

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Walter G. Talerek, Agent for W. Neudorff GmbH KG C/o Walter G. Talerek, PC 1008 Riva Ridge Drive Great Falls, VA 22066-1620

SEP 0 1 2011

SUBJECT: Label Amendment

NEU1140F Copper Soap

EPA Reg. No. 67702-2; Decision No. 447643

Your Submission Dated April 7, 2011

Dear Mr. Talerek:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as amended, to make changes to the precautionary label statements has been reviewed and found to be acceptable provided you make the following labeling changes:

- 1. On page 3, in the Environmental Hazards section add "Do not contaminate water when disposing of equipment wash water or rinsate".
  - 2. On page 5, delete "For a wide range of listed plant diseases,.....fruit rot, late blight".
- 3. On page 5, 12<sup>th</sup> bullet must read "Used to control a wide range of listed plant diseases;.....fruit rot, late blight."
  - 4. On page 13 and 31, you must add the phone numbers.
- 5. On page 15 and 32, delete the following statement "[The] (insert company name) Guarantee If for any reason you are not satisfied with this product, mail us proof of purchase to obtain a full refund of your purchase price".
  - 6. On page 19, in the Chemigation section, delete the second paragraph.
- 7. On page 29, in the Batch Code section, the first bullet; you must replace the XX's with the actual range.

One copy of the label stamped "Accepted with Comment" is enclosed for your record. This label supersedes all labels previously accepted for this product. Please submit one copy of the final printed label that incorporates the required changes before the product is released for shipment.

If you have any questions regarding this correspondence, contact Rose Kearns of my staff by phone at 703-305-56111 or via email at <u>kearns.rosemary@epa.gov</u> or Tony Kish at 703-309-9443 or via email at kish.tony@epa.gov.

Sincerely,

Tony Kish

Product Manager 22

Fungicide Branch

Registration Division (7504P)

### **MASTER LABEL**

## **NEU1140F Copper Soap**

Flowable Liquid Copper Fungicide

Active Ingredient:

Copper Octanoate (Copper Soap)

10.0%

CAS Reg. No. 20543-04-8

90.0%

Other Ingredients **Total** 

100.0%

metallic copper equivalent

1.8%

one gallon contains 0.16 lbs. metallic copper equivalent

SUBLABEL A: Home and Garden Use

SUBLABEL B: Commercial Agricultural Use

EPA REG. NO. 67702-2

EPA EST. NO.

# KEEP OUT OF REACH OF CHILDREN CAUTION

Registrant: W. Neudorff GmbH KG An der Muhle 3, Postfach 1209 D-31860 Emmerthal, Germany www.neudorff.com

Home and Garden Use: NET CONTENTS: 16 ounces, 24ounces, 32 ounces, 1 gallon

Commercial Agricultural Use: NET CONTENTS: 1 gallon, 2.5 gallons, 5 gallons, 10 gallons, 20 gallons, 40 gallons, 45 gallons, 50 gallons, 200 gallons or 250 gallons

ACCEPTED with COMMENTS In EPA Letter Dated

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## SUBLABEL A: Home and Garden Use

## **NEU1140F Copper Soap**

## Flowable Liquid Copper Fungicide

Active Ingredient:

Copper Octanoate (Copper Soap) 10.0%

CAS Reg. No. 20543-04-8

Other Ingredients  $\frac{90.0\%}{100.0\%}$ 

metallic copper equivalent 1.8%

EPA REG. NO. 67702-2

EPA EST. NO.

NET CONTENTS: 16 ounces, 24 ounces, 32 ounces, 1 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 OR	-Take off contaminated clothing.	
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 a 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 by a poison control center or	
	doctor.	
· · · · · · · · · · · · · · · · · · ·	-Do not give anything by mouth to an unconscious person	
Have the product co	ontainer or label with you when calling a poison control center or	
doctor or going for to	reatment.	

### PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

CAUTION: Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating,

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drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

### **Environmental Hazards**

This product is toxic to fish and aquatic organisms 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**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Read and follow all applicable directions and precautions on this label before using.

Do not allow adults, children or pets to enter the treated area until sprays have dried. Do not apply this product in a way that will contact adults, children or pets, either directly or through drift.

### **Application Directions**

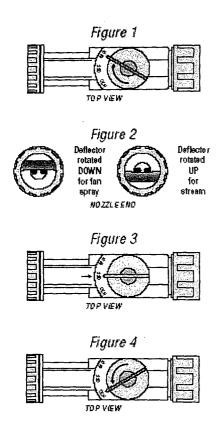
Shake well before use. Most conventional liquid pesticide plant sprayers can be used to apply NEU1140F COPPER SOAP to plants.

To control **powdery mildews**, use a solution of 0.5 to 2.0 fluid ounces of NEU1140F COPPER SOAP in a gallon of water. For best control, start spraying before the disease is visible or when mildew is first visible on the plant. Spray all plant parts thoroughly (top and bottom of leaves), and repeat every 7 to 10 days. On plants that are very susceptible to powdery mildew, such as greenhouse-grown cucumber, it is best to spray the plants twice a week during the first 2 weeks after emergence, and weekly thereafter. On outdoor plants, re-apply after rain.

To control downy mildews, leaf and fruit spots, blights, and rust, use a solution of 0.5 to 2.0 fluid ounces of NEU1140F COPPER SOAP in a gallon of water. Ensure that all surfaces of the plant are thoroughly sprayed (top and bottom of leaves). For best control, begin treatment 2 weeks before disease normally appears or when weather forecasts predict a long period of wet weather. Alternatively, begin treatment when disease first appears, and repeat at 7 to 10 day intervals for as long as needed. Re-apply after rain. Use 2 fluid ounces per gallon of water, sprayed every 7 days or less, following heavy rain or when the amount of disease is increasing rapidly. This higher rate should be used for preventing late blight on potato and related plants. If possible, time applications so that at least 12 hours of dry weather follows application.

To prevent **fruit rots**, use a solution of 0.5 to 2.0 fluid ounces of NEU1140F COPPER SOAP in a gallon of water. Ensure that all surfaces of the plant are thoroughly sprayed (top and bottom of leaves). Apply at the start of flowering and continue every 7 to 10 days until harvest. Fungicidal sprays are especially warranted when weather forecasts predict a long period of wet weather. Re-apply after rain.

[Optional hose-end sprayer directions that may be presented on the container or supplemental wording, either:



### To Use This Sprayer:

- 1. Shake container well.
- 2. Connect spray nozzle to garden hose.
- 3. Turn on the water from the faucet. Extend hose to the farthest area to be treated and work back toward the faucet so you don't come in contact with the treated area.
- 4. When you are ready to spray, turn the knob on top so that it points to the MIX position on the spray head. (Fig. 1)
- 5. The spray deflector on the front of the hose-end applicator can be roated to give a stream or fan spray. (Fig. 2)

### To Stop Spraying

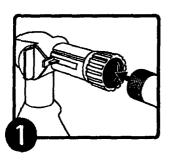
- 6. When you are finished spraying or if you have to stop spraying at any time, turn the knob back to the OFF position. (Fig. 3)
- 7. Turn off the water from the faucet.
- 8. Turn the knob to H2O then OFF, to drain the water from the hose. (Fig. 4)

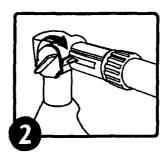
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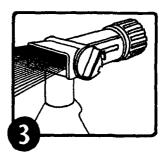
- 1. Attach garden hose to spray nozzle. Turn on water supply.
- 2. Bend safety tab down and turn control to "water".
- 3. Point nozzle toward plants and turn water control knob to "On". Product will automatically mix with water. Spray upper and lower leaf surfaces thoroughly.

