

66222-134

02/20/2009

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Jacket copy

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Jane Rothwell
Registration Specialist
Makhteshim-Agan of North America Inc
4515 Falls of Neuse RD, Suite 300
Raleigh, NC 27609

FEB 20 2009

Dear Ms. Rothwell:

SUBJECT: Nations Ag II Thiophanate Methyl 4.5F
EPA Registration Number 66222-134
Your revised basic CSF dated October 1, 2008 and label
OPPIN Decision Number: 400889

The revised basic Confidential Statement of Formula (CSF), dated October 1, 2008 referred to above submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable. Please note that this CSF supersedes all previous CSF's for this product and will be added to the regulatory file.

The labeling referred to above, submitted in connection with registration under section (3) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable.

Please submit one copy of the final printed labeling before the product is released for shipment. A stamped copy of the label is enclosed for your records. If you have any questions, please contact Lisa Jones on my team by phone at (703) 308-9424 or by e-mail at jones.lisa@epa.gov.

Sincerely,

Shaja B. Joyner
Shaja B. Joyner
Product Manager (20)
Fungicide Branch
Registration Division (7505P)

Enclosure: Stamped accepted label
Product chemistry review dated January 21, 2009
Acute toxicity review dated January 21, 2009

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THIOPHANATE METHYL 4.5 F

Contains thiophanate-methyl, the active ingredient used in Topsin 4.5FL
Thiophanate-methyl 4.5F is not manufactured or distributed by Cerexagri.

ACTIVE INGREDIENT:	% BY WT.
Thiophanate-methyl: (dimethyl[(1,2-phenylene)-bis(iminocarbonothioyl)]bis[carbamate])	46.2%
OTHER INGREDIENTS:	53.8%
	TOTAL 100.0%

Contains 4.5 pounds of thiophanate-methyl per gallon.

EPA Reg. No. 66222-134

EPA Est. No. [REDACTED]

ACCEPTED

FEB 20 2009

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

Manufactured for:
 Makhteshim Agan of North America, Inc.
 4515 Falls of Neuse Rd., Suite 300
 Raleigh, NC 27609

NET CONTENTS: 4.5 LBS

KEEP OUT OF REACH OF CHILDREN
CAUTION

66222-134

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED:	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
IF IN EYES:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **You may also contact PROSAR at 1-877-250-9291 for emergency medical treatment information.**

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed, absorbed through skin, or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water, after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber (> 14 mils), neoprene rubber (>14mils) and polyethylene. If you want more options, follow the instructions for category C on an EPA chemical resistance 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
- A chemical-resistant apron

All other mixers, loaders, and applicators must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves
- Chemical-resistant apron for mixers, loaders, and other handlers exposed to the concentrate

User Safety Requirements: Follow manufacturer's instructions for cleaning/maintaining personal protective equipment, PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or 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 a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water.

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.

AGRICULTURAL USE REQUIREMENTS

Use this product 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 intervals. 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). The REI for each crop is listed in the directions for use associated with each crop. Exemption: If the product is applied by drenching, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated areas 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

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 (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to protect agricultural plants on farms, forests, nurseries, or greenhouses. Do not enter or allow others to enter until sprays have dried.

GENERAL INFORMATION

Shake well before using.

Apply Thiophanate Methyl 4.5F with ground or aerial equipment using sufficient volume of spray to provide thorough coverage. Add required amount of Thiophanate Methyl 4.5F to partially filled tank agitated by mechanical or hydraulic means and then add remaining required amount of water. Continuous agitation is required to keep the material in suspension. Do not tank mix with highly alkaline pesticides such as Bordeaux mixture or lime sulfur. No claim of compatibility with other pesticides is implied. Use the higher rate under conditions of severe disease pressure. Also, see local State Extension Service recommendations for application schedules.

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Use the FL.OZ./Acre rate for concentrate sprayers (less than 400 gallons) and aerial application. Use the FL.OZ./100 GAL rate for dilute ground application.

CHEMIGATION INSTRUCTIONS: Chemigation instructions follow DIRECTIONS FOR USE. Do not apply through any irrigation system unless these instructions are followed.

In California, chemigation is only allowed for the following crops: beans, cucurbits (cucumbers, melons, pumpkins, and squash), peanuts, soybeans, and strawberries.

When an adjuvant is to be used with this product, Makhteshim Agan of North America, Inc. suggests the use of a Chemical Producers and Distributors Association certified adjuvant.

