51036-344

9/25/2006

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#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

SEP 2 5 2006

Bill Washburn Regulatory Affairs Manager Micro-Flo Company P.O. Box 772099 Memphis, TN, 38117

Dear Mr. Washburn:

SUBJECT: Thiophanate Methyl 70W WSB, EPA Registration Number 51036-344 Your September 21, 2005 Submission

The label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided you make the following changes.

#### Page 1- Ingredient Statement:

- Change "Inert Ingredients" to "Other Ingredients".
- Line up the percentages of thiophanate methyl, "other ingredients" and "total" so that the decimal points fall along the same vertical line.

#### Page 3- Fungicide Resistance:

Delete the reference to "thiophanate ethyl"; there are no registered products with this active ingredient.

### Page 10- Tree Crop Specific Application Instructions Table - Pears:

Change "For Pears only: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 3 days, unless they are wearing appropriate PPE." to "For Pears only: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 3 days, unless they are wearing appropriate PPE." to "For Pears only: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 3 days, unless they are wearing appropriate PPE."

### Page 11- Tree Crop Specific Application Instructions Table - Pistachios:

Change "For Pistachios only: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 3 days, unless they are wearing appropriate PPE." to "For Pistachios only: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 3 days, unless they are wearing appropriate PPE for early entry."

## Page 14- Row, Field and Vine Crop Specific Application Instructions Table - Grapes:

Add "REI – 7 days" to the General Information box.

### Page 14- Row, Field and Vine Crop Specific Application Instructions Table - Potatoes:

Under "Pounds AI per Acre" change "Max. AI per year 2.8 lb. per acre" to "Max. AI per year 2.8 lb. per acre per season."

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

Sincerely,

pary J. Waller.

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

Enclosure: Stamped label

CONCURREN	CES	 	 	·····
SYMBOL <	7505C	 	 	
SURNAME <	Lisa Jones	 	 	
DATE <	Sep 25, 2006			
EDA Frank 4	000 4 (40 30)		OFFICIAL SUS	0001

EPA Form 1320-1 (12-70)

OFFICIAL FILE COPY

## THIOPHANATE METHYL 70W WSB

FUNGICIDE IN WATER SOLUBLE BAGS

ACTIVE INGREDIENT:

:

Thiophanate-methyl (dimethyl[1,2-phenylene)-bis(iminocarbonothioyl)]bis[carbamate])*	
INERT INGREDIENTS:	<u>30</u> %
TOTAL	100%

\*Also known as dimethyl 4, 4'-o-phenylenebis(3-thioallophanate)

#### KEEP OUT OF REACH OF CHILDREN

#### CAUTION

	FIRST AID						
IF	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> </ul>						
SWALLOWED	<ul> <li>Have person sip a glass of water if able to swallow.</li> </ul>						
	Do not induce vomiting unless told to do so by the poison control center or doctor.						
	<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>						
IF IN EYES	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> </ul>						
	• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing						
	eye.						
[	Call a poison control center or doctor for treatment advice.						
IF ON SKIN	Take off contaminated clothing.						
1	<ul> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> </ul>						
	Call a poison control center or doctor for treatment advice.						
IF INHALED	Move person to fresh air.						
ĺ	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 further treatment advice.						
Have the produ	ct container or label with you when calling a poison control center or doctor or going for						
treatment.							
	NUMBERS: 800-424-9300 CHEMTREC (transportation and spills).						
]	800-832-HELP (4357) Human Health.						
	800-345-4735 ASPCA (animal health).						

See back panel for Precautionary Statements.

EPA Reg. No. 51036-344 AD 090601 EPA Est. No. 51036-GA-001

NET CONTENTS: 5 1-lb. water soluble bags per package

Manufactured By: MICRO FLO COMPANY LLC P.O. BOX 772099 MEMPHIS, TN 38117

ACCEPTED with COMMENTS In EPA Letter Dated

SEP 2 5 2006

Under the Federal Insecticide, Fundicide, and Redenticide Act as amended, for the posticide registered under EPA Rog. No. 5/036-344

Filename: Thiophanate Methyl 70W WSB (344-092506)rewrite(clean)

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#### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS (AND DOMESTIC ANIMALS) CAUTION

HARMFUL IF SWALLOWED, ABSORBED THROUGH SKIN, OR INHALED. CAUSES MODERATE EYE IRRITATION. Avoid contact with skin, eyes, or clothing. Avoid breathing dust or spray mist.

#### PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- 1. Long-sleeved shirt and long pants
- 2. Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### USER SAFETY RECOMMENDATIONS

Users should:

- 1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- 2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 3. 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 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 when 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.

#### 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.

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:

- 1. Coveralls
- 2. Chemical-resistant gloves made of any waterproof material.
- 3. Shoes plus socks

#### GENERAL INFORMATION

THIOPHANATE METHYL 70W WSB may be applied by ground or aerial application equipment. Normal fungicide usage indicates this product will be applied over the top of the intended crop, it is critical to ensure that the tank and spray equipment has been cleaned of all other pesticides prior to mixing this product. As with all agricultural chemicals, continuous agitation is required to keep the ingredients in suspension. Recommended application gallonage and directions are given for each crop.

