

100-889

9/25/2014

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460



OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

September 25, 2014

Patrick McCain
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

Subject: Adding New Seed Treatment Uses to Master and Supplemental label
Mertec 340 F; EPA Registration Number: 100-889
Application Date: March 18, 2013; Decision Number: 476712

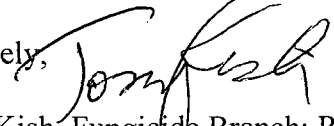
Dear Mr. McCain:

The application referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended to add new seed treatment on alfalfa; vegetable root (except sugarbeet), subgroup 1B; onion, bulb, subgroup 3-07A; brassica, head and stem, subgroup 5-A; vegetable, cucurbit group 9, spinach (including baby); and small grain cereals (wheat, barley, oats, rye, and triticale), is acceptable under FIFRA Section 3(c)(7)(B), subject to the following conditions:

You must submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Add the three-year 9/25/2017 expiration date to the Supplemental label. A stamped copy of your labeling is enclosed for your records. These labels supersede all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Your release for shipment of the product constitutes acceptance of these conditions. If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). If you have any questions, please contact Tony Kish by phone at 703-308-9443, or via email at kish.tony@epa.gov.

Sincerely, 

Tony Kish, Fungicide Branch; Registration Division
Office of Pesticide Programs

[MASTER BOOKLET]

GROUP 1 FUNGICIDE

Mertect® 340-F

Fungicide

Flowable (Water-Dispersible Suspension)

Active Ingredient:

Thiabendazole: 2-(4-thiazolyl)benzimidazole* 42.3%

Other Ingredients: 57.7%

Total: 100.0%

*4.1 lbs. active ingredient/gallon

KEEP OUT OF REACH OF CHILDREN.

CAUTION

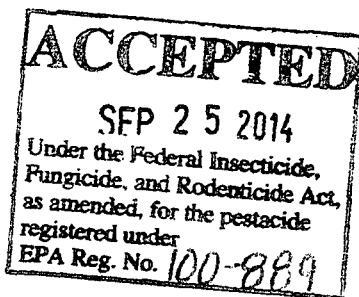
See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-889

EPA Est.

Product of.
Formulated in the

2 gallons
Net Contents



FIRST AID	
If Inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-888-8372 for emergency medical treatment information.</p>	
<p>HOT LINE NUMBER</p> <p>For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-888-8372</p>	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if inhaled. Avoid breathing spray mist. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt
- Long pants
- Shoes plus socks

In addition to the above, handlers making application to mushroom houses using hand held sprayers must wear chemical resistant gloves.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, 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 pesticides get 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 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, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of waste.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during clean-up procedures and disposal of wastes.

NOT FOR USE IN FORMULATING AGRICULTURAL PESTICIDES.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC. or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA 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 referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

DIRECTIONS FOR USE

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

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.

Manual seed treatments are prohibited.

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 12 hours. Exception: If the seed is treated with the product and the treated seed is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.

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PRODUCT INFORMATION

Mertect 340-F is a systemic fungicide which aids in the control of many important plant diseases. If treatment is not effective following use of Mertect 340-F as recommended, a tolerant strain of fungus may be present. Consideration should be given to prompt use of other suitable non-benzimidazole fungicides. Mertect 340-F is not for use in formulating agricultural products.

RESISTANCE MANAGEMENT

GROUP 1	FUNGICIDE
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This product contains thiabendazole, a Group 1 fungicide. Thiabendazole belongs to the methyl-benzimidazole carbamate class of chemistry which disrupts β -tubuline assembly in mitosis.

Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, use of this product should conform to resistance management strategies established for the crop and use area. Consult your local or State agricultural authorities for resistance management strategies that are complementary to those in this label. Resistance management strategies may include alternation and/or tank-mixing with products having different modes of action or limiting the total number of applications per season.

Syngenta encourages responsible product stewardship to ensure effective long term control of the fungal diseases on this label.

For additional information on Fungicide Resistance Management:

- Contact Syngenta representatives at 1-800-334-9481
- Contact your local extension specialist or certified crop advisor
- Visit the Fungicide Resistance Action Committee (FRAC) on the web at: <http://www.frac.info>

CROP USE DIRECTIONS

GENERAL - SHAKE OR STIR WELL BEFORE USE.

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.

