



1381-222

11/15/2007

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|   | <b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b><br><b>Office of Pesticide Programs</b><br><b>Registration Division (7505P)</b><br><b>Ariel Rios Building</b><br><b>1200 Pennsylvania Ave., NW</b><br><b>Washington, D.C. 20460</b> | <b>EPA Registration Number:</b><br><br>1381-222 | <b>Date of Issuance:</b><br><br>NOV 15 2007 |
|  |  | <b>Term of Issuance:</b><br>Conditional         |   |
| <b>NOTICE OF PESTICIDE:</b><br><input checked="" type="checkbox"/> Registration<br><input type="checkbox"/> Reregistration<br>(under FIFRA, as amended)  |  |   |   |
| <b>Name and Address of Registrant (include ZIP Code):</b><br><br>Winfield Solutions, LLC<br>P.O. Box 64589<br>St. Paul, MN 55164   |  |   |   |
| <p><b>Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.</b></p> <p>On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.</p> <p>This product is conditionally registered in accordance with FIFRA sec. 3 (c) (7) (A) provided that you:</p> <ol style="list-style-type: none"> <li>1. Submit/cite all data required for the registration/ reregistration of your product when the Agency requires all registrants of similar products to submit data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.</li> <li>2. Make the following label changes:           <ol style="list-style-type: none"> <li>(a) Page 1 - Change the EPA Registration Number to 1381-222.</li> </ol> </li> </ol> <p>(Continued)</p> |  |   |   |
| <b>Signature of Approving Official:</b><br><br><br>Mary L. Waller, Product Manager 21<br>Fungicide Branch<br>Registration Division (7505P)  |  | <b>Date:</b><br><br>11/15/2007                  |   |

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**(b) Page 3 –Engineering Controls:**

Move the Engineering Controls section so that it falls between the User Safety Requirements box and the User Safety Recommendations box.

**(c) Page 3 – Non-Agricultural Use Requirements Box:**

Change "Do not enter treated areas without protective clothing until spray has dried." to "Do not enter or allow others to enter treated areas without protective clothing until spray has dried."

3. Submit one (1) copy of the revised final printed label before the product is released for shipment.

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.

A stamped copy of the label is enclosed for your records. If you have any questions, contact Lisa Jones of my team at (703) 308-9424 or at [jones.lisa@epa.gov](mailto:jones.lisa@epa.gov).

Sincerely,



Mary L. Waller  
Product Manager (21)  
Fungicide Branch  
Registration Division (7505P)

Enclosure: Stamped copy of label

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# Thiophanate-Methyl 45% F Fungicide

## Liquid Flowable Systemic Turf and Ornamental Fungicide

For control of a broad spectrum of diseases of bedding, flowering, herbaceous and tropical foliage plants, shrubs, trees and flowers, containerized woody shrubs and trees and turfgrass.

**ACTIVE INGREDIENT:**

Thiophanate-methyl..... 46.2%

**OTHER INGREDIENTS:** ..... 53.8%

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

Contains 4.5 pounds thiophanate-methyl per gallon.

### KEEP OUT OF REACH OF CHILDREN

### CAUTION

| 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>If on skin or clothing:</b>  | <ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>  |
| <b>If swallowed:</b>  | <ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul> |
| <b>If inhaled:</b>  | <ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>  |
| HOT LINE NUMBER   |  |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information. |  |

See inside label booklet for additional PRECAUTIONARY STATEMENTS

EPA Reg. No. 1381-

EPA Est. No.

