

Agrol Chemical Products  
c/o Linda Elliott  
Pesticide Development Services  
Route 1, Box 1228  
Mableton, GA 31632

FEB 11 1987

Gentlemen:

Subject: Amendments - Formula Change, Revised Labeling,  
Additional Brand Name  
CP Fixed Copper Flowable Agricultural Fungicide  
EPA Registration No. 55146-9  
Your Submission Dated December 22, 1986  
EPA Received Date January 13, 1987

The amendment referred to above, submitted in connection with registration under section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you:

1. Submit/cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
2. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:
  - a. Under Pecans, the dosage rate was omitted when Directions For Use were changed. Include the dosage rate as stated in previous submission.
  - b. Under Plums and Prunes, for blossom blight and leaf spot, indicate that the dosage rate given is in terms of "pints."
  - c. Under Ornamentals, indicate whether "mildew" control is for powdery mildew, downy mildew, or both. Also, clarify the terms "blight" and "leaf spot" indicating which specific disease/organism is involved. We have enclosed a list of acceptable disease claims for basic copper sulfate on ornamentals.
  - d. Under Spinach, change "downy leaf spot" to "downy mildew."

90636:Mountfort:MF-15:KENCO:2/9/87:2/19/87:NeeCee:lf:JS:EK:NeeCee

CONCURRENCES

SYMBOL ▶								
SURNAME ▶								
DATE ▶								

3. Submit one (1) copy of final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

The additional brand name "Copper Power Flowable" is acceptable and has been included in our files. Labeling must be identical to basic labeling except for the brand name.

The formula statement dated September 17, 1986 is acceptable. It is understood that this formula supersedes previously accepted formulas for this product. We are accepting the increase in active ingredient under 40 CFR Subpart E 152.81(b)(4)(i).

A stamped copy of labeling is enclosed for your records.

Sincerely yours,

*Ryd*

*for* Richard F. Mountfort  
Product Manager (23)  
Fungicide-Herbicide Branch  
Registration Division (TS-767C)

Enclosures



# BASIC COPPER

## COPPER POWER FLOWABLE

AGRICULTURAL  
FUNGICIDE

*with comments  
for*

*55146-9*

**KEEP OUT OF  
REACH OF CHILDREN  
WARNING-AVISO**

**SEE BACK PANEL  
FOR STATEMENT  
OF PRACTICAL TREATMENT  
NET CONTENT: 2½ GALLONS**

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**ACTIVE INGREDIENT:**

Copper (Derived from Basic  
Copper Sulfate) ..... 15%

**INERT INGREDIENTS:** ..... 85%

**TOTAL** .....100%

# COPPER POWER FLOWABLE AGRICULTURAL FUNGICIDE

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING—AVISO

Causes substantial but temporary eye injury. May cause skin sensitization in certain individuals. Do not get in eyes, on skin, or on clothing. Harmful if swallowed. Avoid breathing spray mist. Protective clothing, including goggles, should be worn. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que le etiqueta haya sido explicado ampliamente.

## STATEMENT OF PRACTICAL TREATMENT

**IF SWALLOWED:** Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching the back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.  
**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention.  
**IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.  
**IF IN EYES:** Flush with plenty of water. Call a physician.

## ENVIRONMENTAL HAZARDS

Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites.

## ENDANGERED SPECIES RESTRICTIONS

It is a violation of Federal laws to use any pesticide in a manner that results in the death of an endangered species or adverse modification of their habitat.

The use of this product may pose a hazard to certain Federally designated endangered species known to occur in specific areas within the following counties:

STATE	Species	Bulletin No.	COUNTY
CALIFORNIA	Solano Grass	EPA/ES-85-13	Solano
TENNESSEE	Slackwater Darter	EPA/ES-85-04	Lawrence Wayne Hancock
	Freshwater Mussels	EPA/ES-85-07	Claiborne Hawkins Sullivan
ALABAMA	Slackwater Darter	EPA/ES-85-05	Lauderdale Limestone Madison
VIRGINIA	Freshwater Mussels	EPA/ES-85-06	Grayson Smyth Scott Lee Washington

Before using this product in the above counties you must obtain the EPA Bulletin specific to your area. This Bulletin identifies areas within these counties where the use of this pesticide is prohibited, unless specified otherwise. The EPA Bulletin is available from either your County Agricultural Extension Agent, the Endangered Species Specialist in your State Wildlife Agency Headquarters, or the appropriate Regional Office of the U.S. Fish and Wildlife Service. **THIS BULLETIN MUST BE REVIEWED PRIOR TO PESTICIDE USE.**

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste dump facility. **CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incinerate, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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### GENERAL INSTRUCTIONS

COPPER POWER FLOWABLE will control certain diseases of fruits, nuts vegetables, field crops, and ornamentals caused by fungi and bacteria. Do not apply COPPER POWER FLOWABLE undiluted or apply it to crops not listed on this label. Do not use with or immediately before or after lime sulfur. Consult your State Agricultural Extension Service or Experiment Station for detailed information about spraying for best results in your local area.