Compatibility 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.

Carrots - *Botrytis Cinerea* Gray Mold and *Sclerotinia sclerotiorum* (Sclerotinia 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. Replenish the suspension when the volume is too low or when it becomes dirty.

The runoff and wastes from the dipping operation should not be discarded in a drainage which could contaminate public water systems.

Citrus (One Application Only) - Blue mold (*Penicillium digitatum*), Green mold (*Penicillium italicum*), and stem end rot (*Diplodia natalensis*): Dip, flood, or spray harvested fruit with a suspension of Mertect 340-F in water, wax/oil emulsion, or aqueous dilution of a wax/oil emulsion. Rate will vary according to application method; please refer to the following for specific rates for citrus blue mold control.

Citrus Bin Dips, Floods and Drenches

Use 26 fl. oz. of Mertect 340-F in 100 gals. of water to provide 1,000 ppm TBZ. Citrus must be drenched for three (3) minutes. Use one (1) gallon of liquid per 1,500-2,000 lbs. citrus or 100 gals. of liquid for about 30 bins. Avoid excessive foaming, use antifoam if needed.

Citrus Sprays

Use 52-91 fl. oz. Mertect 340-F in 100 gals. of water, wax/oil emulsions, or an aqueous dilution of wax/oil emulsion to provide 2,000-3,500 ppm of TBZ. Keep the mixture under constant agitation.. Apply at a rate of one gallon per 8,000 - 10,000 lbs. citrus fruit.

For sporulation control, apply 130 fl. oz of Mertect 340-F in 100 gals. of water, wax/oil emulsion, or aqueous dilution of a wax/oil emulsion to provide 5,000 ppm. Apply at a rate of one gallon per 8,000 - 10,000 lbs. citrus fruit.

Mushrooms (*Agaricus* spp.) - Dry Bubble (*Verticillium fungicola*), Wet Bubble (*Mycogone perniciososa*), Cobweb (*Dactylium dendroides*) and Green Mold (*Trichoderma* spp.):

FOR USE AS AN ADMIX WITH MUSHROOM SPAWN GRAINS, MUSHROOM GROWING SUPPLEMENT, AND/OR AS A DRENCH DURING NORMAL WATERING OPERATIONS FOR MUSHROOM GROWING BEDS AT CASING OR BETWEEN BREAKS

NOTE: Do not exceed a combined total of 20 fl. oz. per 1,000 sq. ft. of product, between the various applications to spawn grains, supplement, and mushrooms. This amount may be used in various treatment regimes. Please refer to the tables below for the rates for the various usage so that the 20 fl. oz. per 1,000 sq. ft. is not exceeded.

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Spawn Grains: Apply a maximum of 5.4 fl. oz. of Mertect 340-F per 1,000 sq. ft. Follow the table below to determine the fl. oz. of Mertect 340-F that can be mixed with the spawn to deliver 5.4 fl. oz. per 1,000 sq. ft.

Dosage Table for Use on Spawn Grains

Do not apply Mertect 340-F to gypsum, limestone, or chalk. Admix Mertect 340-F directly onto spawn grain.

Pounds spawn per 8000 sq. ft.	Max. fl. oz. Mertect per 100 pounds spawn
960	4.5
1040	4.1
1120	3.8
1200	3.6
1280	3.4
1360	3.2
1440	3.0

Mushroom Supplements: A finished batch of mushroom supplement can contain up to 0.1% thiabendazole (by weight). The thiabendazole added to the supplement must be included as part of the total of the 20 fl. oz. of Mertect 340-F allowed per 1,000 sq. ft. per crop. The total amount of Mertect 340-F that can be applied from all treatments per crop is dependent on the amount of supplement applied (use the table below to determine the remaining volume of Mertect 340-F that can be applied per crop).

Lbs supplement* per 8,000 sq. ft.	Fl. oz. Mertect 340-F remaining that may be applied to mushrooms, supplement, casing, or other timing	Fl. oz. Mertect 340-F remaining that may be applied to mushrooms, supplement, casing, or other timing if a spawn treatment was also applied
800	17	11.6
1200	15	9.6
1400	14.5	9.1
1800	13	7.6
2200	11	5.6
2400	9	3.6

*Assumes at maximum rate of 0.1% thiabendazole.

