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# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20450

5541380 D247679-TRB/CHEM

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Richard Pence Senior Regulatory Manager Novartis Crop Protection P.O. Box 18300 Greensboro, NC 27419

SEP 3 0 1998

SUBJECT:

Review of Revised Confidential Statement of Formula (CSF) and

Labeling

Mertect® 340-F

EPA Reg. No. 100-889

Your Submission Dated April 14, 1998

Dear Mr. Pence:

The Agency has completed its review of the revised Basic formula (CSF) dated September 25, 1997 and the revised Jabeling. Please note the following points from the reviews:

- 1. There are no objections to use of the basic formula (CSF) dated September 25, 1997. Please note that this formula (CSF) supersedes all previously submitted formulas (CSFs) for the subject product..
- 2. The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable subject to the following conditions:
  - a. Change the Ingredient Statements to read the following:

Active Ingredient: Thiabendazole: 2-(4-thizzolyl)banzimidazole\*

42.3%

Inert Ingredients:

<u>57.7%</u>

Total:

100.0%

\*4.1 lbs. active ingredient/gallon

- b. Make the following changes In the DIRECTIONS FOR USE section:
  - 1) Add the following section prior to the statement "GENERAL SHAKE OR STIR WELL BEFORE USE":

"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.

2) The AGRICULTURAL USE BOX information is missing. You must put the following back on label after the above statements:

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with 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 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 12 hours. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is:

- Coveralls
- Waterproof gloves
- Shoes plus socks
  - 3) Make the statement "Mertect 340-F is not for use in formulating agricultural pesticides." the last sentence in the first paragraph after "GENERAL SHAKE...."

- 4) In the "Mushrooms" section, change "ft.2" to "sq. ft." for clearer directions.
- c. Under "Environmental Hazards", delete the statement "Do not apply directly to water." and replace it with "Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark."

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions. Submit one copy of the revised final printed label for our records. A stamped copy is enclosed for your records.

If you have any questions, then please contact Maria Rodriguez of my staff at .703) 305-5705.

Sincerely,

Cynthia Giles-Parker Product Manager (22)

Fungicide Branch

Registration Division (7505C)

Enclosure

Mertect® 340-F

## **FUNGICIDE**

Flowable (Water-Dispersible Suspension)

Active Ingredient: Thiabendazole (CAS #148-79-8)

4.1 lbs./gal. 2-(4-Thiazolyl)benzimidazole	
Other Ingredients:	57.7%
Total:	100.0%

EPA Reg. No. 100-889

EPA Est. 39578-TX-1

2 GALLONS U.S. Standard Measure

KEEP OUT OF REACH OF CHILDREN.

## **CAUTION**

See additional precautionary statements and directions for use inside booklet.

NCP

ACCEPTED
with COMMENTS
In EPA Letter Dated:

SEP 30 1998

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

# DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

**IMPORTANT:** Read the entire **Directions** for Use and the **Conditions** of **Sale and Warranty** before using this product. If terms are not acceptable, return the unopened product container at once.

# **CONDITIONS OF SALE AND WARRANTY**

The **Directions for Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application all of which are beyond the control of Novartis Crop Protection, Inc. or the Seller. All such risks shall be assumed by the Buyer.

Novartis warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above.

Novartis makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall Novartis or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. Novartis and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of Novartis.

## **DIRECTIONS FOR USE**

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

GENERAL - SHAKE OR STIR WELL BEFORE USE.

Metect 340-F is a systemic fungicide which aids in the control of many important plant diseases. If treatment is not effective following use of Metect 340-F as recommended, a tolerant strain of fungus may be present. Consideration should be given to prompt use of other suitable nor-benzimidazole fungicides.

Clean equipment before using Mertect 340-F. When Mertect 340-F is dispersed in water, the resulting suspension must be constantly agitated. Avoid foaming.

Use the higher recommended rates under conditions of heavier disease pressure.

Conpatibility information for Mertect 340-F with other chemicals is limited. Consult your supplier or agricultural experiment station for specific recommendations.

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

Carots - Botrytis Cinerea Gray Mold and Sclerotinia Sclerotiorum (Sperotinia Rot): Dip carrots, before storage, for 5-10 seconds in a suspension containing 41 fl. oz. of Mertect 340-F per 100 gals, of water. Retienish the suspension when the volume is too low or when it becomes dirty.

The run-off and wastes from the dipping operation should not be distarded in a drainage which could contaminate public water systems.