THIOPHANATE METHYL 70W WSB may be tank mixed with other fungicides, insecticides and plant growth regulators that have been approved for use by the EPA on the intended crop. Micro Flo does not make any claims of compatibility with other pesticides; always perform a Mixing Jar Test prior to tank mixing. See **Compatibility Test** section on this label. Tank mixes of this product with highly alkaline pesticides like Micro Flo Bordeaux or lime sulfur is not recommended.

Most effective disease control is obtained by preventative spray timing as climatic conditions indicate fungal infection or growth is imminent. Always use the higher rates under conditions of severe disease pressure.

**High volume dilute applications:** Applicator should use the **PRODUCT per ACRE** rate for concentrate spray applications for tree crops (example: no more than 400 gallons on apples). Use the **PRODUCT per 100 GALLONS** rate for dilute ground applications. This product may be used on fruit-bearing trees and may also be used on non-bearing apples, cherries, peaches and pecans, when needed for control of labeled leaf diseases during non-bearing years of new plantings or nursery stock. Follow all crop specific language on this label for application. Dilute sprays must not be applied in a manner that exceeds the application rate as specified in the Crop Specific Application Instructions table below.

Aerial applications to tree crops: Use a minimum of 10 gal/acre for aerial application to fruit tree crops. Increased fungicidal activity is related to coverage and timing, increased volumes are required as crop canopy density increases. NOTE: Conifer applications require higher spray volumes, use lower volumes with mist type applicators and highest volumes with conventional types.

**Row, Field and Vine Crop Applications:** Use a minimum of 5 gal/acre for ground application, however most ground applications should be made with 10 to 20 gal/acre as cropping situations dictate. Increased fungicidal activity is related to coverage and timing, increased volumes are required as crop canopy density increases.

**Plantback Restriction:** Do not plant any crop not labeled for THIOPHANATE METHYL 70W WSB use within 30 days of the last application.

Chemigation: See specific directions in this label.

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**Mode of Action:** THIOPHANATE METHYL 70W WSB is a tubulin inhibitor fungicide falling into the FRAC Group 1 for Benzimidazoles. Its Mode of Action is the inhibition of microtubule assembly. It has protectant, systemic and curative actions, each of these specific to certain crops, fungi and climatic conditions.

**Fungicide Resistance:** Fungal pathogens have proven to develop a resistance to certain fungicide families and modes of action. These are called tolerant and resistant strains of fungi. Industry and university research have developed effective programs that continue to provide excellent control of these strains, however, precautions and specific steps should be taken to ensure effective fungicide rotation, tank mixing of different modes of action and disease monitoring are the keys of your fungicide program.

It is recommended that THIOPHANATE METHYL 70W WSB be rotated or tank mixed with other fungicides with different modes of action chemistry. Products containing thiabendazole, thiophanate ethyl or carbendazim fungicides (benzimidazole fungicides) should NOT be combined as rotation or tank mix partners.

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Should THIOPHANATE METHYL 70W WSB be applied as directed and the treatment is considered not to be effective, you may have encountered a resistant or tolerant fungi strain. Do not apply this mode of action chemistry again during this growing season, as this may enhance the resistance at this site. Consult with your local Cooperative Extension Service, University Research or Certified Crop Consultant for more information concerning fungicides effective on the tolerant or resistant strains encountered.

#### **MIXING INSTRUCTIONS**

Micro Flo brand THIOPHANATE METHYL 70 WSB is packaged in a protective outer, resealable package containing water soluble bags. Do not allow bags (WSB) to become wet prior to adding to the tank. Do not handle WSB with wet hands or wet gloves.

Fill spray tank to half full, start agitation. See Mixing Order chart below when any other products are tank mixed with this product.

Remove the appropriate number of unopened water soluble bags from the outer package, adding them to the tank. Reseal the outer bag immediately to protect the unopened bags from moisture. Do not add water soluble bags near the suction area of the tank as plugging may occur prior to the bags fully dissolving. The dissolve time for the bags will depend on the water temperature and degree/type of agitation. Most bags should be dissolved in 5 minutes. If planning to tankmix high pH products or fertilizers high in nitrogen or boron, wait until the THIOPHANATE METHYL 70W WSB is fully dissolved before adding them to the tank.

Should other products or pesticides be tank mixed with this product, use the Mixing Order chart and add all products, then finish filling tank with water, all the while maintaining agitation. If there is any question as to the compatibility of the components, always perform a jar test with proportional amounts of each product, using water from the actual use source.

Always read and follow label directions of all products. The most restrictive label language will apply. Do not mix more spray solution than you plan to apply that day.