The amount added for supplement treatment must be deducted from the total remaining amount that can be applied to mushrooms so as not to exceed 20 fl. oz. per 1,000 sq. ft. per crop.

Note: If you are unsure if the mushroom supplement that you are using contains thiabendazole, contact the manufacturer of the mushroom supplement.

Applying to Mushrooms: Refer to the tables above for the amount of Mertect 340-F used in any spawn grain or supplement treatments before applying Mertect 340-F to the mushrooms to ensure that 20 fl. oz. per 1,000 sq. ft. is not exceeded.

Casing Applications: Apply no more than 8 fl. oz. Mertect 340-F per 1000 sq. ft. Mertect 340-F may be applied at casing as a drench during normal watering operations.

Other Timings: Apply no more than 4 fl. oz. Mertect 340-F per 1000 sq. ft.

Do not apply within 12 hours prior to harvest.

Ornamental Bulbs and Corms (One Application Only) - *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. water. Submerge stock completely in dipping suspension. Suspension temperature 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 lbs. 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 gallon 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 only once.

Sweet Potato (One Application Only) "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.

SEED TREATMENT

Treatment of highly mechanically scarred or damaged seed, or seed known to be of low vigor and poor quality, except for the purpose of curative control of existing disease pests, may result in reduced germination and/or reduction of seed and seedling vigor. Treat using equipment similar to that planned for treating the total seed lot. Conduct germination tests on a small portion of seed before committing the total seed lot to a selected seed treatment. Due to seed quality and seed storage conditions beyond the control of Syngenta, no claims are made to guarantee the germination of carry-over seed or propagating material for all crop seed.

Seed treatment with Mertect 340-F fungicide will not provide post-emergence protection of plants grown in or near infected fields.

For protection against other seed and soil-borne diseases not controlled by Mertect 340-F, it is highly recommended that a compatible seed treatment fungicide be used at EPA registered label rates and tank mixed in combination with Mertect 340-F. These fungicides must show safety on treated seed, alone or in combination with Mertect 340-F. Consult the label for appropriate use rates and follow all use instructions.

Mixing Procedures

Apply Mertect 340-F as a water-based slurry utilizing standard slurry seed treatment equipment which provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of disease control. Thoroughly mix the recommended amount of Mertect 340-F into the required amount of water for the slurry treater and dilution rate to be used. Follow the manufacturer application instructions for the seed treatment equipment being used. Maintain constant agitation of the slurry during the treatment. Allow seed to dry before bagging.

Tank Mixtures

Confirm physical compatibility, seed safety, seed safety in stored seed, and biological efficacy before tank mixing with other seed treatment products.

Follow the label directions for the most restrictive of label precautions and limitations. This product cannot be mixed with any product containing a label prohibiting such mixing.

SEED BAG LABEL REQUIREMENTS

Federal law requires that bags containing treated seed shall be labeled with the following information:

- This seed has been treated with thiabendazole fungicide.
- Do not use for feed, food, or oil purposes.

In addition, include the following statements on bags containing seeds treated with Mertect 340-F:

- Store treated seed away from food and feedstuffs.
- Do not allow children, pets or livestock to have access to treated seeds.
- Wear long pants, long-sleeved shirt and protective gloves when handling treated seed.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading and planting.
- Dispose of all excess treated seed by burying seed away from bodies of water
- Do not contaminate bodies of water when disposing of planting equipment wash water.
- Dispose of seed packaging or containers in accordance with local requirements.
- Do not plant any crop, other than soybeans, dry peas, barley, wheat, oats, rye, and triticale, brassica head and stem subgroup 5A, cucurbit vegetable cropgroup 9, root vegetables (except sugarbeets) subgroup 1B, bulb vegetables subgroup 3-07A, spinach and alfalfa, within 30 days to fields in which treated seeds were planted.
- Use crop-specific seeding rates according to local agricultural practice.

- Regardless of type of application, do not apply more than 0.15 lb thiabendazole per acre (68.0 grams ai/A) per year

Use an EPA-approved dye or colorant that imparts an unnatural color to the seed as required in 40 CFR 153.155 (c). Do not feed vines or hay grown from treated seed to livestock.

