CAPTAIN 50-WP

A Fungicide For Plant Disease Control

Capton 50 Wettable Powder is a microfine wettable powder for use in water as a spray for the control of certain fungus diseases of fruit and ornamental crops, and as a soil treatment for the control of certain seed rots and damping-off diseases.

ACTIVE INGREDIENTS:
*Captain .......................................................... 48.9%
Related Derivatives .................................. 1.1%

TOTAL .................................................. 50.0%

*N-Trichloromethylthio-4-cyclohexene-1,2-dicarboximide

EPA Reg. No. 10182-145-51036
EPA Est. No. 51036-GA-1
AD 062494

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

CAUSES IRREVERSIBLE EYE DAMAGE

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

STATEMENT OF PRACTICAL TREATMENT

FIRST AID: If a known exposure occurs or is suspected, immediately start the procedures given below and contact a POISON CENTER, PHYSICIAN, OR THE NEAREST HOSPITAL. Describe the type and extent of exposure, the victim's symptoms and follow the advice given.

IF IN EYES: Flush with plenty of water. Call a physician.

IF SWALLOWED: Drink promptly a large quantity of milk, egg whites, gelatin solutions, or if these are not available, drink large quantities of water. Avoid alcohol.

IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention if abnormal reaction occurs.

FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL 1-800-F-A-S-T-M-E-D (327-8633).

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

Causes irreversible eye damage. Harmful if swallowed or inhaled. May cause allergic skin reactions. Do not get in eyes. Avoid contact with skin and clothing. Avoid inhalation of dust or spray mist.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers (other than mixers and loaders) must wear:
1. Long-sleeved shirt and long pants
2. Waterproof gloves
3. Shoes plus socks
4. Protective eyewear

Mixers and loaders must wear:
1. Long-sleeved shirt and long pants
2. Waterproof gloves
3. Shoes plus socks
4. Protective eyewear
5. Chemical-resistant apron when mixing or loading
6. Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C)

Follow manufacturer’s instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs or aircraft in a manner 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, 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), notification to workers, and restricted-entry intervals. 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 4 days.

EXCEPTION: The restricted entry interval (REI) for strawberries is 24 hours. After expiration of the 24 hour period, no personal protective equipment is required.

PPE required for 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, without time limit, if they wear the early-entry PPE listed below.

1. Coveralls
2. Waterproof gloves
3. Shoes plus socks
4. Protective eyewear

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

Read all precautions and directions for use before using. Use only for claims listed and only as specified on this label.

In order that pesticide residues on food and forage crops will not exceed federal tolerances, use only at recommended rates and intervals, and do not apply closer to harvest than specified. Do not apply or allow to drift to adjoining food, fiber or pasture crops. Drift of Captain 50-WP onto sensitive crops (e.g. D’Anjou pears) can cause severe phytotoxicity and crop loss.

Consult State Agricultural Experiment Stations or State Agricultural Extension Service for additional information, as the time of applications needed will vary with the local conditions.

COMPATIBILITY AND PLANT SAFETY

Captain 50-WP can be combined safely and effectively at recommended dosage rates with most commonly used fungicides and insecticides, with the exception of oil and strongly alkaline materials. Alkaline materials such as spray lime, lime-sulphur or concentrate sprays will reduce the fungicidal activity of Captain 50-WP.

Do not apply Captain 50-WP in combination with or immediately before or closely following oil sprays. Do not allow oil sprays on adjacent crops to drift onto crops which have been or will shortly be treated with Captain 50-WP. The time factor governing the safe interval between Captain 50-WP and oil sprays varies due to general climatic conditions, therefore, consult local agricultural spray programs and authorities to determine the proper timing. The use of spreaders which cause excessive wetting is not advised. Combinations of Captain 50-WP and sulfur should not be used. Combinations of Captain 50-WP and sulfur should not be used on crops sensitive to sulfur. Used at high rates or in drenching sprays, Captain 50-WP may cause a necrotic spotting of tender, immature leaves of certain varieties of apples, peaches, plums and cherries. This type of injury is most likely to occur in the early cover sprays during long periods of warm, cloudy, humid weather. To avoid the hazard of leaf spotting under such conditions, use Captain 50-WP and other spray materials at lowest recommended rates and avoid drenching trees.