CONVERSION TABLE ACRES TREATED PER 1 LB WATER SOLUBLE BAG						
LABEL USE RATE LB/ACRE THIOPHANATE METHYL 70W WSB	ACRES TREATED WITH ONE WATER SOLUBLE BAG					
1/4 lb	4.0					
1/2 lb	2.0					
1 lb	1.0					

CONVERSION TABLE						
ACRES TREATED PER 2.5 LB WATER SOLUBLE BAG						
LABEL USE RATE LB/ACRE THIOPHANATE METHYL 70W WSB	ACRES TREATED WITH ONE WATER SOLUBLE BAG					
1/4 lb	10					
1/2 lb	5					
1 lb	2.5					

CONVERSION TABLE						
ACRES TREATED PER 5 LB WATER SOLUBLE BAG						
LABEL USE RATE LB /ACRE THIOPHANATE METHYL 70W WSB	ACRES TREATED WITH					
1/4 lb	20.0					
1/2 lb	10.0					
1 lb	5.0					

#### **Compatibility Test For Mix Components**

Before mixing components, always perform a compatibility jar test. For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature. Add components in the sequence indicated in the **Mixing Order** using 2 teaspoons for each pound or 1 teaspoon for each pint of recommended label rate per acre. Always cap the jar and invert 10 cycles between component additions.

When the components have all been added to the jar, let the solution stand for 15 minutes. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, do not mix the ingredients in the same tank.

#### **Mixing Order**

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(As each product is added to the tank, be sure it is completely dispersed before adding any other product to the mix. Maintain agitation throughout mixing and application processes.)

- 1) Water. Begin by agitating a thoroughly clean sprayer tank three-quarters full of clean water.
- 2) Agitation. Maintain constant agitation throughout mixing and application.
- 3) Inductor. If an inductor is used, rinse it thoroughly after each component has been added.
- 4) Products in PVA bags. Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 5) Water-dispersible products (such as, dry flowables DF, wettable powders WP, wettable dry granules WDG, suspension concentrates SC, or suspo-emulsions SE).
- 6) Water-soluble products.
- 7) Emulsifiable concentrates (such as oil concentrate when applicable).
- 8) Water-soluble additives (such as AMS or UAN when applicable).
- 9) Remaining quantity of water.

Maintain constant agitation during application.

#### **CHEMIGATION USE INSTRUCTION**

CALIFORNIA ALLOWS USE BY CHEMIGATION ONLY FOR CROPS OF BEANS, CUCURBITS (CUCUMBERS, MELONS, PUMPKINS, SQUASH), PEANUTS, SOYBEANS, AND STRAWBERRIES.

#### **GENERAL INFORMATION**

Application of Thiophanate Methyl 70W WSB should only be applied through the following types of irrigation systems:

Sprinkler irrigation systems: center pivot, lateral move, end tow, side roll

Traveler Type: big gun, solid set, or hand move

Drip Type: mini-micro sprinklers, strip tubing, trickle

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

**Note:** any type of irrigation distribution of fungicide allowing untreated lapses or uneven distribution will result in poor control. Continually monitor calibration.

Irrigation equipment should be properly calibrated prior to addition of fungicide into water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Effectiveness of this fungicide product depends on application uniformity and calibration. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water.

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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 an 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. 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.

#### **IRRIGATION / CHEMIGATION SYSTEM REQUIREMENTS**

Pressurized irrigation 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 back flow. 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 and prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

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.

#### FUNGICIDE DILUTION MIX PREPARATION

Chemical mix tank, induction lines, mixing and induction motors and pumps should all be cleaned of any prior use pesticide residues, scale or other foreign matter that may interfer with mixing or transfer of the pesticide dilution into the irrigation system. Flush with clean water.

Start by filling the mix tank at least ½ full. Begin agitation. Carefully add the required amount of THIOPHANATE METHYL 70W WSB and then the rest of the water. Allow time to mix completely.

#### **APPLICATION INSTRUCTIONS**

Observe ALL requirements in the System Requirements section above.

In order to ensure a uniform pesticide suspension and application, be sure to continuously agitate the fungicide tank-mixture during mixing and application.



Inject a greater volume of a more dilute suspension per unit time in order to achieve greater accuracy in distribution and calibration.

Do not apply more irrigation water per acre than recommended, decreased product performance may occur from the over diluted application.

Chemigation should not be attempted when wind speed favors drift. When system connections or fittings are seen to leak, chemigation should be stopped and the component repaired prior to restart. When nozzles are not providing uniform distribution, operator should recalibrate immediately. System should always remain in good repair.

When chemigation is completed, allow sufficient flush time for pesticide to be cleared from all nozzles and lines prior to shutting off the flow of irrigation water.

#### Fertilizer co-mix Instructions:

You may mix and apply this product with other chemically-neutral liquid fertilizers. However, the applicator should be aware that mixing this product with highly alkaline fertilizers (such as aqueous ammonia) may cause problematic degradation of this product. Such a mix may prevent optimum control.

