## **S A SOUTHERN** 5 0 A G<sub>®</sub>

# LIQUID COPPER **FUNGICIDE**

FOR CONTROL OF DISEASE ON **VEGETABLES, ORNAMENTALS & FRUIT CROPS** 

#### FOR RESIDENTIAL USE ONLY

**ACTIVE INGREDIENTS** 

Copper diammonia diacetate

27.15%

complex\*..... [Bis(acetate-O) Diamminecopper]

CAS No. 13822-80-5

OTHER INGREDIENTS:.....

\*Metallic Copper Equivalent, 8.0% Contains 0.772 lbs Copper per





KEEP OUT OF REACH OF CHILDREN

### **CAUTION**

See inside of label for complete warnings and directions for use. Follow Directions on side of label to open.

For information and questions concerning this product please contact us by email at support@southernag.com.

# Distributed By: Southern Agricultural Insecticides, Inc. P.O. BOX 218, PALMETTO, FL. 34220 EPA REG. NO. 10465-3-829 J6 EPA Est. No. 829

EPA Est. No. 829-FL-1

Net Contents Liquid: 1 Gallon (3.785 liters)

## 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 OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or

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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.

#### HOT LINE NUMBER

Have product container or label with you when calling a poison control center or doctor, or gong for treatment. You may also contact the National Pesticide Information Center at 1-800-858-7378 for emergency medical treatment information.

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Causes eye and skin irritation. Harmful if swallowed, absorbed through the skin or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist. Wear protective eyewear (goggles, face shield or safety glasses), long sleeved shirt and long pants, shoes and socks 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 invertebrates and may contaminate water through runoff. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

#### **DIRECTIONS FOR USE**

If 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.

Shake well before using.

#### **INFORMATION**

The control of diseases with fungicides is based on PREVENTION plant surfaces must be completely covered with the fungicide to successfully prevent infection. Copper pesticides are considered preventative, not curative of plant diseases. Use the highest indicated rate per crop when disease incidence is high or expected to be, depending on rainfall and temperature. The lower 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.

#### PRODUCT INSTRUCTIONS

Seek advice on identifying specific disease problems and solutions from your local Agricultural Extension Agent or other knowledgeable persons.

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:

Fruit: Mix specified rate in 1 gallon of water and apply 3 gallons of mixed solution to a small tree or bush, 6 gallons of mixed solution to a medium size tree, or 9 gallons of mixed solution to a large tree. Thoroughly spray tree to point of runoff, including upper and lower surfaces of foliage. Do not overspray. Do not mix more spray solution than needed.

Vegetables: Mix specified rate in 1 gallon of water apply 2 gallons of mixed solution per 1,000 sq. ft. (1 gallon of mixed solution per 500 sq. ft.)

Miscellaneous: For trees: mix specified rate in 1 gallon of water and apply gallons of mixed solution to a small tree, 6 gallons of mixed solution to a medium size tree, or 9 gallons of mixed solution to a large tree. Thoroughly spray tree to point of runoff, including upper and lower surfaces of foliage. Do not overspray. Do not mix more spray solution than needed

NOTE: 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.

