

JUL 21 1994

Ms. Barbara Brown
Drexel Chemical Company
P.O. Box 9306
2467 Pennsylvania St.
Memphis, TN 38190-0306

Dear Ms. Brown:

Subject: Drexel Captan 80W fungicide
EPA Registration No. 19713-362
Application Dated July 7, 1994, Request to
Amend Labeling to Respond To June 16, 1994
Agency Letter Regarding Overtolerance of
Captan Residues in Strawberries, to Delete
"For Terrestrial Uses" from Wetland Statement
and To Add the Strawberry "Exception" to the
New Agricultural Use Requirement Section

The proposed labeling submitted with your application dated July 7, 1994 to amend the subject pesticide product registration is acceptable under the Federal Insecticide, Fungicide and Rodenticide Act as amended provided that you revise the labeling as described below:

1. The formula for determining band rates per acre must be written as part of the strawberry use-pattern.
2. Revise the "ppbo" statement on page 4 to read:
"Do not apply".
3. Delete the "hulls may be fed to livestock" statements under the Almond use-pattern.
4. Karathane use in the control of powdery mildew has been cancelled. Delete reference to the use of that pesticide in the apple use-pattern.
5. Set the Post harvest Sprays for Cherries (Eastern U.S.) off from "Cherries (Western U.S.)" on page 6. These uses should be in different paragraphs.
6. The use of this product as a post harvest dip for apples, cherries and pears should be under one description. This use-pattern must also include disposal statements for the spent dip and the spray waist. These statements should read as follows:

Disposal of Leftover Postharvest Treatment
Mixtures: Leftover Dip or Spray Mixtures containing

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Captan may be used as a foliage 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 1 3/5 pounds Captan per 100 gals. If the 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.

7. Delete "(3 pounds A.I.)" and "(24 pounds A.I. per year)" from the strawberry use-pattern, unless you wish to indicate that A.I. includes both captan and related derivatives; and that A.I. is an abbreviation for these two active ingredients. This inconsistency in stating dosages may be confusing to the user of this product.

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

A stamped copy of the labeling is enclosed for your records.

Sincerely yours,

Joanne L. Miller
Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (75050)

Enclosure

B.Wilson:DisketteABC12:07-19-94

BEST AVAILABLE COPY

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Captan 80W
Fungicide

Active Ingredients	By Wt.
*Captan	78.2%
Related Derivatives	1.8%
Inert Ingredients	20.0%
TOTAL	100.0%

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

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

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

IF IN EYES: Immediately flush eyes with fresh water for 15 minutes and see a doctor.

IF SWALLOWED: Contact physician, poison control center, or emergency clinic before inducing vomiting. Give water or milk to drink and induce vomiting by touching back of throat with finger, or by administering syrup of ipecac. Do not induce vomiting or give anything by mouth to an unconscious person. If medical advice cannot be obtained, take person and a copy of the label to the nearest emergency treatment facility.

IF ON SKIN: Wash with plenty of soap and water. See a doctor if irritation occurs or rash develops. If inhaled, remove person from exposure area.

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.

EPA Reg. No. 19713-362
EPA Est. No. 19713-GA-1

Manufactured for:
Drexel Chemical Company
P O Box 9306,
Memphis, TN 38109

ACCEPTED
with COMMENTS
In EPA Letter Dated

JUL 21 1994

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
19713-362

WPS REVISIONS/DELETIONS - 07/30/93

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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.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

Long-sleeved shirt and long pants

Waterproof gloves

Shoes plus socks

Protective eyewear

Chemical resistant apron when cleaning, mixing or loading

Dist/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C)

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

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

USER SAFETY RECOMMENDATIONS

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing immediately if pesticides gets inside. Then wash thoroughly and put on clean clothing.

Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. 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 clean equipment or dispose of equipment washwaters in a manner that will contaminate water resources.

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DIRECTIONS FOR USE

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 days.

EXCEPTION: For the last 48 hours of the REI, workers may 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, without time limit, if they wear the early-entry personal protective equipment listed below.