### To Stop Spraying:

- 1. When you are finished spraying or if you have to stop spraying at any time, turn the blue knob back to the OFF position.
- 2. Turn off the water from the faucet.
- 3. Turn the blue knob to H20 then OFF, to drain the water from the hose.
- 4. Unscrew spray nozzle from hose. Remove hose end from container.
- 5. Reseal the container with the child-resistant closure. Rinse the hose-end applicator



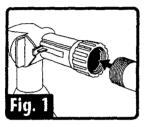


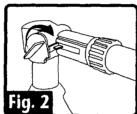


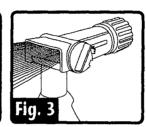
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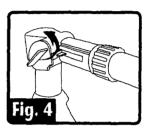
- 1. Shake container well before using.
- 2. Connect a garden hose to the Ready Spray nozzle. Make sure the dial on the nozzle is in the "OFF" position with the safety tab in the valve notch.
- 3. Turn on the water at faucet. Extend hose to the farthest area to be treated and work back toward the faucet so you don't come in contact with the treated area.
- 4. To BEGIN spraying, point nozzle toward treatment site and

- a. Bend the safety tab back (located at the right of the yellow dial) with your thumb.
- b. Using your other hand, QUICKLY turn the dial clockwise until it stops. Water will automatically mix with the product.
- 5. Spray plants thoroughly. Walk at a steady pace while spraying using an even sweeping motion, slightly overlapping treated areas.
- 6. To STOP spraying, QUICKLY turn the dial in the opposite direction of "ON" until it stops and the safety tab engages the notch on the valve. Turn water off at faucet. To relieve pressure before removing nozzle from hose, bend the safety tab back and turn dial "ON" until water stops spraying.
- 7. To STORE unused product, make sure the dial is in the "OFF" position with safety tab in the valve notch. Place in cool area away from heat, sunlight or open flame.









### Ornamentals: Diseases Controlled, Listed by Plant:

Ornamental Plant	Common Name	Diseases Controlled
Aechmea faciaa	Urn plant, bromeliad	Anthracnose leaf and fruit spot, Bacterial leaf spot and
<u> </u>		blight
Aeschynanthus pulcher	Lipstick vine	Botrytis blight, Leaf spot (fungal)
Aglaonema species	Chinese evergreen	Anthracnose leaf and fruit spot, Bacterial leaf spot and
	<u> </u>	blight, Leaf spot (fungal), Rhizoctonia blight, Soft rot
Anthurium species	Tailflower	Anthracnose leaf and fruit spot, Bacterial leaf spot and
		blight, Leaf spot (fungal), Rhizoctonia blight, Soft rot
Aphelandra squarrosa	Zebra plant	Botrytis blight, Leaf spot (fungal), Rhizoctonia blight
Araucaria heterophylla	Norfolk Island pine	Colletotrichum needle blight
Asplenium nidus	Bird's nest fern	Bacterial leaf spot and blight
Brassaia actinophylla	Schefflera	Anthracnose leaf and fruit spot, Bacterial leaf spot and
		blight, Leaf spot (fungal) Rhizoctonia blight
Caladium species	Caladium	Bacterial leaf spot and blight, Rhizoctonia blight
Calathea species	Rattlesnake plant	Bacterial leaf spot and blight, Leaf spot (fungal)
Caryota mitis	Fishtail palm	Bacterial leaf spot and blight, Leaf spot (fungal)
Chamaedorea species	various palms	Leaf spot
Chrysalidocarpus	Areca palm	Leaf spot
lutescens		
Cissus species	Grape ivy	Anthracnose leaf and fruit spot, Botrytis blight, Downy
Ì		mildew, Powdery mildew, Rhizoctonia blight

Codiaeum variegatum	Croton	Anthracnose leaf and fruit spot, Bacterial leaf spot and blight	
Cordyline terminalis	Ti plant	Anthracnose leaf and fruit spot, Leaf spot (fungal)	
Chryptanthus species	Bromeliad, earthstar	Anthracnose leaf and fruit spot	
Dieffenbachia species	Dieffenbachia	Bacterial leaf spot and blight, Leaf spot (fungal)	
k		Rhizoctonia blight	
Dracaena species	Dracaena, Corn	Bacterial leaf spot and blight, Botrytis blight, Leaf spot	
*	plant	(fungal)	
Epipremnum aureum	Pothos, Devil's ivy	Bacterial leaf spot and blight, Rhizoctonia blight	
Euphorbia milii	Euphorbia	Rhizoctonia blight	
Fatsia japonica	Japanese fatsia	Bacterial leaf spot and blight, Leaf spot (fungal)	
7. 7	W	Rhizoctonia blight	
Ficus benjamina	Weeping fig	Leaf spot (fungal)	
Ficus elastica	India-rubber tree	Leaf spot (fungal), Botrytis blight	
Fittonia verschaffeltii	Nerve plant	Rhizoctonia blight	
Hedra helix	English ivy	Anthracnose leaf and fruit spot, Bacterial leaf spot and blight, Botrytis blight, Leaf spot (fungal), Rhizoctonia blight	
Hoya carnosa	Wax plant	Botrytis blight, Leaf spot (fungal), Rhizoctonia blight	
Maranta leuconeura	Prayer plant	Leaf spot (fungal)	
Monstera deliciosa	Swiss cheese plant	Bacterial leaf spot and blight, Anthracnose leaf and	
Nephrolepis exaltata	Boston fern	fruit spot, Rhizoctonia blight, Soft rot  Bacterial leaf spot and blight, Botrytis blight,	
Nephrolepis exaliala	Pozion len	Rhizoctonia blight	
Peperomia species	Peperomia	Leaf spot (fungal), Rhizoctonia blight	
Philodendron species	Philodendron	Anthracnose leaf and fruit spot, Botrytis blight, Leaf spot (fungal)	
Pilea species	Aluminum plant	Bacterial leaf spot and blight, Anthracnose leaf and	
•	4	fruit spot, Leaf spot (fungal), Rhizoctonia blight	
Platycerium bifurcatum	Staghorn fern	Bacterial leaf spot and blight, Rhizoctonia blight	
Polyscias species	Aralia	Anthracnose leaf and fruit spot, Bacterial leaf spot and	
·		blight, Leaf spot (fungal)	
Rhapis species	Ladyfinger palm	Leaf spot (fungal)	
Rhoeo spathacea	Oyster plant	Leaf spot (fungal)	
Saintpaulia ionantha	African violet	Bacterial leaf spot and blight, Botrytis blight, Leaf spot (fungal), Powdery mildew	
Sansevieria triafasciata	Snake plant	Bacterial leaf spot and blight, Leaf spot (fungal)	
Schefflera arboricola	Dwarf Schefflera	Bacterial leaf spot and blight, Leaf spot (fungal)	
Schlumbergera species	Cactus	Leaf spot (fungal)	
Sedum species	Sedum	Leaf spot (fungal)	
Spathiphyllum species	Spathe flower	Leaf spot (fungal), Rhizoctonia blight	
Syngonium podophyllium	Nephthytis	Bacterial leaf spot and blight, Leaf spot (fungal),	
Singomani podopinymani		Rhizoctonia blight	
Yucca species	yucca	Leaf spot (fungal)	

### Directions for Use on Ornamentals and Turf

The ornamental and turf species listed may be treated with NEU1140F COPPER SOAP. Unless otherwise stated, mix 0.5 to 2 fluid ounces in one gallon of water and spray all plant surfaces thoroughly (top and bottom of leaves). When necessary, repeat sprays every 7 to 10 days. NEU1140F COPPER SOAP may cause some copper toxicity on

some plant species. Before spraying a specific plant species, consult your State Experiment Station or make a test spray.

Crop	Diseases Controlled	Application Notes
Pine	Needle blight	Mix at a rate of 0.5 to 2.0 fluid ounces of NEU1140F COPPER SOAP with one gallon water.  Spray until needles are thoroughly wet with spray. Apply when new needles are just emerging.
Rose and Ornamental Shrubs (Such as; Crape Myrtle, Forsythia, Hydrangea, Willow, Mock- Orange, Deutzia, Pyracantha, Japanese quince, Abelia, Summersweet)	Blackspot, Downy mildew, Gray mold (Botrytis), Leafspots, Powdery mildew, Rust	NEU 1140F COPPER SOAP may cause copper toxicity on some rose varieties. Copper toxicity appears as purple spots. For Black spot, mix at a rate of 1.44 fl. ozs. of NEU 1140F COPPER SOAP per gallon of water. For Powdery Mildew, mix at a rate of 1.08 fl. ozs. of NEU 1140F COPPER SOAP per gallon of water. In damp cool conditions (below 60°F), phytotoxicity is likely to occur with the use of NEU 1140F COPPER SOAP.
Sycamore	Anthracnose leaf spot	Make first application just before buds begin to swell, and repeat twice, at 7-day intervals.
Turf	Ascochyta leaf blight, Cercospora leaf spots, Dollar spot	Mix 1.5 to 6 fluid ounces with 2.5 gallons of water and apply to 1,000 sq. ft. For best control, begin treatment 2 weeks before disease normally appears. Alternatively, begin treatment when disease first appears, and repeat at 7 to 10 day intervals for as long as needed.  To reduce Ascochyta leaf blight mow less frequently, only as necessary to maintain recommended height. Water before noon to allow grass to dry. Water thoroughly only as required to avoid moisture stress. Apply NEU1140F COPPER SOAP when disease first appears, and repeat at 7 to 10 day intervals for as long as needed. In frequently diseased areas, prune adjacent trees and shrubs to reduce turf shading and to improve air movement.
	Rust	To reduce rust mow frequently to reduce rust spore production. Water and fertilize lawn as required to avoid moisture and nutrient stress. Water before noon to allow grass to dry. Apply NEU1140F COPPER SOAP when disease first appears, and repeat at 7 to 10 day intervals for as long as needed. In frequently diseased areas, prune adjacent trees and shrubs to reduce turf shading and to improve air movement.