furniture etc.			FRUITS
Fruit	Diseases Controlled	Rate/Gallon of Water	Instructions
Apples	Anthracnose	4-5 tsp.	Apply as a dormant spray once to foliage after harvest annually.
	Apple scab (black spot) Bacterial canker Blossom and shoot blas	•	Apply as a dormant spray once post-harvest before fall rains.
	Fireblight	1/2- 1 tsp. sensitive vari	Apply at 10% bloom and repeat at no less than 5-7 day intervals during the bloom period. Do not use on copper leties.
		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.
NOTE: Do not	apply more than 370 tsp.	of Liquid Copper Fi	ungicide (0.37 lbs. metallic copper) to Apples per 1,000 sq. ft. per year.
Avocados	Anthracnose	4 tsp.	Apply when the flower buds begin to swell and continue at monthly intervals until August.
NOTE: Do not	apply more than 430 tsp.	of Liquid Copper Fu	ungicide (0.43 lbs. metallic copper) to Avocados per 1,000 sq. ft. per year.
Bananas	Sigatoka	1-2 tsp.	Apply every 3-4 weeks.
			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. Do not apply at less than 7 day intervals.
NOTE: Do not	apply more than 71.6 fl. oz	z. of Liquid Copper	Fungicide (430 tsp./0.43 lbs. metallic copper) to Bananas per 1,000 sq. ft. per year.
Blueberries	Bacterial Canker	2-5 tsp.	Apply before fall rains and again 4 weeks later.
	Cane Canker	2-5 tsp.	Apply before fall rains and again 4 weeks later. In the spring during wet weather, apply at 10-14 day intervals
			beginning at leaf emergence.
NOTE: Do not	apply more than 190 tsp. of	of Liquid Copper Fu	ungicide 0.19 lbs. metallic copper) to Blueberries per 1,000 sq. ft. per year.
Citrus	Greasy Spot Melanose Pink Pitting, Scab	2-4 tsp.	Apply as pre-bloom and post bloom sprays. Do not apply at less than 7 day intervals.
			Apply in the fall before or just after heavy rains. In areas of skirt sprays, apply to a height of at least 4 feet. (Skirt sprays are applications up to 4 ft. high on the tree. The whole tree is not sprayed.) Do not apply at less than 7 day intervals.
NOTE: Do not	apply more than 290 tsp. of	of Liquid Copper Fu	ingicide (0.29 lbs. metallic copper) to Citrus per 1,000 sq. ft. per year.
Limes	Greasy spot	4 tsp.	Apply in June and continue at monthly intervals through August.
NOTE: Do not	apply more than 290 tsp. of	of Liquid Copper Fu	ingicide (0.29 lbs. metallic copper) to Limes per 1,000 sq. ft. per year.
Mangos (NOT FOR US	Anthracnose E IN CALIFORNIA)	4 tsp.	Apply at 30 day intervals from the time the panicles are 2 inches high until all fruits are set until August
NOTE: Do not	apply more than 145 tsp. of	of Liquid Copper Fu	ingicide (0.145 lbs. metallic copper) to Mangos per 1,000 sq. ft. per year.
Peaches	Bacterial spot	4 tsp.	Apply as a dormant spray at no less than 7 day intervals.
Nectarines	Blossom Brown Rot Leaf Curl, Shot Hole	4-6 tsp.	Apply as a dormant and delayed dormant spray to protect buds and shoots from infection during rainy period.  Reapply up until late bud swell. Do not apply at less than 7 day intervals. Do not apply after full bloom.
			ingicide (0.41 lbs. metallic copper) to Peaches/Nectarines per 1,000 sq. ft. per year.
Strawberries	Leaf Spot. Scorch	3-4 tsp.	Apply at 7-10 day intervals from the time new growth starts until harvest.

Strawberries Leaf Spot, Scorch 3-4 tsp. Apply at 7-10 day intervals from the time new growth starts until harvest.

NOTE: Do not apply more than 190 tsp. of Liquid Copper Fungicide (0.19 lbs. metallic copper) to Strawberries per 1,000 sq. ft. per year.

\*Delayed Dormant - The period just before blossom buds break open.