Mushrooms (Agaricus sp.) - Dry Bubble (Verticillium fungicola), Wet Bubble (Mycogone perniciosa), Cobweb (Dactylium dendroides) and Græn Mold (Trichoderma sp.): Apply in water during normal watering or in a hand sprayer. Mertect 340-F may be applied at casting, fuzzing, pinning, and between breaks. A maximum of 20 fl. oz. of Mertect 340-F per 1,000 ft.² may be applied to each crop. The first dose may contain up to Bfl. oz. per 1,000 ft.². Subsequent doses should not exceed 4 fl. oz. per 1,000 ft.². Do not apply within 12 hours prior to harvest.

Orramental Bulbs and Corms - Fusarium Basal Rot and Penicillium Blue Mold: Clean and treat bulbs or corm within 24-48 hours of digging. Prepare suspension of 30 fl. oz. of Mertect 340-F per 100 gals. of water. Submerge stock completely in dipping suspension. Suspension tempera-liure should be 55-75°F (13-24°C). Discard suspension (1) when it

becomes dirty, (2) after using five times, or (3) after 24 hours, whichever occurs first.

Fusarium (Bulbs and Corms): Dip bulbs 15-30 minutes, corms 15 minutes.

Blue Mold (Bulbs): Dip 10-15 minutes.

After treatment, dry bulbs or corms in a shaded, well-ventilated area. Curing or retarding may precede or follow treatment.

Potato - Fusarium Tuber Rot: Mist unwashed tubers on a conveyor line, with tumbling action, entering storage with 0.42 fl. oz. of Mertect 340-F to each 2,000 lb. of tubers in sufficient water for complete coverage. If an additional treatment is necessary before shipping, mist the tubers at the same rate or dip the tubers for 20 seconds in a solution containing 0.42 fl. oz. of Mertect 340-F per gal. of water. Do not treat seed potatoes after cutting.

Mertect 340-F for potatoes should be used as part of an Integrated Management Program, which includes prevention of bruising during harvest and maintaining proper storage temperature and relative humidity. Neither cultural practices nor chemical measures will prevent Fusarium infection if potatoes are damaged or improperly stored.

Pome Fruit (Apples and Pears) - Blue Mold Rot, Bull's Eye Rot, and Gray Mold (Nest Rot, Cluster Rot), Stem End and Neck Rot: Dip, flood, or spray harvested fruit with a suspension of 16 fl. oz. of Mertect 340-F in 100 gals. of water. Do not treat for over 3 minutes. Treat apples only before and after storage for maximum decay control. Treat pears once.

Sweet Potato "Seed Roots" - Black Rot, Scurf, and Foot Rot: Dip the seed roots in a suspension containing 8 fl. oz. of Mertect 340-F per 7.5 gals. of water (107 fl. oz. per 100 gals.). Treat the seed roots for 1-2 minutes and plant immediately. Discard the suspension when the volume is too low or when it becomes dirty. Do not use the treated roots for food or feed.

## STORAGE AND DISPOSAL

# Storage Instructions

Store Mertect 340-F in a cool, dry place away from food, drink, and, animal feeding stuffs. Do not store below 32°F (0°C).

# **Pesticide Disposal**

Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

# **Container Disposal**

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

## PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

#### CAUTION

Harmful if swallowed. Causes eye and skin irritation. Avoid contact with eyes, skin, and clothing. Wash thoroughly with soap and water after handling.

#### Statement of Practical Treatment

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

If in eyes: Flush eyes with plenty of water. Call a physician if irritation persists.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

#### **Environmental Hazards**

This pesticide is toxic to fish. Do not apply when weather conditions favor runoff or drift from the target area. Do not apply directly to water. Do not contaminate water when disposing of equipment wash watere.

For minor spills, leaks, etc., follow all precautions indicated on this jabel and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

# NOT FOR USE IN FORMULATING AGRICULTURAL PESTICIDES.

Mertect® trademark of Novartis U.S. Patent No. 3,370,957

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Novartis Crop Protection, Inc. Greensboro, North Carolina 27419

**NCP** 

[QUARK\MERTECT/N-MERTECT-B] - ccg - 4/8/98

# BASE LABEL

Mertect® 340-F

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Flowable (Water-Dispersible Suspension)

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Totalt	100.0%

See directions for use in attached booklet.

EPA Reg. No. 100-889

EPA Est. 39578-TX-1

2 GALLONS U.S. Standard Measure

KEEP OUT OF REACH OF CHILDREN.

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