Crop	Target Diseases	Use Rate Mg ai/seed	Use Rate fl. oz. product/ 100 lb seed	Remarks
Alfalfa	Seedling diseases caused by <i>Fusarium</i> spp.	0.004	5.8	fl. oz. product/100 lbs seed calculations assume an average seed size of 210,000 seeds/lb
Cereals, small grain Barley	Seedling diseases caused by <i>Fusarium</i> spp.	0.03	2.6	fl. oz. product/100 lbs seed calculations assume an average seed size of 12,500 seeds/lb
Oats	Seedling diseases caused by <i>Fusarium</i> spp.	0.03	3.4	fl. oz. product/100 lbs seed calculations assume an average seed size of 16,400 seeds/lb
Rye	Seedling diseases caused by <i>Fusarium</i> spp.	0.03	3.2	fl. oz. product/100 lbs seed calculations assume an average seed size of 15,600 seeds/lb
Triticale	Seedling diseases caused by <i>Fusarium</i> spp.	0.03	2.6	fl. oz. product/100 lbs seed calculations assume an average seed size of 12,750 seeds/lb
Wheat, Winter and Spring	Seed-Borne Fusarium Scab only	0.0016	0.17	fl. oz. product/100 lbs seed calculations assume an average seed size of 15,000 seeds/lb For best control of seed-borne Fusarium scab Mertect 340-F should be combined with Maxim 4FS, a pre-mix product containing fludioxonil, or another product with seed-borne Fusarium activity.
	Seed-Borne Common Bunt (Stinking Smut)	0.013	1.3	fl. oz. product/100 lbs seed calculations assume an average seed size of 15,000 seeds/lb
	Soil-Borne Common Bunt (Stinking Smut)	0.025	2.6	fl. oz. product/100 lbs seed calculations assume an average seed size of 15,000 seeds/lb
Winter Wheat Only	Dwarf Bunt	0.025 - 0.039	2.6 - 3.9	For normal or late winter wheat plantings. Use the lower rate on late winter wheat plantings only. For best control of Dwarf Bunt Mertect 340-F should be combined with a pre-mix product containing difenoconazole.

Crop	Target Diseases	Mg ai/seed
Brassica Head and Stem subgroup Broccoli Broccoli, Chinese Brussels sprouts Cabbage Cabbage, Chinese (napa) Cabbage, Chinese mustard Cauliflower Cavalo broccolo Kohlrabi	Seedling diseases caused by <i>Fusarium spp</i>	0.002
Bulb Vegetables Daylily Fritillaria Garlic, great-headed Garlic, serpent Lily Onion, Chinese Onion, dry bulb Onion, pearl Onion, potato Shallot (Including cultivars, varieties and/or hybrids of these)	Seedling diseases caused by <i>Fusarium spp</i>	0.002
Cucurbit Vegetables Chayote (fruit) Chinese waxgourd Citron melon Cucumber Gherkin Gourd <i>Momordica spp.</i> Muskmelon Pumpkin Summer squash Winter squash Watermelon	Seedling diseases caused by <i>Fusarium spp</i>	0.1
Spinach Baby Mature	Seedling diseases caused by <i>Fusarium spp.</i> <i>Verticillium wilt caused by seed borne Verticillium dahlia</i>	0.006
Vegetables, root subgroup (except sugarbeets) Beet, garden Burdock, edible Carrots Celeriac Chervil, turnip-rooted Chicory Ginseng Horseradish Parsley, turnip-rooted Parsnip Radish Radish, oriental Rutabaga Salsify, Spanish Skirret Turnip	Seedling diseases caused by <i>Fusarium spp</i>	0.002

Crop	Target Diseases	Use Rate fl. oz. product/ 100 lb seed	Remarks
Peas, dry Chickpea (garbanzo beans) (<i>Cicer arietinum</i>)	Ascochyta blight caused by the pathogen <i>Ascochyta rabiei</i>	2.04	For best results against Ascochyta blight, plant chickpeas, peas or lentil seed treated with Mertect 340-F fungicide as late in the spring as possible.
Lentil (<i>Lens esculenta</i>)	Ascochyta blight caused by the pathogen <i>Ascochyta rabiei</i>	1.05	For best results against Ascochyta blight, plant chickpeas, peas or lentil seed treated with Mertect 340-F fungicide as late in the spring as possible.
Peas (<i>Pisum</i> spp.) Pigeon peas (<i>Cajanus cajan</i>)	Ascochyta blight caused by the pathogen <i>Ascochyta rabiei</i>	1.02	For best results against Ascochyta blight, plant chickpeas, peas or lentil seed treated with Mertect 340-F fungicide as late in the spring as possible. For Export Use on Peas: Mertect 340-F maybe mixed with other registered seed treatments products in accordance with the importing Nation's Phytosanitary requirements. Treated seed must be labeled "for Export Only"- Not to be Sold or Offered for Sale in the United States