#### Sprinkler Irrigation Instructions:

Observe all System Requirements and Application Instructions above.

Always observe local irrigation restrictions or ordinances.

Overhead irrigation systems should be repaired to block the spray jets or nozzles nearest the operations control panels as to not allow treated water to contact the operator or operation station.

Sprinkler system should be calibrated to deliver no more than 0.4 inches of water per acre. Larger volumes of water may reduce product efficacy. Start sprinkler water flow, then begin injection of the mixed suspension of THIOPHANATE METHYL 70W WSB into the irrigation water line. Continually monitor calibration to ensure proper application rate per acre. To ensure proper mixing of the suspention of THIOPHANATE METHYL 70W WSB and the irrigation water, it should be injected with a positive displacement pump into the main line just ahead of a right angle pipe turn (violent water pressure sheer).

After overhead chemigation treatment with THIOPHANATE METHYL 70W WSB has been completed, treated area should not be irrigated again for at least 24 hours to prevent washing the fungicide off the crop leaves and canopy.

#### Drip Irrigation Instructions: (Mini-Micro Sprinklers, Strip Tubing, Trickle)

Observe all System Requirements and Application Instructions above.

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TREE CROPS	PEST	POUNDS PRODUCT per ACRE	POUNDS Al per ACRE	POUNDS PRODUCT per 100 GAL	INSTRUCTIONS
Almonds	Brown Rot Blossom Blight (Monilinia spp.) Jacket Rot (Monilinia, Sclerotinia, Botrytis) Leaf Blight (Seimatosporium) Scab (Cladosporium spp.)	1.0 to 1.5	0,71.05 Ib. Ai per acre Max. Al per year 2.1 lb. per acre	N/A	Per crop year, apply no more than 3 lb. of this product per acre. PHI = 1 day Applications should be initiated at pink bud and continued through petal fall. Pink Bud applications can be made alone, however later applications should be tank mixed with labeled contact type, multi-site fungicides.
Annico	Apple Seeb	1 Oto 4 F	07 105	0.25 to	Per grop year opplying more than 4
Apples * Not for this use in California	Apple Scab (Venturia spp.) Black Pox * (Helminthosporium papulosum) Black Rot (Botryosphaeria spp.) Brooks Fruit Spot (Mycosphaerelia spp.) Flyspeck (Zygophiala spp.) Powdery Mildew (Podosphaera spp.) Sooty Blotch (Gioecdes spp.) White Rot * (Botryosphaeria spp.)	1.0 10 1.5	0.7 1.05 ib. Al per acre Max. Al per year 2.8 ib. per acre	0.2510	Per crop year, apply no more than 4 lb. of this product per acre. PHI = 1 day Applications should be initiated at green tip and continue at 5 to 10 day intervals, continuing through petal fall. Cover sprays can continue at 7 to 14 day intervals as needed. See Fungicide Resistance above
Apricots	Brown Rot (Monilinia spp.) Brown Rot Blossom Blight (Monilinia spp.) Fruit Brown Rot (Monifinia spp.)	1.0 to 1.5 pounds (in CA use 1.5 pounds)	0.7 - 1.05 Ib. Ai per acre Max. Ai per year 2.8 Ib. per acre	0.5	Do not apply more than 4 lb. of this product per acre per crop year. PHI = 1 day First application should be made at early bloom (red bud), followed by a second application at full bloom. Under severe disease pressure, additional applications should be made at 10 to 14 day intervals beginning at full bloom, through final pre-harvest sprays. If conditions develop for Fruit Brown Rot, apply 1 to 2 sprays starting 21 days prior to harvest. See Fungicide Resistance above

## **Tree Crop Specific Application Instructions**

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TREE CROPS	PEST	POUNDS PRODUCT	POUNDS Al per	POUNDS	INSTRUCTIONS
		per ACRE	ACRE	per 100 GAL	
Cherries	Brown Rot (Monilinia spp.) Brown Rot Blossom Blight (Monilinia spp.) Fruit Brown Rot (Monilinia spp.)	1.0 to 1.5 (in CA use 1.5 pounds)	0.7 - 1.05 lb. Al per acre	0.5	First application should be made at early bloom (popcorn stage), followed by a second application at full bloom. Under severe disease pressure, additional applications should be made at 10 to 14 day intervals beginning at full bloom, through final pre-harvest sprays. If conditions develop for Fruit Brown Rot, apply 1 to 2 sprays starting 21 days prior to harvest.
	Cherry Leaf Spot (Coccomyces spp.)	1.125 to 1.5	0.8 - 1.05 lb. Al per acre	0.375-0.5	Initiate applications as leaves begin to unfold, near petal fall or before. Continue at first second and third cover sprays at 10 to 14 day intervals. If needed apply at 14 to 21 days post harvest.
	Powdery Mildew (Podosphaera spp.) and (Sphaerotheca spp.)	1.0 to 1.5 (in CA use 1.5 pounds) PLUS 1.125 to 1.5	0.7 - 1.05 Ib. Al per acre PLUS 0.84 1.05 Ib. Al per acre	0.5 PLUS 0.375 to 0.5	Per crop year, apply no more than 4 lb. of this product per acre. PHI = 1 day First application should be made at early bloom (popcorn stage), followed by a second application at full bloom. PLUS Also make applications of this product at shuck fall and first cover. See Fungicide Resistance above
Nectarines	Brown Rot (Monilinia spp.) Brown Rot Blossom Blight (Monilinia spp.) Fruit Brown Rot (Monilinia spp.)	1.0 to 1.5 (in CA use 1.5 pounds)	0.7 - 1.05 lb. Al per acre Max. Al per year 2.8 lb. per acre	0.5	Per crop year, apply no more than 4 lb. of this product per acre. PHI = 1 day First application should be made at early bloom (pink bud), followed by a second application at full bloom. Under severe disease pressure, additional applications should be made at 10 to 14 day intervals beginning at full bloom, through final pre-harvest sprays. See Funglcide Resistance above

