

5905-483

7-23-2002

HELENA 3.5 LB. LIQUID COPPER FUNGICIDE

ACTIVE INGREDIENT:

*Copper (Expressed as Metallic).....26.12%

INERT INGREDIENT:.....73.88%

TOTAL.....100.00%

This product contains 3.5 lbs. of Metallic Copper per gallon.

*Copper Source is Tribasic Copper Sulfate.

KEEP OUT OF REACH OF CHILDREN

WARNING - AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand the label, find someone to explain it to you. In detail)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING - AVISO

May be fatal. Do not breathe spray mist. Do not get in eyes, or on skin, or on clothing.

FIRST AID

IF SWALLOWED: • Call a poison control center or doctor immediately for treatment advice.

- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Have a person sip a glass of water if able to swallow.
- Do not give anything to an unconscious or convulsing person.

IF INHALED: • Move victim to fresh air. If not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.

IF ON SKIN: • Take off contaminated clothing.

- Rinse skin immediately with plenty of water, after the first minutes, then continue rinsing.
- Call a poison control center or doctor immediately for treatment advice.

IF IN EYES: • Hold eyelid 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.
- Call a poison control center or doctor immediately for treatment advice.

HOT LINE NUMBER

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

SEE INSIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA REG. NO. 5905-483

EPA EST. NO.

MANUFACTURED BY

HELENA CHEMICAL COMPANY

225 SCHILLING BOULEVARD, SUITE 300

COLLIERVILLE, TENNESSEE 38017

ACCEPTED

JUL 23 2002

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under

EPA Reg. No. 5905-483

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

Long-Sleeved shirt and long pants

Waterproof gloves

Shoes plus socks

Discard clothing and other absorbant materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statements

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water or wetlands. Do not apply where runoff is likely to occur. Do not apply where weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwaters.

CHEMIGATION PROHIBITION

Do not apply this product through any type of irrigation system.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only 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), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 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, is:

Coveralls

Waterproof gloves

Shoes plus socks

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

STORAGE AND DISPOSAL
 Do not contaminate water, food or feed by storage or disposal. Keep in a cool place. Do not store at temperature below 32°F. Open dumping is prohibited. Do not reuse empty container.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

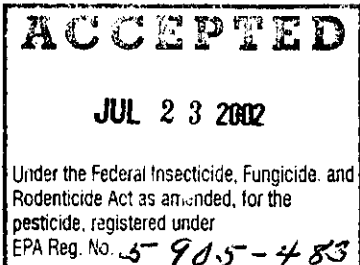
CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**MIXING DIRECTIONS AND RECOMMENDATIONS
SHAKE WELL BEFORE USING**

Fill the spray tank 1/2 full of water and with agitator running, add the required amount of Helena 3.5 Lb. Liquid Copper Fungicide. Add water to fill the spray tank 3/4 full and when a spreader sticker is recommended, add the recommended amounts. Fill the spray tank and keep agitator running until spraying is completed.

CONVERSION CHART FOR HELENA 3.5 LB. COPPER

FLUID OUNCES	QUARTS*	GALLONS
4.8	.15	
9.6	.3	
12.8	.4	
19.2	.6	
27.2	.85	
	1.15	
	1.7	
	2.3	
	2.9	
	3.5	
	4.0	1.0
	4.6	1.15
	5.7	1.425
	6.9	1.725
	14.9	3.725



* All rates in the Helena 3.5 Lb. Copper are given in quarts unless otherwise noted.

FRUITS AND NUTS

When the dosage ranges are given, use lower rate when infection is from low to moderate and higher rate when infection is from moderate to high.

ALMONDS-Brown Rot and Shot Hole – conventional dilute spray – use 1.15-1.7 quarts in 100 gallons water and apply 350 to 400 gallons per acre. Bud sprays for control of **Brown Rot and Shot Hole** should be applied at pink bud through popcorn stage. Do not spray after trees are in leaf. As a dormant spray for control of **Brown Rot and Shot Hole**, apply December 15 to January 15. Concentrate sprayers – Use 2.9-3.5 quarts and apply as above in 25 to 50 gallons of water per acre. **NOTE:** Use 3.5 quarts per acre through swelling buds and 2.9 quarts per are in popcorn stage. With aerial

spray during the dormant season for control of **Brown Rot and Shot Hole**, apply 4.6-6.9 quarts per acre in 20 gallons of water.