RESISTANCE MANAGEMENT

To avoid the development of tolerant or resistant strains of fungi, Thiophanate Methyl 4.5F should always be tank mixed with a fungicide of different chemistry and/or a fungicide of different chemistry should be alternated with Thiophanate Methyl 4.5F at each application. MAKHTESHIM AGAN OF NORTH AMERICA, INC. DOES NOT RECOMMEND THE USE OF PRODUCTS CONTAINING THIABENDAZOLE IN COMBINATION OR IN ROTATION WITH THIOPHANATE METHYL 4.5F. If after using Thiophanate Methyl 4.5F as recommended and the treatment is not effective, a tolerant or resistant strain of fungi may be present. Discontinue the use of Thiophanate Methyl 4.5F for at least one season. Do not use products containing thiabendazole as substitutes for Thiophanate Methyl 4.5F, as they are of similar chemistry and will contribute to the development of resistance. As long as these precautions are followed, Thiophanate Methyl 4.5F can be useful for disease control even if resistant strains are present.

**CHEMIGATION
GENERAL INSTRUCTIONS**

Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move, or drip (mini-micro sprinklers, strip tubing, trickle) irrigation systems. Do not apply this product any other type of irrigation system.

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

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

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 should the need arise.

Do not connect the chemigation system to any public water system. Public water system means a system for the provision of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

SYSTEM REQUIREMENTS

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

- 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.

INSTRUCTIONS FOR SPRINKLER (OVERHEAD) IRRIGATION, DRIP (TRICKLE) IRRIGATION

Observe the requirements in the System Requirements section above. Do not apply when wind speed favors drift beyond the area intended for treatment.

Apply Thiophanate Methyl 4.5F only through systems containing anti-syphon and check valves designed to prevent water source contamination or overflow of the mix tank and containing interlocking controls between the metering device and the water pump to insure simultaneous shut-off.

Maintain a gentle continuous agitation in mix tank during mixing and application to assure a uniform suspension.

Greater accuracy in calibration and distribution will be achieved by injecting a large volume of a more dilute suspension per unit time.

Application of more the recommended quantities of irrigation water per acre may result in decreased product performance.

Do not apply when wind speed favors drift, when system connections or fittings leak, when nozzles do not provide uniform distribution, or when lines containing the product cannot be flushed and must be dismantled and drained. In a center pivot system, block the nozzle set nearest the well/pivot/injection unit to prevent spray being applied to this area. Where sprinkler distribution patterns do not overlap sufficiently, unacceptable disease control may result. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. Thiophanate Methyl 4.5F may be applied in conjunction with chemically neutral liquid fertilizers. Application in conjunction with highly alkaline fertilizers, such as aqueous ammonia, may cause a degradation of the pesticide resulting in reduced performance and should be avoided. Check local restrictions and requirements regarding sprinkler irrigation applications as they may vary from state to state.

SPRAY PREPARATION

Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water. Prepare a suspension of Thiophanate Methyl 4.5F in a mix tank. Fill the tank with 1/2 or 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Slowly add the required amount of Thiophanate Methyl 4.5F and then the remaining volume of water.

APPLICATION INSTRUCTIONS

Sprinkler Irrigation-Notes

Observe all Systems Requirements and Instructions above. Set sprinkler system to deliver 0.1 to 1.25 inches of water per acre. Volumes of water higher than this may reduce efficacy. Start sprinkler and then uniformly inject the suspension of Thiophanate Methyl 4.5F into the irrigation water line so as to deliver the desired rate per acre. The suspension of Thiophanate Methyl 4.5F should be injected with a positive displacement pump into the main line ahead of a right angle to insure adequate mixing.

NOTE: When treatment with Thiophanate Methyl 4.5F has been completed, do not irrigate the treated area for 24 to 48 hours to prevent washing the chemical off the crop.

Drip (MiniMicro Sprinklers, Strip Tubing, Trickle) Irrigation-Notes

Observe all System Requirements and Application Instructions above.

APPLICATION RATES

CROP	DISEASES	FL.OZ./ACRE/APPLICATION	FL.OZ./100 GAL	REMARKS
ALMONDS	Brown Rot Blossom Blight (<i>Monilinia</i>) Scab (<i>Cladosporium sp.</i>)	30	-	Apply at early pink bud and early petal fall. Do not apply more than 30 fl. oz. of product per acre per application. Do not apply more than 60 fl. oz. of product per acre per season. Preharvest interval is 3 days. Restricted Entry Interval (REI) is 3 days.
APPLES	Apple Scab (<i>Venturia</i>) Black pox- Not for use in CA (<i>Helminthosporium papulosum</i>) Flyspeck (<i>Zygophiala sp</i>) Powdery Mildew (<i>Podosphaera sp.</i>) Sooty Blotch (<i>Gloeodes</i>) Black Rot (<i>Botryosphaeria sp.</i>) Brooks fruit spot (<i>Mycosphaerella sp.</i>) White rot (<i>Botryosphaeria sp.</i>) – Not for this use in California	20 (except CA) 30 (CA only)	5-7 1/2	Apply at 5 to 10 day intervals from green tip through petal fall; continue at 7-14 day intervals as cover sprays. Do not apply more than 20 fl. oz. of product per acre per application. Do not apply more than 80 fl. oz. of product per acre per season. Note: For control of apple diseases in the Southeastern States of Florida, Georgia, South Carolina, North Carolina, and Alabama, use 60 to 80 fl. oz. Thiophanate Methyl 4.5F per acre. Preharvest interval is 1 day. Restricted Entry Interval (REI) is 2 days.