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TREE CROPS	PEST	POUNDS	POUNDS	POUNDS	INSTRUCTIONS
		PRODUCT	Al per	PRODUCT	
		per ACPE	ACRE	100 GAL	
Peaches	Brown Rot	1.0 to 1.5	0.7 - 1.05	0.5 - 0.75	Per crop year, apply no more than 4
	(Monilinia spp.)		lb. Al per	{	lb. of this product per acre.
	Brown Rot Blossom Blight		acre		PHI = 1 day
	Fruit Brown Rot	(in CA use			
	(Monilinia spp.)	1.5 pounds)			First application should be made at early bloom (pink bud), followed by a
		Plus for	Plus for	Plus for	second application at run bloom.
	Peach Scab	Scab	Scab	Scab	Under severe disease pressure,
	(Cladosporlum spp.)	1.0 to 1.5	1.125-1.5	3/8 – ½	additional applications should be made at 10 to 14 day intervals
1					beginning at full bloom, through final
			Max. Al		pre-narvest sprays.
			2.8 lb. per		When treating Peach Scab, make
			acre		additional applications at Shuck Split and first cover spray.
					See Fungicide Resistance above
Pears	Fabraea Leaf Spot	1.0	0.7 lb. Al	0.25	Per crop year, apply no more than 4
	(Zvgophiala spp.)		per acre		to, or this product per acre.
	Pear Scab				PHI = 1 day
	(Venturia spp.)		Max. Al		Application should be inti-ted as
	Powdery Mildew		28 h per		areen tin continue on a 7 to 10 day
	Sooty Blotch		acre		schedule through petai fall. As
	(Gloeodes spp.)				conditions warrant, continue applications at 7 to 10 day intervals
	For Pears only: Do not			i	through the cover sprays.
	enter or allow worker entry				
	Into treated areas during				
	(REI) of 3 days, unless they				
	are wearing appropriate				
Pecane	PPE. Brown Spot	0.5 to 1.0	0.375 -0.7	N/A	Per crop year, apply no more than 3
recans	(Cercospora spp.)	0.0101.0	Ib. Al per		lb. of this product per acre.
	Downy Spot		acre		PHI = 1 day
	(mycospnaerella spp.) Liver Soot				rin – tuay
	(Gnomonia spp.)		Max. Al		First application should be made as
	Powdery Mildew	k 1	per year		leaves begin to show, followed by
	(Microsphaerella spp.)		2. Ho. Per acre		four weeks until shuck solit.
	(Fusicladium spp.)				Following shuck split, do not make
	Stem End Blight		1	1	any further applications.
	(Botryosphaeria spp.)				Use highest rates for aerial
	(Cristulariella son )				applications in AR, GA, LA, MS, OK,
}	(Australiantique abbi)			1	TX.
					See Fungicide Resistance above

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TREE CROPS	PEST	POUNDS PRODUCT per ACRE	POUNDS Al per ACRE	POUNDS PRODUCT per 100 GAL	INSTRUCTIONS
Pistachios	Shoot Blight (Botrytis spp. and Botryosphaeria spp.)	1.5 to 2.0	0.7 - 1.05 Ib. Al per acre	0.5 - 0.625	Per crop year, apply no more than 2 lb. of this product per acre. Make application at bloom.
	For pistachios only: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 3 days, unless they are wearing appropriate PPE.		Max. Al per year 1.4 lb. Per acre		Ground application: apply at least 100 gallons per acre Aerial application: apply at least 20 gallons per acre and applicator should fly directly over every row of trees. See Fungicide Resistance above
Plums / Prunes	Brown Rot (Monilinia spp.) Brown Rot Blossom Blight (Monilinia spp.) Fruit Brown Rot (Monilinia spp.)	0.7 to 1.5 (in CA use 1.5 pounds)	0.7 - 1.05 Ib. Al per acre	0.5	Application should be initiated at early bloom (green tip), followed by a second application at full bloom. Under severe disease pressure, additional applications should be made at 10 to 14 day intervals beginning at full bloom, through final pre-harvest sprays.
	Black Knot (Dibotryon spp.)	0.7 to 1.5 (in CA use	0.7 – 1.05 lb. Al per acre	0.5	Initiate applications before bloom, then at petal fall and first 3 cover sprays at 10 to 14 day intervals
	Leaf Spot (Coccomyces spp.)	0.7 to 1.5 (in CA use 1.5 pounds)	0.7 – 1.05 Ib. Al per acre Max. Al per year 2.8 lb. Per acre	0.5	Per crop year, apply no more than 4 tb. of this product per acre. PHI = 1 day Initiate applications as leaves begin to unfold, near petal fall or before. Continue at first, second and third cover sprays at 10 to 14 day intervals. If needed apply at 14 to 21 days post harvest.
					See Fungicide Resistance above