Crop	Target Diseases	Use Rate g ai/100 KG seed (mg ai/seed)	Remarks
Soybeans	Pod and stem blight (<i>Phomopsis</i> spp.)	2.5-5 g/100 kg (0.0038-0.0076 mg ai/seed)	For protection against other seed and soil- borne diseases, it is recommended that a co- fungicide such as Syngenta Apron® XL + Maxim® 4FS, or an Apron MAXX® brand fungicide, be used at EPA registered label rates and tank mixed in combination with Mertect 340-F.
	<i>Fusarium</i> spp. (ex. <i>Fusarium</i> <i>virguliforme</i> , <i>Fusarium</i> <i>graminearum</i> , <i>Fusarium oxysporum</i> , <i>Fusarium solani</i>)	5-20 g/100 kg (0.0076 – 0.0302 mg ai/seed)	

Restrictions and Limitations

- Maximum one application per season.
- This product must not be tank mixed with any pesticide unless physical compatibility and phytotoxicity tests have been completed and proved to be satisfactory.
- Regardless of type of application, do not apply more than 0.15 lb thiabendazole per acre (68.0 grams ai/A) per year

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage

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). Repeated product freezing and thawing should be avoided. Shake or stir product before use.

Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility in accordance with Federal, State or local procedures under the Resource Conservation and Recovery Act.

Container Handling [less than or equal to 5 gallons]

Non-refillable container. Do not reuse or refill this container.

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Container Handling [greater than 5 gallons]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Container Handling [greater than 5 gallons]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.

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For non-emergency (e.g., current product information), call
Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:
Syngenta Crop Protection, LLC.
P.O. Box 18300
Greensboro, North Carolina 27419-8300

[NON-DETACHABLE CONTAINER LABEL]

GROUP 1 FUNGICIDE

Mertect® 340-F

Fungicide

Flowable (Water-Dispersible Suspension)

Active Ingredient:

Thiabendazole: 2-(4-thiazolyl)benzimidazole* 42.3%

Other Ingredients: 57.7%

Total: 100.0%

*4.1 lbs. active ingredient/gallon

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See directions for use inside booklet.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 100-889

EPA Est.

Product of
Formulated in

2 gallons
Net Contents

FIRST AID	
If Inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-888-8372 for emergency medical treatment information.</p>	
<p>HOT LINE NUMBER For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-888-8372</p>	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if inhaled. Avoid breathing spray mist. Remove and wash contaminated clothing before reuse.

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, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of waste.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during clean-up procedures and disposal of wastes.

NOT FOR USE IN FORMULATING AGRICULTURAL PESTICIDES.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage

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). Repeated product freezing and thawing should be avoided. Shake or stir product before use.

Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility in accordance with Federal, State or local procedures under the Resource Conservation and Recovery Act.

Container Handling [less than or equal to 5 gallons]

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available.

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

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Manufactured for:
Syngenta Crop Protection, LLC.
P.O. Box 18300
Greensboro, North Carolina 27419-8300

MERTECT 340-F 889 MAS 0510 AMEND 0313 – VERSION D – CLEAN – dt – 10/06/14
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SUPPLEMENTAL LABELING

Syngenta Crop Protection, LLC
P. O. Box 18300
Greensboro, North Carolina 27419-8300
SCP

GROUP **1** FUNGICIDE

Mertect® 340-F

Fungicide

This supplemental label expires on XX/XX/XXXX and must not be used or distributed after this date.

Flowable (Water-Dispersible Suspension)

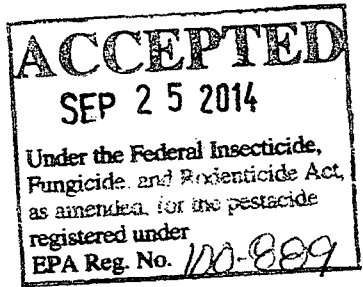
Active Ingredient:	
Thiabendazole: 2-(4-thiazoly)benzimidazole*	42.3%
Other Ingredients:	57.7%
Total:	100.0%

*4.1 lbs. active ingredient/gallon

KEEP OUT OF REACH OF CHILDREN.

