



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

March 8, 2022

Kristen Cianni  
Regulatory Manager  
Argite, LLC  
5000 CentreGreen Way, Suite 100  
Cary, NC 27513

Subject: Label Amendment – Add previously approved use on grapevines in California  
Product Name: Thiophanate Methyl 70W WSB  
EPA Registration Number: 87373-6  
Application Date: 11/05/2021  
Decision Number: 580289

Dear Ms. Cianni:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

Page 2 of 2  
EPA Reg. No. 87373-6  
Decision No. 580289

with FIFRA section 6. If you have any questions, please contact Jennifer Drobish by phone at 202-566-2642, or via email at [Drobish.jennifer@epa.gov](mailto:Drobish.jennifer@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "Shaja B. Joyner". The signature is written in a cursive style with a large initial "S".

Shaja B. Joyner, Product Manager 20  
Fungicide-Herbicide Branch  
Registration Division 7505P

Enclosure

[Note to reviewer: [Text] in brackets denotes optional text].  
[Note to reviewer: {Text} in braces denotes where in the final label text will appear.]

**{BOOKLET FRONT PANEL LANGUAGE}**

THIOPHANATE-METHYL	GROUP	<b>1</b>	FUNGICIDE
--------------------	-------	----------	-----------

**THIOPHANATE METHYL 70W WSB**

**[Alternate Brand Names: Talaris™ 70 WSP Fungicide; Talaris™ 70 WSB Fungicide]  
FUNGICIDE IN WATER SOLUBLE BAGS**

Thiophanate Methyl 70W WSB contains thiophanate-methyl, the active ingredient used in Topsin®.

**ACTIVE INGREDIENT:**  
Thiophanate-methyl (dimethyl[1,2-phenylene)-bis(iminocarbonothioyl)]bis[carbamate])\* .....70%

**OTHER INGREDIENTS:** .....30%

**TOTAL:** .....100%

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

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

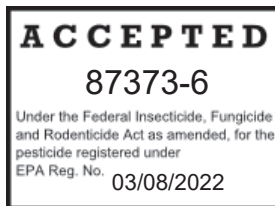
See inside label booklet for First Aid, Precautionary Statements and Directions for Use.

EPA Reg. No. 87373-6

EPA Est. No.

NET WEIGHT:

Manufactured for:  
**Argite, LLC**  
5000 CentreGreen Way, Suite 100  
Cary, NC 27513



## {LANGUAGE INSIDE BOOKLET}

<b>FIRST AID</b>	
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice</li> <li>• Have person sip a glass of water if able to swallow</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor</li> <li>• Do not give anything by mouth to an unconscious person</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible</li> <li>• Call a poison control center or doctor for further treatment advice</li> </ul>
<b>HOTLINE NUMBER</b>	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact CHEMTREC at 1-800-424-9300 for emergency medical treatment information.</p>	

**For Chemical Emergency**  
**Spill, Leak, Fire, Exposure, or Accident**  
**Call CHEMTREC Day or Night**  
**Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)**

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

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are Barrier Laminate, Nitrile Rubber  $\geq$  14 mils, or viton  $\geq$  14 mils gloves.

Mixers, loaders, applicators and handlers supporting dip treatment must wear:

1. Coveralls over long sleeved shirt and long pants
2. Chemical-resistant gloves
3. Chemical-resistant footwear plus socks
4. Chemical-resistant apron

All other mixers, loaders, applicators and handlers must wear:

1. Long-sleeved shirt and long pants
2. Shoes plus socks
3. Chemical-resistant gloves for all mixers and loaders and for applicators using hand held equipment
4. See Engineering Controls for additional requirements

### **USER SAFETY REQUIREMENTS**

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

### **ENGINEERING CONTROLS STATEMENT:**

Water soluble packets, when used correctly, qualify as a closed mixing/loading system under the Worker Protection Standard [40 CFR 170.607(d)]. Mixers and loaders handling this product while it is enclosed in intact water soluble packets may elect to wear reduced PPE of long-sleeved shirt, long pants, shoes, socks. When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, including a spill or equipment break-down. 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.

### **USER SAFETY RECOMMENDATIONS**

Users should:

1. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
2. 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**

Do not apply directly to water, or 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 washwater or rinsate.

### **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 except for the following:

- Almonds, beans (dry), onions (in Furrow), pecans, and pistachio: The REI is 3 days
- Apples, apricots, cherries, grapes, nectarines, peaches, pears, plums/prunes, and potato: The REI is 2 days
- Strawberries, wheat, cucurbits, soybeans, sugar beets, peanuts and green beans: The REI is 1 day

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, wear:

1. Coveralls over long sleeved shirt and long pants

2. Chemical-resistant gloves made of any waterproof material
3. Chemical-resistant footwear plus socks
4. Chemical-resistant headgear for over head exposures

### **Mandatory Spray Drift**

#### **Aerial Applications**

- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

#### **Ground Applications**

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

#### **Boom-less Ground Applications:**

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

### **Spray Drift Advisories**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.  
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### **Controlling Droplet Size - Ground Boom**

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### **Controlling Droplet Size - Aircraft**

- Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to

reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **BOOM HEIGHT - Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

#### **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

#### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

#### **WIND**

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### **Boom-less Ground Applications:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

#### **Handheld Technology Applications:**

- Take precautions to minimize spray drift.

### **PRODUCT 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. Specified 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. Argite 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. Do not tank mix this product with highly alkaline pesticides like Bordeaux or lime sulfur.

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:** 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. Only use this product 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 exceed maximum a.i. per year.

**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 Crop applications:** Use a minimum of 5 gal/acre for ground application, however most ground applications require 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.

**Chemigation:** See specific directions in this label.

**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, take precautions and specific steps to ensure effective fungicide rotation, which, along with tank mixing of different modes of action and disease monitoring, are the keys of your fungicide program.

Rotate or tank mix THIOPHANATE METHYL 70W WSB with different modes of action fungicide chemistry. All products containing thiabendazole, thiophanate ethyl or carbendazim fungicides (benzimidazole fungicides) are NOT considered rotation or tank mix partners.