## Directions for Use on Fruits and Vegetables

Unless otherwise stated below, mix 0.5 to 2.0 fluid ounces of NEU1140F COPPER SOAP with 1 gallon of water. Use sufficient water to ensure good coverage, including tops and bottoms of leaves. For best control, begin treatment 2 weeks before disease normally appears or when weather forecasts predict a long period of wet weather. Alternatively, begin treatment when disease first appears and repeat at 7 to 10 day

intervals for as long as needed. Use the higher rate, applied every 7 days or less, following heavy rain or when the amount of disease is increasing rapidly. If possible, time applications so that 12 hours of dry weather follow application.

Crop	Diseases Controlled	Application Notes
Bean, Pea	Anthracnose leaf and fruit spot, Ascochyta leaf and pod spot, Bacterial blights (halo, common and brown spot), Downy mildew, Gray mold (Botrytis), Powdery mildew, White mold (Sclerotinia)	
Beet, Chard, Spinach	Cercospora leaf spot, Downy mildew, White rust, Powdery Mildew	
Carrots	Alternaria leaf blight, Bacterial leaf blight, Cercospora leaf blight	
Celery and Celeriac	Bacterial leaf spot, Cercospora (early) blight, Septoria (late) blight	
Citrus (Grapefruit, Lemon, Lime, Orange, Pummelo, Tangerine)	Melanose spot, greasy spot, citrus scab, Alternaria brown spot, Red alga (Florida)	Apply 1-3 weeks after petal fall. Repeat every 2 weeks if necessary until the fruit is 3 inches in diameter. Do not mix NEU1140F Copper Soap with oil when applied on any citrus.
Corn	Southern leaf blight, Cercospora leaf spot	
Crucifer Crops (Broccoli, Brussels sprouts, Canola, Cauliflower, Cabbage, Kale, Kohlrabi, Mustard, Pak-Choi, Rape, Rutabaga, Turnip)	Alternaria blight, Bacterial leaf spot, Downy mildew, Powdery mildew, White mold (Sclerotinia)	
Cucurbits (Cucumbers, Cantaloupe, Squash, Pumpkin, Zucchini)	Alternaria blight, Angular leaf spot, Anthracnose leaf and fruit spot, Downy mildew, Gray mold, Scab, Ulocladium leaf spot, Powdery mildew	For cucumbers grown in a greenhouse, apply NEU1140F COPPER SOAP 2 times per week in the first 2 weeks after emergence, followed by sprays every 7 days.
Currant and Gooseberry	Anthracnose leaf and fruit spot, Phyllosticta, Septoria leaf spots, Powdery mildew	
Ginseng	Alternaria blight, Botrytis blight, Phytophthora, Powdery mildew	
Grapes	Downy mildew, Black rot, Phomopsis Cane and Leaf Spot, Powdery mildew, Gray mold (Botrytis)	Do not mix NEU1140F COPPER SOAP with lime. Certain Vinifera and French Hybrid varieties may be sensitive to copper sprays resulting in marginal leaf burn. Before spraying these varieties, consult your State Experiment Station or make test sprays.
Нор	Anthracnose leaf and fruit spot,	

## Master Label of NEU1140F COPPER SOAP 10 of 32

<del> </del>	Cercospora leaf spot, Downy mildew,	
	Powdery mildew	
Lettuce, Chicory, Endive,	Downy mildew, Septoria leaf spot, Powdery mildew, Bacterial soft rot and bottom rot	Use lower rate when disease pressure is low or on copper sensitive varieties of lettuce.
Onion, Garlic, Leek, shallot, Chives	Botrytis leaf blight, Downy mildew, Neck rot, Bacterial soft rot	
Parsley	Leaf scorch, Leaf spot	
Peanuts	Sclerotinia blight, Leaf spots (early and late), web blotch	
Pome Fruit Trees (Apple, Pear, Quince)		NOTICE: NEU1140F COPPER SOAP as used in this recommendation may cause russeting of Golden Delicious and similar susceptible apple varieties. Mild russeting of other varieties may occur. Preferred use is on non-bearing or processing varieties where russeting is not a concern. On apple do not exceed the rate of 1.0 fluid ounces NEU1140F per gallon water.
	Anthracnose leaf and fruit spot	Apply in mid-July.
	Cedar Apple Rust, Quince Rust	The disease can also be reduced by removing nearby eastern red cedar plants ( <i>Juniperus virginiana</i> L.). On juniper, cedar apple rust can be controlled by spraying plants at least 4 times between late August and late October.
	Fireblight	Spray at silver tip and bud break and repeat on 3 to 5 day intervals as needed, up to petal fall. Use the lower rate if disease pressure is light and higher rate when conditions favor heavy disease pressure.
	Scab, Sooty Blotch, Flyspeck (fruit and leaf spots)	Treat up to blossom drop. Use after blossom drop will cause russeting.
Small Fruits (Blackberry, Blueberry, Raspberry, Strawberry)	Gray mold (Botrytis), Mucor fruit rot, Rhizopus fruit rot	Apply at the start of flowering and continue every 7 to 10 days until harvest.
Stone Fruit Trees (Almond, Apricot, Cherry, Nectarine, Peach, Plum)	Bacterial canker (Pseudomonas syringae), Brown rot blossom blight, leaf and fruit spot, Bacterial leaf spot	For bacterial canker, apply as a dormant spray as buds begin to swell, repeating at the bud burst stage, and weekly thereafter as needed, up to six sprays. In the fall spray again at 10 and 80% leaf fall. For brown rot blossom blight apply full cover spray at delayed dormant (bud swell), popcorn, full bloom and petal fall stages. During wet weather additional bloom sprays may be necessary.
	ì	i bibbili sprays may be necessary.

	Coryneum blight, Peach leaf curl	during a period of dry weather.
Strawberry	Angular leaf spot, Leaf scorch, Mycosphaerella leaf spot, Phomopsis leaf blight, Powdery mildew, Septoria leaf spots	Spray 1 month after planting (or before flowering on established plants) and twice more at 7 to 10 day intervals.
	Anthracnose fruit rot, Gray mold (Botrytis)	Apply at the start of flowering and continue every 7 to 10 days until harvest.
Tobacco	Blue Mold (Downy Mildew)	
Tomato, Potato, Eggplant, Pepper	Anthracnose leaf and fruit spot, Bacterial speck, Bacterial spot, Cercospora leaf spot, Early blight, Gray mold, Late blight, Leaf mold, Septoria leaf spot	
Walnuts	Blight	

### STORAGE AND DISPOSAL

**Pesticide Storage:** Store in a secure place, away from open fire or flame. Keep container closed and reseal after use. Product may be damaged by freezing. Do not store product below 4°C. If spilled, use absorbent materials and dispose of in an approved manner.

### Pesticide Disposal

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.

#### **BATCH CODE**

(The following information may or may not be placed, in whole or in part, on the final label:

- -This bottle will treat XXXXX sq.ft.
- -Copper Soap Fungicide
- -For Roses, Fruits & Vegetables
- -Controls Powdery Mildew, Black Spot & Rust!
- -Where to use
- -Ornamentals and Turf
- -Vegetables, Fruits, and Nuts
- -Manufactured under a license of Neudorff.
- -For household use only.
- -Roses & Ornamentals: Controls black spot, rust, powdery and downy mildew.
- -Fruit trees: Controls peach leaf curl, brown rot, fireblight, scab, blossom blight, leaf and fruit spot
- -Vegetables: Controls powdery mildew, downy mildew, botrytis, alternaria leaf blight and septoria leaf spot.
- -Lawns: Controls leaf blight, leaf spot, dollar spot and rust.
- -Use as a dormant spray for peach leaf curl.