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 early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

COMPATIBILITY: Captan 80W may be combined with most commonly used insecticides adjuvants and fungicides with the exception of strongly alkaline materials such as hydrated lime, which reduces the fungicidal activity. Do not use this product in combination with oil sprays or with solvent formulations of Parathion products. Do not use this product on foliage closely following oil sprays.

NOTE: For concentrated sprayer applications, the same quantity (per acre) of Captan 80W as would be normally applied when spraying dilute mixture, should be applied to each acre in sufficient water for coverage.

Use the following formula for calculating the reduced reate per treated acre when applying Captan 50W by directred or banded sprays.

$$\text{Banded rate per acre} = \frac{\text{Plant Bed Width (inches)}}{\text{Row Spacing (inches)}} \times \text{Broadcast rate per acre}$$

This product is formulated for application by ground or air equipment. Apply by ground or air according to the use directions given for each crop below.

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

CROPS

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. Apply the high rate when climatic conditions most favors disease(s) and the low rate 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.

ORNAMENTALS

Use Precautions

Do not apply spray to ornamental plants listed below beyond the point of drip from the leaf surface. When applying as a drench use a sufficient mixture to wet the surface of the soil except when the dose is specified in terms of volume of mixture per square feet of area.

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.

ALMONDS: Brown Rot, Twig and Blossom Blight, Shot Hole, Scab, Leaf Blight - Apply 5.6 pounds Captan 80W per acre in 20 to 300 gals. of water using ground equipment. Apply at popcorn, bloom, petal fall stages and up to 5 weeks after petal fall. Do not apply within 30 days of harvest. Hulls may be fed to livestock. Subsequent applications may be made up to 12 days of harvest in accordance with pest infestations and State Agricultural Extension Service recommendations, provided the hulls are not fed to dairy animals or animals being finished for slaughter.

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APPLES (Eastern U.S.): Primary Scab, Black rot, Botrytis Blossom End Rot - Apply 5 pounds Captan 80W per acre in 20 to 400 gals. 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 2 1/2 to 5 pounds Captan 80W per acre in 20 to 400 gals. of water using ground equipment or in 5 to 20 gals. of water by air. Apply at 10 to 14 day intervals in second and later cover sprays up to start of harvest. Powdery Mildew - If powdery mildew is a problem add 6 to 12 pounds sulfur per acre or 1 to 2 pounds of Karathane per acre to all postbloom sprays until the foliage matures. Use 2 pounds of Karathane if interval between sprays is longer than 7 days. CAUTION - Do not use Captan 80W 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.): Apple Scab - Apply 5 pounds Captan 80W per acre in a high volume application for preblossom sprays. In mid-summer, the dosage may be reduced to 2 1/2 pounds per acre in high volume applications.

(Pacific Northwest): Bull's Eye Rot, Botrytis Rot - Apply 5 pounds Captan 80W per acre in 20 to 400 gals. of water using ground equipment. Make 1 or 2 applications with late cover sprays and 1 to 2 preharvest applications.

APPLES - POST HARVEST DIP (Except CA): For control of Various Molds and Storage Rots (Botrytis, Gleosporium, Rhizopus) - Use as a post harvest dip or wash. Mix 1 3/5 pounds Captan 80W per 100 gals. water. Apply as a spray or in a dip tank. When used as a dip, recharge solution when tank volume is reduced by 25%. Bring water back to volume and add 5/8 pound Captan 80W for each 25 gals. added. At the end of every 8 hour shift empty tank, flush and mix with a fresh dilution. Do not allow dip tank solution to stand overnight. Maintain continuous agitation during dipping operation.

APRICOTS: Brown Rot (Twig Blight) Jacket Rot - Apply 3 1/8 pounds Captan 80W per acre in 20 to 250 gals. of water using ground equipment. Apply at red bud, bloom 75% petal fall stages and in cover sprays. Do not apply by aerial application to apricots.