When THIOPHANATE METHYL 70W WSB is applied as directed and the treatment is considered not to be effective, you may encounter a resistant or tolerant fungi strain. Do not apply this mode of action chemistry again during this year, 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.

#### **Instructions for Using Water Soluble Packages Directly into Spray Tanks:**

Water Soluble Packages (WSPs) are designed to dissolve in water. Agitation may be used, if necessary, to help dissolve the WSP. Failure to follow handling and mixing instructions can increase your exposure to the pesticide products in WSPs. WSPs, when used properly, qualify as a closed mixing/loading system under the Agricultural Worker Protection Standard [40 CFR 170.607(d)].

#### HANDLING INSTRUCTIONS

Follow these steps when handling pesticide products in WSPs.

1. Mix in spray tank only.
2. Handle WSP(s) in a manner that protects package from breakage and/or unintended release of contents. If package is broken, put on PPE required for clean-up and then continue with mixing instructions.
3. Keep the WSP(s) in outer packaging until just before use.
4. Keep the WSP dry prior to adding to the spray tank.



5. Handle with dry gloves and according to the label instructions for PPE.
6. Keep WSP intact. Do not cut or puncture WSP.
7. Reseal the WSP outer packaging to protect any unused WSP(s).

#### MIXING INSTRUCTIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Follow the steps below when mixing this product, including if tank mixed with other pesticide products. If being tank mixed, the mixing directions 1 through 9 below take precedence over the mixing directions of the other tank mix products. WSPs may, in some cases, be mixed with other pesticide products so long as the directions for use of all mixed products do not conflict. Do not tank mix this product with products that prohibit tank mixing or have conflicting mixing directions. **See Mixing Order chart** below when any other products are tank mixed with this product.

1. If a basket or strainer is present in the tank hatch, remove prior to adding the WSP to the tank.
2. Fill tank with water to approximately one-third to one-half of the desired final volume of spray.
3. Stop adding water and stop any agitation.
4. Place intact/unopened WSP(s) into 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.
5. Do not spray water from a hose or fill pipe to break or dissolve the WSP(s).
6. Start mechanical and recirculation agitation from the bottom of tank without using any overhead recirculation, if possible. If overhead recirculation cannot be turned off, close the hatch before starting agitation.
7. Dissolving the WSP(s) may take up to 5 minutes or longer, depending on water temperature, water hardness and intensity of agitation.
8. Stop agitation before tank lid is opened.
9. Open the lid to the tank, exercising caution to avoid contact with dusts or spray mix, to verify that the WSPs have fully dissolved and the contents have been thoroughly mixed into the solution.
10. Do not add other allowed products or complete filling the tank until the bags have fully dissolved and pesticide is thoroughly mixed.
11. Once the WSP have fully dissolved and any other products have been added to the tank, resume filling the tank with water to the desired level, close the tank lid, and resume agitation.
12. Use the spray solution when mixing is complete.
13. Maintain agitation of the diluted pesticide mix during transport and application.
14. It is unlawful to use any registered pesticide, including WSPs, in a manner inconsistent with its label.

When other products or pesticides are tank mixed with this product, use the Mixing Order chart and refer to the **Mixing Instructions** above. If planning to tank mix 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. 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 LBS/A THIOPHANATE METHYL 70W WSB	ACRES TREATED WITH ONE WATER SOLUBLE BAG
1/4 LB (0.175 LB AI)	4.0
1/2 LB (0.35 LB AI)	2.0
1 LB (0.70 LB AI)	1.0

CONVERSION TABLE ACRES TREATED PER 2.5 LB WATER SOLUBLE BAG	
LABEL USE RATE LBS/A THIOPHANATE METHYL 70W WSB	ACRES TREATED WITH ONE WATER SOLUBLE BAG
1/4 LB (0.175 LB AI)	10
1/2 LB (0.35 LB AI)	5
1 LB (0.70 LB AI)	2.5

CONVERSION TABLE ACRES TREATED PER 5 LB WATER SOLUBLE BAG	
LABEL USE RATE LBS/A THIOPHANATE METHYL 70W WSB	ACRES TREATED WITH ONE WATER SOLUBLE BAG
1/4 LB (0.175 LB AI)	20.0
1/2 LB (0.35 LB AI)	10.0
1 LB (0.70 LB AI)	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 directed 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 must 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

(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** (including, dry flowables - DF, wettable powders - WP, wettable dry granules – WDG, suspension concentrates - SC, or suspo-emulsions - SE).
- 6) **Water-soluble products.**
- 7) **Emulsifiable concentrates** (including oil concentrate when applicable).
- 8) **Water-soluble additives** (including AMS or UAN when applicable).
- 9) **Remaining quantity of water.**

Maintain constant agitation during application.

### **CHEMIGATION USE INSTRUCTIONS**

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

### **CHEMIGATION INFORMATION**

Only apply Thiophanate Methyl 70W WSB 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 must be properly calibrated prior to addition of fungicide into water. Contact your equipment manufacturer, State Extension Service specialists or other experts in the event you need expertise. Effectiveness of this fungicide product depends on application uniformity and calibration. Crop injury and possible over application and illegal residues are possible from poor and non-uniform distribution.

Use of a chemigation system requires supervision by a person knowledgeable of the particular chemigation system and will be responsible for its operation. This supervisor is responsible for the system shutdown to make any necessary adjustments if the need arises.

Never connect a chemigation system to any public water system. Public water system means a system for the provision of piped water for human consumption if the 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:

Must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located to prevent backflow contamination into the water source. The system must contain a functional, automatic, quick-closing check valve to prevent the backflow of any treated fluid. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump. This valve must be connected to the system interlock and prevent fluid from being withdrawn from the supply tank in the event that the irrigation system is either automatically or manually shut down.

The system must be fitted with an automatic shut off for the pesticide injection pump when the water pump motor stops. This must be connected to the interlocking controls. The irrigation line and water pump must also be fitted with a low pressure shut off switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

A metering pump or positive displacement injection pump (e.g., diaphragm pump) designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock must be fitted to the system.