#### VEGETABLES

			VEGETABLES
Vegetables	Diseases Controlled	Rate/Gallon of Water	Instructions
Beans, Peas,	Bacterial Blight (Halo	2-6 tsp.	Apply when plants are 3-5 inches high and before diseases appear. Repeat at 7-10 day intervals. Apply at 7
_entils	and Common)		day intervals if disease pressure is severe.
Succulent and Dry)			
NOTE: Do not apply	more than 30 tsp. of Liquid	Copper Fungicide (	(0.03 lbs. metallic copper) to Beans/Peas/Lentils per 1,000 sq. ft. per year.
Crucifiers	Blackleaf Spot	2-6 tsp.	Apply when disease appears and repeat at 7-10 day intervals.
Broccoli,	Black Rot		
Brussell	Downey Mildew	1-2 tsp.	Apply when disease appears and repeat at 7-10 day intervals.
Sprouts,			
Cabbage, Cauliflowe			
Greens (Collard, Mus			
			(0.06 lbs. metallic copper) to Crucifiers per 1,000 sq. ft. per year.
Cucurbits	Altermaria Leaf Spot	3-4 tsp.	Apply when disease appears and repeat 7-10 day intervals.
(Cantaloupe,	Angular Leaf Spot		
Cucumber,	Anthracnose		
Honeydew	Downy Mildew		
Muskmelon	Gummy Stem Blight		
Pumpkin,	Powdery Mildew		
Squash,	Watermelon Bacterial F	ruit Blotch	
Watermelon)			
NOTE: Do not apply		uid Copper Fungici	ide (0.12 lbs. metallic copper) to Cucurbits per 1,000 sq. ft. per year.
Eggplant	Alternaria Blight	4 tsp.	Apply when disease appears and repeat at 7-10 day intervals.
	Anthracnose		
	Phomopsis		
NOTE: Do not apply	more than 180 tsp. of Liquid	d Copper Fungicide	e (0.18 lbs. metallic copper) to Eggplant per 1,000 sq. ft. per year.
Onions	Downy Mildew	4 tsp.	Apply when plants are 4-6 inches high and repeat at 7-10 day intervals.
	Purple Blotch		
NOTE: Do not apply	more than 140 tsp. of Liquid	d Copper Fungicide	e (0.14 lbs. metallic copper) to Onions per 1,000 sq. ft. per year.
Peppers	Bacterial Spot	3-6 tsp.	Make first application upon emergence of seedlings or immediately after transplanting and repeat at 7-10 day
	Cercospora Leaf Spot	•	intervals. When disease is severe, apply at 7 day intervals.
			NOTE: Disease control is critical during fruiting.
NOTE: Do not apply	more than 270 tsp. of Liquid	d Copper Fungicide	e (0.27 lbs. metallic copper) to Peppers per 1,000 sq. ft. per year.
Potatoes	Early Blight	3-6 tsp.	Apply on first appearance of disease and repeat at 7-10 day intervals.
	Late Blight		
NOTE: Do not apply	more than 570 tsp. of Liquid	d Copper Fungicide	e (0.57 lbs. metallic copper) to Potatoes per 1,000 sq. ft. per year.
Spinach	Anthracnose	3 tsp.	Apply on first appearance of disease and repeat at 7-10 day intervals.
•	Cercospora Leaf Spot		
	Downy Mildew		
NOTE: Do not apply	more than 90 tsp. of Liquid	Copper Fungicide	(0.09 lbs. metallic copper) to Spinach per 1,000 sq. ft. per year.
Tomatoes	Bacterial Speck	3-5 tsp.	Make first application upon emergence of seedlings or immediately after transplanting and repeat at 7-10 day
	Bacterial Spot		intervals. When disease pressure is severe, apply at the shorter spray interval. Complete coverage is
			essential for disease control. NOTE: While the labeled rate is particularly effective against Bacterial Spot, a
	Early Blight		
	Early Blight Late Blight		tank mix of Maneb or Mancozeb used at the labeled rates controls a broad range of diseases.

#### MISCELLANEOUS

To control Ball Moss in Live Oak, apply 2 ft. oz. per gallon of water. 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. NOTE: Do not apply more than 76.7 ft. oz. of Liquid Copper Fungicide (0.46 lbs. metallic copper) to Live Oak per 1,000 Sq. ft. per year.

#### TURFGRASS

To control algae in ornamental lawns and turf, apply 10 fl. oz. (0.06 lbs. metallic copper) of Liquid Copper Fungicide in 5 gallons of water per 1,000 square feet. 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. Do not apply more than 80.0 fl. oz. of Liquid Copper Fungicide (0.48 lbs. metallic copper) per 1,000 sq. ft. per year. Do not apply at less than 10 day intervals.

NOTE: Phytotoxicity occurs depending upon varietal differences. Apply the directed rate to a small area and observe for 7 to 10 days for signs of injury. If phytotoxicity occurs,

For use in container, landscape and outdoor ornamental plantings. Liquid Copper Fungicide can also be used on ornamentals in home greenhouses and shadehouses

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 cay occur. Due to the large numbers of species and varieties of ornamentals, 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 safely be used on ornamental plants not listed on this label. The user should determine if Liquid Copper Fungicide can be used safely prior to use.

Apply as a thorough coverage spray using 2 teaspoons of 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. Do not apply more than 460 tsps. of Liquid Copper Fungicide (0.46 lbs. metallilc copper) per 1,000 sq. ft. per year.

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: Do not tank mix Liquid Copper Fungicide with Aliette fungicide unless appropriate precautions have been taken to buffer the spray solution. Severe phytoxicity may result if adequate precautions are not taken.