Manufactured for:  
Winfield Solutions LLC  
P.O. Box 64589  
St. Paul, MN 55164

**ACCEPTED**  
**with COMMENTS**  
**In EPA Letter Dated:**  
**NOV 15 2007**  
**Under the Federal Insecticide,**  
**Fungicide, and Rodenticide Act,**  
**as amended, for the pesticide**  
**registered under EPA Reg. No.**

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**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Causes moderate eye irritation. Harmful if swallowed or inhaled. Harmful if absorbed through skin. Avoid breathing spray mist. Avoid contact with eyes, skin or clothing.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, polyvinyl chloride (PVC)  $\geq$  14 mils and viton  $\geq$  14 mils. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart. Handlers mixing, loading and applying the product as a dip (including application of product in Kaolinite clay to conifer seedling roots) must wear: Coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, chemical resistant footwear plus socks, chemical-resistant apron.

All other mixers and loader and applicators must wear: Long-sleeved shirt and long pants, shoes plus socks, chemical-resistant gloves for all mixers and loaders and for applicators using hand help equipment and chemical resistant apron for mixers, loaders and other handlers exposed to the concentrate.

**User Safety Requirements**

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

**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.

**ENGINEERING CONTROLS**

When handlers use enclosed cabs in 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.

**ENVIRONMENTAL HAZARDS**

This pesticide 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. Do not apply where runoff is likely to occur. Do not contaminate water by disposing of equipment washwaters.

**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.

Not for homeowner use. For use by individuals/firms licensed or registered by the state to apply ornamental or turf pest control products. Do not apply with fixed wing or rotary aircraft.

### 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), notification to workers, 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.

**Exemption:** If the product is applied by drenching, 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 over long-sleeved shirt and long pants,
- Chemical-resistant gloves made of any waterproof material
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure

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

### 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.

Do not enter or allow others to enter treated areas without protective clothing until spray has dried.

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container in a dry, temperature controlled, secure place.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be used 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:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### GENERAL INFORMATION

Thiophanate-Methyl 45% Fungicide provides broad spectrum disease control on woody, flowering, herbaceous, and tropical foliage ornamental plants and trees in containers, greenhouses and landscapes and also on turfgrass.

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Add the required amount of Thiophanate-Methyl 45% F Fungicide after shaking well to a partially filled tank agitated by mechanical or hydraulic means then add the remaining required amount of water. Maintain continuous agitation during application to keep the material in suspension. Make fresh daily.

Make applications of Thiophanate-Methyl 45% F Fungicide with ground equipment, using sufficient spray volume to provide thorough coverage. Do not tank mix Thiophanate-Methyl 45% F Fungicide with copper containing materials or with highly alkaline pesticides such as Bordeaux mixture or lime sulfur. No claim of compatibility with other pesticides is implied. Under conditions of severe disease pressure or when application intervals are shorter than 14 days due to persistent rainfall, use the higher concentration or rates provided in this label. Contact your local State Extension Service specialist for application schedule recommendations.

**Important:** If recommended treatments of Thiophanate-Methyl 45% F Fungicide are ineffective, a tolerant strain of fungus may be present. Consult your Etigra representative or distributor, your local State Agricultural Experiment Station or State Agricultural Extension Service for advice on prompt use of some other labeled fungicide.

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### CHEMIGATION INSTRUCTIONS

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#### For Ornamental Use Only

Apply this product only through pressurized drench (flood), sprinkler, or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation systems.

Do not connect chemigation system to a public water system.

Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, contact your State Extension Service specialists, equipment manufacturers, or other experts.

Do not connect any irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

Should the need arise, a person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments.

#### Pressurized Drench (Flood) System

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump, (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from back flow if water flow stops.

**Sprinkler Chemigation**

- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump, (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

**Drip (Trickle) Chemigation**

- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump, (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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**HORTICULTURAL APPLICATIONS**

**GREENHOUSE, NURSERY AND LANDSCAPE**

Thiophanate-Methyl 45% F Fungicide provides broad spectrum control of many foliar, stem, and below ground diseases on a wide range of horticultural plants grown or maintained under a variety of conditions. Apply Thiophanate-Methyl 45% F Fungicide 14-21 days prior to when a particular disease usually appears and at the very latest, upon first sign of disease. Spray intervals usually range from 7 to 14 days with 14 days being for preventative treatments and the 7 day interval for times when conditions are judged acceptable for disease development. For hard-to-wet foliage, an acceptable wetting agent may be added to the spray tank to increase product efficacy. Use of a spreader-sticker is recommended when excessive and repeated foliar wetting occurs. Thiophanate-Methyl 45% F Fungicide may be used to control listed diseases on non-commercial fruit and nut trees. Do not use fruits or nuts from treated trees as food. Do not use fruits, nuts or sap from treated trees as food or feed. Do not apply this product to home orchards or backyard fruit trees after fruit set.