CAUTION

EPA Reg. No. 100-889



All applicable directions, restrictions and precautions on the EPA-registered label are to be followed. Before using Mertect 340-F as permitted according to this supplemental label, read and follow all applicable directions, restrictions, and precautions on the EPA-registered label on or attached to the pesticide product container. This Supplemental Labeling contains revised use instructions and/or restrictions that may be different from those that appear on the container label. This Supplemental Labeling must be in the possession of the user at the time of pesticide application. It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

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DIRECTIONS FOR USE

SEED TREATMENT

Treatment of highly mechanically scarred or damaged seed, or seed known to be of low vigor and poor quality, except for the purpose of curative control of existing disease pests, may result in reduced germination and/or reduction of seed and seedling vigor. Treat using equipment similar to that planned for treating the total seed lot. Conduct germination tests on a small portion of seed before committing the total seed lot to a selected seed treatment. Due to seed quality and seed storage conditions beyond the control of Syngenta, no claims are made to guarantee the germination of carry-over seed or propagating material for all crop seed.

Seed treatment with Mertect 340-F fungicide will not provide post-emergence protection of plants grown in or near infected fields.

For protection against other seed and soil-borne diseases not controlled by Mertect 340-F, it is highly recommended that a compatible seed treatment fungicide be used at EPA registered label rates and tank mixed in combination with Mertect 340-F. These fungicides must show safety on treated seed, alone or in combination with Mertect 340-F. Consult the label for appropriate use rates and follow all use instructions.

Mixing Procedures

Apply Mertect 340-F as a water-based slurry utilizing standard slurry seed treatment equipment which provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of disease control. Thoroughly mix the recommended amount of Mertect 340-F into the required amount of water for the slurry treater and dilution rate to be used. Follow the manufacturer application instructions for the seed treatment equipment being used. Maintain constant agitation of the slurry during the treatment. Allow seed to dry before bagging.

Tank Mixtures

Confirm physical compatibility, seed safety, seed safety in stored seed, and biological efficacy before tank mixing with other seed treatment products.

Follow the label directions for the most restrictive of label precautions and limitations. This product cannot be mixed with any product containing a label prohibiting such mixing.

SEED BAG LABEL REQUIREMENTS

Federal law requires that bags containing treated seed shall be labeled with the following information:

- This seed has been treated with thiabendazole fungicide.
- Do not use for feed, food, or oil purposes.

In addition, include the following statements on bags containing seeds treated with Mertect 340-F:

- Store treated seed away from food and feedstuffs.
- Do not allow children, pets or livestock to have access to treated seeds.
- Wear long pants, long-sleeved shirt and protective gloves when handling treated seed.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading and planting.

- Dispose of all excess treated seed by burying seed away from bodies of water
- Do not contaminate bodies of water when disposing of planting equipment wash water.
- Dispose of seed packaging or containers in accordance with local requirements.
- Do not plant any crop, other than soybeans, dry peas, barley, wheat, oats, rye, and triticale, brassica head and stem subgroup 5A, cucurbit vegetable cropgroup 9, root vegetables (except sugarbeets) subgroup 1B, bulb vegetables subgroup 3-07A, spinach and alfalfa, within 30 days to fields in which treated seeds were planted.
- Use crop-specific seeding rates according to local agricultural practice.
- Regardless of type of application, do not apply more than 0.15 lb thiabendazole per acre (68.0 grams ai/A) per year.

Use an EPA-approved dye or colorant that imparts an unnatural color to the seed as required in 40 CFR 153.155 (c). Do not feed vines or hay grown from treated seed to livestock.

