

66330-234

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

JUN 14 2010

Bill Washburn  
Regulatory Manager  
Arysta LifeScience, North America, LLC  
15401 Weston Parkway, Suite 150  
Cary, NC 27513

Subject: Label amendment dated February 24 2010  
Captan 50 Wettable Powder  
EPA Reg. No. 66330-234, Decision No. 416696

Dear Mr. Washburn,

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, to add dewberries and non-food ornamental ginseng is acceptable provided two copies of a final printed label are submitted within 30 days, with the following changes.

**For water-soluble packing**

Page 1,

- 1. Change the heading "Inert Ingredients" to "Other Ingredients".

Page 2,

- 2. Ensure that the EPA Registration and Establishment No., net contents and manufacturing information appear on page 1 of the final printed labeling.

Page 6,

- 3. Within the Storage and Disposal box, change the heading "container disposal" to "container handling".

Pages 7-8,

- 4. Change the REI to 48 hours for Blueberries (eastern U.S.) and Grapes (California).

Page 8,

- 5. Capitalize the "r" of restricted Entry Interval for all crops listed on the page.

**For non-water soluble packages**

Page 14,

- 6. Change the heading "Inert Ingredients" to "Other Ingredients".

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Page 17,

7. Include residue removal instructions per PR Notice 2007-4 within the Storage and Disposal box. Also change the heading "container disposal" to "container handling".

Pages 18-19,

8. Change the RE I to 48 hours for Blueberries (eastern U.S.) and Grapes (California).

Page 18,

9. Capitalize the "r" of restricted Entry Interval for all crops listed on the page.
10. For Apple -Powdery mildew, replace the sentence "The REI is 24 hours" with "Note the Restricted Entry Interval is 24 hours".

Page 19,

11. Capitalize the "r" of restricted Entry Interval for all crops listed on the page.
12. For Cherries -Post harvest sprays: leaf spot, replace the sentence "The REI is 24 hours" with "Note the Restricted Entry Interval is 24 hours".

Page 20,

13. Capitalize the "r" of restricted Entry Interval for all crops listed on the page.

The basic and alternate Confidential Statements of Formula (CSF) dated 2/24/10, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended are acceptable and will be added to the regulatory files. These CSFs supersede all CSFs previously accepted for this product.

A copy of your label stamped "Accepted with Comments" is enclosed for your records. If you have questions, please contact Shaunta Hill at 703-347-8961 or myself at 703-308-9443.

Sincerely,

*Shaunta Hill*  
*jen-*

Tony Kish Product Manager 22  
Fungicide Branch  
Registration Division (7504P)

Enclosure:

Label stamped "Accepted with Comments"

**ACCEPTED**  
with **COMMENTS**  
In EPA Letter Dated

**JUN 14 2010**

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.

**MASTER LABEL**  
**CAPTAN 50 WETTABLE POWDER**  
**EPA REG. NO. 66330-234**

66330-234 THIS DRAFT LABEL CONSISTS OF SEPARATE SUB-LABELS  
FOR THE PRODUCT PACKAGED IN WATER SOLUBLE PACKAGING  
AND FOR THE PRODUCT PACKAGED IN NON-WATER SOLUBLE PACKAGING

**SUB-LABEL FOR WATER-SOLUBLE PACKAGING**

**CAPTAN 50 WETTABLE POWDER**  
**A Fungicide For Plant Disease Control**

Captan 50 Wettable Powder is a micro fine 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:**

Captan: N-Trichloromethylthio-4-cyclohexene-1,2-dicarboximide ..... 48.9%

Related Derivatives ..... 1.1%

**INERT INGREDIENT:** ..... 50.0%

**TOTAL:** ..... 100.0%

**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 this label, find someone to explain it to you in detail.)

**FIRST AID**

<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
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**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

**Have the product container or label with you when calling a poison control center or doctor or going for treatment.**

**EMERGENCY NUMBERS:**

**FOR 24- HOUR EMERGENCY MEDICAL ASSISTANCE CALL: 1-866-303-6952**

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call**

**CHEMTREC 1-800-424-9300**

**EPA REG. NO. 66330-234**  
**EPA EST. NO. 51036-GA-1**  
**NET CONTENT: \_\_\_ LBS.**  
**AD 030107**

**Manufactured For:**  
**Arysta LifeScience North America, LLC**  
**15401 Weston Parkway, Suite 150**  
**Cary, NC 27513**

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**PRECAUTIONARY STATEMENTS**  
**Hazards To Humans And Domestic Animals**  
**WARNING**

Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses), long sleeved shirt, long pants, shoes, and socks. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

**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 chart.

**All mixers, loaders, applicators, flaggers, and other handlers (including handlers participating in transplanting as part of root-dip or greenhouse soil treatment) must wear:**

- Long-sleeved shirt and long pants,
- Shoes plus socks
- Chemical resistant gloves *except* flaggers, pilots, and applicators driving motorized ground equipment.
- Chemical resistant apron when mixing/loading, participating in dip treatments, cleaning up spills, cleaning equipment, or otherwise exposed to the concentrate.

See Engineering Controls for additional requirements.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**USER SAFETY REQUIREMENTS**

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.

**ENGINEERING CONTROLS**

**IMPORTANT:** Water-soluble packets when used correctly qualify as a closed loading system under the WPS. Mixers and loaders using water-soluble packets (1) must wear the PPE specified above for mixers and loaders and (2) must be provided a NIOSH-approved dust/mist respirator (type specified below), and (3) must have the respirator immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown. The respirator must be either a dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any N<sup>2</sup>, R, P, or HE filter.

**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 chemical is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

STORE IN COOL, DRY PLACE - PROTECT FROM EXCESSIVE HEAT

**DIRECTIONS FOR USE**

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

DO NOT allow this product to drift.

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.

DO NOT apply this product to seeds or seed pieces.

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

The REI for each crop is listed in the directions for use associated with each crop.

**EARLY ENTRY PPE:**

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
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear such as goggles, face shields, or safety glasses.

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

**Eye protection:** To mitigate eye irritation concerns from post-application exposures, for at least seven days following the application of captan: 1. At least one container designed specifically for flushing eyes must be available in operating condition at the WPS-required decontamination site for workers entering the area treated with captan. 2. Workers must be informed orally, in a manner they can understand; that residues in the treated area may be highly irritating to their eyes, that they should take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes, that if they do get residues in their eyes, they should immediately flush their eyes with the eyeflush container that is located at the decontamination site, and how to operate the eyeflush container.

**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.

**Entry Restrictions for Postharvest Fruit Dip**

Do not contact or allow others to contact the treated fruit until sprays have dried.