BLUEBERRIES: (western U.S.): Botrytis gray mold or berry rot, mummy berry - Apply 1 1/2 pounds Captan 80W per acre in sufficient water for thorough coverage. Begin at mid-bloom, repeat at 7 to 10 day intervals until maturity.

BLUEBERRIES: (eastern U.S.): Botrytis gray mold or berry rot, mummy berry - Apply 3 1/8 pounds Captan 80W per acre in sufficient water for thorough coverage. Start spray program when buds swell and earliest buds have loose scales. Repeat at 7 day intervals through blossom period. Repeat at 7 to 20 day intervals from late bloom.

CHERRIES (Eastern U.S.): Brown Rot, Leaf Spot, Botrytis Rot - Apply 2 1/2 pounds Captan 80W per acre in 20 to 200 gals. of water using ground equipment. Apply in prebloom, bloom, petal fall, shuck, cover and preharvest sprays. Application at 3 to 4 day intervals may be necessary during bloom to control Blossom Blight. Repeat applications at 7 to 10 day intervals as needed to maintain control up to start of harvest. If powdery mildew is a problem add 6 pounds sulfur per acre to the petal fall, shuck and early cover sprays. If sulfur is added, Captan 80W may be reduced to 1 1/4 pounds per acre in these sprays. Do not apply by aerial application on cherries.

Post Harvest Sprays - Leaf Spot: apply 2 1/2 pounds Captan 80W per acre in 20 to 200 gals. of water using ground equipment. Apply immediately after harvest and repeat application in 10 to 14 days. (Western U.S.): Brown Rot, Blossom Blight, Brown Rot (Fruit), Leaf Spot: Apply 2 1/2 pounds Captan 80W per acre in 20 to 200 gals of water using ground equipment. Apply in prebloom, bloom, petal fall, shuck, cover and preharvest sprays. Do not apply by aerial application on cherries.

CHERRIES-POST HARVEST DIP: For control of Various Molds and Storage Rots (Botrytis, Gleosporium, Rhizopus) - Use as a post harvest dip or wash. Mix 1 3/5 pounds Captan 80W per 100 gals. water. Apply as a spray or in a dip tank. When used as a dip, recharge solution when tank volume is reduced by 25%. Bring water back to volume and add 5/8 pounds Captan 80W for each 25 gals. added. At the end of every 8 hour shift empty tank, flush and mix a fresh dilution. Do not allow dip tank solution to stand overnight. Maintain continuous agitation during dipping operation.

GRAPES (Eastern U.S.): Black Rot, Downy Mildew - apply 2 1/2 pounds Captan 80W per acre in 10 to 200 gals. of water using ground equipment. Apply first application just before bloom, repeat application immediately after bloom and at 10 to 14 day intervals for 1 to 3 additional applications depending on disease pressure and susceptibility of the grape variety.

Dead Arm (current season infection) - Apply 1 1/4 to 2 1/2 pounds Captan 80W per acre in 10 to 200 gals. of water using ground equipment and 2 1/2 pounds per acre in 7 to 20 gallons of water by air. Apply first application when shoots are 1/2 to 1 inch long and repeat application when shoots are 4 to 6 inches long.

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GRAPES (California): Bunch Rot (Botrytis) - Apply 2 1/2 pounds Captan 80W per acre in 10 to 200 gals. of water using ground equipment. Apply 2 applications before bloom and one immediately after bloom. Repeat periodically making 3 cover sprays before bunches close.

Dead Arm (current season infection) - Apply 2 to 2 1/2 pounds Captan 80W per acre in 10 to 200 gals. of water using ground equipment and 2 1/2 pounds 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.

NECTARINES: Brown Rot, Scab - Apply 5 pounds Captan 80W per acre in 20 to 250 gals. of water using ground equipment. 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 applications at 7 to 14 day intervals as necessary to maintain control. Continuous applications through harvest if conditions favor Brown Rot. If powdery mildew is a problem, add 7 1/2 pounds sulfur per acre to the petal fall and shuck sprays and early cover spray. If sulfur is added, Captan 80W may be reduced to 1.56 pounds per acre in these sprays.