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- -Controls peach leaf curl.
- -Use for early and late blight on tomatoes (and potatoes).
- -Controls powdery mildew
- -Lawn and Garden Fungicide
- -Lawn Fungicide
- -Controls (leaf blight), (leaf spot), (dollar spot), and (rust) on lawns
- -Prevents and controls harmful (major) lawn diseases (including leaf blight, leaf spot, dollar spot and rust)
- -Promotes healthy, disease free lawns
- -Ready-to-Spray lawn fungicide [for use with hose end sprayer]
- -Controls listed plant diseases using low concentrations of copper.
- -For a wide range of listed plant diseases: powdery mildew, rusts, blackspot, leaf & fruit spot, downy mildew, fruit rot, late blight.
- -Used to control a wide range of plant diseases: powdery mildew, rusts, blackspot, leaf & fruit spot, downy mildew, fruit rot, late blight.
- -Dormant and growing season liquid copper fungicide.
- -Fixed copper is one of the oldest fungicides and bactericides, used to control a wide range of listed plant diseases. NEU1140F COPPER SOAP is a patented, fixed copper fungicide, made by combining a soluble copper fertilizer with a fatty acid. The copper and the fatty acid combine to form a copper salt of the fatty acid, known technically as a true soap. The copper soap fungicide controls listed diseases using low concentrations of copper. The net result is an effective vegetable, fruit and ornamental fungicide. NEU1140F COPPER SOAP decomposes to form soluble copper, and fatty acid, both of which can be used by microbes and plants. NEU1140F COPPER SOAP is suited for use in domestic circumstances, both indoors and outdoors.
- -Decomposes to a form useful to plants & microbes.
- -NEU1140F COPPER SOAP controls listed diseases of a wide range of plants, including many vegetables, fruit and ornamentals. As with most fungicides, NEU1140F COPPER SOAP acts to protect plants from infection. Therefore, it is important to have NEU1140F COPPER SOAP on the leaf, flower or fruit before the pathogen is able to cause an infection.
- -A wide range of bacteria and fungi attack plants, however, they generally only cause a few types of diseases. When using NEU1140F COPPER SOAP, it is important to identify the type of disease in order to use the best method of disease control.
- -Powdery mildews tend to occur on the upper leaf surfaces, as though a white powder was sprinkled onto the plant. Powdery mildews can form a dense, white, cottony mass, making the whole leaf appear white. They are also commonly found on stems. Powdery mildews rarely kill plants. Most fungal diseases require water to infect plants. Powdery mildews are unique in that they do not require water for infection. Hence, under greenhouse conditions, powdery mildews can become severe. Shade and dense plantings also promote powdery mildew. Powdery mildews commonly occur on the following plants: apple, bean, beet, broccoli, brussel sprouts, cauliflower, cabbage, cantaloupe, chard, chicory, chive, cucumber, currant, endive, gooseberry, grape, grasses, hop, kale, kohlrabi, lettuce, lilac, oak, pea, pumpkin, rose, rutabaga, spinach, squash, strawberry, turnip and zucchini.

- -Downy mildews tend to occur on the lower leaf surfaces. Downy mildews are much finer than powdery mildews, and appear as fine white cotton, similar to duck down. Downy mildews can rapidly kill plant leaves during wet, cool weather, but are inhibited by hot dry weather. Downy mildews commonly occur on the following plants: bean. beet, broccoli, brussel sprouts, cauliflower, cabbage, cantaloupe, chard, chicory, chive, corn, cucumber, endive, garlic, grape, grasses, hop, kale, kohlrabi, leek, lettuce, onion, pea, pumpkin, rutabaga, shallot, spinach, squash, sunflower, tobacco, turnip and zucchini. -Leaf and fruit spots are small brown or black spots on the leaf or fruit. commonly occur on apple and pear (scab), as well as on most of the plants grown around the home and in the garden. These spots can be caused by a range of fungi and bacteria. Leaf and fruit spots are commonly caused by fungi belonging to the following genera: Alternaria, Cercospora, Colletotrichum, Cylindrosporium, Gloeosporium, Glomerella, Gnomonia, Marssonia, Mycosphaerella (Didymella), Phomopsis, Phyllosticta, Septoria, and Sphaceloma. Spots on leaves and fruit can expand and grow together. Leaf spot pathogens require water to infect plants. During wet weather, spots can develop into a blight, very rapidly, killing leaves, flowers and stems.
- -Rusts are small orange blisters that appear on plant leaves, and that are full of orange powder. The orange powder is rust spores. Towards the end of the season, black spores are often produced. Rust is commonly found on grasses and currants.
- -Fruit rots commonly occur on strawberries, raspberries, and other fruit. They appear as soft, rotten areas on the fruit. Often the causal fungus can be seen growing and producing spores on the surface of the rotting area. Rots are often caused by fungi belonging to the following genera: Aspergillus, Botrytis, Monilinia, Mucor, Penicillium, Rhizopus and Sclerotinia.
- -Designed for GardenPro (Independent) Retailers
- -[Insert brand name] & your environment your home and yard are places for family and pets to enjoy. That's why [brand name] products are designed with care to provide effective solutions to problems inside and outside your home. For best results please follow instructions for appropriate usage, storage and disposal.
- -[telephone icon] Questions, Comments (Medical Information) Call X-XXX-XXX-XXXX (insert company website) [computer icon]
- -www.neudorff.com



- -Cueva<sup>TM</sup> is a trademark of W. Neudorff GmbH KG
- -Contains Cueva<sup>TM</sup> Fungicide Concentrate, a trademark of W. Neudorff GmbH KG
- -Made with Cueva<sup>TM</sup> Fungicide Concentrate, a trademark of W. Neudorff GmbH KG



-For Organic Gardening



- -Listed by the Organic Materials Review Institute (OMRI) for use in production of organic food and fiber
- -Listed by the Organic Materials Review Institute (OMRI) for use in organic production

[for use by Bonide Products Inc., a licensed distributor of NEU1140F RTU Copper Soap. [ when Bonide Products uses the brand name Garden Naturals when selling or distributing this product, it must place an asterisk after the brand name and, in close proximity to the brand name, place the statement 'not intended to imply environmental safety either alone or compared to other products']

### -Cultural Method to Assist in Reducing Plant Disease

Several common sense techniques can also be used to reduce plant disease. These include:

- Inspect the plants often for signs of disease or insect pests. Take appropriate measures when warranted.
- Promote healthy plant growth, but do not over fertilize.
- Do not grow the same types of plants in the same location in successive years.
- Control weed species around the garden that are related to the plant species that you are growing. Weeds are a source of plant pathogens.
- Space plants to ensure good airflow and drying after rain. Also, water plants in the morning to minimize the time that the plants are wet. Wet leaves, flowers and fruit promote infections by plant pathogens.
- Prune plants during dry weather to avoid wound infections.
- At the end of the growing season remove and compost all garden refuse. Garden refuse can act as a source of plant pathogens.]

The registrant may use one of these optional statements, either:

### "NOTICE TO BUYER

GARDEN

Seller warrants that this product conforms to the chemical description on this label and is reasonably fit for purposes stated on this label only when used in accordance with directions under normal use conditions. This warranty does not extend to use of this product contrary to label directions, or under abnormal use conditions, or under conditions not reasonably foreseeable to seller. To the extent consistent with applicable law, buyer assumes all risk of any such use. Seller makes no other warranties, either expressed or implied.

OR

Unconditionally guaranteed by W. Neudorff GmbH KG. If for any reason you are not satisfied with this product, send proof of purchase to the address shown and we will gladly refund your purchase price.

[The] (insert company name) Guarantee – If for any reason you are not satisfied with this product, mail us proof of purchase to obtain a full refund of your purchase price."

Registrant:

W. Neudorff GmbH KG, Postfach 1209, An der Mühle 3,

D-31860 Emmerthal, Germany

US Patent Number: 5,246,716

## **SUBLABEL B: Commercial Agricultural Use**

## **NEU1140F Copper Soap**

Flowable Liquid Copper Fungicide

Active Ingredient:

Copper Octanoate (Copper Soap) 10.0%

CAS Reg. No. 20543-04-8

Other Ingredients90.0%Total100.0%

metallic copper equivalent 1.8%

one gallon contains 0.16 lbs. metallic copper equivalent

EPA REG. NO. 67702-2

EPA EST. NO.