**Entry Restrictions for All Other Non-WPS Uses**

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

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 listed 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 captan 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.

Water-soluble packaging is required for all aerial applications.

This product is individually packaged in one-pound units in a translucent water-soluble bag contained within an outer package. Do not open the water-soluble bags. Do not allow the inner bag to become wet before adding to spray or nurse tank. Do not handle the inner bag with wet hands or wet gloves. Rough handling may cause breakage. Do not store at temperatures below 32°F (0°C). Allow to warm above 50°F (10°C) before normal use. Cooler water temperatures increase the time needed for the inner bag to dissolve completely.

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This product is intended for dilution with water for spray application. Do not use strainers finer than 50-mesh size. Determine the number of water-soluble bag(s) to make up necessary spray suspension. Where dosages are expressed as fractions of pounds, prepare the tank mix to the lower of the nearest whole package. Fill the spray or nurse tank ½ full with water. Open the outer wrapper of this product and immediately add the required number of intact water soluble packs into the spray tank. If possible, direct the fill water over the top of the packets. Allow the water-soluble bag(s) to dissolve completely. Depending on the water temperature and agitation, the packets should be completely dissolved within approximately 3 to 5 minutes from the time they were added to the spray tank. Start hydraulic or mechanical agitation. Air agitation is not recommended. Mix thoroughly to fully disperse and suspend the wettable powder. Fill the spray tank with the required amount of water. Add tank mix partners in this order: all products in water-soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids, and emulsifiable concentrates. Always allow each tank mix partner to fully disperse before adding the next product. Maintain sufficient agitation while adding the remainder of the water and until all of the mixture has been applied. Maintain agitation during storage in nurse or supply tank or application.

### **SPRAY DRIFT MANAGEMENT**

*Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decision.*

Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Apply only when the wind speed is 2-10 mph at the application site.

#### **Additional requirements for aerial applications:**

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

Do not make applications into temperature inversions.

#### **Additional requirements for ground boom application:**

Do not apply with a nozzle height greater than 4 feet above the crop canopy.

#### **Foliar Spray Drift Management**

Avoiding spray drift from foliar applications is the responsibility of the applicator. Similar to aerial spray drift, the interaction of many equipment- and-weather-related factors determine the potential for spray drift from foliar applications. To protect water resources, the applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they must be observed. The applicator should be familiar with and take into account the information covered in the [Aerial Drift Reduction Advisory Information](#).

#### **Aerial Drift Reduction Advisory**

This section is advisory in nature and does not supersede the mandatory label requirements.

#### **Information on Droplet Size**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

### Controlling Droplet Size

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

### Boom Length

For some use patterns, reducing the effective boom length to less than  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.

### Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

### Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

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

Captan 50 Wettable Powder can be combined safely and effectively at listed 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-sulfur and Bordeaux mixture will reduce the fungicidal activity of captan. Do not apply captan 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 captan. The time factor governing the safe interval between captan and oil sprays varies due to general climatic conditions; therefore, consult local agricultural spray programs and authorities to determine

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the proper timing. The use of spreaders, which cause excessive wetting, is not advised. Combinations with solvent formulations of organic phosphates should not be used. Combinations of captan and sulfur should not be used on crops sensitive to sulfur. Used at high rates or in drenching sprays, captan 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 captan and other spray materials at lowest listed rates and avoid drenching trees.

Applications can be made by aircraft or ground power equipment (including concentrate and semi-concentrate equipment). Put the required number of intact water soluble packs 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 Captan 50 Wettable Powder 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 of excess pesticide, spray mixture, or rinsate 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 representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Non-refillable container. Do not reuse or refill this container. Once water-soluble packets are used according to label instructions, offer outer bag for recycling if available, or dispose of empty outer bag 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 to maintain control but observe use limitations. Unless otherwise specified, 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 favors disease(s). Apply the low rate and/or spray at larger intervals when climatic conditions least favors 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. The dividing line between eastern and western U.S. is the Rocky Mountains unless specifically noted otherwise. Follow those directions for your growing area where specified.

### FRUIT AND NUT CROPS

#### ALMONDS:

**Brown rot twig and blossom blight, shothole, scab, leaf blight, anthracnose (for control of anthracnose, use in a disease and resistance management program of rotational sprays with other approved materials)** - Apply 4 to 9 lbs. Captan 50 Wettable Powder per acre in 20 to 300 gallons of water using ground equipment or in 5 to 20 gallons of water by air. Use 6 to 9 lbs. per acre when Captan is used alone. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, Captan 50 Wettable Powder may be used in a tank mix at a rate of 4 to 6 lbs. per acre. Apply at popcorn, bloom and petal fall, post petal fall, and full cover sprays.

The maximum application rate for almonds is 4.5 lb ai/acre, with a maximum seasonal application rate of 20 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 30 days. Note the Restricted Entry Interval is 24 hours. Almond hulls may be fed to livestock.



**APPLES (Eastern U.S.):**

**Primary scab, black rot (frogeye), botrytis blossom-end rot** - Apply 8 lbs. Captan 50 Wettable Powder per acre in 20 to 400 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 pox, botryosphaeria rot, bitter rot** - Apply 4 to 8 lbs. Captan 50 Wettable Powder per acre in 20 to 400 gallons of water using ground equipment or in 5 to 20 gallons of water by air. Apply at 10 to 14 day intervals in second and later cover sprays.

The maximum application rate for apples is 4 lb ai/acre, with a maximum seasonal application rate of 32 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the Restricted Entry Interval is 24 hours.

**Powdery mildew** - If powdery mildew is a problem add 6 to 12 lbs. sulfur per acre to all post-bloom sprays until foliage matures.

The REI is 24 hours.

**ATTENTION** - Do not use Captan 50 Wettable Powder in combination with or closely following or in 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 Wettable Powder per acre in 20 to 400 gallons of water per acre using ground equipment or in 5 to 20 gallons of water by air. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, the lower rate may be used in tank mixtures.

**(Pacific Northwest) - Bull's eye rot, Botrytis rot** - Apply 6 lbs. Captan 50 Wettable Powder per acre in 20 to 400 gallons of water using ground equipment or 5 to 20 gallons of water by air. Make 1 or 2 applications with late cover sprays and 1 final spray prior to harvest.

**Secondary scab** - In mid-summer cover sprays, the dosage maybe reduced to 4 pounds per acre.

The maximum application rate for apples is 4 lb ai/acre, with a maximum seasonal application rate of 32 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the Restricted Entry Interval is 24 hours.

**APRICOTS:**

**Brown rot (twig blight), jacket rot** - Apply 3 to 5 lbs. Captan 50 Wettable Powder 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, and 75% petal fall sprays. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, use the lower rate in tank mixtures.