#### **FUNGICIDE DILUTION MIX PREPARATION**

Chemical mix tank, induction lines, mixing and induction motors and pumps must all be cleaned of any prior use pesticide residues, scale or other foreign matter that may interfere 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 directed, decreased product performance may occur from the over diluted application.

Do not attempt chemigation when wind speed favors drift. When system connections or fittings are seen to leak, stop chemigation and repair the component prior to restart. When nozzles are not providing uniform distribution, recalibrate immediately. System must 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 must be aware that mixing this product with highly alkaline fertilizers (including aqueous ammonia) may cause problematic degradation of this product. This 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 must 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 must 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 suspension of THIOPHANATE METHYL 70W WSB and the irrigation water, inject 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, do not irrigate the treated area 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.

**Tree Crop Specific Application Directions**

TREE CROPS	PEST	LBS. PRODUCT per ACRE	AI per ACRE	LBS. PRODUCT per 100 GAL	APPLICATION INSTRUCTIONS
Almonds	Brown Rot Blossom Blight ( <i>Monilinia spp.</i> ) Jacket Rot ( <i>Monilinia</i> , <i>Sclerotinia</i> , <i>Botrytis</i> ) Leaf Blight ( <i>Seimatosporium</i> ) Scab ( <i>Cladosporium spp.</i> )	1.0 to 1.5	0.7 – 1.05 lb. AI per acre		Initiate applications at pink bud and continued through petal fall.  Pink Bud applications can be made alone, however tank mix later applications with labeled contact type, multi-site fungicides.  See <b>Fungicide Resistance</b> above
	<b>Restrictions:</b> Do not apply more than 1.5 lb. product (1.05 lb. ai)/A/application. Do not apply more than 3 lbs. of product (2.1 lbs. a.i.)/A/year. Do not make more than 3 applications at the lowest rate, or 2 applications at the highest rate per year. Minimum retreatment interval = 10 days REI = 3 days PHI = 1 day				

TREE CROPS	PEST	LBS. PRODUCT per ACRE	AI per ACRE	LBS. PRODUCT per 100 GAL	APPLICATION INSTRUCTIONS
Apples	Apple Scab ( <i>Venturia</i> spp.)	1.0 lb. [except CA]	0.7 lb. AI per acre [except CA]	0.25 lb. [0.18 lb. a.i. except CA]	Initiate applications at green tip and continue at 5 to 10 day intervals, continuing through petal fall.
	Black Pox [*] ( <i>Helminthosporium papulosum</i> )				Cover sprays can continue at 7 to 14 day intervals as needed.
	Black Rot ( <i>Botryosphaeria</i> spp.)	1.42 lbs. [in CA]	1.0 lb. AI per acre [in CA]	0.375 lb. [0.26 lb. a.i. in CA]	See <b>Fungicide Resistance</b> above
	Brooks Fruit Spot ( <i>Mycosphaerella</i> spp.)				
	Flyspeck ( <i>Zygothia</i> spp.)				
	Powdery Mildew ( <i>Podosphaera</i> spp.)				
	Sooty Blotch ( <i>Gloeodes</i> spp.)				
	White Rot [*] ( <i>Botryosphaeria</i> spp.)				
<b>Restrictions:</b> Do not apply more than 1.0 lb./A product (0.7 lb. ai)/A/application, except CA. Do not make more than 4 applications at the lowest rate, or 2 applications at the highest rate per year. Do not apply more than 1.42 lb./A (1.0 lb. ai)/A/application. Do not apply more than 4 lbs. of product (2.8 lbs. a.i.)/A/year. Minimum re-treatment interval for green tip through petal fall = 5 days. Minimum Retreatment Interval = 7 days REI = 2 days PHI = 1 day [* Not for use in California]					
<b>Pre-Harvest use to control Post-Harvest Diseases on Apples</b>					
	Storage Rot Blue Mold ( <i>Penicillium expansum</i> )	1			Apply as a pre-harvest spray within 2 weeks to 3 days of harvest.
	Gray Mold ( <i>Botrytis cinerea</i> )				Thorough coverage of the fruit is required. Application closer to harvest may provide better efficacy.
	Bulls-Eye Rot ( <i>Neofabraea</i> spp.)				For resistance management, do not use benzimidazole fungicide (i.e., Mertect®) post-harvest following pre-harvest application of this product. Application of a non-benzimidazole post- harvest fungicide including Penbotec™ or Scholar® will provide additional protection from post-harvest diseases.
<b>Restrictions:</b> Do not apply more than 1.0 lb./A product (0.7 lb. ai)/A/application, except CA. Do not make more than 4 applications at the lowest rate, or 2 applications at the highest rate per year. Do not apply more than 1.42 lb./A (1.0 lb. ai)/A/application. Do not apply more than 4 lbs. of product (2.8 lbs. a.i.)/A/year. Minimum re-treatment interval for green tip through petal fall = 5 days. Minimum Retreatment Interval = 7 days REI = 2 days PHI = 1 day					