Applications can be made by aircraft or ground power equipment (including concentrate and semi-concentrate equipment). Pour recommended amount of this material into nearly filled spray tank. Add balance of water. Maintain agitation during filling and spraying operations. Do not allow mixture to stand. Do not combine with emulsifiable liquids or wettable powders unless previous experience has proven them to be physically compatible and safe to plants. (Read compatibility and plant safety information.)

For aerial or concentrate spray applications, apply the same amount of Captain 50-WP per acre as would normally be applied for dilute spray applications. Apply aerial or concentrate sprays in sufficient water for coverage. Do not apply this product through any type of irrigation system.
STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited. Do not reuse empty container.

STORAGE: Keep pesticide in original container. Keep container tightly closed when not in use. Protect from excessive heat. Store in a cool, dry place.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal may cause destruction of vegetation or pollution of streams, lakes or other bodies of water. It is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Regional Office at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Do not reuse container. Completely empty container into application equipment. Then dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

GENERAL USE PRECAUTIONS

Except as specified, begin applications before or at first sign of disease and repeat as needed. Do not apply on the day of harvest. When using ground equipment, application can be made on the day of harvest. Maximum application is for a crop cycle. Crop cycle is defined as prebloom through postharvest. Apply the high rate and/or spray at shorter intervals when climatic conditions most favor disease(s). Apply the low rate and/or spray at longer intervals when climatic conditions least favor disease(s). If you are unaware of the climatic conditions favorable for disease(s) claimed for the specific use sites, you must consult with your State Agricultural Extension Service to learn of these conditions.

IMPORTANT: Read label carefully. Although most of the directions on this label may be followed nationwide, a few are limited to either the eastern or western U.S. Follow those directions for your growing area where specified.

FRUIT AND NUT CROPS

ALMONDS:
Brown rot twig and blossom blight, shothole, scab, leaf blight—Apply 4 to 9 lbs. Captan 50-WP per acre in 20 to 300 gallons of water using ground equipment or in 1 to 5 gallons of water by air. Use 6 to 9 lbs. per acre when Captan 50-WP is used alone. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, Captan 50-WP may be used in a tankmix at a rate of 4 to 6 lbs. per acre. Apply at popcorn, bloom and petal fall stages and up to 5 days after bloom. Do not apply within 10 days of harvest. Hulls may be fed to livestock. Do not apply more than 45 lbs. per acre per crop cycle. (See General Use Precautions section for definition of crop cycle.)

APPLES (Eastern U.S.):
Primary scab, black rot (frogeye), botrytis blossom-end rot—Apply 8 lbs. Captan 50-WP per acre in 20 to 800 gallons of water using ground equipment or in 5 to 20 gallons of water by air. Apply at 5 to 7 day intervals as needed to maintain control in prebloom, bloom, petal fall and first cover sprays.
Secondary scab, Brooks fruit spot, sooty blotch, fly speck, black rot, black powdery mildew, bitter rot—Apply 4 to 8 lbs. Captan 50-WP per acre in 20 to 400 gallons of water using ground equipment or 5 to 20 gallons of water by air. Apply at 10 to 14 day intervals in second and later cover sprays. Do not apply more than 64 lbs. of Captan 50-WP per acre per crop cycle. May be applied up to day of harvest.
Powdery mildew—If powdery mildew is a problem add 6 to 12 lbs. sulfur per acre to the petal fall, shuck and early cover sprays. Do not apply more than 3 lbs. of captan 50-WP per acre per crop cycle. (See General Use Precautions section for definition of crop cycle.)

CAUTION—Do not use Captan 50-WP in combination with or closely following in or alternation with wettable sulfur products on sulfur sensitive varieties of apples such as Red Delicious, Staymen, Baldwin, King, etc. as severe injury and defoliation may occur.