The maximum application rate for apricots is 2.5 lb ai/acre, with a maximum seasonal application rate of 12.5 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the Restricted Entry Interval is 24 hours.

**BLUEBERRIES (Eastern U.S.):**

**Botrytis gray mold or berry rot, mummy berry** - Apply 5 lbs. Captan 50 Wettable Powder per acre in sufficient water for thorough coverage or a minimum of 5 gallons of water by air. Start spray program when buds swell or when buds have loose scales. Repeat at 7-day intervals through blossom period. Repeat at 7-to-10 day intervals from late bloom.

The maximum application rate for blueberries is 2.5 lb ai/acre, with a maximum seasonal application rate of 35 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the Restricted Entry Interval is 72 hours.

**BLUEBERRIES (Western U.S.):**

**Botrytis gray mold or berry rot, mummy berry** - Apply 2 to 5 lbs. Captan 50 Wettable Powder per acre in 20 to 200 gallons of water by ground or in 5 to 20 gallons of water by air. Begin at mid-bloom, repeat at 7 to 10 day intervals until maturity.

The maximum application rate for blueberries is 2.5 lb ai/acre, with a maximum seasonal application rate of 35 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the Restricted Entry Interval is 48 hours.

**BLACKBERRIES, DEWBERRIES, RASPBERRIES: Anthracnose, Botrytis, Spur blight;** Apply 2 to 4 pounds Captan 50 Wettable Powder per acre when blossoms are in bud (young canes are 8-10 inches long). Make a second application two weeks later. Apply a fall spray after old canes are removed.

**Fruit rot;** Apply 4 pounds of product per acre at early bloom (5-10% bloom) and again at full bloom. Additional applications can be made at 10-14 day intervals as needed. Apply product as indicated above in 45-100 gallons of water per acre. Use the higher volume as foliage increases.

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The maximum application rate for blackberries and raspberries is 2 lb ai/acre, with a maximum seasonal application rate of 10 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 3 days. Note the restricted Entry Interval is 48 hours.

#### CHERRIES (Eastern U.S.):

**Brown rot, leaf spot, Botrytis rot** - Apply 4 lbs. Captan 50 Wettable Powder 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 pre-harvest sprays. Applications at 3-to-4 day intervals may be necessary during bloom to control blossom blight. Repeat applications at 7 to 20 day intervals as needed to maintain 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 Wettable Powder may be reduced to 2 lbs. per acre in these sprays.

The maximum application rate for cherries is 2 lb ai/acre, with a maximum seasonal application rate of 14 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 24 hours.

**Post harvest sprays: Leaf spot** - Apply 4 lbs. Captan 50 Wettable Powder per acre in 20 to 200 gallons of water using ground equipment. Apply immediately after harvest and repeat application in 10 to 14 days.  
The REI is 24 hours.

#### CHERRIES (Western U.S.):

**Brown rot blossom blight, brown rot (fruit), leaf spot** - Apply 3 to 4 lbs. Captan 50 Wettable Powder 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.

The maximum application rate for cherries is 2 lb ai/acre, with a maximum seasonal application rate of 14 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 24 hours.

#### GRAPES (U.S., except CA):

**Phomopsis cane and leaf spot, downy mildew, suppression of black rot** - Apply 2 to 4 lbs. Captan 50 Wettable Powder per acre in 20 to 200 gallons water using ground equipment or in 7 to 20 gallons water by air, when shoots are 1/2 to 1 1/2 inches long, when shoots are 3 - 5 inches long, and when shoots are 9 - 12 inches long.

Repeat just before bloom, immediately after bloom, and continue at 10-14 day intervals as long as disease conditions persist. Use the lower rate when spraying less susceptible grape varieties or when conditions are less favorable for disease development. Use the higher rate on susceptible grape varieties and during periods of weather highly favorable for disease development.

The maximum application rate for grapes is 2 lb ai/acre, with a maximum seasonal application rate of 12 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the Restricted Entry Interval is 48 hours.

#### GRAPES (California):

**Bunch rot (Botrytis)** - Apply 4 lbs. Captan 50 Wettable Powder per acre in 20 to 200 gallons of water using ground equipment or 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 Wettable Powder per acre in 20 to 200 gallons of water using ground equipment or apply 4 lbs. Captan 50 Wettable Powder 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.

The maximum application rate for grapes is 2 lb ai/acre, with a maximum seasonal application rate of 12 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 72 hours.

#### NECTARINES (U.S.):

**Brown rot, scab** - Apply 4 to 8 lbs. Captan 50 Wettable Powder 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 Wettable Powder in tank mixes. Apply in full pink, bloom, petal fall, shuck, cover and preharvest sprays. Applications at 3 to 4 day 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 conditions favor brown rot. If powdery mildew is a problem, add 7.5 lbs. sulfur per acre to the petal fall, shuck and early cover spray. If sulfur is added, Captan 50 Wettable Powder may be reduced to 2.5 lbs. per acre in these sprays.

**Coryneum blight (peach blight, shothole)** - Apply 4 to 8 lbs. Captan 50 Wettable Powder per acre in 20 to 250 gallons of water using ground equipment or in 10 - 20 gallons of water by air. Apply in pink bud, full bloom, petal fall and cover sprays as necessary and as a postharvest spray (but before leaves drop).

The maximum application rate for nectarines is 4 lb ai/acre, with a maximum seasonal application rate of 24 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the Restricted Entry Interval is 24 hours.

**PEACHES (U.S.):**

**Brown rot, scab** - Apply 4 to 8 lbs. Captan 50 Wettable Powder 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 Wettable Powder in tank mixes. Apply in full pink, bloom, petal fall, shuck stages and in 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 Wettable Powder may be reduced to 4 lbs. per acre in these sprays.

**Coryneum blight (peach blight, shothole)** - Apply 8 lbs. Captan 50 Wettable Powder 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 and cover sprays as necessary and as a post harvest spray (but before leaves drop).

The maximum application rate for peaches is 4 lb ai/acre, with a maximum seasonal application rate of 32 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the Restricted Entry Interval is 24 hours.

**PLUMS, FRESH PRUNES (Eastern U.S.):**

**Brown rot** - Apply 6 lbs. Captan 50 Wettable Powder 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 pink, bloom and petal fall sprays. Repeat applications at 7 to 14 day intervals as needed to maintain control. Continue applications through harvest if conditions favor brown rot. The addition of a neutral spreader has improved coverage.

The maximum application rate for plums/fresh prunes is 3 lb ai/acre, with a maximum seasonal application rate of 27 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the Restricted Entry Interval is 24 hours.