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CROP	DISEASES	FL.OZ./ACRE/APPLICATION	FL.OZ./100 GAL	REMARKS
BEANS (Except California) including Dry and Succulent including Lima bean, Snap bean, Kidney bean, Mung bean, Navy bean, Pinto bean, Wax bean, Broad bean, Fava bean, Asparagus bean, Blackeyed pea, Cowbea, Sweet lupine, White Sweet lupine, Grain lupine, Chick pea, Garbanzo bean	Gray Mold (<i>Botrytis</i>) White Mold (<i>Sclerotinia</i>) Anthracnose (<i>Colletotrichum</i>)	30-40 A maximum of 80 fl oz of product per acre (2.8 lbs. a.i.) per crop cycle may be used, with a minimum 7-day spray interval.		Make first application when 10%-30% of plants have at least one open bloom, and/or conditions are favorable for disease development. Restricted Entry Interval (REI) is 1 day for all beans except 3 days for dry beans. Preharvest interval: 14 days for snap beans and lima beans and 28 days for dry beans.
BEANS (California Only) including Dry and Succulent including Lima bean, Snap bean, Kidney bean, Mung bean, Navy bean, Pinto bean, Wax bean, Broad bean, Fava bean, Asparagus bean, Blackeyed pea, Cowbea, Sweet lupine, White Sweet lupine, Grain lupine, Chick pea, Garbanzo bean	Gray mold (<i>Botrytis sp.</i>) White mold (<i>Sclerotinia sp.</i>) Anthracnose (<i>Colletotrichum</i>)	30-40 OR 20-30		Apply once at 50% to 70% of full bloom. OR Apply twice with the first application at 10%-30% of full bloom and a second application at 4 to 7 days later or at peak bloom. Restricted Entry Interval (REI) is 1 day for all beans except 3 days for dry beans Preharvest interval: 14 days for snap beans, 28 days for lima beans and dry beans.

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CROP	DISEASES	FL.OZ./ACRE/APPLICATION	FL.OZ./100 GAL	REMARKS
CUCURBITS (Cucumbers, melons, summer and winter squash, pumpkins and watermelons) General Information: Follow resistance management guidelines under Directions for Use	Acemonium/Cephalosporium Hyypocotyl rot	10		Apply in-furrow, on top of the seeds at planting. Do not use less than 10 gallons of water per acre. Do not apply more than 60 fl oz product (2 lbs a.i.) per acre per season from any combination of application timings. Preharvest interval is 1 day. Do not enter or allow worker entry into treated areas during the Restricted Entry Interval (REI) of 1 day.
	*Anthracnose (<i>Colletotrichum</i>) *Gummy Stem Blight (<i>Didymella</i>) Powdery Mildew (<i>Erysiphe</i>) *Target Spot (<i>Corynespora</i>) Note: * Not registered for use in CA unless accompanied by a supplemental label	10 For ground or aerial applications		Begin applications when plants begin to run or when disease first appears and repeat at 7 to 14 day intervals as needed. For Target Spot, use 7 day intervals as needed. Do not apply more than 60 fl oz product (2 lbs a.i.) per acre per season from any combination of application timings. Do not enter or allow worker entry into treated areas during the Preharvest interval is 1 day. Restricted Entry Interval (REI) of 1 day.

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CROP	DISEASES	FL.OZ./ACRE/APPLICATION	FL.OZ./100 GAL	REMARKS
CUCURBITS (Cucumbers, melons, summer and winter squash, pumpkins and watermelons) General Information: Follow resistance management guidelines under Directions for Use	Suppression of vine decline (<i>Monosporascus cannonballus</i>) Charcoal rot (<i>Macrophomina sp.</i>)	10	-	Apply through buried drip irrigation (chemigation) to the root zone. For disease suppression, apply at 14 day intervals beginning at emergence and continuing to harvest. Applications weekly or biweekly, beginning 4-6 weeks prior to harvest, will also offer suppression but may not be as effective as a season long program. Do not apply more than 60 fl oz product (2 lbs a.i.) per acre per season from any combination of application timings. Preharvest interval is 1 day. Do not enter or allow worker entry into treated areas during the Restricted Entry Interval (REI) of 1 day.
	Belly Rots (<i>Rhizoctonia/Fusarium sp.</i>)	10		For Belly Rots, apply in sufficient volume to allow runoff to the soil. Will not control Pythium sp. Do not apply more than 60 fl oz product (2 lbs a.i.) per acre per season from any combination of application timings. Allow seven days between treatments. Preharvest interval is 1 day. Do not enter or allow worker entry into treated areas during the Restricted Entry Interval (REI) of 1 day.
GARLIC	Penicillium Clove rot	Not applicable for this crop	20	Completely immerse garlic cloves in suspension for at least five minutes. Continuously agitate the solution tank by hydraulic or mechanical means. After treatment, remove cloves from solution and drain over sand. Dry cloves after treatment and prior to planting.
ONIONS (IN-FURROW) Not for this use in California	White rot (<i>Sclerotinia sp.</i>)	1 fl oz/1,000 ft of row (with 12 inch row spacing) OR 40 fl oz per acre broadcast Do not apply more than 40 fl oz Thiophanate Methyl 4.5F per acre per year		Apply Thiophanate Methyl 4.5F by spraying directly into the open furrow at the time of planting seed, sets or bulbs. Not for this use through any type of irrigation system.