NET CONTENTS: 1 gallon, 2.5 gallons, 5 gallons, 10 gallons, 20 gallons, 40 gallons, 45 gallons, 50 gallons, 200 gallons or 250 gallons

# 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	-Take off contaminated clothing.	
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 a poison control center or doctor immediately for treatment	
	advice.	
j	-Have person sip a glass of water if able to swallow.	
}	-Do not induce vomiting unless told to by a poison control center or	
	doctor.	
	-Do not give anything by mouth to an unconscious person	
Have the product container or label with you when calling a poison control center or		

### PRECAUTIONARY STATEMENTS

doctor or going for treatment.

### Hazards to Humans and Domestic Animals

**CAUTION:** Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before

eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE): Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection sheet. Mixers/loaders and other handlers must wear the following: long-sleeved shirts, long pants, chemical resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber or butyl rubber, and shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

### **User Safety Recommendations**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **Environmental Hazards**

This product is toxic to fish and aquatic organisms and may contaminate water through runoff. 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 by disposal of equipment washwaters or rinsate. This product may contaminate water through runoff. Poorly draining soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

#### **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 manner that will contact workers or other persons, either directly or through drift. Only protected workers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Read and follow all applicable directions and precautions on this label before using.

### Agricultural Use Requirements

Use this product in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted-entry interval, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

**Entry-Restrictions:** Do not enter or allow worker entry into treated areas during the restricted-entry interval of 4 hours.

PPE required for early-entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear: long sleeved shirt, long pants, shoes, socks and chemical-resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber, or butyl rubber.

### Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow others to enter until sprays have dried.

### DIRECTIONS FOR USE

Shake well before use. Most conventional liquid pesticide plant sprayers can be used to apply NEU1140F COPPER SOAP to plants. A spreader may be used to improve the spreading of NEU1140F COPPER SOAP on hard to wet plants.

## Tank Mixing NEU1140F COPPER SOAP with Other Pesticides

Read and follow all applicable directions and precautions on the label of other products, before mixing with NEU1140F COPPER SOAP.

NEU1140F COPPER SOAP can be applied up to day of harvest. When tank-mixed with products, do not apply that product closer to harvest than is permitted or stated on the other product's label.

Pour NEU1140F COPPER SOAP into spray tank at least half filled with water using adequate agitation. When mixed with other products proven or known to be compatible,

wettable powders should be added first, followed in order by flowables (such as NEU1140F COPPER SOAP), and then emulsifiable concentrates.

NEU1140F COPPER SOAP can be mixed with Bravo® (WP, 720, 500), Captan, Daconil® 2787, Ferbam, maneb (WP or Flowable), Dithane® M-45, Manzate® 200, sulfur (wettable or flowable), organo phosphates, Thiodan®, Bacillus thuringiensis Berliner, Guthion®, Pydrin®, Diazinon®, malathion for use on the crops listed on this label, in accordance with the most restrictive of label limitations and precautions. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing. Do not mix NEU1140F COPPER SOAP with oil when applied to citrus. Do not mix NEU1140F COPPER SOAP with chelated or liquid fertilizers. Use caution when using product with other fungicides and insecticides. Observe all cautions and limitations on all products used in mixtures.

### Chemigation

Apply this product only through sprinkler systems, including center pivot, lateral move, end tow, side (wheel) roll, traveler, bug gun, solid set, or hand move. Do not apply this product through any other type of irrigation system.

Mix XX gallons of Cueva in XX gallons of water in the mixing tank employing agitation. Apply the Cueva at the end of the irrigation cycle to one acre.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation ofr under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regular serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the

water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior the pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

# Directions for use on Vegetables, Herbs, Field Crops, Nuts, Fruits including Citrus and Berries

Mix 0.5 to 2.0 gallons of NEU1140F COPPER SOAP with 100 gallons of water. Apply 50 to 100 gallons of diluted spray per acre. For application by aircraft, apply 5-25 gallons of diluted spray to one acre. For best control, begin treatment 2 weeks before disease normally appears or when weather forecasts predict a long period of wet weather. Alternatively, begin treatment when disease first appears, and repeat at 7 to 10 day intervals for as long as needed. Use the 2.0 gallon rate of NEU1140F COPPER SOAP, applied at the minimum retreatment interval for the crop, following heavy rain or when the amount of disease is increasing rapidly. If possible, time applications so that 12 hours of dry weather follow application.

Fruit and Nut Crops

Crop	Disease Controlled	Specific Use Instructions
Almonds	Bacterial spot, Bacterial canker (Pseudomonas syringae), Brown rot, Blossom blight, leaf and fruit spots, Coryneum blight (shot-hole), Anthracnose	For bacterial canker, apply as a dormant spray as buds begin to swell, repeating at the bud burst stage, and weekly thereafter as needed, up to six sprays. In fall spray again at 10 and 80% of leaf fall. For brown rot blossom blight apply full cover spray at delayed dormant (bud swell), popcorn, full bloom and petal fall stages. During wet weather, additional bloom sprays may be necessary. Do not apply more than 6000 gallons of diluted spray per acre per year. Do not reapply within 5 days during the growing season or within 7 days during the dormant season.
Blueberries	Gray mold, mucor fruit rot, Rhizopus fruit rot	Apply at the start of flowering and continue every 7 to 10 days until harvest. Do not apply more than 2800 gallons of diluted spray per acre per year. Do not reapply within 7 days.
Caneberries (Blackberries, Raspberries)	Gray mold, mucor fruit rot, Rhizopus fruit rot	Apply at the start of flowering and continue every 7 to 10 days until harvest. Do not apply more than 3335 gallons of diluted spray per acre per year. Do not reapply within 7 days.
Citrus (Grapefruit, Lemon, Lime, Orange, Pummelo, Tangerine)	Melanose, greasy spot, citrus scab, alternaria brown spot, red alga (florida)	Apply 1 to 3 weeks after petal fall. Repeat every 2 weeks if necessary until the fruit is 3 inches in diameter. For red alga, apply in spring as a preventative spray. Repeat in late summer to control new algal colonies.  Use Precaution: Do not mix with oil Do not apply more than 4200 gallons of diluted spray per acre per year. Do not reapply within 7 days.
Currants, Gooseberries	Powdery mildew	Do not apply more than 3335 gallons of diluted spray per acre per year. Do not reapply within 10 days.
Grapes	Downy mildew, black rot, phomopssis cane, leaf spot, powdery mildew, gray mold	Begin treatment when new growth reaches ½ inch and repeat at 7 to 14 day intervals throughout the growing season.  Use Precaution: Do not mix NEU1140F COPPER SOAP with lime. Certain Vinifera and French Hybrid varieties may be sensitive to copper sprays resulting in marginal leaf burn. Before spraying these varieties, consult your State Experiment Station or make test sprays. Do not apply more than 6670 gallons of diluted

		spray per acre per year. Do not reapply within 3 days.
Pome Fruits (Apples, Pears, Quince)	Anthracnose, Cedar Apple Rust, Fireblight, Scab, Sooty Blotch, Flyspeck, Quince Rust	For Cedar Apple Rust, apply every 7 to 10 days from the pink bud stage until 30 days after petal fall. The disease can also be reduced by removing nearby eastern red cedar plants. For fireblight spray at silver tip and bud break and repeat at 5 day intervals as needed, up to petal fall.  Use Precaution: May cause russeting of susceptible apple varieties. Do not exceed the 1.0 gallon rate.  Do not apply more than 10,670 gallons of diluted spray per acre per year. Do not reapply within 5 days. Do not apply more than once during the dormant season.
Strawberries	Gray mold, mucor fruit rot, Rhizopus fruit rot, angular leaf spot, leaf scorch, mycosphaerella leaf spot, phomopsis leaf blight, powdery mildew, septoria leaf spots, anthracnose fruit rot	Apply at the start of flowering and continue every 7 to 10 days until harvest. Do not apply more than 2730 gallons of diluted spray per acre per year. Do not reapply within 7 days.
Stone Fruits (Apricots, Cherries, Peaches, Nectarines, Plums)	Bacterial spot, Bacterial canker (Pseudomonas syringae), Brown rot, Blossom blight, leaf and fruit spots, Coryneum blight (shot-hole), Anthracnose	For bacterial canker, apply as a dormant spray as buds begin to swell, repeating at the bud burst stage, and weekly thereafter as needed, up to six sprays. In fall spray again at 10 and 80% of leaf fall. For brown rot blossom blight apply full cover spray at delayed dormant (bud swell), popcorn, full bloom and petal fall stages. During wet weather, additional bloom sprays may be necessary. For peach leaf curl apply as a dormant spray in late fall during a period of dry weather. Do not apply more than 6000 gallons of diluted spray per acre per year. Do not reapply within 5 days during the growing season or within 7 days during the dormant season.
Walnuts	Blight	Make first application when leaflets start to unfold (prior to, but no later than 1% pistulate bloom) and repeat weekly as needed, especially until seasonal rainfall stops. When rain

threatens, additional applications are important, applied before or immediately after the rain. Do not apply more than 8400 gallons of diluted spray per acre per year. Do not reapply within 7
days.