**PLUMS, FRESH PRUNES (Western U.S.):**

**Brown rot** - Apply 4 to 6 lbs. Captan 50 Wettable Powder 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 tank mixes with fungicides of similar spectrum of activity are used. Apply at green bud, 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 Wettable Powder per acre in 20 to 300 gallons of water using ground equipment. Apply at full bloom.

The maximum application rate for plums/fresh prunes is 3 lb ai/acre, with a maximum seasonal application rate of 27 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the Restricted Entry Interval is 24 hours.

**STRAWBERRIES:**

**Botrytis (gray mold), leaf spot** - Apply by broadcast spray at 3 to 6 pounds Captan 50 Wettable Powder 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 day intervals. Under conditions favorable to fruit rot continue applications through harvest period treating immediately after each picking.

The maximum application rate for strawberries is 3 lb ai/acre, with a maximum seasonal application rate of 24 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the Restricted Entry Interval is 24 hours.

If applying as a directed/banded spray; use band rate of Captan 50 Wettable Powder according to the following formula:

$$\frac{\text{Plant Bed Width (inches)}}{\text{Row Spacing (inches)}} \times \text{Broadcast rate per acre} = \text{Banded rate of Captan 50 Wettable Powder per acre.}$$

**NOTE:** \*Crop cycle is defined as prebloom through harvest.

### SPECIAL USES

**PEACH PREPLANT ROOT DIP (California):** Preventative preplant dip treatment for crown gall. Use 4 pounds Captan 50 Wettable Powder plus 3.2 pints diluted sodium hypochlorite (5.25% household bleach) per 100 gallons 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 hypochlorite per 100 gallons of water. The 48-hour REI begins when the treatment and any transplanting tasks done as a part of the treatment are complete. Exception: once the transplants are planted in the soil, the Worker Protection Standard allows workers to enter the treated area without restriction if there will be no contact with the soil subsurface.

Captan wastes are acutely hazardous to the eyes. Improper disposal of dip tank mixtures is a violation of Federal law. If the leftover dip or spray mixture cannot be disposed of in the manner prescribed above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance concerning the disposal of spent or excess dip tank mixtures.

### NONFOOD/ORNAMENTALS

**USE PRECAUTIONS** - Do not apply spray to ornamental plants beyond the point of drip from the leaf surface. Apply only sufficient mixture to wet the surface of the soil except when the dose is specified in terms of volume of mixture per square foot of area.

#### **RESTRICTED ENTRY INTERVAL (REI): 48 hours**

Workers may not enter the treated area to perform hand labor or other tasks involving contact with anything that has been treated, such as plants, soil, or water if they do not wear the early-entry PPE listed in the Agricultural Use Requirements box.

#### **AZALEAS**

**Damping off of cuttings** - Mix 4 pounds Captan 50 Wettable per 107 gallons of water. Dip cuttings in the mixture before bedding.

**Petal Blight** - Use 2 pounds Captan 50 Wettable per 100 gallons of water. Apply to the soil around the plants just before bloom. Repeat at 7 to 14 day intervals through bloom.

#### **BEGONIAS (Tuberous)**

**Damping-off, tuber rot** - Use 4 pounds Captan 50 Wettable per 100 gallons of water. Dip tubers in mixture for 30 minutes, drain and plant.

#### **CAMELLIAS**

**Petal Blight** - Use 1 pound Captan 50 Wettable per 100 gallons of water. Apply to drench soil around plants beginning when flowers begin to open. Repeat at 7 to 10 day intervals through bloom.

#### **CARNATIONS**

**Alternaria Leafspot, Rust** - Use 2 pounds Captan 50 Wettable per 100 gallons of water. Begin application at first sign of disease. Repeat at 7 to 10 day intervals. Shorten intervals if there are frequent rains and heavy dews.

**Damping-off of cuttings** - Use 4 pounds Captan 50 Wettable per 100 gallons of water. Dip cuttings in mixture before bedding.

#### **CHRYSANTHEMUM**

**Botrytis Flower Blight, Septoria Leafspot** - Use 2 pounds Captan 50 Wettable per 100 gallons of water. Apply at first sign of disease. Repeat at 7 to 10 day intervals.

**Damping-off of cuttings** - Use 4 pounds Captan 50 Wettable per 100 gallons of water. Dip cuttings in mixture before bedding.

#### **DICHONDRA (California only)**

**White Mold** - Use 8.6 lbs. Per acre per application Captan 50 Wettable per 100 gallons of water. Apply 1 gallon of spray per 10 square feet. Make applications at 7-day intervals. Do not exceed 17.2 lbs. Per acre per season.

**GINSENG**

For control of *Cylindrocarpon* root rot (*Cylindrocarpon destructans*), Grey mold (*Botrytis cinerea*), *Phytophthora* root rot (*Phytophthora cactorum*), *Pythium* root rot (*Pythium* spp.) and *Rhizoctonia* root and crown rot (*Rhizoctonia solani*).

Apply 4 lbs of CAPTAN 50 WP per acre (2 lbs ai/acre) every 7 – 10 days or when conditions favor disease development. For control of grey mold, apply as a foliar spray with a minimum of 100 gal/acre. For control of root and crown diseases, apply as a drench with minimum of 200 gal/acre. Do not use ginseng for food or feed purpose within 1 (one) year of treatment. Do not exceed 8 applications in one growing season.

Do not apply more than 32 lbs of CAPTAN 50 WP (16 lb ai) per acre per season.

**GLADIOLUS (Corms)**

**Corm Rot and Decay, Damping-off** - Use 6 ounces Captan 50 Wettable per 10 gallons of water, dip corms for 20 to 30 minutes. Drain and plant.

**GRASSES (Ornamentals in Non-Pastured Areas Only)**

Do not apply to turfgrass in recreational sites, including homes, apartment buildings, daycare centers, schools, playgrounds, parks, recreational areas, sports fields, or other residential areas. The maximum application rate for golf course turf and turf in commercial settings is 4.3 lbs a.i./acre with a maximum seasonal application rate of 8.6 lbs a.i./acre.

**Leafspot, Damping-off, Brown Patch, Melting Out, Seedling Blights, Brown Spot on St. Augustine Grass** - Use 2 pounds Captan 50 Wettable per 100 gallons of water. Apply 10 gallons spray per 1000 square feet. Begin when growth starts in spring. Do not make more than two applications per season. Do not graze treated areas or feed clippings to livestock.

**GRASSES (Lawn Seedbeds)**

**Damping-off, Other Soil Borne Diseases** - Use 1/4 to 1/3 pound of Captan 50 Wettable per 1,000 square feet or 2 pounds Captan 50 Wettable per 100 gallons of water, using 15 gallons spray for per 1000 square feet. Cultivate into top 3 to 4 inches of soil before planting. Do not apply captan containing products to the grass during the rest of the season.