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CROP	DISEASES	FL.OZ./ACRE/APPLICATION	FL.OZ./100 GAL	REMARKS
PEANUTS	Leaf Spot (<i>Cercospora</i>) Rust (<i>Puccinia</i>) Limb rot (<i>Rhizoctonia</i>) Web blotch (<i>Ascochyta</i>)	10	-	Begin applications 35 days after planting or when disease first appears and repeat at 14- to 21- day intervals or as needed. Use the 14 day interval under severe disease pressure. Do not apply more than 40 fl. oz. of product per acre per season. Thiophanate Methyl 4.5F should not be used alone. Use only in combination with another non-benzimidazole fungicide. Follow resistance management guidelines under DIRECTION FOR USE. Do not apply within 14 days of harvest. Restricted Entry Interval (REI) is 1 day.
PECANS	Brown Spot (<i>Cercospora</i>) Downy Spot(<i>Mycosphaerella</i>) Powdery Mildew (<i>Microsphaerella</i> sp) Scab (<i>Fusicladium</i>) Liver spot (<i>Gnomonia</i> sp.) Stem end blight (<i>Botryosphaeria</i> sp.) Zonate leaf spot (<i>Cristulariella</i> sp.)	20	-	Use the higher rate for trees over 30 feet tall and for aerial application in AR, GA, LA, MS, OK, and TX. Begin application when first leaves are showing and repeat at 3 to 4 week intervals until shuck split. Do not spray after shuck split. Do not apply more than 60 fl. oz. of product per acre per season. The Restricted Entry Interval (REI) is 3 days.
PISTACHIOS	Shoot blight (<i>Botrytis</i> , <i>Botryosphaeria</i>)	30-40	-	Apply at bloom. Apply in a minimum of 100 gallons per acre by ground or 20 gallons per acre by air. For aerial application, fly over every row or center. Do not apply more than 40 fl oz product (1.4 lbs a.i./A/season). The Restricted Entry Interval (REI) is 3 days.

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CROP	DISEASES	FL.OZ./ACRE/APPLICATION	FL.OZ./100 GAL	REMARKS
POTATOES Not for this use in California	White mold (<i>Sclerotinia</i> sp.)	20-30		<p>Make first application just prior to row closure. Repeat the application within 7-14 days and at 7-14 day intervals if conditions for disease development are favorable. Thorough coverage of the lower stems and branches is essential for disease control.</p> <p>May be tank mixed with other fungicides labeled for early and late blight control. Makhteshim Agan of North America, Inc. does not recommend aerial application for control of this disease on this crop.</p> <p>Do not apply more than 80 fl oz of this product (2.8 lbs a.i.) per acre per season. Preharvest interval is 21 days.</p>

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CROP	DISEASES	FL.OZ./ACRE/APPLICATION	FL.OZ./100 GAL	REMARKS
STONE FRUITS: APRICOTS	Brown Rot Blossom Blight (<i>Monilinia</i>) Brown rot of fruit (<i>Monilinia</i>)	30	10	Apply at early bloom (red bud). Make a second application at full bloom. In addition, for brown rot of fruit, apply 1 or 2 sprays starting 3 weeks before harvest. If needed under severe disease pressure, apply additional sprays at 10 to 14 day intervals between full bloom and final preharvest spray. Do not apply within 1 day of harvest. Do not apply more than 80 fl. oz. of product per acre per season. Restricted Entry Interval (REI) is 2 days.
CHERRIES	Brown rot blossom/ Twig blight (<i>Monilinia</i>) Brown Rot of Fruit (<i>Monilinia</i>)	30	10	Apply at early bloom. Make a second application at full bloom. In addition for brown rot apply 1 or 2 sprays starting 3 weeks before harvest. If needed under severe disease pressure apply additional sprays at 10 to 14 day intervals between full bloom and final preharvest spray. Do not apply within 1 day of harvest. Do not apply more than 80 fl. oz. of product per acre per season. Restricted entry interval (REI) is 2 days.
	Cherry leaf spot (<i>Coccomyces</i>)	22.5-30	10	Apply at petal fall or before, when leaves first unfold, and at first, second and third cover sprays at 10 to 14 day intervals and one spray 14 to 21 days after harvest. Do not apply within 1 day of harvest. Do not apply more than 80 fl. oz. of product per acre per season. Restricted entry interval (REI) is 2 days.
	Powdery Mildew (<i>Podosphaera</i> spp. and <i>Sphaerotheca</i> spp.)	30 PLUS 24-30	10 PLUS 8-10	Apply at early bloom (early popcorn). Make a second application at full bloom. PLUS Apply at shuck fall and first cover. Do not apply within 1 day of harvest. Do not apply more than 80 fl. oz. of product per acre per season. Restricted entry interval (REI) is 2 days.