APRICOTS-Brown Rot and Shot Hole – conventional dilute spray – use 1.15-1.7 quarts in 100 gallons water. As a dormant spray for control of **Brown Rot and Shot Hole**, apply November 15 to January 15. Bud sprays for control of **Brown Rot** should be applied through swelling buds and popcorn stage. Do not spray when trees are in leaf. Concentrate spray – Use 3.5-4.0 quarts per acre and apply as above. **NOTE:** Use 4.6 quarts per acre through swelling buds and reduce the 3.5 quarts in popcorn stage. When bud blight is a problem, apply the maximum rate shown above after most of the leaves have fallen in the fall usually November and December but ahead of fall rains.

AVACADOS- Anthracnose, Blotch, and Scab – Use 1.15 quarts per 100 gallons of water. Begin treatment when blossom buds open. Repeat at 4 week intervals for a total of 5 applications. Do not apply later than 140 days after bloom.

BERRIES (Blackberries, Boysenberries, Dewberries, Loganberries, Raspberries): Anthracnose – Use 1.5 quarts per 100 gallons of water. Begin spray when leaf buds begin to open. Repeat when flower buds show white and continue at 10 to 14 day intervals. **Leaf and Cane Spot and Yellow Rust** – in spring sprays use 1.15 quarts per 100 gallons of water and apply when leaf buds begin to open and repeat when flower buds show white. Also make a postharvest spray after pruning, but before fall rains begin to fall use 2.3 quarts per 100 gallons of water.

CHERRIES (Sour): Brown Rot, Blossom Blight – Use 2.3-2.9 quarts per 100 gallons water. Apply at popcorn and late bloom stages. In late bloom spray add 5 lbs. hydrated lime per 100 gallons spray. For **Leaf Spot** apply 2.3-2.9 quarts plus 5 lbs. hydrated lime per 100 gallons applied at petal fall. For **Shot Hole** – Use 2.3-2.9 quarts per 100 gallons water and apply as dormant spray.

CITRUS: Brown Rot – Use 0.6 quarts per 100 gallons of water. Apply at first indication of rain or first appearance of **Brown Rot**. Repeat as needed to protect during wet weather. For **Melanose, Scab, Greasy Spot and Pink Pitting** of grapefruit – use 0.43 – 0.85 quarts per 100 gallons of water by dilute spray. With aerial or concentrate sprayers apply 5.7 – 14.9 quarts per acre diluted to the proper concentration with water as recommended for the specific type sprayer used. Do not use less than 10 gallons of spray per acre. For **Scab** control, make two applications, one just before trees begin to flush and repeat at 3/4 petal fall. For **Melanose** control, apply 1 to 3 weeks after petal fall. Repeat 4 weeks later if necessary. For **Greasy Spot and Pink Pitting**, make a summer spray about July 15. Sulfur may be included in sprays for **Melanose** an **Scab**. **CAUTION:** Do not apply in areas where copper injury is known to occur.

GRAPES: Anthracnose, Black Rot, Downy Mildew – For dilute spray, use 0.6 quarts per 100 gallons of water. May first application when new growth is 1/2 inch long and repeat every 10-14 days. For concentrate spray, use 1.15 – 1.7 quarts per acre in sufficient water for good coverage and apply as stated above.

OLIVES: Leaf Spot (Peacock Spot) – For dilute spray, use 1.15 - 1.7 quarts per 100 gallons of water and apply in late October. **NOTE:** In areas with 10 inches or less rainfall per year, use only 0.6

quarts per 100 gallons of water. Concentrate sprays – use 3.5 quarts per acre in not less than 40 gallons of water. Read and follow above note for rainfall limitation.