**ROSES**

**Black Spot, Botrytis Blossom Blight** - Use 2 pounds Captan 50 Wettable 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 dews.

**SOIL AND GREENHOUSE BENCH TREATMENT**

**Preplant treatment for damping-off, root rot diseases on seedling or transplants of roses (and other shrubs, trees, flowers) & lawn seedbeds** - Use 2 pounds Captan 50 Wettable per 100 gallons of water at a rate of 15 gallons spray per 1,000 square feet. Cultivate into top 3 to 4 inches of soil before planting.

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**Warranty and Disclaimer Statement**

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of Arysta LifeScience North America, LLC ("Arysta"), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer. Arysta warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions. This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to Arysta, and is subject to the inherent risks described above.

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARYSTA DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARYSTA, MANUFACTURER, AND SELLER DISCLAIM AND SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE, HANDLING, APPLICATION, STORAGE, OR DISPOSAL OF THIS PRODUCT OR FOR DAMAGES IN THE NATURE OF PENALTIES, AND THE USER AND BUYER WAIVE ANY RIGHT THAT THEY MAY HAVE TO SUCH DAMAGES. NO AGENT, REPRESENTATIVE OR EMPLOYEE OF ARYSTA IS AUTHORIZED TO MAKE ANY WARRANTY, GUARANTEE OR REPRESENTATION BEYOND THOSE CONTAINED HEREIN OR TO MODIFY THE WARRANTIES CONTAINED HEREIN.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE TOTAL LIABILITY OF ARYSTA, MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT ARYSTA'S ELECTION, THE REPLACEMENT OF THE PRODUCT.**

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**SUB LABEL FOR NON- WATER SOLUBLE PACKAGING**

## CAPTAN 50 WETTABLE POWDER

### A Fungicide For Plant Disease Control

Captan 50 Wettable Powder is a micro fine 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:**

Captan: N-Trichloromethylthio-4-cyclohexene-1,2-dicarboximide ..... 48.9%  
 Related Derivatives ..... 1.1%

**INERT INGREDIENTS:** ..... 50.0%

**TOTAL:** ..... 100.0%

**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 this label, find someone to explain it to you in detail.)

**FIRST AID**

<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>NOTE TO PHYSICIAN:</b> Probable mucosal damage may contraindicate the use of gastric lavage.	
<b>Have the product container or label with you when calling a poison control center or doctor or going for treatment.</b>	
<b>EMERGENCY NUMBERS:</b> <b>FOR 24- HOUR EMERGENCY MEDICAL ASSISTANCE CALL: 1-866-303-6952</b> <b>FOR CHEMICAL EMERGENCY:</b> Spill, leak, fire, exposure, or accident call <b>CHEMTREC 1-800-424-9300</b>	

**EPA REG. NO. 66330-234**  
**EPA EST. NO. 51036-GA-1**  
**NET CONTENT: \_\_\_ LBS.**  
**AD 030107**

**Manufactured For:**  
**Arysta LifeScience North America, LLC**  
**15401 Weston Parkway, Suite 150**  
**Cary, NC 27513**

**PRECAUTIONARY STATEMENTS**  
**Hazards To Humans And Domestic Animals**  
**WARNING**

Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses), long sleeved shirt, long pants, shoes, and socks. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

**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 chart.

**All mixers, loaders, applicators, and other handlers (including handlers participating in transplanting as part of root-dip or greenhouse-soil treatments) must wear:**

- Long-sleeved shirt and long pants,
- Shoes plus socks
- Chemical resistant gloves *except* applicators driving motorized ground equipment.
- Chemical resistant apron when mixing/loading, participating in dip treatments, cleaning up spills, cleaning equipment, or otherwise exposed to the concentrate.
- A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH-approval number prefix TC-21C or a NIOSH-approved respirator with any N, R, P, or HE filter when mixing, loading, cleaning up spills, cleaning equipment, or otherwise exposed to the concentrate.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**USER SAFETY REQUIREMENTS**

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.

**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 chemical is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

STORE IN COOL, DRY PLACE - PROTECT FROM EXCESSIVE HEAT

**DIRECTIONS FOR USE**

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

DO NOT allow this product to drift.

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.

DO NOT apply this product to seeds or seed pieces.

DO NOT use for aerial application.

DO NOT apply this product with aerial or chemigation equipment.



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

The REI for each crop is listed in the directions for use associated with each crop.

#### EARLY ENTRY PPE:

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
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear such as goggles, face shields, or safety glasses.

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

**Eye protection:** To mitigate eye irritation concerns from post-application exposures, for at least seven days following the application of captan: 1. At least one container designed specifically for flushing eyes must be available in operating condition at the WPS-required decontamination site for workers entering the area treated with captan. 2. Workers must be informed orally, in a manner they can understand; that residues in the treated area may be highly irritating to their eyes, that they should take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes, that if they do get residues in their eyes, they should immediately flush their eyes with the eyeflush container that is located at the decontamination site, and how to operate the eyeflush container.

### 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.

#### Entry Restrictions for Postharvest Fruit Dip

Do not contact or allow others to contact the treated fruit until sprays have dried.

#### Entry Restrictions for All Other Non-WPS Uses

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

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 listed rates and intervals, and do not apply closer to harvest than specified. Do not apply or allow drifting to adjoining food, fiber or pasturing crops. Drift of captan 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.

This product is intended for dilution with water for spray application. Do not use strainers finer than 50-mesh size. Fill the spray or nurse tank  $\frac{1}{2}$  full with water. Add the required amount of Captan 50 Wettable Powder. Then add the rest of the required water. Start hydraulic or mechanical agitation. Air agitation is not recommended. Mix thoroughly to fully disperse and suspend the wettable powder. Fill the spray tank with the required amount of water. Add tank mix partners in this order: all products in water-soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids, and emulsifiable concentrates. Always allow each tank mix partner to fully disperse before adding the next product. Maintain sufficient agitation while adding the remainder of the water and until all of the mixture has been applied. Maintain agitation during storage in nurse or supply tank or application.

### FOLIAR SPRAY DRIFT MANAGEMENT

Avoiding spray drift from foliar applications is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift from foliar applications. To protect water resources, the applicator and the grower are responsible for considering all these factors when making decisions.