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CROP	DISEASES	FL.OZ./ACRE/APPLICATION	FL.OZ./100 GAL	REMARKS
NECTARINES	Brown rot blossom/Twig blight (<i>Monilinia</i>) Brown rot of fruit (<i>Monilinia</i>)	30	10	Apply at early bloom (pink bud). Make a second application at full bloom if conditions favor disease development. In addition, for Fruit Brown Rot, apply 1 or 2 sprays starting 3 weeks before harvest. If needed under severe disease pressure, apply additional sprays at 10-14 day intervals between full bloom and final pre-harvest sprays. Do not apply within 1 day of harvest. Do not apply more than 80 fl. oz. of product per acre per season. Restricted entry interval (RE) is 2 days.
PEACHES	Brown rot blossom/Twig blight (<i>Monilinia</i>) Brown rot of fruit (<i>Monilinia</i>)	30	10-15	Apply at early bloom (pink bud). Make a second application at full bloom if conditions favor disease development. In addition for Fruit Brown Rot, apply 1 or 2 sprays starting 2 weeks before harvest. If needed under severe disease pressure, apply additional sprays at 10 to 14 day intervals between full bloom and final preharvest sprays. Do not apply within 1 day of harvest. Do not apply more than 80 fl. oz. of product per acre per season. Restricted entry interval (RE) is 2 days.
	Peach Scab (<i>Cladosporium</i>)	30	10-15	Apply at early bloom (pink bud). Make a second application at full bloom if conditions favor disease development.
		PLUS 24-30	PLUS 8-10	PLUS Apply at shuck split and at first cover spray. Do not apply within 1 day of harvest. Do not apply more than 80 fl. oz. of product per acre per season. The maximum single application rate is 30 fl. oz. per acre for peaches. Restricted entry interval (REI) is 2 days. Do not apply within 1 day of harvest.

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CROP	DISEASES	FL.OZ./ACRE/APPLICATION	FL.OZ./100 GAL	REMARKS
PLUMS/PRUNES	Brown rot of fruit (<i>Monilinia</i>) Brown rot blossom/Twig blight (<i>Monilinia</i>)	30	10	Apply at early bloom (green tip). Make a second application at full bloom. In addition, for Brown Rot of Fruit, apply 1 or 2 sprays starting 3 weeks before harvest. If needed under severe disease pressure, apply additional sprays at 10 to 14 day intervals between full bloom and final preharvest sprays. Do not apply within 1 day of harvest. Do not apply more than 80 fl. oz. of product per acre per season. Restricted entry interval is 2 days.
	Black knot (<i>Dibotryon</i>)	30	10	Apply at pre-bloom, petal fall, and at first, second, and third cover spray at 10-14 day intervals. Do not apply within 1 day of harvest. Do not apply more than 80 fl. oz. of product per acre per season. Restricted entry interval is 2 days.
	Leaf spot (<i>Coccomyces</i>)	30	10	Apply at petal fall, shuck, and at first, second, and third cover sprays at 10 to 14 day intervals and 1 spray 14 to 21 days after harvest. Do not apply within 1 day of harvest. Do not apply more than 80 fl. oz. of product per acre per season. Restricted entry interval (REI) is 2 days.
STRAWBERRIES	Fruit rot (<i>Botrytis</i>) Leaf blight (<i>Dendrophoma</i>) Leaf scorch (<i>Diplocarpon</i>) Powdery mildew	15-20	-	Begin applications at early bloom and continue at 7 to 10 day intervals. Use higher rate East of the Rocky Mountains and under conditions of severe disease pressure. Do not apply more than 80 fl. oz. of this product per acre per year. Do not apply within 1 day of harvest. Restricted entry interval (REI) is 24 hours.