### DIRECTIONS FOR USE

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

**SPRAY MIXTURE PREPARATION:** Half-fill the spray tank with water. Start agitator and slowly pour in the required amount of COPPER POWER FLOWABLE. Keep agitator running while adding the remaining water and any other products to the spray tank. Continue agitation until spraying is finished and tank has been emptied.

**APPLYING SPRAY MIXTURE:** The directions given under each crop are for applying dilute spray mixture unless otherwise shown. The amount of COPPER POWER FLOWABLE applied per acre in concentrate and aerial sprays should be the same as the amount applied per acre in dilute sprays. The required amount should be mixed with enough water to thoroughly cover the crop with spray mixture. The volume of water needed will depend upon the spray equipment used and the size of the crop being sprayed. Read the information below about applying dilute, concentrate and aerial sprays.

**APPLYING DILUTE HIGH-VOLUME SPRAYS:** On vegetable crops use 25 to 100 gallons of spray mixture per acre; on fruit and nut trees use 250 to 800 gallons per acre. As much as 1500 gallons per acre may be needed for large trees.

**APPLYING CONCENTRATE GROUND SPRAYS:** On vegetable crops use 5 to 20 gallons of spray mixture per acre; on fruit and nut trees use 25 to 250 gallons per acre.

**APPLYING AERIAL SPRAYS:** Use 3 to 30 gallons per acre.

*When making applications use lower rate specified when disease pressure is light and/or plants are small. Use higher rates for larger plants and/or when disease severity is high.*

### RE-ENTRY STATEMENT

Written or oral warning must be given to workers who are expected to be in a treated area or in area about to be treated with this product. (Indicate specific oral warnings which inform workers of areas or fields that may not be entered without specific protective clothing, period of time field must be vacated and appropriate actions to take in case of accidental exposure). When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given

if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: WARNING - AVISO. Area treated with Basic Copper Sulfate on (date of application). Do not enter without appropriate protective clothing until spray has dried. Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

FIELD CROPS

PEANUTS, *Leaf Spot (Cercospora)*. Use 2 to 4 pints/acre when disease first appears. Use lower (2 pints) rate on small plants. Repeat at 10 to 14 day intervals."

\*Consult your county agricultural extension agent for current state recommendations as to amounts of basic copper sulfate and/or sulfur to be used as spray.

SUGAR BEETS, *Downy Mildew, Leaf Spot (Cercospora)*. Begin when plants are 4 to 6 inches high (or when disease appears), apply 2 2/3 to 6 2/3 pints/100 gallons as required to cover. Repeat at 7 to 10 day intervals.

TOBACCO, *Wildfire*. 1 pint in 10 gallons water/100 sq. ft. plant bed. Begin after sowing seed or when plants emerge. Repeat at 5 to 10 day intervals until transplanted.

FRUIT and NUTS

ALMONDS, *Shot Hole*. Apply 2 2/3 to 4 pints/100 gallons as fall dormant spray (California Dec. 15-Jan. 15), repeat in spring at petal fall and jacket stages. *Brown Rot*. Use 3 pints/100 gallons at redbud and popcorn stages. Do not spray after 50% bloom or when trees in leaf. OVER-SPRAYING MAY INJURE TENDER FOLIAGE.

APPLES, *Anthracnose*. Use 4 to 5 1/3 pints/100 gallons. For red varieties apply to foliage before or after harvest. For yellow varieties apply to foliage after harvest once every 2 to 3 years as necessary. *Brooks Spot*. Use 1 pint plus 2.0 pounds hydrated lime/100 gallons. Apply in late cover sprays. *Bitter Rot, Black Rot, Blotch, Powdery Mildew*. 1/2 to 1 1/2 pints plus 3 to 5 pounds hydrated lime/100 gallons. Begin at petal fall and repeat through fourth cover spray. *Bull's-eye Rot*. Use 4 pints with suitable spray oil/100 gallons of water. Apply after harvest. *Fire Blight*. 1/3 to 1/2 pints/100 gallons; 2 pints/acre in concentrated sprayers. Begin at 10 percent bloom. Repeat at 5-day intervals until late bloom is over. *Scab*. 1 to 1 1/4 pints plus 2.0 to 2.5 pounds hydrated lime/100 gallons; or, 1/3 pint/100 gallons. Apply at delayed dormant stage. *Sooty Blotch*. 1 1/4 pint plus 2.5 pounds hydrated lime/100 gallons. NOTE: Apply in late cover sprays. Under conditions where copper injury is likely to occur, add additional lime.