TREE CROPS	PEST	LBS. PRODUCT per ACRE	AI per ACRE	LBS. PRODUCT per 100 GAL	APPLICATION INSTRUCTIONS
Apricots	Brown Rot ( <i>Monilinia spp.</i> ) Brown Rot Blossom Blight ( <i>Monilinia spp.</i> ) Fruit Brown Rot ( <i>Monilinia spp.</i> )	1.0 to 1.5 lbs.  [in CA use 1.5 lbs.]	0.7 - 1.05 lbs. AI per acre	0.5 (0.35 lb. a.i.)	Make first application at early bloom (red bud), followed by a second application at full bloom.  Under severe disease pressure, make additional applications 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 <b>Fungicide Resistance</b> above
	<b>Restrictions:</b> Do not apply more than 1.5 lb. product (1.05 lb. ai)/A/application. Do not apply more than 4 lb. product (2.8 lb. ai)/A/yr. Do not make more than 4 applications at the lowest rate, or 2 applications at the highest rate per year. Minimum Retreatment Interval = 10 days REI = 2 days PHI = 1 day				
Cherries	Brown Rot ( <i>Monilinia spp.</i> ) Brown Rot Blossom Blight ( <i>Monilinia spp.</i> ) Fruit Brown Rot ( <i>Monilinia spp.</i> )	1.0 to 1.5 lbs.  [in CA use 1.5 lbs.]	0.7 - 1.05 lb. AI per acre	0.5 (0.35 lb. a.i.)	Make first application at early bloom (popcorn stage), followed by a second application at full bloom.  Under severe disease pressure, make additional applications 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 <b>Fungicide Resistance</b> above
	Cherry Leaf Spot ( <i>Coccomyces spp.</i> )	1.125 to 1.5	0.8 - 1.05 lb. AI per acre	0.375-0.5 (0.26 - 0.35 lb. a.i.)	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.  See <b>Fungicide Resistance</b> above
	Powdery Mildew ( <i>Podosphaera spp.</i> ) and ( <i>Sphaerotheca spp.</i> )	1.0 to 1.5 lbs.  [in CA use 1.5 lbs.]  <b>PLUS</b> 1.125 to 1.5	0.7 - 1.05 lb. AI per acre  <b>PLUS</b> 0.84 – 1.05 lbs.	0.5 (0.35 lb. a.i.)  <b>PLUS</b> 0.375 to 0.5 (0.26 - 0.35 lb. a.i.)	Make first application at early bloom (popcorn stage), followed by a second application at full bloom.  <b>PLUS</b> Also make applications of this product at shuck fall and first cover.  See <b>Fungicide Resistance</b> above

TREE CROPS	PEST	LBS. PRODUCT per ACRE	AI per ACRE	LBS. PRODUCT per 100 GAL	APPLICATION INSTRUCTIONS
	<p><b>Restrictions:</b>            Do not apply more than 4 lbs. of product (2.8 lbs. a.i.)/A/year.            Do not apply more than 1.5 lb. product (1.05 lb. ai)/A/application.            Do not make more than 4 applications at the lowest rate, or 2 applications at the highest rate per year            Minimum Retreatment Interval = 10 days            REI = 2 days            PHI = 1 day</p>				
Nectarines	Brown Rot <b>(Monilinia spp.)</b> Brown Rot Blossom Blight <b>(Monilinia spp.)</b> Fruit Brown Rot <b>(Monilinia spp.)</b>	1.0 to 1.5  [in CA use 1.5 lbs.]	0.7 - 1.05 lb. AI per acre	0.5 (0.35 lb. a.i.)	Make first application at early bloom (pink bud), followed by a second application at full bloom.  Under severe disease pressure, make additional applications at 10 to 14 day intervals beginning at full bloom, through final pre-harvest sprays.  See <b>Fungicide Resistance</b> above
	<p><b>Restrictions:</b>            Do not apply more than 1.5 lb. product (1.05 lb. ai)/A/application.            Do not apply more than 4 lb. product (2.8 ai)/A/year.            Do not make more than 4 applications at the lowest rate, or 2 applications at the highest rate per year.            Minimum Retreatment Interval = 10 days            REI = 2 days            PHI = 1 day</p>				
Peaches	Brown Rot <b>(Monilinia spp.)</b> Brown Rot Blossom Blight <b>(Monilinia spp.)</b> Fruit Brown Rot <b>(Monilinia spp.)</b>	1.0 to 1.5  [in CA use 1.5 lbs.]	0.7 - 1.05 lb. AI per acre	0.5 – 0.75 (0.35 – 0.53 lb. a.i.)	Make first application at early bloom (pink bud), followed by a second application at full bloom.  Under severe disease pressure, make additional applications at 10 to 14 day intervals beginning at full bloom, through final pre-harvest sprays.
	Peach Scab <b>(Cladosporium spp.)</b>	Plus for Scab 1.0 to 1.5	Plus for Scab 1.125-1.5	Plus for Scab 3/8 – 1/2 (0.26 - 0.35 lb. a.i.)	When treating Peach Scab, make additional applications at Shuck Split and first cover spray.  See <b>Fungicide Resistance</b> above
<p><b>Restrictions:</b>            Do not apply more than 1.5 lb. product (1.05 lb. ai)/A/application.            Do not apply more than 4 lb. product (2.8 ai)/A/year            Do not make more than 4 applications at the lowest rate, or 2 applications at the highest rate per year.            Minimum Retreatment Interval = 10 days            REI = 2 days            PHI = 1 day</p>					



TREE CROPS	PEST	LBS. PRODUCT per ACRE	AI per ACRE	LBS. PRODUCT per 100 GAL	APPLICATION INSTRUCTIONS
Pears	Fabraea Leaf Spot Flyspeck ( <i>Zygophiala</i> spp.) Pear Scab ( <i>Venturia</i> spp.) Powdery Mildew ( <i>Podosphaera</i> spp.) Sooty Blotch ( <i>Gloeodes</i> spp.)	1.0	0.7 lb. AI per acre	0.25 (0.18 lb. a.i.)	Make initial application at green tip, continue on a 5 to 10 day schedule through petal fall. As conditions warrant, continue applications at 7 to 10 day intervals through the cover sprays.  Do not use THIOPHANATE-METHYL 70W WSB alone in a spray program. Use only in combination or in an alternating application program with a labeled non-benzimidazole fungicide.
	<b>Restrictions:</b> Do not apply more than 4 lbs. of product (2.8 lbs. a.i.)/A/year. Do not apply more than 1.0 lb. product (0.7 lb. ai)/A/application. Do not make more than 4 applications per year. Minimum Retreatment Interval = 7 days REI = 2 days PHI = 1 day Apply in a minimum spray volume of 10 gallons/A for aerial applications and do not apply through irrigation equipment.				
	<b>Pre-Harvest use to control Post-Harvest Diseases on Pears</b>				
	Storage Rot Blue Mold ( <i>Penicillium expansum</i> ) Gray Mold ( <i>Botrytis cinerea</i> ) Bulls-Eye Rot ( <i>Neofabraea</i> spp.)	1			Apply as a pre-harvest spray within 2 weeks to 3 days of harvest. Thorough coverage of the fruit is required. Application closer to harvest may provide better efficacy. For resistance management, do not use benzimidazole fungicide (i.e., Mertect®) post-harvest following pre-harvest application of this product. Application of a non-benzimidazole post-harvest fungicide including Penbotec™ or Scholar® will provide additional protection from post-harvest diseases.
<b>Restrictions:</b> Do not apply more than 4 lbs. of product (2.8 lbs. a.i.)/A/year. REI = 2 days PHI = 1 day					
Pecans	Brown Spot ( <i>Cercospora</i> spp.) Downy Spot ( <i>Mycosphaerella</i> spp.) Liver Spot ( <i>Gnomonia</i> spp.) Powdery Mildew ( <i>Microsphaerella</i> spp.) Scab ( <i>Fusicladium</i> spp.) Stem End Blight ( <i>Botryosphaeria</i> spp.) Zonate Leaf Spot ( <i>Cristulariella</i> spp.)	0.5 to 1.0	0.375 –0.7 lb. AI per acre		Make first application as leaves begin to show, followed by repeat applications every three to four weeks until shuck split.  Use highest rates for aerial applications in AR, GA, LA, MS, OK, TX.  See <b>Fungicide Resistance</b> above
	<b>Restrictions:</b> Do not apply more than 1.0 lb. product (0.7 lb. ai)/A/application. Do not apply more than 3 lb. product (2.1 ai)/A/year.				