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CROP	DISEASES	FL.OZ./ACRE/APPLICATION	FL.OZ./100 GAL	REMARKS
SUGARBEET	Cercospora leaf spot (<i>Cercospora</i>)	8-10	-	Begin applications when disease first appears and repeat at 14 to 21 day intervals as needed. Do not apply more than 20 fl. oz. of product per acre per application (except California). Do not apply more than 10 fl. oz. per acre per application (in California). Do not apply more than 60 fl. oz. of product per acre per season. Preharvest interval is 21 days. Restricted Entry Interval (REI) is 1 day.
	Powdery mildew (<i>Erysiphe sp.</i>)	10-20	-	Not for this use in California. Apply as soon as disease symptoms appear and repeat at 14-day intervals or as needed. Preharvest interval is 21 days. Do not apply more than 60 fl. oz. of product per acre per season. Restricted Entry Interval (REI) is 1 day.
TRITICALE AND FALL SEEDED WHEAT Idaho, Oregon, and Washington only	Foot Rot, Strawbreaker, Eye Spot (<i>Pseudocercospora sp.</i>)	20	-	Apply Thiophanate Methyl 4.5F at the rate indicated in a single application by air or ground after wheat is tillered but before stem elongation has begun. Use sufficient water to obtain thorough coverage. Do not make more than one application per season. Do not cut for hay within 90 days of application. Do not allow livestock to graze in treated areas before harvest. Restricted Entry Interval (REI) is 24 hours.

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**FOR USE ON CONIFERS
(Not for use in California)**

CROP	DISEASES	MAXIMUM APPLICABLE RATE PER ACRE	RATE, MINIMUM GALLONAGE	REMARKS
Conifers (Pine) Austrian Red Scots Christmas Trees	Tip blight (<i>Diplodia</i>)	60 fl oz	20 fl oz product per acre applied in spray solution at a rate of 100 gallons of spray per acre	Apply at bud break. Repeat 10 to 14 days later, just before needles emerge from sheath; repeat again 10 to 14 days after needle emergence. The Restricted Entry Interval (REI) is 12 hours.

**FOR USE ON CONIFERS
(Not for use in California) (continued)**

CROP	DISEASES	MAXIMUM APPLICABLE RATE PER ACRE	RATE, MINIMUM GALLONAGE	REMARKS
(Fir) Douglas	Swiss needle cast (<i>Phaeocryptopus</i>) Rhabdocline needle cast	100 fl oz	20 fl oz product per acre applied in spray solution at a rate of 50 gallons of spray per acre	Apply initially in early May. Repeat at 4-week intervals. The Restricted Entry Interval (REI) is 12 hours.
<ul style="list-style-type: none"> • Add a spreader-sticker to improve coverage. • Use minimum gallonage with mist-blower types of sprayers and higher gallonage with conventional sprayers. • Do not graze livestock in treated areas. 				
CONIFERS (Seeding treatment) Longleaf	Brown needle blight (<i>Scirrhia</i>)	N/A	1 fl oz / 9.5 oz of dry Kaolinite clay for seedling roots	Wet seedling roots in clean water, then Thiophanate Methyl 4.5F / kaolinite mixture to wet roots.
Loblolly Longleaf Slash	Fusarium and Rhizoctonia root rot	N/A	2 fl oz / 50 oz Kaolinite clay, plus enough water to make a slurry	Thoroughly cover seedling roots with Thiophanate Methyl 4.5F / kaolinite slurry.
<ul style="list-style-type: none"> • Do not apply mixture to seedling foliage. • During treatment, avoid excessive drying of roots or exposure to temperatures greater than 90° or less than 32° F. • Thiophanate Methyl 4.5F does not control <i>Pythium</i> or <i>Phytophthora</i>. 				

HORTICULTURAL APPLICATIONS

GREENHOUSE, NURSERY AND LANDSCAPE

Thiophanate Methyl 4.5F 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 4.5F 14 to 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 4.5F may be used to control listed diseases on non-commercial fruit and nut trees. Do not use fruit or nuts from trees treated with this product as food. Do not apply this product to home orchards or backyard fruit trees after fruit set. Not for homeowner use.

Note: Thiophanate Methyl 4.5F 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 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 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 (*Nephrolepis exaltata*), Boston Fern (*Plectranthus australis*), and Easter Cactus (*Hatiora gaertneri*).

Plant Type	Such as but not limited to:
Herbaceous Bedding	Ageratum, Begonia, Canna, 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, Rhodendrum, 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 from treated trees as food or feed.

**FOLIAR SPRAY
PLANT TYPES AND DISEASES CONTROLLED**

DISEASE (S)	PLANT TYPES
Anthracnose	Woody ornamentals, shade trees ¹
Ascochyta Blight	Herbaceous ornamentals
Black spot	Roses
Botrytris (Grey Bold)	Woody and herbaceous ornamentals
Brown Rot	Woody and herbaceous ornamentals
Colletotrichum	Woody and herbaceous ornamentals
Cercospora Leaf Spot	Woody and herbaceous ornamentals
Corynespora Leaf Spot	Ligustrum
Didymellina Leaf Spot	Iris
Diplodea Tip Blight (Diplodea piea)	Shade and ornamental trees
Ovulinia	Azalea, rhododendron ²
Entomosporium Leaf Spot	Woody and herbaceous ornamentals
Fusicladium Leaf Scab	Woody and herbaceous ornamentals
Phomopsis Blight	Woody and herbaceous ornamentals
Pin Tip Blights	Woody
Powdery Mildew	Woody and herbaceous ornamentals
Rust Diseases	Ornamental nut and fruit trees
Ramularia Leaf Spot	Herbaceous ornamentals
Scab	Pyracantha, flowering crab, ornamental fruit and nut trees
Septoria Leaf Spot	Woody and herbaceous ornamentals
Venturia Leaf Scab	Woody and herbaceous ornamentals

¹ Begin at bud and make 2 or 3 additional applications at 10 to 14 day intervals.