## **Vegetable and Field Crops**

Crop	Disease(s) Controlled	Application Notes
Artichoke	Powdery mildew, bacterial spot, bacterial soft rot and bottom rot	For powdery mildew, plants that are very susceptible should be sprayed twice a week during the first 2 weeks after emergence, and weekly thereafter. On outdoor plants, reapply after rain.
Bean, Pea	Anthracnose leaf and fruit spot, Ascochyta leaf and pod spot, Bacterial blights (halo, common and brown spot), Downy mildew, Gray mold (Botrytis), Powdery mildew, White mold (Sclerotinia)	For powdery mildew, plants that are very susceptible should be sprayed twice a week during the first 2 weeks after emergence, and weekly thereafter. On outdoor plants, reapply after rain. For white mold, to prevent floral infection, apply NEU1140F COPPER SOAP at 25% bloom. For peas, do not apply more than 1318 gallons of diluted spray per acre per year. For beans, do not apply more than 1580 gallons of diluted spray per acre per year. Do not reapply within 7 days.
Beet, Chard, Spinach	Cercospora leaf spot, Downy mildew, Powdery mildew, White rust	For beets, do not apply more than 2620 gallons of diluted spray per acre per year. For spinach, do not apply more than 1318 gallons of diluted spray per acre per year. Do not reapply within 10 days on beets or within 7 days on spinach.
Carrot	Alternaria leaf blight, Bacterial leaf blight, Cercospora leaf blight	Do not apply more than 1668 gallons of diluted spray per acre per year. Do not reapply within 7 days.
Celery and celeriac	Bacterial leaf spot, Cercospora (early) blight, Septoria (late) blight	Do not apply more than 1768 gallons of diluted spray per acre per year. Do not reapply within 7 days.
Corn	Alternaria blight, Anthracnose, Ascochyta leaf and pod spot, Bacterial	Do not apply more than 1400 gallons of diluted spray per acre per year. Do not reapply within 7 days.

fruit spot, Cercospora leaf spot, Downy mildew, Powdery mildew  Lettuce, Chicory, Endive  Bacterial soft rot and bottom rot, Downy mildew, Powdery mildew, Septoria leaf spot  Leaf spot  Garlic,  Botrytis leaf blight,  diluted spray per acre per year. Do not reapply within 10 days.  For powdery mildew, plants that are very susceptible should be sprayed twice a week during the first 2 weeks after emergence, and weekly thereafter.  Use Precaution: Use lower rate on copper sensitive varieties of lettuce.  Do not apply more than 2670 gallons of diluted spray per acre per year. Do not reapply within 5 days.  Onion, Garlic, Botrytis leaf blight,  Do not apply more than 2000 gallons of	Crucifer Crops (Broccoli, Brussel sprouts, Canola, Cauliflower, Cabbage, Kale, Kohlrabi, Mustard, Pak-choi, Rape, Rutabaga, Turnip)	blights (halo, common, and brown spot), Bacterial leaf spot, Downy mildew, Gray mold, Southern leaf blight, Cercospora leaf blight Alternaria blight, Bacterial leaf spot, Downy mildew, Powdery mildew, White mold (Sclerotinia)	For white mold, to reduce floral infection apply NEU1140F COPPER SOAP at 25% bloom. Do not apply more than 884 gallons of diluted spray per acre per year. Do not reapply within 7 days.
Botrytis blight, Phytophthora, Powdery mildew  Hop Anthracnose leaf and fruit spot, Cercospora leaf spot, Downy mildew, Powdery mildew  Lettuce, Chicory, Endive Bacterial soft rot and bottom rot, Downy mildew, Powdery mildew, Septoria leaf spot For powdery mildew, plants that are very susceptible should be sprayed twice a week during the first 2 weeks after emergence, and weekly thereafter. Use Precaution: Use lower rate on copper sensitive varieties of lettuce. Do not apply more than 2670 gallons of diluted spray per acre per year. Do not reapply within 5 days.  Onion, Garlic, Botrytis leaf blight, Do not apply more than 2000 gallons of	(Cucumbers, Cantaloupe, Squash, Pumpkin,	scab, Angular leaf spot, Antracnose, Downy mildew, Gray mold, Ulocladium leaf spot, Bacterial spot,	powdery mildew, such as greenhouse-grown cucumber, it is best to spray the plants twice a week during the first 2 weeks after emergence, and weekly thereafter. On outdoor plants, reapply after rain. Do not apply more than 1750 gallons of diluted spray per acre per year. Do not reapply
fruit spot, Cercospora leaf spot, Downy mildew, Powdery mildew  Lettuce, Chicory, Endive  Bacterial soft rot and bottom rot, Downy mildew, Powdery mildew, Septoria leaf spot  Leaf spot  Garlic,  Garlic,  Garlic,  Garlic,  Gercospora leaf spot, Cercospora leaf spot, Downy mildew, Powdery mildew For powdery mildew, plants that are very susceptible should be sprayed twice a week during the first 2 weeks after emergence, and weekly thereafter. Use Precaution: Use lower rate on copper sensitive varieties of lettuce. Do not apply more than 2670 gallons of diluted spray per acre per year. Do not reapply within 5 days.  Onion, Garlic, Botrytis leaf blight, Do not apply more than 2000 gallons of	Ginseng	Botrytis blight, Phytophthora,	
Endive  bottom rot, Downy mildew, Powdery mildew, Septoria leaf spot  leaf spot  bottom rot, Downy mildew, Powdery mildew, Septoria leaf spot  Use Precaution: Use lower rate on copper sensitive varieties of lettuce.  Do not apply more than 2670 gallons of diluted spray per acre per year. Do not reapply within 5 days.  Onion, Garlic, Botrytis leaf blight,  Do not apply more than 2000 gallons of	Нор	fruit spot, Cercospora leaf spot, Downy mildew,	reapply within 10 days.
	,	bottom rot, Downy mildew, Powdery mildew, Septoria	susceptible should be sprayed twice a week during the first 2 weeks after emergence, and weekly thereafter.  Use Precaution: Use lower rate on copper sensitive varieties of lettuce.  Do not apply more than 2670 gallons of diluted spray per acre per year. Do not reapply within 5 days.
Leek Shallot Llowny mildew I dillited spray per acre per year. Do not	Onion, Garlic, Leek, Shallot,	Botrytis leaf blight, Downy mildew,	Do not apply more than 2000 gallons of diluted spray per acre per year. Do not

Chives	Neck rot, Bacterial soft rot	reapply within 7 days.
Parsley	Leaf scorch, Leaf spot	Do not apply more than 667 gallons of diluted spray per acre per year. Do not reapply within 10 days.
Peanuts	Leaf spots (early and late), web blotch, Sclerotinia blight	For leaf spots and web blotch, begin spray when disease first appears, or for best control begin early, usually 25 to 40 days after emergence and repeat at 10 to 14 days until harvest.  For Sclerotinia blight, make first application at first bloom and repeat every 7 to 14 days until harvest. Use higher rates of NEU1140F COPPER SOAP where Sclerotinia blight infection is expected to be heavy. Do not apply more than 1580 gallons of diluted spray per acre per year. Do not reapply within 7 days.
Tomato, Potato, Eggplant, Pepper	Anthracnose, Bacterial speck, Bacterial spot, Cercospora leaf spot, Early blight, Gray mold, Late blight, Leaf mold, Septoria leaf spot.	Use 2.0 gallons NEU1140F COPPER SOAP in 50 to 100 gallons of water when spraying to control late blight. On tomatoes, do not apply more than 5800 gallons of diluted spray per acre per year. On potatoes, do not apply more than 8338 gallons of diluted spray per acre per year. On eggplant, do not apply more than 2635 gallons of diluted spray per acre per year. On peppers, do not apply more than 3953 gallons of diluted spray per acre per year. On tomatoes and peppers, do not reapply within 3 days. On potatoes, do not reapply within 5 days. On eggplant, do not reapply within 7 days.
Tobacco	Blue mold (Downy mildew)	NEU1140F COPPER SOAP can be used on tobacco in transplant beds or on field grown plants. Do not apply more than 2668 gallons of diluted spray per acre per year. Do not reapply within 10 days.

