



# LIQUID COPPER FUNGICIDE

<u>ACTIVE INGREDIENT</u>	<u>BY WT.</u>
Copper ammonium complex*....	31.4%
INERT INGREDIENTS:.....	68.6%
Total.....	100.0%

\*Metallic Copper Equivalent, 8.0%  
 Contains 0.784 LBS Copper per gallon

**KEEP OUT OF REACH OF CHILDREN  
 CAUTION**

### FIRST AID

**IF IN EYES:** Hold eye 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 eye. Call a poison control center or doctor for treatment advice

**IF ON SKIN:** 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.

**IF SWALLOWED:** Call 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.

Have product container or label with you when calling a poison control center or doctor, or going for treatment. In case of emergency call toll free: 1-800-424-9300

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Causes eye and skin irritation. Harmful if swallowed, absorbed through the skin or inhaled. May cause skin sensitization reactions in certain individuals. Avoid contact with the skin, eyes, or clothing. Avoid breathing vapor or spray mist. Wear protective eyewear (goggles, face shield or safety glasses), clothing and chemical-resistant gloves when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash clothing before reuse. Do not use food utensils such as teaspoons or tablespoons for food purposes after use with pesticides.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic organisms. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only protected users may be in the area during application. Do not enter or allow others to enter the treated area until sprays have dried.

### INFORMATION

The control of diseases with fungicides is based on PREVENTION: plant surfaces must be completely covered with the fungicide to successfully prevent infection. Use the highest indicated rate per crop when disease incidence is high or expected to be, depending on rainfall and temperature. The low rate is suitable for general preventive sprays under normal conditions. Since weather conditions and disease incidence vary, consult your Agricultural Extension Service for timing and initial application.

Distributed by:

**Southern Agricultural Insecticides, Inc.**

Palmetto, FL 34220

Hendersonville, NC 28793

Boone, NC 28607

EPA REG. NO. 10465-3-829

EPA EST. NO. 829-FL-1

## GENERAL INSTRUCTIONS

Partially fill the spray tank/container with water, add the desired amount of Liquid Copper Fungicide and continue filling the tank/container. If applied with other products, add Liquid Copper Fungicide last. Agitate the tank during mixing and application, until tank is empty. A plastic or metal stirring stick should provide adequate agitation. Observe all cautions and limitations on labeling of all products used in mixtures. Start with clean equipment. Equipment should be flushed well with water after use.

**APPLICATION: Dilute Spraying:** Apply specified rate at 2 gallons water per 1,000 sq. ft.

**Orchard and Grove Spraying:** Apply specified rate at 9 gallons of water per 1,000 sq. ft.

### FRUIT AND NUT CROPS

<u>Crop</u>	<u>Diseases Controlled</u>	<u>Rate/Gallon</u>	<u>Instructions</u>
APPLES	Anthracnose	4-5 tsp.	Apply to foliage after harvest annually for red varieties and once every 2 to 3 years for yellow varieties.
	Apple scab (black spot) Bacterial canker Blossom and shoot blast	4-6 tsp.	Apply post-harvest before fall rains.
	Fireblight <sup>1</sup>	.5- 1 tsp.	Apply at 10% bloom and repeat at 5-7 day intervals during the bloom period. Do not use on copper-sensitive varieties.
		4-6 tsp.	Apply as a full cover spray between silver-tip and green-tip. Discontinue when green-tip reaches 1/2 inch as injuries may occur.
AVOCADOS	Anthracnose	4 tsp.	Apply when the flower buds begin to swell and continue at monthly intervals until August.
BANANAS	Sigatoka	1-2 tsp.	Apply every 3-4 weeks.
	Black pitting	2.5 fl. oz.	Mix in 1 gallon of water. Apply directly to the fruit stem and include the basal portion of the leaf crown. Apply during the first and second weeks after fruit emergence.
BLUE-BERRIES	Bacterial canker	4-5 tsp.	Apply with a spreader-sticker before fall rains and again 4 weeks later.
	Cane canker	4-5 tsp.	Apply with a spreader-sticker before fall rains and again 4 weeks later. In the spring during wet weather, apply at 10-14 day intervals beginning at leaf emergence.
CANE-BERRIES	Anthracnose Leaf and cane spot Purple blotch, Yellow rust	1-2 tsp.	Apply when leaf buds open. Repeat when flower buds show white and continue at 10-14 day intervals
	Anthracnose Bacterial blight Leaf and cane spot Purple blotch, Yellow rust	4-6 tsp.	Apply in the fall after harvest.
CHERRIES	Deadbud Coryneum Blight.	2 fl. oz.	Apply in October (before heavy fall rains) and again in January. Where disease is severe, another application should be applied in August.
	Brown Rot Blossom Blight	4-6 tsp.	Apply as a full cover spray at popcorn stage and at full bloom.
CITRUS	Greasy Spot ,Melanose Pink Pitting, Scab	2-4 tsp.	Apply as pre-bloom and post-bloom sprays.
	Brown Rot	1-3 tsp.	Apply in the fall before or just after heavy rains. In areas of skirt sprays, apply to a height of at least 4 feet.
GRAPES	Black rot Powdery mildew Downy mildew Anthracnose	1 tsp.	Apply just before bud break when the shoots are 6-8 inches long, just after bloom, and every 4-10 days throughout season as needed. Foliar injury may occur on copper-sensitive varieties.
KIWI	Pseudomonas syringea	4 tsp.	Apply in 4 gallons of water per 1000 sq. ft.
	Erwinia herbicola		Make applications on a monthly basis.
	Pseudomonas fluorescens		A maximum of 3 applications may be made.