Note: Thiophanate-Methyl 45% F Fungicide has been determined to be safe for use on the plant types listed in these directions for use based on cumulative data derived from research product trials and historical field use. As all species and cultivars have not been tested, it is recommended that trial applications be performed if a user wishes to make an application to a plant type not listed on the label but found on a similar use site and for a disease that is listed on the label. To conduct a trial application, apply at least two applications to at least 25 trial plants at the highest concentration, 7 days apart. Evaluate 7 days after the last application before initiating full-scale application. Do not use this product on the following plants: Swedish Ivy (*Neprolepsis exaltata*), Boston Fern (*Plectranthus australis*), and Easter Cactus (*Hatiora gaertneri*).

| <b>Plant Type</b>  | <b>Such as but not limited to:</b>   |
|--------------------|--|
| Herbaceous Bedding | Ageratum, Begonia, Cannā, Coleus, Dahlia, Dusty Miller, Foxglove, Fuchsia, Geranium, Impatiens, Lavender, Marigold, Pansy, Petunia, Pinks, Primrose, Salvia, Statice, Strawflower, Tickseed, Verbena |
| Flowering          | Chrysanthemum, Hydrangea, Hollyhock, Iris, Lily, Poinsettia  |
| Tropical Foliage   | Dieffenbachia, Dracaena, English Ivy, Philodendron, Pothos   |
| Woody Ornamentals  | Azalea, Hibiscus, Holly, Ligustrum, Rhododendron, Rose, Pyracantha   |
| Evergreen Trees    | Douglas Fir, Fir, Larch, Pine, Spruce  |
| Deciduous Trees*   | Ash, London Plane, Maple, Oak, Sycamore, Walnut  |
| Flowering Trees*   | Cherry, Crabapple, Hawthorn, Mountain Ash, Pear  |

\*Do not use fruit or nuts or sap from treated trees as food or feed.

**FOLIAR SPRAY APPLICATIONS**

**Hydraulic Application Mixing Instructions**

After shaking the product container, add the required amount of Thiophanate-Methyl 45% F Fungicide to a partially filled spray tank agitated by mechanical or hydraulic means and then add the remaining recommended volume of water. Maintain continuous agitation to keep the material in suspension and apply with properly calibrated spray equipment.



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**Application Concentrations (Mechanical or Hand Held):**

Use the recommended amount of Thiophanate-Methyl 45% F Fungicide per 100 gallons of water for the prevention and control of the diseases shown below.