Coryneum Blight (Peach Blight, Shot Hole) - Apply 5 pounds Captan 80W per acre in 20 to 250 gals. of water using ground equipment. Apply in pink bud, full bloom, petal fall and cover sprays as necessary and as a post harvest spray (but before leaves drop). Do not apply by aerial application on nectarines.

PEACHES: Brown Rot, Scab - Apply 5 pounds Captan 80W per acre in 20 to 400 gals of water using ground equipment. Apply at full pink, bloom, petal fall, shuck stages and in cover and preharvest sprays. Applications at 3 to 4 day intervals may be necessary during bloom to control Blossom Blight. Repeat applications 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 pounds of sulfur per acre to the petal fall and shuck sprays and early cover spray. If sulfur is added, Captan 80W may be reduced to 2 1/2 pounds per acre in these sprays.

Coryneum Blight (Peach Blight, Shot Hole) - Apply 5 pounds Captan 80W per acre in 20 to 400 gals. of water using ground equipment. Apply at pink bud, full bloom and petal fall stages and in cover sprays as necessary and as a post harvest spray (but before leaf drop).

PEARS - POST HARVEST DIP (Except CA): For control of Various
Molds and Storage Rots (Botrytis, Gleosporium, Rhizopus) - use as
a post harvest dip or wash. Mix 1 3/5 pounds Captan 80W per 100
gals. of water. Apply as a spray or in a dip tank. When used as a
dip, recharge solution when tank volume is reduced by 25%. Bring
water back to volume and add 5/8 pound Captan 80W for each 25
gals. added. At the end of every 8 hour shift empty tank, flush
and mix with a fresh dilution. Do not allow dip tank solution to
stand overnight. Maintain continuous agitation during dip
operation.

PLUMS, FRESH PRUNES (Western U.S.): Brown Rot - Apply 3 3/4
pounds Captan 80W per acre in 20 to 300 gals. of water using
ground equipment. Apply at: green bud, popcorn, bloom and petal
fall stages. Repeat in cover sprays as conditions warrant.
California: Prune Russet Scab (Lacy scab) - Apply 3 3/4 pounds
Captan 80W per acre in 20 to 300 gals. of water using ground
equipment. Apply at full bloom. Do not apply by aerial
application on plums or fresh prunes.

PLUMS, FRESH PRUNES (EASTERN U.S.): Brown Rot - Apply 3 3/4
pounds Captan 80W per acre in 20 to 300 gals. 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. Do not apply by aerial application on
plums or fresh prunes.

STRAWBERRIES: Botrytis (Gray Mold, Leaf Spot) - Apply 3 3/4
pounds Captan 80W (3 pounds A.I.) per acre in sufficient water
for thorough coverage. Begin applications when new growth starts
in the spring and before fruit starts to form. Repeat at weekly
intervals. Do not exceed 30 pounds Captan 80W per acre (24 pounds
A.I.) per year. Under conditions favorable to fruit rot continue
applications through harvest period treating immediately after
each picking.

TURF, LAWN: Brown Patch, Leaf Spot, Damping Off, Root Rot - 1 1/4
pounds per 100 gals. spray. Apply 10 gals to each 1000 sq. ft. of
turf or apply 5 pounds per acre in water for coverage. Apply
prior to infection. Repeat at 7 to 10 day intervals as necessary.
Do not graze treated areas or feed clippings to livestock.
Do not apply under conditions involving possible drift to food,
forage or other plantings that might be damaged or the crops
thereof rendered unfit for sale, use or consumption.

STORAGE AND DISPOSAL
PROHIBITIONS

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited.

STORAGE

Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Do not store or transport near feed or food. For help with any spill, leak, fire or exposure involving this material call day or night CHEMTREC 1-800-424-9300.

CONTAINER DISPOSAL

Completely empty bag into application equipment. Do not reuse container. 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.

PESTICIDE DISPOSAL

This pesticide is acutely hazardous. Improper disposal of excess pesticide 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.

WARRANTY - CONDITION OF SALE

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.