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APRICOTS, *Shot Hole (Coryneum Blight)*. Use 2 2/3 to 5 1/3 pints/100 gallons with 1 1/2 gallons spreader-sticker as fall dormant spray (California Nov. 15 to Jan. 15). Repeat in red bud stage. *Brown Rot*. Use 2 2/3 to 4 pints/100 gallons at red bud, early bloom and full bloom. Do not spray after petal fall during growing season while trees in leaf. *Scab*. Apply 2 2/3 to 4 pints/100 gallons when recommended by State Extension Service Specialists.

AVOCADO, *Anthracoze, Blotch (Cercospora), Scab*. Use 2 2/3 pints/100 gallons. Spray first when blossom buds open. Make 5 applications at four-week intervals. Do not apply more than 140 days after bloom.

BLACKBERRIES, BOYSENBERRIES, DEWBERRIES, LOGANBERRIES, RASPBERRIES, *Leaf Spot and Cane Spot*. Use 2 pints/100 gallons Spray first when leaf buds swell, again when flowers begin to open. *Anthracoze*. Use 2 pints/100 gallons Spray when leaf buds begin to open, again when flower buds show white. Repeat at 10 to 14 day intervals. Post-harvest, after pruning and oldwood removal but before fall rains, apply 5 1/3 pints/100 gallons with 1 to 1 1/2 gallon spreader-sticker as rust dormant spray.

CHERRIES (*sour*), *Brown Rot*. 2 2/3 to 4 pints/100 gallons Apply in red bud to popcorn and late bloom stages. *Leaf Spot*. Use 2 2/3 to 4 pints plus 4.0 pounds of hydrated lime/100 gallons Apply at petal fall and make 1 or 2 post-harvest applications. *Shot Hole*. 2 2/3 to 4 pints/100 gallons Apply as a dormant spray.

CITRUS, *Brown Rot, Septoria Leaf, Fruit Spot*. Apply 2/3 to 1 1/3 pints plus 4 pounds hydrated lime per 100 gallons. Apply before fall rains or at first sign of disease. Spreader-sticker may be added. Use lowest rate in California where copper injury may be a problem, use highest rate elsewhere. *Greasy Spot, Melanose, Scab*. Apply 1 to 2 pints/100 gallons in dormant spray before flush begins; repeat at 2/3 petal fall.

CURRENTS, GOOSEBERRIES, *Anthracoze, Leaf Spot*. (a) Spray with 1 1/3 pints/100 gallons at leaf opening, repeat at 10-14 day intervals; or (b) apply 5 1/3 pints/100 gallons at full bloom, two weeks later, and after harvest.

GRAPEFRUIT: See Citrus.

GRAPES, *Anthracoze*. Use 2 2/3 pints/100 gallons on dormant vines in late spring. Repeat every 10 days-two weeks after leaves form. *Black Rot, Downy Mildew, Bitter Rot*. Use 2 2/3 to 3 pints plus 2 to 6 pounds hydrated lime/100 gallon spray. Apply when first leaves appear; repeat before blossoms open, after petal fall, and every two weeks thereafter. *Dead Arm*. Use 3 pints plus 16 pounds hydrated lime/100 gal; apply as soon as green tips show. *Powdery Mildew*. Apply 2 2/3 to 3 pints/100 gallons when disease appears.



KUMQUAT, LEMON, LIME: See Citrus.

OLIVES. Leaf Spot (Peacock Spot, Cyclonium). 2 2/3 to 4 pints/100 gallons applied in late October.

NECTARINES: See Peaches.

ORANGES. See Citrus.

PEACHES, NECTARINES. Bacterial Disease (Blight) of peaches, Leaf Curl, Shot Hole (Peach Blight). Apply dormant spray at 2 2/3 to 5 1/3 pints/100 gallons during pink or red bud to popcorn stages. Do not apply during blossom period or when trees in leaf. OVER-SPRAYING MAY CAUSE INJURY TO TENDER FOLIAGE.