**FOLIAR DISEASES**

| Disease(s) Controlled  | Concentration of Thiophanate-Methyl 45% F Fungicide fl. oz./100 gals. | Remarks  |
|--|---|--|
| Anthracnose<br><i>Colletotrichum</i>   | 10.75-20  | Apply as buds break or at first sign of disease. Repeat application at 7-14 day intervals as needed during disease period.   |
| Black Spot of Rose<br><i>Diplocarpon rosae</i>   | 10.75-20  | Apply early summer or at first sign of disease. Repeat application every 7-14 days as needed during disease period.  |
| Brown Rot and Blight<br><i>Monilinia</i> ,<br><i>Sclerotini</i> , <i>Whetzellinia</i>  | 10.75-20  | Apply late spring or at first sign of disease. Repeat application every 7-14 days as needed during the disease period.   |
| Fusicladium and Venturia Leaf Scabs on:<br>Crabapple, Hawthorn, Pear, Mountain Ash, Pyracantha, etc.   | 10.75-20  | Apply as buds break. Repeat application every 7-14 days during disease period. Effective control requires coverage during expansion. Rotations with chlorothalonil or propiconazole can be utilized. |
| Leaf Spots and Blights caused by:<br><i>Ascochyta</i> , <i>Blumeriella</i> , <i>Botrytis</i> ,<br><i>Cercospora</i> , <i>Coccomyces</i> ,<br><i>Corynespora</i> , <i>Curvularia</i> ,<br><i>Didymellina</i> , <i>Entomosporium</i> ,<br><i>Fabraea</i> , <i>Fusarium</i> , <i>Ramularia</i> ,<br><i>Rhizoctonia</i> , <i>Marssoninia</i> ,<br><i>Mycosphaerella</i> , <i>Myrothecium</i> ,<br><i>Phoma</i> , <i>Physalasporea</i> ,<br><i>Schizothyrium</i> , <i>Septoria</i> ,<br><i>Sphaceloma</i> | 10-14.5   | Make applications when disease symptoms first appear. Repeat every 7-14 days during disease period. Rotations with chlorothalonil may be used.   |
| Ovulinia Blight  | 7.25-20   | Apply as flowers open. Repeat every 7-14 days during disease period.   |
| Powdery Mildews<br><i>Erysiphe</i> , <i>Microsphaera</i> ,<br><i>Phyllactinia</i> , <i>Podosphaera</i> ,<br><i>Oidium</i> , <i>Sphaerotheca</i>  | 10-20   | Apply when disease first appears and repeat application every 7-14 days. Rotations with other effective products is recommended.   |
| Rust Diseases caused by:<br><i>Puccinia</i> , <i>Gymnosporangium</i> ,   | 10.75-20  | Apply late spring or when symptoms first appear. Repeat  |

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| Disease(s) Controlled   | Concentration of Thiophanate-Methyl 45% F Fungicide<br>fl. oz./100 gals. | Remarks   |
|---|--|---|
| <i>Uromyces</i>   |  | application every 7-14 days during disease period. Rotations with other effective products is recommended.  |
| Tip Blight of Pine<br><i>Sphaeropsis sapinea, Diplodia pinea</i>                    | 14.5-20  | Begin applications in the spring when new growth starts. Make a second application just prior to needle emergence from the sheath and a third application 7 days later. Ensure thorough coverage. |
| Twig Blights, Cankers, and Diebacks<br><i>Diaporthe, Kabatina, Phoma, Phomopsis</i> | 14.5-20  | Apply when symptoms first appear. Repeat application every 7-14 days during disease period.   |

**Adjuvants:** Where rainfall and/or overhead irrigation is the norm, use of a compatible spreader/sticker is suggested. Where wetting of foliage is difficult, use a compatible wetting agent. Follow the phytotoxicity precautions described in the "HORTICULTURAL APPLICATIONS" section of this label.

**SOIL DRENCH APPLICATIONS**

**Mixing Instructions:** Add the required amount of Thiophanate-Methyl 45% F Fungicide to a partially filled tank agitated by mechanical or hydraulic means. Add the remaining required amount of water. Maintain continuous agitation throughout application to keep the material in suspension.

**Application Concentrations/Rates and Timing for Disease Control:** Use 7.5 to 20 fl. oz. of Thiophanate-Methyl 45% F Fungicide per 100 gallons of water. Apply as a drench or heavy spray at the rate of ½ to 2 pints per square foot (100 gallons per 400 to 1,600 square feet). For small pots and shallow flats up to 4 inches in size, apply at 1 pint per square foot. For containers and pots 4 inches or larger, refer to the following table for the volume to apply. Repeat applications may be made at 4 to 8 week intervals depending on disease presence and conditions for disease development.