## **Directions for Use on Ornamentals**

NEU1140F COPPER SOAP can be used for controlling diseases on ornamentals grown under field conditions, in nurseries, greenhouses, interior landscapes and other sites. For control of these diseases on plants grown on a large scale, mix 0.5 to 2.0 gallons in 100 gallons of water, and apply to 1 acre. For plants grown on a small scale, mix 0.5 to 2.0

fluid ounces in 1 gallon of water, and spray all plant surfaces thoroughly. When necessary, repeat sprays every 7 to 10 days. NEU1140F COPPER SOAP may cause some copper toxicity on some plant species. Before spraying a specific plant species, consult your State Experiment Station or make a test spray. Do not apply more than 6670 gallons of diluted spray per acre per year. Do not reapply within 7 days.

### **ORNAMENTAL PLANTS**

The ornamental species listed below may be treated with NEU1140F COPPER SOAP. The diseases controlled have been designated with the following codes.

Code	Common name	Causal Pathogen
ANTH	Anthracnose	Colletotrichum, Glomerella
BOT	Botrytis blight	Botrytis cinerea
BLS	Bacterial leaf spot and blight	Erwinia, Pseudomonas, Xanthomonas
DM	Downy mildew	Plasmopara
LEAFSPOT	Leaf spot (fungal)	Acremonium, Alternaria, Cephalosporium,
		Cercospora, Colletotrichum, Corynespora,
		Curvularia, Dactylaria, Drechslera,
		Exserohilium, Glomerella, Myrothecium,
		Phyllosticta, Phytophthora
PM	Powdery mildew	Oidium
RHIZC	Rhizoctonia blight	Rhizoctonia
SOFTROT	Soft rot	Erwinia

Ornamental Plant	Common Name	Diseases Controlled
Aechmea faciata	Urn plant, bromeliad	ANTH, BLS
Aeschynanthus pulcher	Lipstick vine	BOT, LEAFSPOT
Aglaonema species	Chinese evergreen	ANTH, BLS, LEAFSPOT,
•		RHIZC, BLS, SOFTROT
Anthurium species	Tailflower	ANTH, BLS, LEAFSPOT,
-		RHIZC, SOFTROT
Aphelandra squarrosa	Zebra plant	BOT, LEAFSPOT, RHIZC
Araucaria heterophylla	Norfolk Island pine	Colletotrichum needle
• •		blight
Asplenium nidus	Bird's nest fern	BLS
Duanania active anhalla	Schefflera	ANTH, BLS, LEAFSPOT,
Brassaia actinophylla	Schemera	RHIZC
Caladium angoing	Caladium	BLS, RHIZC
Caladium species Calathea species	Rattlesnake plant	BLS, LEAFSPOT
-	Fishtail palm	BLS, LEAFSPOT
Caryota mitis Chamaedorea species	various palms	LEAFSPOT
Chamaeaorea species Chrysalidocarpus lutescens	Areca palm	LEAFSPOT
Chrysaliaocarpus tutescens	/ Heea paini	

Cissus species	Grape ivy	ANTH, BOT, DM, PM, RHIZC
Codiaeum variegatum	Croton	ANTH, BLS
Cordyline terminalis	Ti plant	ANTH, LEAFSPOT
Chryptanthus species	Bromeliad, earthstar	ANTH
Dieffenbachia species	Dieffenbachia	BLS, LEAFSPOT, RHIZC
Dracaena species	Dracaena, Corn plant	BLS, BOT, LEAFSPOT
Epipremnum aureum	Pothos, Devil's ivy	BLS, RHIZC
Euphorbia milii	Euphorbia	RHIZC
Fatsia japonica	Japanese fatsia	BLS, LEAFSPOT, RHIZC
Ficus benjamina	Weeping fig	LEAFSPOT
Ficus elastica	India-rubber tree	LEAFSPOT, BOT
Fittonia verschaffeltii	Nerve plant	RHIZC
Hedra helix	English ivy	ANTH, BLS, BOT,
		LEAFSPOT, RHIZC
Hoya carnosa	Wax plant	BOT, LEAFSPOT, RHIZC
Maranta leuconeura	Prayer plant	LEAFSPOT
Monstera deliciosa	Swiss cheese plant	BLS, ANTH, RHIZC, SOFTROT
Nephrolepis exaltata	Boston fern	BSL, BOT, RHIZC
Peperomia species	Peperomia	LEAFSPOT, RHIZC
Philodendron species	Philodendron	ANTH, BOT, LEAFSPOT
Pilea species	Aluminum plant	BLS, ANTH, LEAFSPOT, RHIZC
Platycerium bifurcatum	Staghorn fern	BLS, RHIZC
Polyscias species	Aralia	ANTH, BLS, LEAFSPOT
Rhapis species	Ladyfinger palm	LEAFSPOT
Rhoeo spathacea	Oyster plant	LEAFSPOT
Saintpaulia ionantha	African violet	BLS, BOT, LEAFSPOT, PM
Sansevieria triafasciata	Snake plant	BLS, LEAFSPOT
Schefflera arboricola	Dwarf Schefflera	BLS, LEAFSPOT
Schlumbergera species	Cactus	LEAFSPOT
Sedum species	Sedum	LEAFSPOT
Spathiphyllum species	Spathe flower	LEAFSPOT, RHIZC
Syngonium podophyllium	Nephthytis	BLS, LEAFSPOT, RHIZC
Yucca species	Yucca	LEAFSPOT

Crop	Disease Controlled	Specific Use Instructions
Pine	Needle Blight	Apply when new needles are just emerging. Make a second application 3 weeks

		later.
ROSE AND ORNAMENTAL SHRUBS (Such as Crape Myrtle, Forsythia, Hydrangea, Willow, Mock-Orange, Deutzia, Pyracantha, Japanese quince, Abelia, Summersweet)	Blackspot, Downy mildew, Gray mold, Leafspots, Powdery mildew, Rust	Begin treatment when new spring growth emerges and repeat every 7 to 10 days for as long as needed to control disease. NEU 1140F COPPER SOAP may cause copper toxicity on some rose varieties. Copper toxicity appears as purple spots.
Sycamore	Anthracnose	Make first application just before buds begin to swell, and repeat twice at 7-day intervals.

### **Directions for Use on Turf**

NEU1140F COPPER SOAP is suitable for controlling diseases of turf in golf courses, turf farms, home lawns and other sites. For large areas, mix 0.5 to 2.0 gallons in 100 gallons of water and apply to 1 acre. For small areas mix 1.5 to 6 fluid ounces with 2.5 gallons of water and apply to 1000 ft<sup>2</sup>. For best control, begin treatment 2 weeks before disease normally appears. Alternatively, begin treatment when disease first appears, and repeat at 7 to 10 day intervals for as long as needed. Do not apply more than 3000 gallons of diluted spray per acre per year. Do not reapply within 10 days.

### Ascochyta leaf blight, Cercospora leaf spots, Dollar spot

To reduce Ascochyta leaf blight mow less frequently, only as necessary to maintain recommended height. Water before noon to allow grass to dry. Water thoroughly only as required to avoid moisture stress. Apply NEU1140F COPPER SOAP when disease first appears, and repeat at 7 to 10 day intervals for as long as needed. In frequently diseased areas, prune adjacent trees and shrubs to reduce turf shading and to improve air movement.

#### Rust

To reduce rust, mow frequently to reduce rust spore production. Water and fertilize lawn as required to avoid moisture and nutrient stress. Water before noon to allow grass to dry. Apply NEU1140F COPPER SOAP when disease first appears, and repeat at 7 to 10 day intervals for as long as needed. In frequently diseased areas, prune adjacent trees and shrubs to reduce turf shading and to improve air movement.