APPLES (Western U.S.):
Primary scab—Apply 4 to 8 lbs. Captan 50-WP per acre in 20 to 400 gallons of water per acre using ground equipment or 5 to 20 gallons of water by air. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, use the lower rates of Captan 50-WP in tankmixes. Apply in full pink, bloom, petal fall, shuck, cover and preharvest sprays. Applications at 3 to 4 days intervals may be necessary during bloom to control blossom blight. Repeat application at 4 to 6 days intervals as needed to maintain control. Control up to start of harvest. If powdery mildew is a problem add 6 lbs. sulfur per acre to the petal fall, shuck and early cover sprays. If sulfur is added, Captan 50-WP may be reduced to 4 lbs. per acre in these sprays. Do not apply more than 28 lbs. per acre per crop cycle. May be applied up to day of harvest.

BLUEBERRIES (Western U.S.):
Botrytis gray mold or berry rot, mummy berry—Apply 3 to 5 lbs. Captan 50-WP per acre in 20 to 250 gallons of water using ground equipment or 10 to 20 gallons of water by air. Apply in red bud, bloom, 75% petal fall, and cover sprays. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, use the lower rates of Captan 50-WP in tankmixes. Apply in full bloom, petal fall, shuck, cover, and preharvest sprays. When conditions are favorable, make applications at 3 to 4 day intervals during bloom to control blossom blight. Then repeat application at 7 to 14 day intervals as needed to maintain control. Continue applications through harvest if conditions favor brown rot. If powdery mildew is a problem, add 12 lbs sulfur per acre to the petal fall, shuck and early cover spray. If sulfur is added, Captan 50-WP may be reduced to 4 lbs. per acre in these sprays.

GRAPES (U.S., except CA):
Brown rot blossom blight, brown rot (fruit), leaf spot—Apply 3 to 4 lbs. Captan 50-WP per acre in 20 to 200 gallons of water using ground equipment or in 10 to 20 gallons of water by air. Apply in pre-bloom, bloom, petal fall, shuck, cover and preharvest sprays. Do not apply more than 28 lbs. per acre per crop cycle. May be applied up to day of harvest.

GRAPES (California):
Bunch rot (Botrytis)—Apply 4 lbs. Captan 50-WP per acre in 20 to 200 gallons of water using ground equipment or in 7 to 20 gallons of water by air. Make 2 applications before bloom and 1 immediately after bloom. Repeat periodically making 3 cover applications before the bunches close.
Phomopsis cane and leaf spot (current season infection)—Apply 3 to 4 lbs. Captan 50-WP per acre in 20 to 200 gallons of water using ground equipment or apply 4 lbs. Captan 50-WP per acre in 7 to 20 gallons of water by air. Apply first spray when green tissue begins to show but before shoots are 1 inch long and repeat application when shoots are 6 to 8 inches long. Do not apply more than 24 lbs. per acre per crop cycle. May be applied up to day of harvest.

GRAPEFRUIT (U.S.):
Brown rot, scab—Apply 4 to 8 lbs. Captan 50-WP per acre in 20 to 250 gallons of water using ground equipment or in 10 to 20 gallons of water by air. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, use the lower rates of Captan 50-WP in tankmixes. Apply in full pink, bloom, petal fall, shuck, cover and preharvest sprays. Applications at 3 to 4 days intervals may be necessary during bloom to control blossom blight. Repeat application at 7 to 14 day intervals as needed to maintain control. Continue applications throughout harvest. If powdery mildew is a problem, add 2.5 lbs. Captan 50-WP per acre to the petal fall, shuck and early cover sprays. If sulfur is added, Captan 50-WP may be reduced to 2.5 lbs. per acre in these sprays.
Coryneum blight (peach blight, shothole)—Apply 4 to 8 lbs. Captan 50-WP per acre in 20 to 250 gallons of water using ground equipment or 10 to 20 gallons of water by air. Apply in pink bud, full bloom, petal fall stages if powdery mildew is a problem, add 7.5 lbs Captan 50-WP per acre to the petal fall, shuck and early cover sprays. If sulfur is added, Captan 50-WP may be reduced to 2.5 lbs. per acre in these sprays.