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

Captan 50 Wettable Powder can be combined safely and effectively at listed 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-sulfur and Bordeaux mixture will reduce the fungicidal activity of captan. Do not apply captan 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 captan. The time factor governing the safe interval between captan 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 with solvent formulations of organic phosphates should not be used. Combinations of captan and sulfur should not be used on crops sensitive to sulfur. Used at high rates or in drenching sprays, captan 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 captan and other spray materials at lowest listed rates and avoid drenching trees.

For concentrate spray applications, apply the same amount of Captan 50 Wettable Powder per acre as would normally be applied for dilute spray applications. Apply aerial or concentrate sprays in sufficient water for coverage.

### 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 of excess pesticide, spray mixture, or rinsate 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 representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Offer for recycling, if available, or dispose of empty bag 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 to maintain control but observe use limitations. Unless otherwise specified, 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 favors disease(s). Apply the low rate and/or spray at larger intervals when climatic conditions least favors 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. The dividing line between eastern and western U.S. is the Rocky Mountains unless specifically noted otherwise. Follow those directions for your growing area where specified.

### FRUIT AND NUT CROPS

#### ALMONDS:

**Brown rot twig and blossom blight, shothole, scab, leaf blight, anthracnose (for control of anthracnose, use in a disease and resistance management program of rotational sprays with other approved materials)** - Apply 4 to 9 lbs. Captan 50 Wettable Powder per acre in 20 to 300 gallons of water using ground equipment. Use 6 to 9 lbs. per acre when Captan is used alone. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, Captan 50 Wettable Powder may be used in a tankmix at a rate of 4 to 6 lbs. per acre. Apply at popcorn, bloom and petal fall, post petal fall, and full cover sprays.

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The maximum application rate for almonds is 4.5 lb ai/acre, with a maximum seasonal application rate of 20 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 30 days. Note the restricted Entry Interval is 24 hours. Almond hulls may be fed to livestock.

**APPLES (Eastern U.S.):**

**Primary scab, black rot (frog-eye), botrytis blossom-end rot** - Apply 8 lbs. Captan 50 Wettable Powder per acre in 20 to 400 gallons of water using ground equipment. 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 pox, botryosphaeria rot, bitter rot** - Apply 4 to 8 lbs. Captan 50 Wettable Powder per acre in 20 to 400 gallons of water using ground equipment. Apply at 10 to 14 day intervals in second and later cover sprays.

The maximum application rate for apples is 4 lb ai/acre, with a maximum seasonal application rate of 32 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 24 hours.

**Powdery mildew** - If powdery mildew is a problem add 6 to 12 lbs. sulfur per acre to all post-bloom sprays until foliage matures.

The REI is 24 hours.

**ATTENTION** - Do not use Captan 50 Wettable Powder in combination with or closely following or in 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 Wettable Powder per acre in 20 to 400 gallons of water per acre using ground equipment. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, the lower rate may be used in tank mixtures.

**(Pacific Northwest) - Bull's eye rot, Botrytis rot** - Apply 6 lbs. Captan 50 Wettable Powder per acre in 20 to 400 gallons of water using ground equipment. Make 1 or 2 applications with late cover sprays and 1 final spray prior to harvest.

**Secondary scab** - In mid-summer cover sprays, the dosage maybe reduced to 4 pounds per acre.

The maximum application rate for apples is 4 lb ai/acre, with a maximum seasonal application rate of 32 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 24 hours.

**APRICOTS:**

**Brown rot (twig blight), jacket rot** - Apply 3 to 5 lbs. Captan 50 Wettable Powder per acre in 20 to 250 gallons of water using ground equipment. Apply in red bud, bloom, and 75% petal fall sprays. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, use the lower rate in tank mixtures.

The maximum application rate for apricots is 2.5 lb ai/acre, with a maximum seasonal application rate of 12.5 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 24 hours.

**BLUEBERRIES (Eastern U.S.):**

**Botrytis gray mold or berry rot, mummy berry** - Apply 5 lbs. Captan 50 Wettable Powder per acre in sufficient water for thorough coverage. Start spray program when buds swell or when buds have loose scales. Repeat at 7-day intervals through blossom period. Repeat at 7-to-10 day intervals from late bloom.

The maximum application rate for blueberries is 2.5 lb ai/acre, with a maximum seasonal application rate of 35 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 72 hours.

**BLUEBERRIES (Western U.S.):**

**Botrytis gray mold or berry rot, mummy berry** - Apply 2 to 5 lbs. Captan 50 Wettable Powder per acre in 20 to 200 gallons of water by ground. Begin at mid-bloom, repeat at 7 to 10 day intervals until maturity.

The maximum application rate for blueberries is 2.5 lb ai/acre, with a maximum seasonal application rate of 35 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 48 hours.

**BLACKBERRIES, DEWBERRIES, RASPBERRIES: Anthracnose, Botrytis, Spur blight;** Apply 2 to 4 pounds Captan 50 Wettable Powder per acre when blossoms are in bud (young canes are 8-10 inches long). Make a second application two weeks later. Apply a fall spray after old canes are removed.

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**Fruit rot;** Apply 4 pounds of product per acre at early bloom (5-10% bloom) and again at full bloom. Additional applications can be made at 10-14 day intervals as needed. Apply product as indicated above in 45-100 gallons of water per acre. Use the higher volume as foliage increases.

The maximum application rate for blackberries and raspberries is 2 lb ai/acre, with a maximum seasonal application rate of 10 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 3 days. Note the restricted Entry Interval is 48 hours.

#### **CHERRIES (Eastern U.S.):**

**Brown rot, leaf spot, Botrytis rot** - Apply 4 lbs. Captan 50 Wettable Powder per acre in 20 to 200 gallons of water using ground equipment. Apply in pre-bloom, bloom, petal fall, shuck, cover, and pre-harvest sprays. Applications at 3-to-4 day intervals may be necessary during bloom to control blossom blight. Repeat applications at 7 to 20 day intervals as needed to maintain 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 Wettable Powder may be reduced to 2 lbs. per acre in these sprays.

The maximum application rate for cherries is 2 lb ai/acre, with a maximum seasonal application rate of 14 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 24 hours.

**Post harvest sprays: Leaf spot** - Apply 4 lbs. Captan 50 Wettable Powder per acre in 20 to 200 gallons of water using ground equipment. Apply immediately after harvest and repeat application in 10 to 14 days. The REI is 24 hours.

#### **CHERRIES (Western U.S.):**

**Brown rot blossom blight, brown rot (fruit), leaf spot** - Apply 3 to 4 lbs. Captan 50 Wettable Powder per acre in 20 to 200 gallons of water using ground equipment. Apply in pre-bloom, bloom, petal fall, shuck, cover and preharvest sprays.

The maximum application rate for cherries is 2 lb ai/acre, with a maximum seasonal application rate of 14 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 24 hours.