DISEASE **PLANT** 

Althea (Rose of Sharon) Bacterial leaf spot

Aralia Alternaria, Cercospora leaf spot

Arborvitae Alternaria twig bllight, Cercospora leaf blight

Botrytis blight, Cercospora leaf spot, Phytophthora dieback, Powdery mildew Bacterial leaf spot (Erwina sp., Pseudomonas sp., Xanthomonas sp.) Azalea (1) Begonia

Bougainvillea Anthracnose, Bacterial leaf spot Bulbs (Tulip, Gladiolus) Anthracnose, Botrytis blight Anthracnose, Bacterial leaf spot Camellia Camphor tree Pseudomonas leaf spot Canna Pseudomonas leaf spot

Alternaria blight, Pseudomonas leaf spot, Botrytis blight Carnation (1) Bacterial leaf spot (Xanthomonas sp., Pseudomonas sp.) Chinese tallow tree

Chrysanthemum (1) Septoria leaf spot, Botrytis blight

Cotoneaster

Botrytis blight
Alternaria leaf spot, Botrytis gray mold, Cercospora leaf spot Dahlia

Date Palm Pestalotia leaf spot

Dianthus Bacterial spot, Bacterial soft rot

Dogwood Anthracnose

Dusty Miller Bacterial leaf spot (Pseudomonas cichorii) Echinacea Bacterial leaf spot (Pseudomonas cichorii)

Elm "Drake" Xanthomonas leaf spot Botrytis blight, Anthracnose Euonymus European fan palm Pestalotia leaf spot

Gardenia Alternaria leaf spot, Botrytis bud rot, Cercospora leaf spot Alternaria leaf spot, Botrytis gray mold, Cercospora leaf spot Alternaria leaf spot, Botrytis gray mold, Bacterial leaf blight Geranium Gladiolus

Goldenrain tree Bacterial leaf spot Hibiscus Bacterial leaf spot Holly fern Pseudomonas leaf spot Impatiens Bacterial leaf spot

India hawthorn (2) Anthracnose, Entomosporium leaf spot PLANT DISEASE

Ivy (English, Algerian) (1) Xanthomonas leaf spot Xanthomonas leaf spot Ixora Juniper (Eastern red cedar) Anthracnose Lantana Bacterial leaf spot Lilac Loblolly bay Cercospora leaf spot

Anthracnose

Loquat Entomosporium maculata, Colletotrichum sp.

Bacterial leaf spot

Magnolia (Saucer) Magnolia (Southern) Algal leaf spot, Anthracnose, Bacterial leaf spot

Magnolia (Sweet bay) Anthracnose Mandevillas Anthracnose

Marigold Mulberry, weeping Alternaria leaf spot, Botrytis leaf and flower rot, Seersucker leaf spot

Bacterial leaf spot

Oak, laurel Algal leaf spot (Cephaleuros virescens) Bacterial leaf spot, Fungal leaf spot Volutella leaf blight Oleander

Pachysandra Pansy Downy mildew Pear (Flowering) Fireblight, leaf spot

Pentas (Egyptian star) Bacterial leaf spot (Xanthomonas sp.)

Peony Periwinkle Botrytis blight Phomopsis stem blight Philodendron Bacterial leaf spot Phlox Alternaria leaf spot

Photinia Anthracnose, Entomosporium Pistachio Anthracnose Bacterial leaf spot Plantain lily Powder puff plant Bacterial leaf spot

Pyracantha Fireblight, scab Queen palm Exosporium leaf spot, Phytophthora bud rot

Rhododendron Alternaria flower spot Powdery mildew, Black spot Rose (1) Verbena Xanthomonas leaf spot Vibumum Anthracnose Pestalotia leaf spot Washingtonia palm Weeping willow

Anthracnose

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.

FROST INJURY PROTECTION

Bacterial Ice Nucleation Inhibitor - Application of Liquid Copper Fungicide made to all plants listed on this label at rates indicated, just prior to anticipated frost conditions, will sustain control of ice nucleating bacteria (Pseudomonas syringae, Erwina Herbicola and Pseudomonas fluorescence) and may therefore provide protection against light frost.

Not recommended for those geographic areas where weather conditions favor severe frost.

#### STORAGE AND DISPOSAL

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

PESTICIDE 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

PESTICIDE DISPOSAL/CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. If empty: Place in trash or offer for recycling if available. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

#### IMPORTANT: READ BEFORE USE

Read the entire Directions for use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for Use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of the product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use of application, all of which are beyond the control of Southern Agricultural Insecticides, Inc. To the extent permitted by applicable law, all such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, Southern Agricultural Insecticides, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Southern Agricultural Insecticides, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Southern Agricultural Insecticides, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, weather in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Southern Agricultural Insecticides, Inc.'s election, the replacement of product.