PEACHES (U.S.):
Brown rot, scab—Apply 4 to 8 lbs. Captan 50-WP per acre in 20 to 400 gallons of water using ground equipment or in 10 to 20 gallons of water by air. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, use the lower rates of Captan 50-WP in tankmixes. Apply in pink bud, bloom, petal fall, shuck, cover and preharvest sprays. When conditions are favorable, make applications at 3 to 4 day intervals during bloom to control blossom blight. Then repeat application at 7 to 14 day intervals as needed to maintain control. Continue applications through harvest if conditions favor brown rot. If powdery mildew is a problem, add 12 lbs sulfur per acre to the petal fall, shuck and early cover spray. If sulfur is added, Captan 50-WP may be reduced to 4 lbs. per acre in these sprays.
Coryneum blight (peach blight, shothole)—Apply 8 lbs. Captan 50-WP per acre in 20 to 400 gallons of water using ground equipment or in 10 to 20 gallons of water by air. Apply in pink bud, full bloom, petal fall stages if powdery mildew is a problem, add 7.5 lbs Captan 50-WP per acre to the petal fall, shuck and early cover sprays. If sulfur is added, Captan 50-WP may be reduced to 4 lbs. per acre in these sprays.
Do not apply more than 64 lbs. per acre per crop cycle (including postharvest sprays). Preharvest sprays may be applied up to 7 days before harvest.

**PLUMS, FRESH PRUNES (Eastern U.S.):**
Brown rot—Apply 6 lbs. Captan 50-WP per acre in 20 to 300 gallons of water using ground equipment or in 10 to 20 gallons of water by air. Apply in full leafy, bloom and petal fall sprays. Repeat applications at 7 to 14 days as needed to maintain control. Continue applications through harvest if conditions favor brown rot. The addition of a neutral spreader has improved coverage. Do not apply more than 58 lbs. per acre per crop cycle. May be applied up to 7 days before harvest.

**PLUMS, FRESH PRUNES (Western U.S.):**
Brown rot—Apply 4 to 6 lbs. Captan 50-WP per acre in 20 to 300 gallons of water using ground equipment or in 10 to 20 gallons of water by air. Use lower rates when tankmixes with fungicides of similar spectrum of activity are used. Apply as soon as growth begins. Petal blight, popcorn bloom, and petal fall stages. Repeat in cover sprays as conditions warrant.
Prune russet scab (lacy scab)—Apply 4 to 6 pounds Captan 50-WP per acre in 20 to 300 gallons of water using ground equipment. Apply at full bloom. Do not apply more than 54 lbs. per acre per crop cycle. May be applied up to 7 days before harvest.

**STRAWBERRIES:**
Botrytis (gray mold), leaf spot—Apply by broadcast spray at 3 to 6 lbs. Captan 50-WP per acre in sufficient water for thorough coverage by ground equipment or in 10 to 20 gallons of water by air. Begin applications when new growth starts in the spring and before fruit starts to form. Repeat at 7 to 14 days. Under conditions favorable to fruit rot, continue applications through harvest period treating immediately after each picking. Do not apply more than 48 lbs. per year. May be applied up to 7 days before harvest.
Note: Restricted-entry interval is 24 hours.
If applying as a broadcast/banded spray; use band rate of Captan 50-WP according to the following formula:

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\text{Plant Bed Width (inches) \times \text{Row Spacing (inches)} = \text{Band rate of Captan 50-WP per acre}}
\]

**SPECIAL USES**

**PEACH PREPLANT ROOT DIP (California):** Preventative preplant dip treatment for crown gall. Use 4 pounds Captan 50-WP plus 3.2 pints diluted sodium hydrochlorite (5.25% household bleach) per 100 gallons of water. Wash nursery trees to remove soil from roots. Cut off all dormant buds and suckers in crown area and prune root system if necessary. Submerge the entire dormant tree for 5 minutes. Recharge dip during operation at a rate of 3.2 pints diluted sodium hydrochlorite per 100 gallons of water.

**POSTHARVEST FRUIT APPLICATION:** For control of various molds and storage rots (Botrytis, Gleosporium, Rhizopus). Use as a postharvest dip or spray wash on the following fruits: Apples, Cherries, Pears—Use 2½ lbs. Captan 50-WP per 100 gallons of water. Apply as a spray or in a dip tank. When used as a dip, recharge wash solution periodically when tank volume is reduced by 25%. Bring wash back to volume and add 2½ lbs. Captan 50-WP for each 100 gallons added. At end of 8 hour shift, empty tank, flush and charge with fresh dilution. Do not allow dip tank solution to stand overnight. Maintain continuous agitation during dipping operation.