² Begin treatment as flowers open. Addition of a spray surfactant to the spray mixture improves distribution of the spray on hard-to-wet plants such as roses.

FOLIAR SPRAY APPLICATIONS

APPLICATION RESTRICTIONS

Maximum Single Application Rates:

Ornamentals: Do not exceed the maximum single application rate of 85.3 oz Thiophanate Methyl 4.5F per acre (3.0 lbs thiophanate-methyl active ingredient per acre).

Cut Flowers: Do not exceed the maximum single application rate of 14.2 oz Thiophanate Methyl 4.5F per acre (0.5 lb thiophanate-methyl active ingredient per acre).

Seasonal Maximum Application:

All Ornamentals: Do not apply more than 66.6 gallons Thiophanate Methyl 4.5F (300 lbs thiophanate-methyl active ingredient per acre per season).

FOLIAR SPRAY APPLICATIONS

Hydraulic Application Mixing Instructions

Add the required amount of Thiophanate Methyl 4.5F to a partially filled spray tank agitated by mechanical or hydraulic means and then add the remaining volume of water. Maintain continuous agitation to keep the material in suspension and apply with properly calibrate spray equipment.

Application Concentrations (Mechanical or Hand Held):

Use the labeled amount of Thiophanate Methyl 4.5F per 100 gallons of water for the prevention and control of the diseases shown below.

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FOLIAR DISEASES

Disease(s) Controlled	Concentration of Thiophanate Methyl 4.5F fl oz/100 gals.	Remarks
Anthracnose (<i>Colletotrichum</i>)	10.75-20	Apply as buds break or at first sign of disease. Repeat application at 7 to 14 day intervals as needed during disease period.
Black Spot of Rose (<i>Diplocarpon rosae</i>)	10.75-20	Apply early summer or at first sign of disease. Repeat application every 7 to 14 days as needed during disease period.
Brown Rot and Blight (<i>Monlinia, Sclerotina, Whetzellinia</i>)	10.75-20	Apply late spring or at first sign of disease. Repeat application every 7 to 14 days as needed during the disease period.
Fusicladium and Venturia Leaf Scabs on: Crabapple, Hawthorn, Pear, Mountain Ash, Pyracantha, etc.	10.75-20	Apply as buds break. Repeat application every 7 to 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: <i>Ascochyta, Blumeriella, Botrytis, Cercospora, Coccomyces, Corynespora, Curvularia, Didymellina, Entomosporium, Fabraea, Fusarium, Ramularia, Rhizoctonia, Marssoninia, Mycosphaerella, Myrothecium, Phoma, Physalasporea, Schizothyrium, Septoria, Sphaceloma</i>	10-14.5	Make applications when disease symptoms first appear. Repeat every 7 to 14 days during disease period. Rotations with chlorothalonil may be used.
Ovulinia Blight	7.25-20	Apply as flowers open. Repeat every 7 to 14 days during disease period.
Powdery Mildews <i>Erysiphe, Microsphaera, Phyllactinia, Podosphaera, Oidium, Sphaerotheca</i>	10-20	Apply when disease first appears and repeat application every 7 to 14 days. Rotations with other effective products may be used.
Rust Diseases caused by: <i>Puccinia, Gymnosporangium, Uromyces</i>	10.75-20	Apply late spring or when symptoms first appear. Repeat applications every 7 to 14 days during disease period. Rotations with other effective products is recommended.
Tip Blight of Pine <i>Sphaeropsis spainea, 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 <i>Diaporthe, Kabatine, Phoma, Phomopsis</i>	14.5-20	Apply when symptoms first appear. Repeat applications every 7 to 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 required amount of Thiophanate Methyl 4.5F 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 7.5-20 fl. oz of Thiophanate Methyl 4.5F per 100 gallons of water. Apply as a drench or heavy spray at the rate of 1/2 to 2 pints per square foot (100 gallons per 400 to 1600 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

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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	2.5 fl oz	
6 inch		6.5 fl oz
7 inch		8.5 fl oz
8 inch		11 fl oz
9 inch		14 fl oz
10 inch		17.5 fl oz

For containers larger than 10 inches, a drench volume of 2 1/2 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.

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

Note: Pythium, Phytophthora and Cyindrocladium spathiphyulli are not controlled by Thiophanate Methyl 4.5F.

