA dust mask if exposure limit would be exceeded

Ventilation: Control enclosed work areas to maintain copper dust/mist levels below exposure guidelines.

Eye Protection: Chemical goggles should be worn when handling.

Other Protective Equipment: Applicators and handlers must wear clean long sleeved shirt and long pants, shoes and socks and waterproof gloves,. Launder contaminated clothing separately.

### XII SPECIAL PRECAUTIONS

Handling and storage precautions: Avoid container damage. Do not put leaking containers into storage. Do not store near any material intended for use or consumption by humans or animals. KEEP OUT OF REACH OF CHILDREN.

Do not breathe dust or spray mist. Wash thoroughly after handling. May be harmful to fish.

### XIII TRANSPORTATION and SELECTED REGULATORY INFORMATION:

Not regulated by U.S.DOT, I.A.T.A., or I.M.O. Freight class: FUNGICIDES NOI, O/T POISON NMFC 102120

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

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

CERCLA: Releases of a component of this material (metallic copper) to air, land, or water are reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.

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 40CFR 261.33.

SARA TITLE III 311/312 Hazard Categories: This product is a hazardous chemical under 29 CFR 1910.1200 and is categorized as an acute health hazard. 313 Reportable Ingredients: This product contains a percentage of metallic copper (CAS #7440-50-8) which is listed in section 313 above de minimis concentrations.

This information relates solely to the designated product and does not include combinations with other materials. This information is given without warranty or representation. Information is based on data we believe to be correct as of the date hereof. This information is furnished solely for your consideration, investigation, and verification. Before using any product READ THE LABEL.