TREE CROPS	PEST	LBS. PRODUCT per ACRE	AI per ACRE	LBS. PRODUCT per 100 GAL	APPLICATION INSTRUCTIONS
	Do not make more than 3 applications per year. Minimum Retreatment Interval = 21 days REI = 3 days PHI = 1 day Do not apply after shuck split.				
Pistachios	Shoot Blight ( <i>Botrytis</i> spp. and <i>Botryosphaeria</i> spp.)	1.5 to 2.0	1.05 – 1.4 lb. AI per acre	0.5 – 0.625 (0.35 – 0.44 lb. a.i.)	Make application at bloom.  Ground application: apply at least 100 gallons per acre Aerial application: apply at least 20 gallons per acre and ensure applicator flies directly over every row of trees.  See <b>Fungicide Resistance</b> above
	<b>Restrictions:</b> Do not apply more than 2 lb. product (1.4 lb. ai)/A/year Do not apply more than 2 lb. product (1.4 lb. ai) A/application. Do not make more than 1 application per year REI = 3 days PHI= 1 day				
Plums / Prunes	Brown Rot ( <i>Monilinia</i> spp.)	1.0 to 1.5	0.7 – 1.05 lb. AI per acre	0.5 (0.35 lb. a.i.)	Initiate application at early bloom (green tip), followed by a second application at full bloom.
	Brown Rot Blossom Blight ( <i>Monilinia</i> spp.)	[in CA use 1.5 lbs.]			Under severe disease pressure, make additional applications at 10 to 14 day intervals beginning at full bloom, through final pre-harvest sprays.
	Fruit Brown Rot ( <i>Monilinia</i> spp.)				
	Black Knot ( <i>Dibotryon</i> spp.)	1.0 to 1.5	0.7 – 1.05 lb. AI per acre	0.5 (0.35 lb. a.i.)	Initiate applications before bloom, then at petal fall and first 3 cover sprays at 10 to 14 day intervals  See <b>Fungicide Resistance</b> above
	Leaf Spot ( <i>Coccomyces</i> spp.)	1.0 to 1.5	0.7 – 1.05 lb. AI per acre	0.5 (0.35 lb. a.i.)	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.  See <b>Fungicide Resistance</b> above
<b>Restrictions:</b> Do not apply more than 1.5 lb. product (1.05 lb. ai)/A/application. Do not apply more than 4 lb. product (2.8 ai)/A/year Do not make more than 4 applications at the lowest rate, or 2 applications at the highest rate per year. Minimum Retreatment Interval = 10 days REI = 2 days PHI = 1 day					

TREE CROPS	PESTS	MINIMUM PRODUCT/Acre & GALLONAGE per APPLICATION	APPLICATION INSTRUCTIONS
<b>CONIFER spp.[*]</b>			
(Pines) Austrian Pine Christmas Trees Red Pine Scots Pine	Tip Blight ( <b>Diplodia spp.</b> )	1 lb. product/A applied in at least 100 gallons/A	Make first application 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.
<b>Restrictions:</b> Do not apply more than 1.0 lb. product (0.7 lb. ai)/A/application. Do not apply more than 3 lb. product (2.1 lb. ai)/A/year Do not make more than 3 applications per year. Minimum Retreatment Interval = 10 days REI = 12 hours Do not graze treated area.			
(Fir) Douglas	Rhabdocline Needle Cast Swiss Needle Cast ( <b>Phaenocarpa spp.</b> )	1 lb. product/A applied in at least 50 gallons/A	Make first application near the beginning of May, followed by applications every four (4) weeks.  Coverage may improve by adding a spreader/sticker.
<b>Restrictions:</b> Do not apply more than 1.0 lb. product (0.7 lb. ai)/A/application. Do not apply more than 3.5 lb. product (2.45 lb. ai)/A/ year. Do not make for than 3 applications per year. Minimum Retreatment Interval = 28 days Do not graze treated area. <b>[*Not for Conifer use in CA]</b>			

SEEDLING TREATMENT	PESTS	MIX RATIO	APPLICATION INSTRUCTIONS
Longleaf Pine	Brown Needle Blight ( <b>Scirrhia spp.</b> )	1 oz. product to 9.5 ounces dry Kaolinite clay	Do not apply to seedling foliage.  Prior to application, immerse the roots of the seedlings in clean water. The roots may then be treated with a mixture of Kaolinite and this product.
Loblolly Pine Longleaf Pine Slash Pine	Fusarium spp. and Rhizoctonia Root Rot	2 oz. product to 50 ounces Kaolinite clay, add enough water to make a slurry	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.