### PESTICIDE STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in a secure place, away from open fire or flame. Keep container closed and reseal after use. Product may be damaged by freezing. Do not store product below 4°C. If spilled, use absorbent materials and dispose of in an approved manner.

**Pesticide Disposal:** Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container.

[For containers equal to or less than 5 gallons] Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[For containers greater than 5 gallons] Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### **BATCH CODE**

(The following information may or may not be placed, in whole or in part, on the final label:

- -This container will treat XX to XY acres
- -Copper Soap Fungicide
- -For Roses, Fruits & Vegetables
- -Controls Powdery Mildew, Black Spot & Rust!
- -Where to use
- -Ornamentals and Turf
- -Vegetables, Fruits, and Nuts
- -Manufactured under a license of Neudorff.
- -Roses & Ornamentals: Controls black spot, rust, powdery and downy mildew.
- -Fruit trees: Controls peach leaf curl, brown rot, fireblight, scab, blossom blight, leaf and fruit spot
- -Vegetables: Controls powdery mildew, downy mildew, botrytis, alternaria leaf blight and septoria leaf spot.
- -Use as a dormant spray for peach leaf curl.
- -Controls peach leaf curl.
- -Use for early and late blight on tomatoes (and potatoes).
- -Controls powdery mildew

- -Controls many listed plant diseases using low concentrations of copper.
- -For a wide range of plant diseases: powdery mildew, rusts, blackspot, leaf & fruit spot, downy mildew, fruit rot, late blight.
- -Used to control a wide range of plant diseases: powdery mildew, rusts, blackspot, leaf & fruit spot, downy mildew, fruit rot, late blight.
- -Dormant and growing season liquid copper fungicide.
- -Fixed copper is one of the oldest fungicides and bactericides, used to control a wide range of listed plant diseases. NEU1140F COPPER SOAP is a patented, fixed copper fungicide, made by combining a soluble copper fertilizer with a fatty acid. The copper and the fatty acid combine to form a copper salt of the fatty acid, known technically as a true soap. The copper soap fungicide controls listed diseases using low concentrations of copper. The net result is an effective vegetable, fruit and ornamental fungicide. NEU1140F COPPER SOAP decomposes to form soluble copper, and fatty acid, both of which can be used by microbes and plants. NEU1140F COPPER SOAP is suited for use in domestic circumstances, both indoors and outdoors.
- -Decomposes to a form useful to plants & microbes.
- -NEU1140F COPPER SOAP controls listed diseases of a wide range of plants, including many vegetables, fruit and ornamentals. As with most fungicides, NEU1140F COPPER SOAP acts to protect plants from infection. Therefore, it is important to have NEU1140F COPPER SOAP on the leaf, flower or fruit before the pathogen is able to cause an infection.
- -A wide range of bacteria and fungi attack plants, however, they generally only cause a few types of diseases. When using NEU1140F COPPER SOAP, it is important to identify the type of disease in order to use the best method of disease control.
- -Powdery mildews tend to occur on the upper leaf surfaces, as though a white powder was sprinkled onto the plant. Powdery mildews can form a dense, white, cottony mass, making the whole leaf appear white. They are also commonly found on stems. Powdery mildews rarely kill plants. Most fungal diseases require water to infect plants. Powdery mildews are unique in that they do not require water for infection. Hence, under greenhouse conditions, powdery mildews can become severe. Shade and dense plantings also promote powdery mildew. Powdery mildews commonly occur on the following plants: apple, bean, beet, broccoli, brussel sprouts, cauliflower, cabbage, cantaloupe, chard, chicory, chive, cucumber, currant, endive, gooseberry, grape, grasses, hop, kale, kohlrabi, lettuce, lilac, oak, pea, pumpkin, rose, rutabaga, spinach, squash, strawberry, turnip, zucchini.
- **-Downy mildews** tend to occur on the lower leaf surfaces. Downy mildews are much finer than powdery mildews, and appear as fine white cotton, similar to duck down. Downy mildews can rapidly kill plant leaves during wet, cool weather, but are inhibited by hot dry weather. Downy mildews commonly occur on the following plants: bean, beet, broccoli, brussel sprouts, cauliflower, cabbage, cantaloupe, chard, chicory, chive, corn, cucumber, endive, garlic, grape, grasses, hop, kale, kohlrabi, leek, lettuce, onion, pea, pumpkin, rutabaga, shallot, spinach, squash, sunflower, tobacco, turnip, zucchini.
- -Leaf and fruit spots are small brown or black spots on the leaf or fruit. They commonly occur on apple and pear (scab), as well as on most of the plants grown around the home and in the garden. These spots can be caused by a range of fungi and bacteria.

Leaf and fruit spots are commonly caused by fungi belonging to the following genera: Alternaria, Cercospora, Colletotrichum, Cylindrosporium, Gloeosporium, Glomerella, Gnomonia, Marssonia, Mycosphaerella (Didymella), Phomopsis, Phyllosticta, Septoria, and Sphaceloma. Spots on leaves and fruit can expand and grow together. Leaf spot pathogens require water to infect plants. During wet weather, spots can develop into a blight, very rapidly, killing leaves, flowers and stems.

- -Rusts are small orange blisters that appear on plant leaves, and that are full of orange powder. The orange powder is rust spores. Towards the end of the season, black spores are often produced. Rust is commonly found on grasses and currants.
- -Fruit rots commonly occur on strawberries, raspberries, and other fruit. They appear as soft, rotten areas on the fruit. Often the causal fungus can be seen growing and producing spores on the surface of the rotting area. Rots are often caused by fungi belonging to the following genera: Aspergillus, Botrytis, Monilinia, Mucor, Penicillium, Rhizopus and Sclerotinia.
- -[telephone icon] Questions, Comments (Medical Information) Call X-XXX-XXX-XXXX (insert company website) [computer icon]
- -www.neudorff.com



- -Cueva<sup>TM</sup> is a trademark of W. Neudorff GmbH KG
- -Contains Cueva<sup>TM</sup> Fungicide Concentrate, a trademark of W. Neudorff GmbH KG
- -Made with Cueva<sup>TM</sup> Fungicide Concentrate, a trademark of W. Neudorff GmbH KG



-For Organic Production



GARDEN

- -Listed by the Organic Materials Review Institute (OMRI) for use in production of organic food and fiber
- -Listed by the Organic Materials Review Institute (OMRI) for use in organic production

NATURALS [for use by Bonide Products Inc., a licensed distributor of NEU1140F RTU Copper Soap. [ when Bonide Products uses the brand name Garden Naturals when selling or distributing this product, it must place an asterisk after the brand name and, in close proximity to the brand name, place the statement 'not intended to imply environmental safety either alone or compared to other products']

## -Cultural Method to Assist in Reducing Plant Disease

Several common sense techniques can also be used to reduce plant disease. These include:

- Inspect the plants often for signs of disease or insect pests. Take appropriate measures when warranted.
- Promote healthy plant growth, but do not over fertilize.
- Do not grow the same types of plants in the same location in successive years.
- Control weed species around the garden that are related to the plant species that you are growing. Weeds are a source of plant pathogens.
- Space plants to ensure good airflow and drying after rain. Also, water plants in the morning to minimize the time that the plants are wet. Wet leaves, flowers and fruit promote infections by plant pathogens.
- Prune plants during dry weather to avoid wound infections.
- At the end of the growing season remove and compost all garden refuse. Garden refuse can act as a source of plant pathogens.]

The registrant may use one of these optional statements, either:

### "NOTICE TO BUYER

Seller warrants that this product conforms to the chemical description on this label and is reasonably fit for purposes stated on this label only when used in accordance with directions under normal use conditions. This warranty does not extend to use of this product contrary to label directions, or under abnormal use conditions, or under conditions not reasonably foreseeable to seller. To the extent consistent with applicable law. Buyer assumes all risk of any such use. Seller makes no other warranties, either expressed or implied.

OR

Unconditionally guaranteed by W. Neudorff GmbH KG. If for any reason you are not satisfied with this product, send proof of purchase to the address shown and we will gladly refund your purchase price.

OR

[The] (insert company name) Guarantee - If for any reason you are not satisfied with this product, mail us proof of purchase to obtain a full refund of your purchase price."

Registrant:

W. Neudorff GmbH KG, Postfach 1209, An der Mühle 3,

D-31860 Emmerthal, Germany

US Patent Number: 5,246,716