PEACHES & NECTARINES: Brown Rot, Peach Blight (Shot Hole) and Leaf Curl – For dilute spray, use 1.15-1.7 quarts per 100 gallons. For concentrate sprays, use 3.5 – 4.6 quarts per acre in 25 to 50 gallons of water per acre. As a dormant spray for **Leaf Curl** and **Peach Blight (Shot Hole)**, apply November 15 to December 15 before fall rains begin. Bud Sprays for **Brown Rot** and **Peach Blight (Shot Hole)** should be applied before bud swell and in full pink bud stage. Do not apply after pink bud or after trees are in leaf as injury may occur. **NOTE:** To control **Leaf Curl**, application must be made before the foliage buds swell. Consult your State Agricultural Experiment Station. CALIFORNIA ONLY: For **Blight** and **Leaf Curl** control, 4.6 – 5.6 quarts in 20 gallons water may be applied by aircraft to one acre during the dormant season. For **Peach Bacterial Diseases**, apply 1.15 quarts per 100 gallons water and apply during dormant season.

PEARS: Fire Blight – Use 4.8 fluid ounces per 100 gallons of water. Apply 400 gallons per acre to give ½ lb. Metallic copper per acre. Concentrate spray – Use 0.6 quarts per acre in sufficient water for good coverage. Apply at 10% bloom and repeat at 5 to 7 day intervals during bloom. Do not use on D'Anjou, Comice or Seckel varieties.

PLUMS & PRUNES: Brown Rot, Shot Hole – Use 1.15 – 1.7 quarts per 100 gallons of water. For **Shot Hole** control, apply as a dormant spray in November or December before heavy fall rains begin. For **Brown Rot** control, apply at early green bud and full popcorn stages. Concentrate sprays – Use 3.5 quarts in 25 to 50 gallons of water and apply to one acre. CALIFORNIA ONLY: For aircraft spray to control **Shot Hole** and **Brown Rot Blossom Blight**, apply 4.6 – 5.7 quarts in 20 gallons of water and apply to one acre during dormant season.

WALNUTS: Blight – Use 1.15 – 1.7 quarts per 100 gallons of water. Make two treatments, the first in early prebloom (1% pistillate, not catkin, blooms showing) and the second 10% to 20% pistillate, not catkin, blooms are showing. Repeat applications for blight control 3 or 4 times during growing season if necessary.

STRAWBERRIES: Leaf Spot – Use 1.15 – 1.7 quarts per 100 gallons of water. Apply prebloom and postbloom.

CAUTION: Overspraying may cause injury to tender foliage of peaches, almonds, apricots and some Japanese plums.

VEGETABLES AND FIELD CROPS

MIXING INSTRUCTIONS: Mix recommended amount of Helena 3.5 Lb. Liquid Copper given for one acre in sufficient water for good coverage. With dilute ground sprayer, generally apply 100 to 150 gallons spray per acre. With concentrate sprayer, generally apply 5 to 10 gallons spray per acre, but do not apply less than 5 gallons spray mixture per acre. Consult the manufacturer for recommended water volumes per acre for a given sprayer.

BEANS (Green and Dry): Angular Leaf Spot, Anthracnose, Bacterial Blight, Downy Mildew – Use 0.6 – 1.7 quarts per acre.

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Begin treatment when plants are about 5 inches tall and repeat at 5 to 7 day intervals.

BEETS: Downy Mildew, Leaf Blights, Leaf Spot – Use 1.15 quarts per acre. Begin when disease first appears and repeat at 5 to 7 day intervals.

SUGAR BEETS: Cercospora Leaf Spot - Use 2.3 quarts per are. Begin when disease first appears and repeat every 7 to 10 days.

BROCCOLI, CABBAGE, CAULIFLOWER: Downy Mildew, Leaf Spots – Use 1.15 quarts per acre. Begin when plants are above ground in plant bed or before disease normally appears. Repeat at 7 to 10 day intervals in plant bed and field.

CARROTS: Downy Mildew, Cercospora and Alternaria Leaf Blights – Use 1.15 quarts per are. Begin treatment when disease first appears and repeat at 7 to 10 day intervals.