<u>Crop</u>	<u>Diseases Controlled</u>	<u>Rate/Gallon</u>	<u>Instructions</u>
LIMES	Greasy spot	4 tsp.	Apply in June and continue at monthly intervals through Aug.
MANGOS	Anthrachnose	4 tsp.	Apply weekly from the time the panicles are 2" in length until all fruits are set and monthly thereafter until August
PEACHES, NECTARINES	Bacterial spot	4 tsp.	Apply as a dormant spray. Make post-bloom application at 1/2 tsp. per gal at first and second cover sprays. DO NOT spray later than 3 weeks prior to harvest. DO NOT use at rates above those recommended. NOTE: Slight defoliation and spotting of leaves may occur from use in cover sprays.
	Blossom brown rot	4-6 tsp.	Apply as a dormant or delayed dormant spray. Can use with dormant spray oil. Do not apply at or after full bloom.
	Leaf curl Shot hole	4-6 tsp.	Apply at leaf fall to protect buds and shoots from infection during rainy periods. Reapply up until late bud swell. Do not apply after full bloom.
PECANS	Shuck and kernel rot Zonate leaf spot	2-5 tsp.	coverage at 2-4 week intervals starting at kernel growth and continuing until shucks open. Use the higher rate and shorter interval if frequent rainfall occurs.
PEARS, QUINCE	Fire blight	1/2 - 1 tsp.	Apply at 10% bloom and repeat at 5-7 day intervals throughout the bloom period. Do not use on copper-sensitive varieties.
	Blossom blast	4-6 tsp.	Apply as a dormant spray. Apply only at bud break to control primary infection.

#### **FIELD AND VEGETABLE CROPS**

<u>Crop</u>	<u>Diseases Controlled</u>	<u>Rate/Gallon</u>	<u>Instructions</u>
BEANS, PEAS, LENTILS (succulent and dry)	Bacterial blight (halo & common)	2-6 tsp.	Apply when plants are 3-5 inches high and before diseases appear. Repeat at 7-10 day intervals or at 5-7 day intervals under severe disease pressure.
BEETS	Cercospora leaf spot	3-6 tsp.	Apply when disease appears making 3-6 sprays at 10-14 day intervals. Apply more frequently under severe disease pressure.
CARROTS	Early and late blight	4-6 tsp.	Apply when plants are 6" high. Make 3 to 5 applications at 7-10 day intervals.
CORN (pop, field sweet)	Stalk rot, Leaf blight Bacterial rot, Bacterial stripe Bacterial wilt	4 tsp.	Apply when disease appears and repeat as necessary
CRUCIFERS Broccoli, Cabbage, Cauliflower, Greens (Collard, Mustard and Turnip)	Black leaf spot Black rot Downy mildew	2-6 tsp. 1-2 tsp.	Apply by ground or air when disease appears and repeat at 7-10 day intervals. Apply by ground or air when disease appears and repeat at 7-10 day intervals.
CUCURBITS (Cantaloupe, Cucumber, Honeydew, Squash, Gummy stem blight Watermelon)	Alternaria leaf spot Angular leaf spot Anthrachnose, Downy mildew Powdery mildew Watermelon bacterial fruit blotch	3-4 tsp.	Apply by ground or air when disease appears and repeat at 7-10 day intervals.
EGGPLANT	Alternaria blight Anthrachnose, Phomopsis	4 tsp.	Apply before disease appears and repeat at 7-10 day intervals.