**DISPOSAL OF LEFTOVER POSTHARVEST TREATMENT MIXTURE:** Leftover dip or spray mixtures containing Captan 50-WP may be used as a foliar spray for the same crop in case of apples and cherries (but not pears) as treated by the dip or spray mixture, or to registered turf and ornamental sites: observing all restrictions such as maximum pounds applied per application and season.
When calculating application rates, if analytical services are not available to determine the exact quantity of Captan 50-WP remaining in the mixture, assume that the tank still contains 2.5 pounds of Captan 50-WP per 100 gallons of water. If the dip or spray mixture contains other pesticides in addition to Captan 50-WP, determine the exact quantity of Captan 50-WP remaining in the mixture, assume that the tank still contains 2.5 pounds of Captan 50-WP per 100 gallons of water. At end of every 8 hour shift, empty tank, flush and charge with fresh dilution. Do not allow dip tank solution to stand overnight. Maintain continuous agitation during dipping operation.

**CAMELIAS**
Petal blight—Use 1 lb. Captan 50-WP per 100 gallons of water. Apply to drench soil around plants beginning when flowers start to open. Repeat at 7 to 10 day intervals through bloom.

**CARNATIONS**
Alternaria leaf spot, rust—Use 2 lbs. Captan 50-WP per 100 gallons of water. Begin application at first sign of disease. Repeat at 7 to 10 day intervals. Shorten intervals during frequent rains and heavy dew.
Damping-off of cuttings—Use 4 lbs. Captan 50-WP per 100 gallons of water. Dip cuttings before bedding.

**CHRYSANTHEMUM**
Botrytis flower blight, Septoria leaf spot—Use 2 lbs. Captan 50-WP per 100 gallons of water. Apply at first sign of disease. Repeat at 7 to 10 day intervals.
Damping-off of cuttings—Use 4 lbs. Captan 50-WP per 100 gallons of water. Dip cuttings before bedding.

**DICHLONDRA (California only)**
White mold (Sclerotium rolfsii)—Use 2 lbs. Captan 50-WP per 100 gallons of water. Apply 1 gallon of spray per 10 square feet. Make to 3 applications at 7 day intervals.

**GLADIOLUS (Corms)**
Corn rot and decay, damping-off—Use 0.5 to 1.5 lbs. Captan 50-WP per 10 gallons of water, dip corns for 20 to 30 minutes. Drain and plant.

**GRASSES (Ornamental in Non-Pastured Areas Only)**
Leaf spot, damping-off, brown patch, melting out, seedling blights, and brown spot on St. Augustine grass—Use 2 lbs. Captan 50-WP per 100 gallons of water. Apply 10 gallons spray per 1,000 square feet. Begin when growth starts in spring. Repeat at 7 to 14 days intervals throughout season. Do not graze treated areas or feed clippings to livestock.

**GRASSES (Lawn Seedbeds)**
Damping-off and other soil borne diseases—Use 0.25 to 0.33 lb. of Captan 50-WP per 1,000 square feet or 2 lbs. Captan 50-WP per 100 gallons of water, using 15 gallons spray per 1,000 square feet. Cultivate into upper 3 to 4 inches of soil before planting.

**ROSES**
Black spot, Botrytis blossom blight—Use 2 lbs. Captan 50-WP per 100 gallons of water. Begin at first growth or first sign of disease. Repeat at 7 to 14 day intervals, and more frequently during frequent rains and heavy dew.

**SOIL AND GREENHOUSE BENCH TREATMENT**
Preplant treatment for damping-off, root rot diseases on seedlings or transplants of roses (and other shrubs, trees, flowers), and lawn seedbeds—Use 2 lbs. Captan 50-WP per 100 gallons of water at a rate of 15 gallons spray per 1,000 square feet. Cultivate into upper 3 to 4 inches of soil before planting.

**NOTICE TO BUYER AND USER:** Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Seller, and Buyer and User assume the risk of any such use. SELLER DISCLAIMS ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT AND SELLER’S SOLE LIABILITY AND BUYER’S AND USER’S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. This product is sold only for uses stated on its label. No express or implied license is granted to use or sell this product under any patent in any country except as specified: Country, United States. Manufactured by: MICRO FLO COMPANY