PEARS. Fire Blight. Apply 1/3 pints/100 gallons at 10% bloom. Repeat every five days or after each rain until end of late bloom. Leaf Blight, Scab. use 1 pint plus 2 1/2 pounds hydrated lime/100 gallons spray in first three cover sprays. Bulls-eye Rot. Apply 3 pints plus suitable spray oil before harvest. DO NOT USE ON ANJOU, COMICE OR SECKEL VARIETIES. LIMITS PER ACRE: Use 2 pints for Fire Blight, 5 1/3 pints preharvest, 20 pints post harvest.

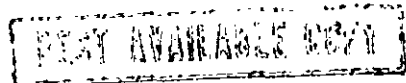
PECANS. Scab. Begin applications at end break (2-3 inches long). Make second application at pre-pollination. Thereafter, repeat at 2-4 week intervals as needed to maintain control.

PLUMS, PRUNES, Dormant spray for Brown Rot. Apply 5 pints plus 1 1/2 gallon spreader/100 gallon in dormant season. LIMITS: 25 pints/acre. Black Knot. Apply 2 to 3 pints plus 8 to 12 pints hydrated lime/100 gallons at green tip stage. Repeat at shuckshed and in two cover sprays if disease is serious. Blossom Blight, Leaf Spot. Apply 1 1/2 to 2 1/2 plus 6 to 10 pounds hydrated lime/100 gallons; spray just before blossoms open; repeat at shuck split and again in 2 to 3 weeks. OVERSPRAYING MAY INJURE TENDER FOLIAGE OF SOME JAPANESE PLUMS.

TANGERINE, TANGELO: See Citrus.

STRAWBERRIES, Downy Mildew, Leaf Blight, Scorch or Spot. After leaves form spray 2 2/3 pints/100 gallons at 10 to 14 day intervals. Anthracnose. Use 2 2/3 to 3 pints plus 2 to 3 pounds hydrated lime/100 gallons pre-blossom. Post-Harvest, spray foliage with 3 pints plus 6 pounds hydrated lime per 100 gallons.

WALNUTS, Blight. Spray pre-bloom and at 10% pistillate bloom and in post bloom as needed during growing season. Use 4 pints/100 gallons.





## ORNAMENTAL PLANTS and TREES

For the following crops and diseases apply 1 1/3 pints/100 gallons. Spray before disease appears. Repeat every 7 to 10 days and after each rain.

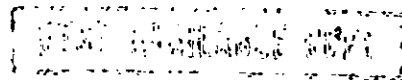
Arbor Vitae, *Blight*  
 Asters, *Leaf Spot, Mildew*  
 Azaleas, *Leaf Spot, Blight, Mildew*  
 Boxwood, *Leaf Spot*  
 Carnations, *Leaf Spot, Blight*  
 Chrysanthemums, *Leaf Spot, Blight*  
 Dahlias, *Mildew, Botrytis Blight*  
 Dogwood, *Leaf Spot*  
 Gardenias, *Blight, Leaf Spot*  
 Geraniums, *Botrytis Blight, Leaf Spot*  
 Gladiolus, *Botrytis Blight, Leaf Spot*  
 Hollyhocks, *Leaf Spot*  
 Lilacs, *Leaf Spot*  
 Lilies, *Botrytis Blight*  
 Maples, *Anthraco nose*  
 Marigolds, *Mildew*  
 Nasturtium, *Mildew*  
 Oaks, *Leaf Spot, Anthracnose*  
 Palms, *Smut*  
 Pansies, *Leaf Spot, Anthracnose*  
 Peonies, *Blight, Mildew*  
 Phlox, *Mildew, Leaf Spot*  
 Pines, *Blight*  
 Rhododendrons, *Leaf Spot, Blight*  
 Roses, *Leaf Spot, Powdery Mildew*  
 Snapdragon, *Blight, Anthracnose*  
 Stock, *Leaf Spot*  
 Sweet Peas, *Mildew, Leaf Spot*  
 Tulips, *Botrytis Blight*  
 Violets, *Anthraco nose, Leaf Spot*  
 Virginia Creeper, *Leaf Spot, Mildew*

## VEGETABLE CROPS

BEANS, *Anthraco nose, Angular and other Leaf Spots, Downy and Powdery Mildew*. Apply 1 1/3 to 4 pints/100 gallons. Start spraying when plants are 5 inches high or when diseases appear. Repeat at 5 to 10 day intervals, as needed.

BEETS, *Leaf Blight and Spot, Downy Mildew*. Begin sprays of 2 2/3 to 6 2/3 pints/100 gallons when diseases appear; repeat every 7 to 10 days.