#### **GRAPES (U.S., except CA):**

**Phomopsis cane and leaf spot, downy mildew, suppression of black rot** - Apply 2 to 4 lbs. Captan 50 Wettable Powder per acre in 20 to 200 gallons water using ground equipment when shoots are 1/2 to 1 1/2 inches long, when shoots are 3 - 5 inches long, and when shoots are 9 - 12 inches long.

Repeat just before bloom, immediately after bloom, and continue at 10-14 day intervals as long as disease conditions persist. Use the lower rate when spraying less susceptible grape varieties or when conditions are less favorable for disease development. Use the higher rate on susceptible grape varieties and during periods of weather highly favorable for disease development.

The maximum application rate for grapes is 2 lb ai/acre, with a maximum seasonal application rate of 12 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 48 hours.

#### **GRAPES (California):**

**Bunch rot (Botrytis)** - Apply 4 lbs. Captan 50 Wettable Powder per acre in 20 to 200 gallons of water using ground equipment. 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 Wettable Powder per acre in 20 to 200 gallons of water using ground equipment. 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.

The maximum application rate for grapes is 2 lb ai/acre, with a maximum seasonal application rate of 12 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 72 hours.

#### **NECTARINES (U.S.):**

**Brown rot, scab** - Apply 4 to 8 lbs. Captan 50 Wettable Powder per acre in 20 to 250 gallons of water using ground equipment. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, use the lower rates of Captan 50 Wettable Powder in tank mixes. Apply in full pink, bloom, petal fall, shuck, cover and preharvest sprays. Applications at 3 to 4 day 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 conditions favor brown rot. If powdery mildew is a problem, add 7.5

lbs. sulfur per acre to the petal fall, shuck and early cover spray. If sulfur is added, Captan 50 Wettable Powder may be reduced to 2.5 lbs. per acre in these sprays.

**Coryneum blight (peach blight, shothole)** - Apply 4 to 8 lbs. Captan 50 Wettable Powder per acre in 20 to 250 gallons

of water using ground equipment. Apply in pink bud, full bloom, petal fall and cover sprays as necessary and as a postharvest spray (but before leaves drop).

The maximum application rate for nectarines is 4 lb ai/acre, with a maximum seasonal application rate of 24 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 24 hours.

#### PEACHES (U.S.):

**Brown rot, scab** – Apply 4 to 8 lbs. Captan 50 Wettable Powder per acre in 20 to 400 gallons of water using ground equipment. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, use the lower rates of Captan 50 Wettable Powder in tank mixes. Apply in full pink, bloom, petal fall, shuck stages and in 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 Wettable Powder may be reduced to 4 lbs. per acre in these sprays.

**Coryneum blight (peach blight, shothole)** - Apply 8 lbs. Captan 50 Wettable Powder per acre in 20 to 400 gallons of water using ground equipment. Apply in pink bud, full bloom, petal fall stages and cover sprays as necessary and as a post harvest spray (but before leaves drop).

The maximum application rate for peaches is 4 lb ai/acre, with a maximum seasonal application rate of 32 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 24 hours.

#### PLUMS, FRESH PRUNES (Eastern U.S.):

**Brown rot** - Apply 6 lbs. Captan 50 Wettable Powder per acre in 20 to 300 gallons of water using ground equipment. Apply in full pink, bloom and petal fall sprays. Repeat applications at 7 to 14 day intervals as needed to maintain control. Continue applications through harvest if conditions favor brown rot. The addition of a neutral spreader has improved coverage.

The maximum application rate for plums/fresh prunes is 3 lb ai/acre, with a maximum seasonal application rate of 27 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 24 hours.

#### PLUMS, FRESH PRUNES (Western U.S.):

**Brown rot** - Apply 4 to 6 lbs. Captan 50 Wettable Powder per acre in 20 to 300 gallons of water using ground equipment. Use lower rates when tank mixes with fungicides of similar spectrum of activity are used. Apply at green bud, 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 Wettable Powder per acre in 20 to 300 gallons of water using ground equipment. Apply at full bloom.

The maximum application rate for plums/fresh prunes is 3 lb ai/acre, with a maximum seasonal application rate of 27 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 24 hours.

#### STRAWBERRIES:

**Botrytis (gray mold), leaf spot** - Apply by broadcast spray at 3 to 6 pounds Captan 50 Wettable Powder per acre in sufficient water for thorough coverage by ground equipment. Begin applications when new growth starts in the spring and before fruit starts to form. Repeat at 7 to 14 day intervals. Under conditions favorable to fruit rot continue applications through harvest period treating immediately after each picking.

The maximum application rate for strawberries is 3 lb ai/acre, with a maximum seasonal application rate of 24 lb ai/acre per crop cycle\*. Preharvest interval (PHI) = 0 days. Note the restricted Entry Interval is 24 hours.

If applying as a directed/banded spray; use band rate of Captan 50 Wettable Powder according to the following formula:

$$\frac{\text{Plant Bed Width (inches)}}{\text{Row Spacing (inches)}} \times \text{Broadcast rate per acre} = \text{Banded rate of Captan 50 Wettable Powder per acre.}$$

**NOTE:** \*Crop cycle is defined as prebloom through harvest.

### SPECIAL USES

**PEACH PREPLANT ROOT DIP (California):** Preventative preplant dip treatment for crown gall. Use 4 pounds Captan 50 Wettable Powder plus 3.2 pints diluted sodium hypochlorite (5.25% household bleach) per 100 gallons 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 hypochlorite per 100 gallons of water. The 48-hour REI begins when the treatment and any transplanting tasks done as a part of the treatment are complete. Exception: once the transplants are planted in the soil, the Worker Protection Standard allows workers to enter the treated area without restriction if there will be no contact with the soil subsurface.

**POSTHARVEST FRUIT APPLICATION: (For use in mechanical fruit dip operations only).** Hand dipping of fruit is prohibited: For control of various molds and storage rots (Botrytis, Gloeosporium, Rhizopus). Use as a postharvest dip or spray wash on the following fruits: Apples, Cherries, Pears - Use 2 1/2 pounds Captan 50 Wettable Powder 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 water back to volume and add 2 1/2 pounds Captan 50 Wettable Powder for each 100 gallons added. 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. Hand dipping of fruit is prohibited. For post-application fruit dips: Do not contact or allow others to contact the treated fruit until sprays have dried.

**DISPOSAL OF LEFTOVER POSTHARVEST TREATMENT MIXTURE:** Leftover dip or spray mixtures containing captan 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 ornamentals 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 remaining in the mixture, assume that the tank still contains 2.5 pounds of Captan 50 Wettable Powder per 100 gallons of water. If the dip or spray mixture contains other pesticides in addition to captan, refer to the product label(s) for information regarding disposal.