Crop	Target Diseases	Use Rate Mg ai/seed	Use Rate fl. oz. product/ 100 lb seed	Remarks
Alfalfa	Seedling diseases caused by <i>Fusarium spp.</i>	0.004	5.8	fl. oz. product/100 lbs seed calculations assume an average seed size of 210,000 seeds/lb
Cereals, small grain Barley	Seedling diseases caused by <i>Fusarium spp.</i>	0.03	2.6	fl. oz. product/100 lbs seed calculations assume an average seed size of 12,500 seeds/lb
Oats	Seedling diseases caused by <i>Fusarium spp.</i>	0.03	3.4	fl. oz. product/100 lbs seed calculations assume an average seed size of 16,400 seeds/lb
Rye	Seedling diseases caused by <i>Fusarium spp.</i>	0.03	3.2	fl. oz. product/100 lbs seed calculations assume an average seed size of 15,600 seeds/lb
Triticale	Seedling diseases caused by <i>Fusarium spp.</i>	0.03	2.6	fl. oz. product/100 lbs seed calculations assume an average seed size of 12,750 seeds/lb
Wheat, Winter and Spring	Seed-Borne Fusarium Scab only	0.0016	0.17	fl. oz. product/100 lbs seed calculations assume an average seed size of 15,000 seeds/lb For best control of seed-borne Fusarium scab Mertect 340-F should be combined with Maxim 4FS, a pre-mix product containing fludioxonil, or another product with seed-borne Fusarium activity.
	Seed-Borne Common	0.013	1.3	fl. oz. product/100 lbs seed

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	Bunt (Stinking Smut)			calculations assume an average seed size of 15,000 seeds/lb
	Soil-Borne Common Bunt (Stinking Smut)	0.025	2.6	fl. oz. product/100 lbs seed calculations assume an average seed size of 15,000 seeds/lb
Winter Wheat Only	Dwarf Bunt	0.025 - 0.039	2.6 - 3.9	For normal or late winter wheat plantings. Use the lower rate on late winter wheat plantings only. For best control of Dwarf Bunt Mertect 340-F should be combined with a pre-mix product containing difenoconazole.

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Crop	Target Diseases	Mg ai/seed
Brassica Head and Stem subgroup Broccoli Broccoli, Chinese Brussels sprouts Cabbage Cabbage, Chinese (napa) Cabbage, Chinese mustard Cauliflower Cavalo broccolo Kohlrabi	Seedling diseases caused by <i>Fusarium spp</i>	0.002
Bulb Vegetables Daylily Fritillaria Garlic, great-headed Garlic, serpent Lily Onion, Chinese Onion, dry bulb Onion, pearl Onion, potato Shallot (Including cultivars, varieties and/or hybrids of these)	Seedling diseases caused by <i>Fusarium spp</i>	0.002
Cucurbit Vegetables Chayote (fruit) Chinese waxgourd Citron melon Cucumber Gherkin Gourd <i>Momordica spp.</i> Muskmelon Pumpkin Summer squash Winter squash Watermelon	Seedling diseases caused by <i>Fusarium spp</i>	0.1
Spinach Baby Mature	Seedling diseases caused by <i>Fusarium spp.</i> <i>Verticillium wilt caused by seed borne Verticillium dahlia</i>	0.006
Vegetables, root subgroup (except sugarbeets) Beet, garden Burdock, edible Carrots Celeriac Chervil, turnip-rooted Chicory Ginseng Horseradish Parsley, turnip-rooted Parsnip Radish Radish, oriental Rutabaga Salsify, Spanish Skirret Turnip	Seedling diseases caused by <i>Fusarium spp</i>	0.002

Crop	Target Diseases	Use Rate g ai/100 KG seed (mg ai/seed)	Remarks
Soybeans	Pod and stem blight (<i>Phomopsis spp.</i>)	2.5-5 g/100 kg (0.0038-0.0076 mg ai/seed)	For protection against other seed and soil-borne diseases, it is recommended that a co-fungicide such as Syngenta Apron® XL + Maxim® 4FS, or an Apron MAXX® brand fungicide, be used at EPA registered label rates and tank mixed in combination with Mertect 340-F.
	<i>Fusarium spp.</i> (ex. <i>Fusarium virguliforme</i> , <i>Fusarium graminearum</i> , <i>Fusarium oxysporum</i> , <i>Fusarium solani</i>)	5-20 g/100 kg (0.0076 – 0.0302 mg ai/seed)	

Restrictions and Limitations

- Maximum one application per season.
- This product must not be tank mixed with any pesticide unless physical compatibility and phytotoxicity tests have been completed and proved to be satisfactory.
- Regardless of type of application,, do not apply more than 0.15 lb thiabendazole per acre (68.0 grams ai/A) per year.

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