PLANT DIP TREATMENT

Mixing Instructions: Mix as described in the **FOLIAR DISEASES** 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 20 fl oz of Thiophanate Methyl 4.5F per 100 gallons of water. Immerse plants or cuttings for 10 to 15 minutes, remove, and allow to drain and dry. Note that the **PERSONAL PROTECTIVE EQUIPMENT** section of this label included protective clothing for dip treatment.

Bulbs, Corms, Tubers, and Rhizomes: Use 14.5 to 33 fl oz of Thiophanate Methyl 4.5F per 100 gallons of water or two teaspoons of Thiophanate Methyl 4.5F 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, Cyindrocladium, Fusarium, Gliocladium, Myrothecium, Penicilium, Ramulaira, Rhizoctonia, Sclerotinia, Thielaviopsis.

TURF APPLICATIONS

Thiophanate Methyl 4.5F 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 4.5F may be used both preventatively and curatively and is not phytotoxic. Do not use Thiophanate Methyl 4.5F on turf being grown for sale or other commercial uses such as sod.

For use only by certified applicators and those under their direct supervision. Not for homeowner use. Do not apply with fixed wing or rotary aircraft.

Mixing Instructions: Add the required amount of Thiophanate Methyl 4.5F 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 4.5F FL OZ/1000 SQ. FT *	REMARKS
Anthrachnose (<i>Colletrichum graminicola</i>)	2-3.5 (3.5-5.3)**	Apply when disease first appears. Make additional applications at 14-day intervals as needed. Allow spray to dry on leaves with no watering in.
Dollar Spot (<i>Sclerotinia homoeocarpa</i>) Copper Spot (<i>Gloeocercospora sorghi</i>) Brown Patch and Zoysia Patch (<i>Rhizoctonia solani</i>) Red Thread (<i>Laetisaria fusiformis</i>)	2-3.5	Apply when disease first appears. Make additional applications at 14-day intervals as needed. Allow spray to dry on leaves with no watering in.

DISEASE(S) CONTROLLED	RATE OF THIOPHANATE METHYL 4.5F FL OZ/1000 SQ. FT *	REMARKS
Pink Snow Mold (<i>Microdochium nivale</i>)(Only for those areas where snow cover is not present the entire winter)	2-3.5	Apply Thiophanate Methyl 4.5F 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: (<i>Pyricularia grisea</i>)	3.5-5.3	Apply when conditions are favorable for disease development. Continue at 14 day intervals. Spray should be dry on leaves with no watering in.
Summer Patch (<i>Magnaporthe poae</i>)	3.5-5.3	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 applications when the disease first appears.
Fusarium Blight (<i>Fusarium roseum</i>) Necrotic Ring Spot and Spring Dead Spot (<i>Leptosphaeria korrae</i>)	3.5-5.3	Make two applications at 14 day intervals beginning applications when the disease first appears.
Stripe Smut (<i>Ustilago striiformis</i>)	3.5-5.3	Make two applications at 14 day intervals when disease first appears. Water into root zone after application. For prevention, apply in the spring (just before grass begins growth) and in the fall.

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

**Use the 3.5-5.3 oz rate for curative response to Basal Stem Anthracnose.

Turf Application Directions

Apply Thiophanate Methyl 4.5F 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 1/2 to 2 1/2 gallons per 1,000 sq ft of turf area. When treating golf greens, always treat aprons and approaches to golf greens.

Site	Maximum Single Application Rate per fl oz/1,000 sq ft	Maximum Seasonal Application Rate fl oz/1,000 sq ft
Golf course green/tees/aprons	5.3	14.25
Golf Course Fairways (Except Florida)	3.5	3.5
Golf Course Fairways (Florida only)	1.75	1.75
Residential and Public areas (home lawns, parks, athletic fields, schools, day care centers)	1.75	7

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

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container in dry area. Do not store in a manner where cross-contamination with other pesticides, fertilizers, food or feed could occur. If spilled during storage or handling, absorb with sand or other inert material and dispose of absorbent in accordance with the Pesticide Disposal instructions listed below.

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.

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CONTAINER DISPOSAL:

Nonrefillable Container (flexible-bag-all weights): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. After bag has been emptied, dispose of empty bag in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid-fifty lbs. or less): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container 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 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.

Nonrefillable Container (rigid-greater than fifty lbs.): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container 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.

Refillable Container: Refillable container. Refill this container with thiophanate methyl 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 refiller. To clean the 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.

FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK, OR FIRE), CALL INFOTRAC AT (800) 535-5053.

LIMITATION OF WARRANTY AND LIABILITY

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES and LIMITATIONS OF LIABILITY.**

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. 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 Makhteshim Agan of North America, Inc. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Makhteshim Agan of North America, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Makhteshim Agan of North America, Inc.'s election, the replacement of product.

Thiophanate Methyl 4.5F (66222-134)(final revisions to EPA 2-20-09)