### Row Crop and Field Crop Specific Application Directions

CROP	PESTS	LBS. PRODUCT per ACRE	LBS. AI per ACRE	APPLICATION INSTRUCTIONS
<b>Beans</b>	Gray Mold ( <b>Botrytis spp.</b> ) White Mold ( <b>Sclerotinia spp.</b> ) Anthracnose ( <b>Colletotrichum spp.</b> )	1.0 to 2.0 lbs. (one application per year)	0.7 – 1.4 lb. AI per acre	Note: The 1.0 and 2.0 lb. product per acre rate is for one application per year. When making multiple applications, the maximum single application rate is 1.5 lbs. product per acre.  Initiate applications when one open bloom is found on 10-30% of plants OR as conditions develop for disease infection. Reapply as required,

CROP	PESTS	LBS. PRODUCT per ACRE	LBS. AI per ACRE	APPLICATION INSTRUCTIONS
				after at least 7 days, as disease conditions dictate.  As crop canopy increases and with heavier infestation of insects, use higher rates.
	<p><b>Restrictions:</b>            Do not apply more than 4 lbs. of product (2.8 lbs. a.i.)/A/year.            Do not apply more than 2 lb. product (1.4 lb. ai)/A/application            Do not make more than 4 applications at the lowest rate, or 2 applications at the highest rate per year.            Minimum retreatment interval = 7 days            REI = 3 days (dry beans); 1 day (green beans)            [PHI = <b>California only</b>, 14 days for succulent beans, 28 days for dry beans and lima beans.]            PHI = [<b>All other States,</b>] 14 days for succulent beans and lima beans, 28 days for dry beans.</p>			
<b>Canola, Crambe[*]</b>	White Mold Sclerotinia Stem Rot <b>(Sclerotinia sclerotiorum)</b>	1.0 to 2.0 lbs. in a single application OR 1.0 lb. per application in two applications	0.7 – 1.4 lb. AI per acre	Apply once at 20 to 50% flowering  OR  Apply twice with the first application at 20 to 30% flowering and the second application at 40 to 50% flowering.  Thorough coverage of flowers is essential for control of White Mold.
	<p><b>Restrictions:</b>            Do not apply more than 2 lb. product (1.4 lb. ai)/A per application.            Do not apply more than 2 lb. product (1.4 lb. ai)/A/year.            Do not make more than 2 applications at the lowest rate, or 1 application at the highest rate per year.            Minimum retreatment interval = 7 days            REI = 12 hours            PHI = 40 days  <b>[*For use in Dorth Dakota, Minnesota and Montana (east of interstate 15) only]</b></p>			

CROP	PESTS	LBS. PRODUCT per ACRE	LBS. AI per ACRE	APPLICATION INSTRUCTIONS
<b>Cucurbits</b> (including: Cantaloupes, Casaba, Cucumbers, Melons, Pumpkins, Summer Squash And Winter Squash, and Watermelons)	Acremonium/ Cephalosporium Hypocotyl Rot	0.5 lb.	0.35 lb. AI per acre	Spray product in-furrow, on top of the seeds at planting using at least 10 gallons of water per acre. See <b>Fungicide Resistance</b> above
	Anthracnose [*] ( <b>Colletotrichum spp.</b> ) Gummy Stem Blight [*] ( <b>Didymella spp.</b> ) Powdery Mildew ( <b>Erysiphe spp.</b> ) Target Spot [*] ( <b>Corynespora spp.</b> )			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.  Make Target Spot treatments at 7-day intervals as needed. See <b>Fungicide Resistance</b> above
	Belly Rots [*] ( <b>Rhizoctonia spp. and Fusarium spp.</b> )			Application volume must 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. See <b>Fungicide Resistance</b> above
	<u>Suppression</u> of Vine Decline ( <b>Monosporascus cannonballus</b> )  Charcoal Rot ( <b>Macrophomina spp.</b> )			Make applications for suppression of these diseases through buried drip irrigation lines (see chemigation section of this label) 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 year-long program. See <b>Fungicide Resistance</b> above
<b>Restrictions:</b> Do not apply more than 3 lbs. of product (2.1 lbs. a.i.)/A/year from any combination of application timings. Do not apply more than 0.5 lb. of product (0.35 lb. ai)/A/application. Do not make more than 6 applications per year. Minimum retreatment interval = 7 days. REI = 1 day PHI = 1 day <b>[*Not for use in California]</b>				
<b>Garlic</b> (treatment for garlic cloves prior to planting)	Penicillium Clove Rot	Make a Suspension of 1 lb. Product per 100 gallons of water	NA	Continuously agitate solution tank mixture to ensure proper treatment suspension ratio.  <b>Treatment:</b> Immerse garlic cloves 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.

CROP	PESTS	LBS. PRODUCT per ACRE	LBS. AI per ACRE	APPLICATION INSTRUCTIONS
Grapes	Botrytis Bunch Rot <b>(Botrytis cinerea)</b>  Powdery Mildew <b>(Uncinula necator)</b>	1.0 to 1.5 lbs.	0.7 - 1.05 lb. AI per acre	Monitor disease climate conditions. Start treatments at first bloom, repeat at 14 days if needed. Make another application as sugar starts to increase, around 21-28 days prior to harvest. If disease conditions remain favorable, make a final application 14 days after.  Use sulfur and/or triazole/DMI fungicides in a rotation for Powdery Mildew in a year long approach for control. See Resistance Section.
	<b>Restrictions:</b> Do not apply more than 1.5 lb product (1.05 lb ai)/A/application. Do not apply more than 6.0 lb product (4.2 lb ai)/A/year. Do not make more than 4 applications per year at the highest rate or 8 applications at the lowest rate per year. Minimum retreatment interval = 14 days. REI = 2 days PHI = 7 days			
	Note: East of the Rocky Mountains: Bitter Rot <b>(Melanconium)</b> Black Rot <b>(Guignardia)</b> Powdery Mildew <b>(Uncinula spp.)</b>	0.75 to 1.5 lbs.	0.525 – 1.05 lb. AI per acre	Start applications as leaves unfold, continue at 14 to 21 day intervals. Rotate fungicide modes of action in a year long program.
	<b>Restrictions:</b> Do not apply more than 6 lbs. of product (4.2 lbs. a.i.)/A/year. REI = 2 days PHI = 7 days			
	Grapevines [*]	<i>Eutypa</i> Dieback	0.2 lb per 1 gal (1 lb per 5 gal)	0.14 lb ai per 1 gal (0.7 lb ai per 5 gal)
1.5 lb in a minimum of 30 gal of water			1.05 lb in a minimum of 30 gal of water	<b>Spray-On Applications:</b> Apply as a directed spray with power operated ground application equipment to thoroughly wet cordons, spurs, and all cut wood surfaces within 24 hours of pruning. THIOPHANATE METHYL 70W WSB may be tank mixed with other fungicides registered for protection against this and similar grape canker pathogens.  The addition of a labeled rate of an organosilicone, crop oil, or other adjuvants which enhance spreading and absorption may increase penetration of cut wood surfaces. Addition of a registered spray dye to provide visual confirmation of thorough coverage of pruning wounds can be useful.