CELERY: Bacterial Blight, Early and Late Blight - Use 1.15 quarts per acre. Treat every 7 days after emergence.

CUCUMBERS: Downy Mildew, Anthracnose, Angular Leaf Spot – Use 0.85 – 1.15 quarts per acre. Begin application before disease appears and repeat at 7 to 10 day intervals.

CUCURBITS: (Cantaloupes, Cucumbers, Melons, Pumpkins, Squash): Angular Leaf Spot, Anthracnose, Alternaria Leaf Spot, Bacterial Wilt, Downy and Powdery Mildews, Gummy Stem Blight, Leaf Spot, Scab – use 1.15 quarts per acre. Begin treatment when plants begin to vine and repeat every 7 to 10 days. Since the disease is likely to be more serious in high plant populations (40,000 or more plants per acre) spray every 3 to 4 days to protect fruit at all stages of development. **NOTE:** A ground application after planting, but before emergence, may help decrease infections of **Angular Leaf Spot, Anthracnose** and **Alternaria Leaf Spot**. Then follow above schedule after emergence. **NOTE:** Some Agricultural Experiment Stations recommend equal amount of hydrated lime when used on Cucurbits. Lime when applied to Cucurbits may cause dwarfing of plants and reduce fruit set due to increased transpiration and defoliation under some conditions. Consult your local Experiment Station for specific recommendations.

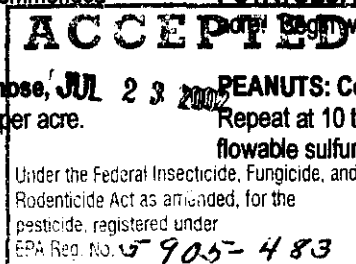
EGGPLANT: Alternaria Blight, Anthracnose, Phomopsis – Use 1.15 quarts per acre. Begin in plant bed or in field before disease appears. Repeat at 7 to 10 day intervals.

ONION: Purple Blotch (California Only) and Downy Mildew – Use 1.15 quarts per acre. Begin when plants are 4 to 6 inches and repeat at 7 to 10 day intervals.

PEPPERS: Anthracnose, Bacterial Spot, Early Blight, Cercospora Leaf Spot (Frogeye Spot), Downy Mildew – Use 1.15 – 1.7 quarts per are. Start sprays in seedbed and continue in field at 7 day intervals. Disease control is critical during fruiting.

POTATOES: Early and Late Blights – Use 1.7 – 2.3 quarts per acre. Begin when plants emerge and repeat at 7 to 10 day intervals.

PEANUTS: Cercospora Leaf Spot – Use 0.85 – 1.7 quarts per acre. Repeat at 10 to 14 day intervals. **NOTE:** The addition of 2 lbs. flowable sulfur in a tank mix will enhance leaf spot control.



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SPINICH: Anthracnose, Cercospora Leaf Spot, Downy Mildew, White Rust – Use 1.15 quarts per acre. Begin when disease first appears. Repeat at 7 to 10 day intervals.

TOMATOES: Anthracnose, Bacterial Spot, Bacterial Canker (Southeastern States Only), Early and Late Blight, Leaf Mold, Nailhead Rust, Septoria and Stemphylium Leaf Spot – Use 1.15 – 1.7 quarts per acre. Begin seedbed or field before disease appears. Repeat at 7 to 10 days intervals. **NOTE:** While the labeled rat is particularly effective against **Bacterial Spot**, a tank mix with Maneb used at the labeled rates, controls a broad range of tomato diseases. Observe all cautions and limitations on the label of all products used in mixture.

CONDITIONS OF SALE - LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES

Read the Conditions of Sale - Warranty and Limitations of Liability and Remedies before using this product. If the terms are not acceptable, return the product, unopened, and the full purchase price will be refunded.

The directions on this label are believed to be reliable and should be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions or the failure to follow the label directions or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. The Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

The exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to, at Helena Chemical Company's election, one of the following:

1. Refund of the purchase price paid by buyer or user for product bought, or
2. Replacement of the product used

To the extent allowed by law, the Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.

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