BROCCOLI, BRUSSELS SPROUTS, CABBAGE, CAULIFLOWER, *Downy Mildew or Leaf Spots*. In plant bed spray with 2/3 to 1 1/3 pints/acre when plants are above ground before diseases appear; repeat in 7 to 10 days as needed. In field use 1 1/3 pints/100 gallons at 7 to 10 day intervals as needed.



**CARROTS, Downy Mildew and Leaf Spots.** Apply 2 2/3 pints plus 2 pounds hydrated lime/100 gallons when disease first appears; repeat every 7 to 10 days gradually increasing to 4 pints plus 2 pounds hydrated lime/100 gallons.

**CELERY, Early Blight (Cercospora), Late Blight (Septoria), Leaf Spots.** Begin with about 2 2/3 pints/100 gallons in plant bed or field when plants are 6 inches high or disease first appears. Repeat in 5 to 14 days as needed, building up to 5 pints/100 gallons as plants grow.

**CUCURBITS, (Cantaloupe, Cucumbers, Honeydew Melons, Muskmelons, Pumpkin, Squashes, Watermelons), Angular Leaf Spot, Anthracnose, Bacterial Wilt, Downy and Powdery Mildew, Gummy Stem Blight, other Leaf Spots and Scab.** Apply 2 to 2 2/3 pints/100 gallons. Start spraying when plants emerge or begin to vine, or before disease appears. Repeat at 7 to 10 day intervals. Spray to protect crop at all stages of development. Ground application of this product after planting and before plant emergence may help decrease infestation of Angular Leaf Spot.

**EGGPLANT, Anthracnose, Downy Mildew, Early (Alternaria) Blight, Phomopsis Blight, Leaf Spots.** Beginning in plant bed or in field before disease appears, apply 2 2/3 pints/100 gallons. Repeat at 7 to 10 day intervals.

**LETTUCE, Anthracnose, Leaf Spot (Cercospora), Downy Mildew.** Spray 1 1/3 to 2 2/3 pints/100 gallons before diseases appear. Repeat at 7 to 10 day intervals.

**ONIONS, Downy Mildew, Leaf Spots.** Use 2 2/3 pints/100 gallons. Begin as soon as plants grow to 4 to 6 inches; repeat every seven days.

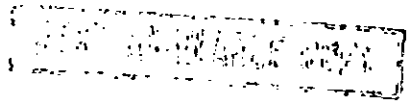
**PEAS, Downy Mildew, Leaf Spots.** Use 2 to 4 pints/100 gallons. Begin spraying before disease appears; repeat every 7 days.

**PEPPERS, Anthracnose, Bacterial Spot, Early and Late Blight, Cercospora Leaf Spot (Frogeye Spot), Downy Mildew.** Spray in plant bed before disease appears. Continue in field at 7 to 10 day intervals, especially during fruiting stage. Use 2 2/3 to 4 pints/100 gallons.

**POTATOES, Early and Late Blights.** Start spraying when plants emerge, repeat at 7 to 10 day intervals (every 5 days for severe Late Blight). Use from 1 1/3 to 2 pints to 4 to 5 1/3 pints/100 gallons.

**SEEDLINGS, VEGETABLE:** See vegetable seedlings.

**SPINACH, Anthracnose, Downy Leaf Spot, Leaf Spot (Cercospora), White Rust.** Use 2 to 2 2/3 pints/100 gallons. Spray before diseases appear. Repeat every 7 to 10 days.



TOMATOES, Anthracnose, Bacterial Spot, Bacterial Canker (Southeast), Early and Late Blights, Leaf Mold, Nailhead Rust, Septoria and Stemphyllum Leaf Spots. Begin protective spray in plant bed or field before diseases appear. Use 2 2/3 to 4 pints/100 gallons. Repeat at 4, 7, 10 or 14 day intervals as required.

VEGETABLE SEEDLINGS: To prevent or control Damping-off. Apply 4 pints/100 gallons, 8 pints/acre, to soil surface in plant beds after emergence. Repeat at 4 to 7 day intervals as required.

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WARRANTY STATEMENT

AGTROL CHEMICAL PRODUCTS warrants that the product conforms to the chemical description on the label and is reasonably fit for the purposes set forth on the label when used according to directions under normal use conditions. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. This warranty does not extend to the handling or use of this product contrary to label instructions or under abnormal conditions or under conditions not reasonably foreseeable to seller and buyer assumes all risk of any such use.

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