CROP	PESTS	LBS. PRODUCT per ACRE	LBS. AI per ACRE	APPLICATION INSTRUCTIONS
	<p><b>Restrictions:</b>  A second application may be necessary within 2 weeks if rainfall, fog, or high humidity persist which slows pruning wound healing.  Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 2 days.  Do not apply more than 4 lbs. of product (2.8 lbs ai)/A/year from all methods of application.  [*For use only in California]</p>			
Onions [*] (In Furrow)	White Rot [*] ( <i>Sclerotinia spp.</i> )	0.7 ounce per 1000 row feet (with 12 inch row spacing) OR 32 ounces per acre Broadcast	NA  AI per acre/appli- -cation 1.4 lbs.	Spray product solution directly into the open planting furrow at the time of planting seed, sets or bulbs.
	<p><b>Restrictions:</b>  Do not apply more than 2 lbs. of product (1.4 lbs. a.i.)/A/year.  Do not apply more than 2 lb product (1.4 lb ai)/A/application.  Do not make more than 1 application per year.  REI = 3 days  Do not apply through any type of irrigation system.  [* Not for use in California]</p>			
Peanuts	Early Leaf Spot ( <i>Cercospora spp.</i> ) Late Leaf Spot ( <i>Cercospora spp.</i> ) Leaf Spot ( <i>Cercospora spp.</i> ) Rust ( <i>Puccinia spp.</i> ) Limb Rot ( <i>Rhizoctonia spp.</i> ) Web Blotch ( <i>Ascochyta spp.</i> )	0.5 lb.	0.35 lb. AI per acre	Scout field as conditions indicate infection could occur. Start treatments when disease is verified or 35 days after planting. Retreatment interval for peanuts is 14 days.  Always use this product in conjunction with another non-benzimidazole fungicide.  See <b>Fungicide Resistance</b> above
	<p><b>Restrictions:</b>  Do not apply more than 2 lbs. of product (1.4 lbs. a.i.)/A/year from all combinations and timings.  Do not apply more than 0.5 lb. product (0.35 lb. ai)/A/application.  Do not make more than 4 applications per year.  Minimum retreatment interval = 14 days.  REI = 1 day  PHI = 14 days</p>			
Potatoes [*]	White Mold Sclerotinia Stem Rot ( <i>Sclerotinia sp.</i> )	1.0 to 1.5 lbs.	0.7 - 1.05 lb. AI per acre	Treatments are most efficacious when made prior to disease development. Start treatments just around time of row closure. Spray must cover all susceptible plant parts, branches, flowers and stems for adequate control. Scout and reapply at 7 to 14 day intervals or as conditions occur for disease development.  <b>Early/Late Blight Control:</b> You may tank-mix this product with other blight-control fungicides.  Do not make aerial application for control of this disease on this crop.

CROP	PESTS	LBS. PRODUCT per ACRE	LBS. AI per ACRE	APPLICATION INSTRUCTIONS
	<p><b>Restrictions:</b>            Do not apply more than 4 lbs. of product (2.8 lbs. a.i.)/A/year.            Do not apply more than 1.5 lb. product (1.05 lb. a.i)/A/application.            Do not apply more than 4 applications at the lowest rate, or 2 applications at the highest rate per year.            Minimum retreatment interval = 7 days.            REI = 2 days            PHI = 21 days  <b>[* Not for use in California]</b></p>			
Soybeans	Anthracnose <b>(Colletotrichum spp.)</b> Brown Spot <b>(Septoria spp.)</b> Frogeye Leaf Spot <b>(Cercospora spp.)</b> Pod and Stem Blight <b>(Diaporthe spp. and the imperfect stage, Phomopsis spp.)</b> Purple Seed Stain <b>(Cercospora spp.)</b>	0.5 to 1.0 lb.  Use higher rate for higher density canopy develops	0.375 - 0.7 lb. AI per acre	Make first application at full bloom up until the pods are between 1/8" and 1/4" in length, followed by a second application 14-21 days thereafter. The second application must be made less than 14 days following bean formation or before average pod length is 1/4". When beans are under severe disease pressure, utilize the higher application rates.  FOR SEED BEANS ONLY- A single high-rate application may be made at the time of bean formation to improve seed quality.
	White Mold <b>(Sclerotinia spp.)</b>	0.75 to 1.0 lb.	0.525-0.7 lb. AI per acre	Make first application at early bloom (R-1 to R-2 stage). A second application may be made 7-14 days later as conditions dictate. Spray must cover all susceptible plant parts, branches, flowers and stems for adequate control. <b>Aerial Application:</b> Use at least 5 gallons.
	Aerial Blight (Suppression)  Soybean Rust <b>(Phakopsora pachyrhiza)</b>	1.0 lb.	0.7 lb. AI per acre	First application must be made prior to infection, monitor climatic conditions and sentinel plots in your area. Reapply 14-21 days later if needed.  Tank mix this product with a DMI/Triazole fungicide, including tebuconazole for Soybean Rust. First application must be made at R-1 with the tankmix for control. Reapply as conditions warrant. Reapply as conditions warrant.
	<p><b>Restrictions:</b>            Do not apply more than 2 lbs. of product (1.4 lbs. a.i.)/A/year.            Do not apply more than 1.0 lb. product ( 0.7 lb. a.i)/A/application.            Do not apply more than 2 applications per year.            Minimum retreatment interval = 7 days.            REI = 1 day            PHI = 21 days            Do not graze treated areas.</p>			
Strawberries	Fruit Rot <b>(Botrytis spp.)</b> Leaf Blight <b>(Dendrophoma spp.)</b> Leaf Scorch <b>(Diplocarpon spp.)</b> Powdery Mildew <b>(Sphaerotheca spp.)</b>	0.75 to 1.0 lb.  Use highest rate under severe conditions	0.525-0.7 lb. AI per acre	Start treatments as blooming begins, repeat at 7 to 10 day intervals.  See <b>Fungicide Resistance</b> above
	<p><b>Restrictions:</b>            Do not apply more than 4 lbs. of product (2.8 lbs. a.i.)/A/year.            Do not apply more than 1.0 lb. product (0.7 lb a.i)/A/application.</p>			