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TREE CROPS	PESTS *not for Conifer use in CA	PRODUCT/ACRE & MINIMUM GALLONAGE per APPLICATION	INSTRUCTIONS
(Pines) Austrian Pine Christmas Trees Red Pine Scots Pine	Tip Blight (Diplodia spp.)	1 Pound product/acre applied in at least 100 gal/acre	First application should be made at bud break, followed by a second application shortly prior to needle emergence, usually 10-14 days after bud break. A third application may be made approximately two weeks following needle emergence. Coverage may improve by adding a spreader/sticker. Do not apply more than 3 lb. of product per year. Do not graze treated area.
(Eir)	Phabdonline Mandla Cast	1 Pound product/acre	Do not apply more than 3.5 (b of product per year
Douglas	Swiss Needle Cast (Phaecryptopus spp.)	applied in at least 50 gal/acre	First application should be made near the beginning of May, followed by applications every four (4) weeks. Coverage may improve by adding a spreader/sticker.

SEEDLING TREATMENT	PESTS	MIX RATIO	INSTRUCTIONS
Longleaf Pine	Brown Needle Blight (Scirrhia spp.)	1 oz Product to 9.5 ounces dry Kaolinite clay	This product should not be applied to seedling foliage. Prior to application, immerse the roots of the
Loblolly Pine Longleaf Pine Slash Pine	Fusarium spp. and Rhizoctonia Root Rot	2 oz Product to 50 ounces Kaolinite cłay, add enough water to make a słurry	seedlings in clean water. The roots may then be treated with a mixture of Kaolinite and this product. While treating seedlings, DO NOT ALLOW EXCESSIVE DRYING OF ROOTS or exposure to freezing temperatures or temperatures greater than 90°F. This product is not effective in controlling Phytophthora spp. or Pythium spp.

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CROP	PESTS	POUNDS PRODUCT per	POUNDS Al per ACRE	INSTRUCTIONS
Beans	Gray Mold (Botrytis spp.) White Mold (Sclerotinia spp.) Anthracnose (Colletotrichum spp.)	ACRE 1.0 to 2.0 pounds (one application per season)	0.7 – 1.4 lb. Al per acre Max. Al per year 2.8 lb. Per acre	Per crop year, apply no more than 4 lb of this product per acre. NOTE: The 1.0 to 2.0 lb product per acre rate is for one application per season. When making multiple applications, the maximum single application is 1.5 lb product per acre. PHI (California) = 14 days succulent beans, 28 days for lima beans & dry beans PHI (all other states) = 14 days for succulent and lima beans, 28 days for dry beans Applications should be initiated when one open bloom is found on 10-30% of plants OR as conditions develop for disease infection. Reapply as required, after at least 7 days, as disease conditions dictate.
Cucurbits (Including: Cantaloupes, Casaba, Cucumbers, Meions, Pumpkins, Summer Squash and Winter Squash, and Watermeions) * Not for this use in California	Acremonium / Cephalosporium Hypocotyl Rot Anthracnose* (Colletotrichum spp.) Gummy Stem Blight* (Didymella spp.) Powdery Mildew (Erysiphe spp.) Target Spot* (Corynespora spp.) Belly Rots * (Rhizoctonia spp. and Fusarium spp.) Suppression of Vine Decline (Monosporascus cannonballus) Charcoal Rot (Macrophomina spp.)	0.5 pound	0.35 lb. Al per acre Max. Al per year 2.0 lb. per acre from all combinations and timings	Product should be sprayed in-furrow, on top of the seeds at planting using at least 10 gallons of water per acre
				Scout fields as weather and conditions indicate infection could be present. Start treatments as plants begin to run or when disease is found. Repeat treatments at 7-14 day intervals. Target Spot treatments should be made at 7-day intervals as needed. Application volume should be enough to allow complete coverage to run or drip off plant into soil. This product is not effective in controlling Phytophthora spp. or Pythium spp. Applications for suppression of these diseases should be made through buried drip irrigation lines
				(see chemigation section of this tabel) so to apply directly to the root zone. Start applications at emergence and continue at 14 day intervals until harvest. Weekly or biweekly applications, beginning 4-6 weeks prior to harvest will offer some suppression, but will not be as effective as a season-long program.
		General Information: Per crop yea acre. PHI = 1 day for all Cucurbits		See Fungicide Resistance above p year, apply no more than 3 lb. of this product per
Garlic (treatment for garlic cloves prior to planting)	Penicillium Clove Rot	Make a Suspension of 1lb Product per 100 gallons of water	NA	Solution tank mixture should be continuously agitated to ensure proper treatment suspension ratio. Treatment: Garlic cloves should be immersed in this suspension for no less than five minutes. Remove cloves from solution and allow to drain and dry. Once dry, cloves are ready for planting.