| Container Type | Volume to Apply/Container |                    |
|----------------|---------------------------|--------------------|
|                | 1 pt./sq. ft. Rate        | 2 pt./sq. ft. Rate |
| 4 inch         | 2 fl. oz.                 |                    |
| 5 inch         | 2 ½ fl. oz.               |                    |
| 6 inch         |                           | 6 ½ fl. oz.        |
| 7 inch         |                           | 8 ½ fl. oz.        |
| 8 inch         |                           | 11 fl. oz.         |
| 9 inch         |                           | 14 fl. oz.         |
| 10 inch        |                           | 17 ½ fl. oz.       |

For containers larger than 10 inches, a drench volume of 2 ½ to 3 pints per square foot of surface area may be required.

**Plant Types:** Containerized woody shrubs, trees, herbaceous/bedding, flowering, and tropical foliage plants and flowers and bedding plants in the landscape.

**Note:** Do not apply this product to plug trays or seedling flats at time of seeding.

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**Soil Diseases Controlled:** Botrytis, Cyndrocladium, Fusarium, Gliocladium, Myrothecium, Penicillium, Ramularia, Rhizoctonia, Sclerotinia and Thielaviopsis.

**Note:** Pythium, Phytophthora and Cyndrocladium spathiphylli are not controlled by Thiophanate-Methyl 45% F Fungicide.

**PLANT DIP TREATMENT**

**Mixing Instructions:** Mix as described in the "FOLIAR" and "SOIL DRENCH APPLICATIONS" sections of this label. Maintain continuous agitation during application.

**Application Concentration and Dipping Time**

**Plants or Cuttings:** Use 14.5 to 21.5 fl. oz. of Thiophanate-Methyl 45% F Fungicide per 100 gallons of water. Immerse plants or cuttings for 10 to 15 minutes, remove and allow to drain and dry. Wear protective clothing as described under the "PERSONAL PROTECTIVE EQUIPMENT" section of this label.

**Bulbs, Corms, Tubers and Rhizomes -** Use 14.5 to 33 fl. oz. of Thiophanate-Methyl 45% F Fungicide per 100 gallons of water or 2 teaspoons of Thiophanate-Methyl 45% F Fungicide per gallon of water. Soak cleaned bulbs for 15 to 30 minutes in warm dip (80-85°F) within 48 hours of digging. Dry bulbs after treatment. If bulbs are for forcing, treat bulbs that have been heat-cured.

**Plant Types:** Plants, cuttings, cane sections of woody herbaceous, flowering and tropical foliage plants. Bulbs, corms, tubers, and rhizomes of plants such as but not limited to Caladium, Easter Lily, Tulip, Gladiolus, Daffodil, Iris.

**Diseases Controlled:** Botrytis, Cyndrocladium, Fusarium, Gliocladium, Myrothecium, Penicilium, Ramularia, Rhizoctonia, Sclerotinia, Thielaviopsis.

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**TURF APPLICATIONS**

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Thiophanate-Methyl 45% F Fungicide may be used against certain foliar and soil diseases for use on all turf types such as golf course greens, tees and fairways, athletic fields, cemeteries, parks, and commercial and home lawns. Thiophanate-Methyl 45% F Fungicide may be used both preventatively and curatively and is not phytotoxic. Do not use Thiophanate-Methyl 45% F Fungicide on turf being grown for sale or other commercial uses as sod.

**Mixing Instructions:** Add the required amount of Thiophanate-Methyl 45% F Fungicide to a partially filled tank agitated by mechanical or hydraulic means. Add the remaining required amount of water. Maintain continuous agitation to keep the material in suspension. For best results, use spray mixture the same day it is prepared.