<u>Crop</u>	<u>Diseases Controlled</u>	<u>Rate/Gallon</u>	<u>Instructions</u>
ONIONS	Downy mildew Purple blotch	4 tsp.	Apply when plants are 4-6 inches high and repeat at 7-10 day intervals.
PEPPERS	Bacterial spot Cercospora leaf spot	3-6 tsp.	Make first application upon emergence of seedlings or immediately after transplanting and repeat at 7-10 day intervals. When disease is severe, apply at 4-5 day intervals. <b>NOTE:</b> Disease control is critical during fruiting.
POTATOES	Early and late blight	3-6 tsp.	Apply on first appearance of disease and repeat at 7-10 day intervals.
SPINACH	Anthrachnose, Downy mildew, Cercospora leaf spot	3 tsp.	Apply on first appearance of disease and repeat at 7-10 day intervals.
STRAW -BERRIES	Leaf spot Scorch	3-4 tsp.	Apply at 7-10 day intervals from the time new growth starts until harvest.
TOMATOES	Bacterial speck Bacterial spot Early and late blight	3-6 tsp.	Make first application upon emergence of seedlings or immediately after transplanting and repeat at 7-10 day intervals. When disease is severe, apply at 4-5 day intervals. Complete coverage is essential for disease control.

**NOTE:** While the labeled rate is particularly effective against Bacterial spot, a tank mix with Maneb or Mancozeb used at the labeled rates controls a broad range of diseases.

#### MISCELLANEOUS

<u>Crop</u>	<u>Diseases Controlled</u>	<u>Rate/Gallon</u>	<u>Instructions</u>
LIVE OAK	Ball moss	2 fl. oz.	Apply in the spring when ball moss is actively growing, using 1.5 gallons of spray per foot of tree height. Make sure to wet ball moss tufts thoroughly. A second application may be required after 12 months.

**NOTE:** Liquid Copper Fungicide may be injurious to ornamentals grown under Live Oaks. This product may be reactive on metal and masonry surfaces such as galvanized roofing. Avoid contact with metal surfaces. Do not spray on cars, houses, lawn furniture, etc.

PAPAYA	Anthrachnose	2-5 tsp.	Begin applications before disease appears and repeat at 10-14 day intervals. Apply at 5-7 day intervals during periods of heavy rainfall. Use higher rates when conditions favor disease.
--------	--------------	----------	---

#### TURFGRASS

**To control algae in turfgrass,** apply 1 pint Liquid Copper Fungicide per 1,000-square feet in 5 gallons of water. Liquid Copper Fungicide may be used alone or in combination with other registered fungicides as a maintenance spray. Observe all precautions and limitations on the label of each product used in tank mixes.

**NOTE:** Phytotoxicity may occur depending upon varietal differences. Apply the recommended rate to a small area and observe for 7-10 days for signs of injury. If phytotoxicity occurs, discontinue use. Do not apply in a spray solution with a pH of less than 6.5.

#### FROST INJURY PROTECTION

Bacterial Ice Nucleation Inhibitor - Application of Liquid Copper Fungicide made to all crops listed on this label at rates indicated on this label, just prior to anticipated frost conditions, will sustain control of ice nucleating bacteria (*Pseudomonas syringae*, *Erwinia herbicola* and *Pseudomonas fluorescens*) and may therefore provide protection against light frost. Not recommended for those geographic areas where weather conditions favor severe frost.

## **ORNAMENTALS**

**Notice to User:** Plant sensitivities to Liquid Copper Fungicide have been found to be acceptable in specific genera and species listed on this label, however, it is impossible to know sensitivities under all conditions and phytotoxicity may occur. Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test every one for sensitivity to Liquid Copper Fungicide. Neither the manufacturer nor seller recommends use upon species not listed on the label nor has it been determined that Liquid Copper Fungicide can be safely used on ornamental or nursery plants not listed on this label. The user should determine if Liquid Copper Fungicide can be used safely prior to use.

Use Liquid Copper Fungicide on ornamentals in greenhouses or shade houses indoor and for control of bacterial and fungal diseases of foliage, flowers and stems. Apply as a thorough coverage spray using 2 Tsp. Liquid Copper Fungicide per gallon of water. Begin application at first sign of disease and repeat at 7-14 day intervals as needed; use shorter interval during periods of frequent rains or when severe disease conditions persist.

Liquid Copper Fungicide may be used alone or in combination with other registered fungicides as a maintenance spray. Observe all precautions and limitations on the label of each product mixed with Liquid Copper Fungicide..