## Row, Field, and Vine Crop Specific Application

CROP	PESTS	POUNDS	POUNDS	INSTRUCTIONS	
	1	PRODUCT	AI per ACRE		
		per			
Granes	Botodis Bunch Rot	10 to 15	07.105lb	Monitor disease climate conditions Start	
4.up00	(Botrytis cinerea)	pounds	Al per acre	treatments at first bloom, repeat at 14 days if	
	, , , , , , , , , , , , , , , , , , , ,	•	]	needed.	
	Powdery Mildew			Make another application as sugar starts to	
	(Uncinula necator)			increase, around 21-28 days prior to harvest. If	
				application 14 days after	
			{		
		]		Use sulfur and/or triazole/DMI fungicides in a	
				rotation for Powdery Mildew in a season long	
	Notes Frank addies Deales	0.75 1- 1.5	0.505 1.05	approach for control. See Resistance Section.	
	Mountaine:	0.75101.5	U.525 ~ 1.05	to 21 day intervals. Rotate fundicide modes of	
	Bitter Rot	pounda	acre	action in a season long program.	
	(Melanconium)				
	Black Rot				
	(Guignardia)		Max. Al per		
	(Upplaula com)	[	year 2.6 lb.		
		General Info	mation: Per cro	p year, apply no more than 4 lb, of this product per	
		acre.			
		PHI - 14 days	<u> </u>		
Onions *	White Rot	1 ounce per	NA	Product solution should be sprayed directly into	
(In Furrow)	(Scierotinia spp.)	1000 row		the open planting turrow at the time of planting	
		12 inch row	1		
* Not for this use		spacing)		Do not use for this use through any type of	
in California		OR		irrigation system.	
		32 ounces			
		per acre Broadcast			
I Contraction of the second		Diodocast			
Peanuts	Early Leaf Spot	0.5 pound	0.35 lb. Al	Do not apply more than 1.4 lb of this product per	
	(Cercospora spp.)		per acre	acre per crop year.	
	Late Loof Cost			PHI = 14  dove	
	(Cercospora spn.)		Max Alper	r ( ) = 14 (days	
	(deredsport spp.)		vear 1.4 lb.	Scout field as conditions indicate infection could	
	Leaf Spot	1	per acre from	occur. Start treatments when disease is verified or	
	(Cercospora spp.)		all	35 days after planting. Repeat as needed at 14-	
	Bust		combinations	uay intervals.	
	(Puccinia snn.)		ຸ ລາດ ຫາຫາງຮ	This product should always be used in conjunction	
	(, areand appril			with another non-benzimidazole fungicide.	
	Limb Rot	l			
	(Rhizoctonia spp.)			See Fungicide Resistance above	
	Web Blotch				
]	(Ascochyta son )				
		L	L	L	