**Turf Types:** All cool season and warm season grasses (such as but not limited to Bentgrasses, Bermudagrasses, Bluegrasses, Fescues, Ryegrasses, St. Augustinegrasses and Zoysiagrasses) or their mixtures.

| Disease(s) Controlled                            | Rate of Thiophanate-Methyl 45% F Fungicide<br>fl. oz./1,000 sq. ft.** | Remarks   |
|--|---|---|
| Anthracnose<br><i>Collectotricum graminicola</i> | 2-3 1/2<br>(3 1/2 - 5 1/3)*   | Apply when disease first appears. Make additional applications at 14 day intervals as needed. Allow spray to dry on leaves with no "watering in". |

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| Disease(s) Controlled   | Rate of Thiophanate-Methyl 45% F Fungicide fl. oz./1,000 sq. ft.** | Remarks  |
|---|--|--|
| Dollar Spot<br><i>Sclerotinia homoeocarpa</i><br>Copper Spot<br><i>Gloeocerospora sorghi</i><br>Brown Patch and Zoysia Patch<br><i>Rhizoctonia solani</i><br>Red Thread<br><i>Laetisaria fusiformis</i> | 2-3 ½  | Apply when disease first appears. Make additional applications at 14 day intervals as needed. Allow spray to dry on leaves with no "watering in".  |
| Pink Snow Mold<br><i>Microdochium nivale</i><br>(Only for those areas where snow cover is not present the entire winter)  | 2-3 ½  | Apply Thiophanate-Methyl 45% F Fungicide in middle to late November before turf has stopped all growth activity. Lightly water application into the root zone for best results. For best results, use a spreader-sticker. Second spray should dry on leaf surfaces with no "watering-in". Minimum spray interval is 14 days. |
| Gray Leaf Spot<br><i>Pyricularia grisea</i>   | 3 ½ - 5 1/3  | Apply when conditions are favorable for disease development. Continue applications at 14 day intervals. Allow spray to dry on leaves with no "watering in".  |
| Summer Patch<br><i>Magnaportha poae</i>   | 3 ½ - 5 1/3  | For preventative treatment, make 3 applications at 21 day intervals beginning in early May. Water product into the root zone thoroughly after application. For suppression, apply two applications at 14 day intervals beginning when disease first appears.   |
| Fusarium Blight<br><i>Fusarium spp.</i><br>Necrotic Ring Spot and Spring Dead Spot<br><i>Leptosphaeria korrae</i>   | 3 ½ - 5 1/3  | Make two applications at 14 day intervals beginning when disease first appears.  |
| Stripe Smut<br><i>Ustilago striformis</i>   | 3 ½ - 5 1/3  | Make two applications at 14 day intervals when disease first appears. Water product into the root zone after application. For prevention, apply in the spring (just before grass begins growth), and in the fall.  |

\*Use 3 ½ - 5 1/3 fl. oz. rate for curative response to Basal Stem Anthracnose.

\*\*Refer to the "Use Sites and Maximum Application Rates" table to determine allowable rates for each application.

**Turf Application Directions**

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Apply Thiophanate-Methyl 45% F Fungicide uniformly over the area to be treated with a properly calibrated power sprayer. Apply after mowing or avoid mowing for 12 hours after application. Apply sufficient water to obtain thorough coverage, usually 1 ½ to 2 ½ gallons per 1,000 sq. ft. of turf area. When treating golf greens, always treat aprons and approaches to golf greens.

**Use Sites and Maximum Application Rates**

| <b>Site</b>  | <b>Maximum Single Application Rate<br/>fl. oz./1,000 sq. ft.</b> | <b>Maximum Seasonal Application Rate<br/>fl. oz./1,000 sq. ft.</b> |
|--|--|--|
| Golf Course Greens, Tees and Aprons  | 5 1/3  | 14 1/4   |
| Golf Course Fairways (Except Florida)  | 3 1/2  | 3 1/2  |
| Golf Course Fairways (Florida Only)  | 1 3/4  | 1 3/4  |
| Residential and Public Areas (home lawns, parks, athletic fields, schools, day care centers) | 1 3/4  | 7  |

**Note to User: Do not graze animals on treated turf. Do not feed clippings to livestock or poultry.**

**Shake well before using.**

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