<b><u>Crop</u></b>	<b><u>Disease</u></b>
Althea (Rose of Sharon)	Bacterial leaf spot
Aralia	Xanthomonas leaf spot, Cercospora leaf spot, Alternaria
Arborvitae	Alternaria twig blight, Cercospora leaf blight
Azalea (1)	Cercospora leaf spot, Botrytis blight, Phytophthora dieback, Powdery mildew
Begonia	Bacterial leaf spot(Xanthomonas sp., Erwina sp., Pseudomonas sp.)
Bougainvillea	Anthrachnose, Bacterial leaf spot
Bulbs (Tulip, Gladiolus)	Anthrachnose, Botrytis blight
Camellia	Anthrachnose, Bacterial leaf spot
Camphor tree	Pseudomonas leaf spot
Canna	Pseudomonas leaf spot
Carnation (1)	Alternaria blight, Pseudomonas leaf spot, Botrytis blight
Chinese tallow tree	Bacterial leaf spot (Xanthomonas sp., Pseudomonas sp.)
Chrysanthemum (1)	Septoria leaf spot, Botrytis blight
Cotoneaster	Botrytis blight
Dahlia	Alternaria leaf spot, Botrytis gray mold, Cercospora leaf spot
Date Palm	Pestalotia leaf spot
Dianthus	Bacterial spot, Bacterial soft rot
Dogwood	Anthrachnose
Dusty Miller	Bacterial leaf spot (Pseudomonas cichorii)
Echinacea	Bacterial leaf spot (Pseudomonas cichorii)
Elm "Drake"	Xanthomonas leaf spot
Euonymus	Botrytis blight, Anthrachnose
European fan palm	Pestalotia leaf spot
Gardenia	Alternaria leaf spot, Botrytis bud rot, Cercospora leaf spot
Geranium	Alternaria leaf spot, Botrytis gray mold, Cercospora leaf spot
Gladiolus	Alternaria leaf spot, Botrytis gray mold, Bacterial leaf blight
Goldenrain tree	Bacterial leaf spot
Hibiscus	Bacterial leaf spot
Holly fern	Pseudomonas leaf spot
Impatiens	Bacterial leaf spot
Ivy (English, Algerian) (1)	Xanthomonas leaf spot
Ixora	Xanthomonas leaf spot
Juniper (Eastern red cedar)	Anthrachnose
Lantana	Bacterial leaf spot
Lilac	Cercospora leaf spot
Loblolly bay	Anthrachnose
Loquat	Entomosporium maculata, Colletotrichum sp.
Magnolia (Saucer)	Bacterial leaf spot
Magnolia (Southern)	Algal leaf spot, Anthrachnose, Bacterial leaf spot
Magnolia (Sweet bay)	Anthrachnose
Mandevillas	Anthrachnose
Marigold	Alternaria leaf spot, Botrytis leaf and flower rot, Cercospora leaf spot
Mulberry, weeping	Bacterial leaf spot
Oak, laurel	Algal leaf spot (Cephaleuros virescens)

<u>Crop</u>	<u>Disease</u>
Oleander	Bacterial leaf spot, Fungal leaf spot
Pachysandra	Volutella leaf blight
Pansy	Downy mildew
Pear (Flowering)	Fireblight, leaf spot
Pentas (Egyptian star)	Bacterial leaf spot (Xanthomonas sp.)
Peony	Botrytis blight
Periwinkle	Phomopsis stem blight
Philodendron	Bacterial leaf spot
Phlox	Alternaria leaf spot
Photinia	Anthrachnose, Entomosporium
Pistachio	Anthrachnose
Plantain lily	Bacterial leaf spot
Powder puff plant	Bacterial leaf spot
Pyracantha	Fireblight, scab
Queen palm	Exosporium leaf spot, Phytophthora bud rot
Rhododendron	Alternaria flower spot
Rose (1)	Powdery mildew, Black spot
Verbena	Xanthomonas leaf spot
Viburnum	Anthrachnose
Washingtonia palm	Pestalotia leaf spot
Weeping willow	Anthrachnose
Yucca (Adam's needle)	Cercospora leaf spot, Septoria leaf spot

(1) Discoloration of foliage and/or blooms has been noted on some varieties.

(2) For India Hawthorn use 2-4 level tablespoons per gallon.

#### **STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**STORAGE:** Store in a secure, locked area away from pets and out of the reach of children. Store only in original container and place in a locked storage area.

**DISPOSAL: If empty:** Do not reuse this container. Place in trash or offer for recycling if available.

**If partly filled:** Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

#### **Warranty Disclaimer**

Southern Agricultural Insecticides, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below.

SOUTHERN AGRICULTURAL INSECTICIDES, INC. MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

#### **Inherent Risks of Use**

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Southern Agricultural Insecticides, Inc. or the seller. All such risks shall be assumed by Buyer.

**IN CASE OF EMERGENCY CALL: CHEMTREC 1-800-424-9300**