#### CROP PESTS POUNDS POUNDS INSTRUCTIONS PRODUCT Al per ACRE per ACRE Potatoes\* White Mold 1.0 to 1.5 0.7 - 1.05 Do not apply more than 4 lb of this product per acre (Scierotinia sp.) lb. Al per per crop year. pounds acre PHI = 21 days Treatments are most efficacious when made prior Max. Al per to disease development. year 2.8 lb. Start treatments just around time of row closure, Spray must cover all susceptible plant parts, \* Not for this use per acre in California branches, flowers and stems for adequate control. Scout and reapply at 7 to 14 day intervals or as conditions occur for disease development. Early/Late Blight Control: You may tank-mix this product with other blight-control fungicides. Micro Flo does not recommend aerial application for control of this disease on this crop. 0.375 - 0.7 Soybeans Anthracnose 0.5 to 1.0 First application can be made at full bloom up until (Colletotrichum spp.) pounds b. Al per the pods are between 1/8" and 1/4" in length, followed by a second application 14 days acre thereafter. The second application must be made Brown Spot less than 14 days following bean formation or when (Septoria spp.) Use higher average pod length is 1/4" or greater. When beans rate for Frogeye Leaf Spot higher are under severe disease pressure, utilize the density higher application rates. (Cercospora spp.) canopy FOR SEED BEANS ONLY- A single high-rate Pod and Stem Blight develops application may be made at the time of bean (Diaporthe spp. and formation to improve seed quality. the imperfect stage, Phomopsis spp.) Purple Seed Stain (Cercospora spp.) First application should be made at early bloom (R-White Mold 0.75 to 1.0 0.525-0.7 Ib. Al per 1 to R-2 stage). A second application may be (Scierotinia spp.) pound made 14 days later as conditions dictate. Spray acre must cover all susceptible plant parts, branches, flowers and stems for adequate control. Aerial Application: Use at least 5 gallons. Aerial Blight 1.0 pound 0.7 lb. Al Do not make more than 2 applications per year. (Suppression) per acre First application must be made prior to infection. monitor climatic conditions and sentinel plots in Max. Al per your area. Reapply 21 days later if needed. Soybean Rust year 1.4 lb. (Phakopsora It is highly recommended that a DMI/Triazole per acre for fungicide, such as tebuconazole be tank mixed for pachyrhiza) Soybeans Soybean Rusl. First application must be made at R-1 with the tankmix for control. Reapply as conditions warrant. General Information: Per crop year, apply no more than 2 b. of this product per acre. Do not graze treated area. PHI = 14 days Fruit Rot 0.525-0.7 Per crop year, apply no more than 4 lb. of this Strawberries 0.75 to 1.0 (Botrytis spp.) pound lb. Al per product per acre. acre Leaf Blight (Dendrophoma spp.) PHI = 1 day Leaf Scorch Use highest (Diplocarpon spp.) rate under Max. Al per Start treatments as blooming begins, repeat at 7 to Powdery Mildew severe year 2.8 lb. 10 day intervals. conditions per acre (Sphaerotheca spp.) See Fungicide Resistance above

Filename: Thiophanate Methyl 70W WSB (344-092506)rewrite(clean)

POUNDS

POUNDS INSTRUCTIONS

PESTS

CROP

	per ACRE	Al per ACRE	
Cercospora Leaf Spot (Cercospora spp.) Powdery Mildew*	0.75 to 1.0 pound (in CA use 1.0 pound rate) 0.75 to 1.0	0.375 - 0.7 Ib. AI per acre Max. AI per year 2.1 lb. per acre	First application should be made <b>prior</b> to disease emergence, when environmental conditions are favorable for disease development. As required, a second application may be made with a NON- benzimidazole fungicide within 14 days. If tolerant or resistant strains are known to be in the area, a tank mix with a protectant type fungicide is recommended. Do not apply this product more than once per year for Cercospora spp. Start treatments immediately, as disease is verified,
(Erysiphe spp.)	pound General Infor acre. PHI = 21 days	mation: Per cr	Totiow with a NON-Benzimidazole fungicide as needed or within 14 days after. Tank mixes are recommended for this disease. See Fungicide Resistance above op year, apply no more than 3 lb. of this product per
Eye Spot Foot Rot Strawbreaker (Pseudocercosporella spp.)	1.0 pound	0.7 lb. Al per acre	Do not make more than one application per season. PHI = 90 days (do not cut for 90 days after application) Applications should be made after tillering, but before stem elongation begins. Applcation can be by ground or aerial means.
	Cercospora Leaf Spot (Cercospora spp.) Powdery Mildew* (Erysiphe spp.) Eye Spot Foot Rot Strawbreaker (Pseudocercosporella spp.)	per ACRECercospora Leaf Spot (Cercospora spp.)0.75 to 1.0 pound(in CA use 1.0 pound rate)Powdery Mildew* (Erysiphe spp.)0.75 to 1.0 poundPowdery Mildew* (Erysiphe spp.)0.75 to 1.0 poundPound rate)0.75 to 1.0 poundPowdery Mildew* (Erysiphe spp.)0.75 to 1.0 pound	per ACREACRECercospora Leaf Spot (Cercospora spp.)0.75 to 1.0 pound0.375 - 0.7 Ib. Al per acre(in CA use 1.0 pound rate)Max. Al per year 2.1 lb. per acrePowdery Mildew* (Erysiphe spp.)0.75 to 1.0 poundPowdery Mildew* (Erysiphe spp.)0.75 to 1.0 pound

ATTENTION: Do not exceed the maximum rate of AI per acre in dilute sprays.

#### STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store this product in a cool, dry, secure place in its original container only. Do not store this product near fertilizers, seeds, or other pesticides. If this product is spilled, you should sweep up the spillage and dispose pursuant to the Pesticide Disposal instructions 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 disposed of 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 following commercial use: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If the bag is disposed of by burning, stay out of smoke.

#### CONDITIONS OF SALE AND WARRANTY

The **Directions For Use** of this product reflects the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the

control of MICRO FLO COMPANY LLC ("MICRO FLO") or the Seller. To the extent allowed by law, all such risks shall be assumed by the Buyer.

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

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MICRO FLO MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT PERMITTED BY LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. MICRO FLO and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of MICRO FLO.