Captan wastes are acutely hazardous to the eyes. Improper disposal of spray or dip tank mixtures is a violation of Federal law. If the leftover dip or spray mixture cannot be disposed of in the manner prescribed above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance concerning the disposal of spent or excess dip tank mixtures.

### NONFOOD/ORNAMENTALS

**USE PRECAUTIONS** - Do not apply spray to ornamental plants beyond the point of drip from the leaf surface. Apply only sufficient mixture to wet the surface of the soil except when the dose is specified in terms of volume of mixture per square foot of area.

#### **Restricted Entry Interval (REI): 48 hours**

Workers may not enter the treated area to perform hand labor or other tasks involving contact with anything that has been treated, such as plants, soil, or water if they do not wear the early-entry PPE listed in the Agricultural Use Requirements box.

#### **AZALEAS**

**Damping off of cuttings** - Mix 4 pounds Captan 50 Wettable per 107 gallons of water. Dip cuttings in the mixture before bedding.

**Petal Blight** - Use 2 pounds Captan 50 Wettable per 100 gallons of water. Apply to the soil around the plants just before bloom. Repeat at 7 to 14 day intervals through bloom.

#### **BEGONIAS (Tuberous)**

**Damping-off, tuber rot** - Use 4 pounds Captan 50 Wettable per 100 gallons of water. Dip tubers in mixture for 30 minutes, drain and plant.

#### **CAMELLIAS**

**Petal Blight** - Use 1 pound Captan 50 Wettable per 100 gallons of water. Apply to drench soil around plants beginning when flowers begin to open. Repeat at 7 to 10 day intervals through bloom.

#### **CARNATIONS**

**Alternaria Leafspot, Rust** - Use 2 pounds Captan 50 Wettable per 100 gallons of water. Begin application at first sign of

disease. Repeat at 7 to 10 day intervals. Shorten intervals if there are frequent rains and heavy dews.

**Damping-off of cuttings** - Use 4 pounds Captan 50 Wettable per 100 gallons of water. Dip cuttings in mixture before bedding.

#### CHRYSANTHEMUM

**Botrytis Flower Blight, Septoria Leafspot** - Use 2 pounds Captan 50 Wettable per 100 gallons of water. Apply at first sign of disease. Repeat at 7 to 10 day intervals.

**Damping-off of cuttings** - Use 4 pounds Captan 50 Wettable per 100 gallons of water. Dip cuttings in mixture before bedding.

#### DICHONDRA (California only)

**White Mold** - Use 8.6 lbs. Per acre per application Captan 50 Wettable per 100 gallons of water. Apply 1 gallon of spray per 10 square feet. Make applications at 7-day intervals. Do not exceed 17.2 lbs. Per acre per season.

#### GINSENG

For control of *Cylindrocarpon* root rot (*Cylindrocarpon destructans*), Grey mold (*Botrytis cinerea*), *Phytophthora* root rot (*Phytophthora cactorum*), *Pythium* root rot (*Pythium* spp.) and *Rhizoctonia* root and crown rot (*Rhizoctonia solani*).

Apply 4 lbs of CAPTAN 50 WP per acre (2 lbs ai/acre) every 7 – 10 days or when conditions favor disease development. For control of grey mold, apply as a foliar spray with a minimum of 100 gal/acre. For control of root and crown diseases, apply as a drench with minimum of 200 gal/acre. Do not use ginseng for food or feed purpose within 1 (one) year of treatment. Do not exceed 8 applications in one growing season.

Do not apply more than 32 lbs of CAPTAN 50 WP (16 lb ai) per acre per season.

#### GLADIOLUS (Corms)

**Corm Rot and Decay, Damping-off** - Use 6 ounces Captan 50 Wettable per 10 gallons of water, dip corms for 20 to 30 minutes. Drain and plant.

#### GRASSES (Ornamentals in Non-Pastured Areas Only)

Do not apply to turfgrass in recreational sites, including homes, apartment buildings, daycare centers, schools, playgrounds, parks, recreational areas, sports fields, or other residential areas. The maximum application rate for golf course turf and turf in commercial settings is 4.3 lbs a.i./acre with a maximum seasonal application rate of 8.6 lbs a.i./acre.

**Leafspot, Damping-off, Brown Patch, Melting Out, Seedling Blights, Brown Spot on St. Augustine Grass** - Use 2 pounds Captan 50 Wettable per 100 gallons of water. Apply 10 gallons spray per 1000 square feet. Begin when growth starts in spring. Do not make more than two applications per season. Do not graze treated areas or feed clippings to livestock.

#### GRASSES (Lawn Seedbeds)

**Damping-off, Other Soil Borne Diseases** - Use 1/4 to 1/3 pound of Captan 50 Wettable per 1,000 square feet or 2 pounds Captan 50 Wettable per 100 gallons of water, using 15 gallons spray for per 1000 square feet. Cultivate into top 3 to 4 inches of soil before planting. Do not apply captan containing products to the grass during the rest of the season.

#### ROSES

**Black Spot, Botrytis Blossom Blight** - Use 2 pounds Captan 50 Wettable 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 dews.

#### SOIL AND GREENHOUSE BENCH TREATMENT

**Preplant treatment for damping-off, root rot diseases on seedling or transplants of roses (and other shrubs, trees, flowers) & lawn seedbeds** - Use 2 pounds Captan 50 Wettable per 100 gallons of water at a rate of 15 gallons spray per 1,000 square feet. Cultivate into top 3 to 4 inches of soil before planting.

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**Warranty and Disclaimer Statement**

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of Arysta LifeScience North America, LLC ("Arysta"), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer. Arysta warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions. This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to Arysta, and is subject to the inherent risks described above.

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARYSTA DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARYSTA, MANUFACTURER, AND SELLER DISCLAIM AND SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE, HANDLING, APPLICATION, STORAGE, OR DISPOSAL OF THIS PRODUCT OR FOR DAMAGES IN THE NATURE OF PENALTIES, AND THE USER AND BUYER WAIVE ANY RIGHT THAT THEY MAY HAVE TO SUCH DAMAGES. NO AGENT, REPRESENTATIVE OR EMPLOYEE OF ARYSTA IS AUTHORIZED TO MAKE ANY WARRANTY, GUARANTEE OR REPRESENTATION BEYOND THOSE CONTAINED HEREIN OR TO MODIFY THE WARRANTIES CONTAINED HEREIN.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE TOTAL LIABILITY OF ARYSTA, MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT ARYSTA'S ELECTION, THE REPLACEMENT OF THE PRODUCT.**