CROP	PESTS	LBS. PRODUCT per ACRE	LBS. AI per ACRE	APPLICATION INSTRUCTIONS
	Do not make more than 4 applications per year. Minimum Retreatment Interval = 7 days REI = 1 day PHI = 1 day			
Sugarbeets	Cercospora Leaf Spot ( <i>Cercospora spp.</i> )	0.5 lb. [in CA]  0.75 to 1.0 lb. [except CA]	0.35 lb AI per acre [in CA]  0.7 lb AI per acre [except CA]	Make first application <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, tank mix with a protectant type fungicide. Do not apply this product more than once per year for <i>Cercospora spp.</i> See <b>Fungicide Resistance</b> above
	Powdery Mildew [*] ( <i>Erysiphe spp.</i> )	0.75 to 1.0 pound		Start treatments immediately, as disease is verified, follow with a NON-Benzimidazole fungicide as needed or within 14 days after. Use as a tank mix for this disease. See <b>Fungicide Resistance</b> above
	<b>Restrictions:</b> Do not apply more than 3 lbs. of product (2.1 lbs. a.i.)/A/year. Do not apply more than 1 lb. product (0.7 lb. a.i)/A/application. Do not make more than 3 applications per year. Minimum retreatment interval = 14 days. REI = 1 day PHI = 21 days <b>[*Not for use in California]</b>			
Triticale Wheat [*] (Fall Seeded in the states of Idaho, Oregon and Washington Only)	Eye Spot	1.0 lb.	0.7 lb. AI per acre	Make applications after tillering, but before stem elongation begins. Application can be by ground or aerial means.
	Foot Rot  Strawbreaker ( <i>Pseudocercospora spp.</i> )			
	<b>Restrictions:</b> Do not apply more than 1 lb. of product (0.7 lb. a.i.)/A/year. Do not apply more than 1 lb. product (0.7 lb. ai)/A/application Do not make more than 1 application per year. REI = 1 day PHI = 90 days (Do not cut for 90 days after application or allow livestock to graze in treated area prior to harvest) Do not graze treated areas until after harvest. Do not make more than one application per year. <b>[* Not for use in California]</b>			

**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.

**STORAGE:** Store in the original container in a 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, sweep up spillage and dispose of 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 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 HANDLING:** Water Soluble Packaging – Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or dispose of empty outer pouch in the trash as long as WSP is unbroken.

### **Warranty and Disclaimer Statement**

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. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of Argite, LLC (“Argite”), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer. Argite warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions. This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to Argite, and is subject to the inherent risks described above.

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARGITE DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARGITE, MANUFACTURER, AND SELLER DISCLAIM AND SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE, HANDLING, APPLICATION, STORAGE, OR DISPOSAL OF THIS PRODUCT OR FOR DAMAGES IN THE NATURE OF PENALTIES, AND THE USER AND BUYER WAIVE ANY RIGHT THAT THEY MAY HAVE TO SUCH DAMAGES. NO AGENT, REPRESENTATIVE OR EMPLOYEE OF ARGITE IS AUTHORIZED TO MAKE ANY WARRANTY, GUARANTEE OR REPRESENTATION BEYOND THOSE CONTAINED HEREIN OR TO MODIFY THE WARRANTIES CONTAINED HEREIN.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE TOTAL LIABILITY OF ARGITE, MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT ARGITE’S ELECTION, THE REPLACEMENT OF THE PRODUCT.**

Thiophanate Methyl 70W WSB is not manufactured or distributed by United Phosphorus, Inc., seller of Topsin®.

Topsin® is a trademark of Nippon Soda Company, Ltd

Talaris™ is a trademark of Argite, LLC

**Optional Marketing Logo:**



**{LANGUAGE ON LABEL AFFIXED TO CONTAINER}**

THIOPHANATE-METHYL	GROUP	1	FUNGICIDE
--------------------	-------	---	-----------

**THIOPHANATE METHYL 70W WSB  
FUNGICIDE IN WATER SOLUBLE BAGS**

**ACTIVE INGREDIENT:**

Thiophanate-methyl (dimethyl 4,4'-o-phenylenebis

[3-thioallophanate]) ..... 70%

**OTHER INGREDIENTS:**

..... 30%

**TOTAL** ..... 100%

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

FIRST AID	
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye</li> <li>Call a poison control center or doctor for treatment advice</li> </ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>Call a poison control center or doctor immediately for treatment advice</li> <li>Have person sip a glass of water if able to swallow</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor</li> <li>Do not give anything by mouth to an unconscious person</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes</li> <li>Call a poison control center or doctor for treatment advice</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>Move person to fresh air</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible</li> <li>Call a poison control center or doctor for further treatment advice</li> </ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact CHEMTREC at 1-800-424-9300 for emergency medical treatment information.	

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

**CAUTION**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

**STORAGE AND DISPOSAL**

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

**STORAGE:** Store in the original container in a 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, sweep up spillage and dispose of 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 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 HANDLING:** Water Soluble Packaging – Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or dispose of empty outer pouch in the trash as long as WSP is unbroken.

See label booklet for additional Precautionary Statements and Directions for Use.

**EPA Reg. No. 87373-6**  
**EPA Est. No.**

Manufactured for:  
**Argite, LLC**  
5000 CentreGreen Way, Suite 100  
Cary, NC 27513

**NET WEIGHT: \_\_\_\_\_ lbs.**