

73545-16

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Registration Division (7505P)  
Ariel Rios Building  
1200 Pennsylvania Ave., NW  
Washington, D.C. 20460

EPA Registration Number:

73545-16

Date of Issuance:

SEP 26 2008

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:  
Unconditional

Name of Pesticide Product:  
TOPSIN M WSB

Name and Address of Registrant (include ZIP Code):

Timothy Formella  
United Phosphorus, Inc.  
630 Freedom Business Center, Suite 402  
King of Prussia, PA 19406

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

Based on your response to the Reregistration Eligibility Decision for Thiophanate Methyl, EPA has reregistered the product listed above. This action is taken under the authority of section 4(g)(2)(c) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Reregistration under this section does not eliminate the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product.

Continued on Page 2

Signature of Approving Official:

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

Date:

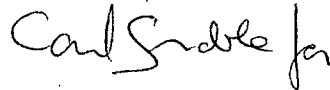
SEP 26 2008

Regarding the Special Local Need registrations associated with this parent product registration (CA-030001, CA-040024, ID-020006, and MN-040006), the Agency has no adverse comments regarding the revised labeling submitted in connection with registration under FIFRA section 24(c) and in response to the RED. However, the Agency requests that the company name on Special Local Need registrations for ID-020006, MN-040006 be changed from Cerexagri, Inc. to United Phosphorus, Inc.

Please forward a copy of the revised SLN labeling to the appropriate State official(s) for their comment/approval. Any additional State-stipulated wording or limitations, including reference to applicable State Rules or Regulations or updates to them, must appear on the labeling. Please notify the Agency by e-mail to [joyner.shaja@epa.gov](mailto:joyner.shaja@epa.gov) when you actually do forward the revised SLN label(s) to the State(s). When submitting each label to the State, please request the State to forward a copy of the revised SLN label (including their additions, if any) to the Agency for official confirmation of their receipt and approval, since Agency approval of the States notification is required to finalize the action.

A copy of your label stamped "Accepted" is enclosed for your records. If you have any questions, please contact Shaunta Hill of my team at (703) 347-8961 or at [hill.shaunta@epa.gov](mailto:hill.shaunta@epa.gov).

Sincerely,



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

Enclosure: Stamped copy of label



4/24

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

**CAUTION**

HARMFUL IF ABSORBED THROUGH SKIN OR INHALED. AVOID BREATHING DUST OR SPRAY MIST. CAUSES MODERATE EYE IRRITATION. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

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

- Coveralls over long-sleeved shirt and long pants,
- Chemical-resistant gloves (such as or made out of any waterproof material, selection category A),
- Chemical-resistant footwear plus socks,
- Chemical-resistant apron.

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

- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves (such as or made out of any waterproof material, selection category A).

See engineering controls for additional 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. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**ENGINEERING CONTROLS**

Water soluble packets when used correctly qualify as a closed mixing/loading system under the Worker Protection Standard for agricultural pesticides [40 CFR 170.240(d)(4)]. Mixers and loaders using water soluble packets must:

- Wear the personal protective equipment required above for mixers/loaders, and
- Be provided and must have immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown coveralls, and chemical resistant footwear.

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 wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should 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 wash water.

**DIRECTIONS FOR USE**

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Do not apply when wind speed favors drift beyond the area intended for treatment.

**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 workers entry into treated areas during the restricted-entry interval (REI). The REI for each crop is listed in the directions for use associated with that crop.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over long-sleeved shirt and long pants,
- Chemical-resistant gloves made of any waterproof material,
- Chemical-resistant footwear plus socks,
- Chemical-resistant headgear for overhead exposures.

6/24

### STORAGE AND DISPOSAL

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

**PESTICIDE 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 DISPOSAL:** After bag has been emptied, dispose of empty bag in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

### GENERAL INSTRUCTIONS AND INFORMATION

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

Use the LBS/ACRE rate for concentrate sprays (less than 400 gallons on apples and pears, less than 300 gallons on stone fruit). Use the LBS/100 GAL rate for dilute ground applications. For aerial applications, use a minimum of 5 gallons/A spray mix for row crops, and a minimum of 10 gallons/A spray mix for tree and vine crops. For ground applications, use a minimum of 20 gallons/A spray mix for row crops and 30 gallons/A spray mix for tree crops. Higher spray volume will generally result in better coverage and better disease control. Lack of control when using below minimum spray volumes is solely at the risk of the applicator/user, including use of electrostatic sprayers.

**Use on all labeled non-bearing tree fruit, tree nuts, and grapes:** Topsin M WSB may be used for control of the diseases listed on the label for these crops during the non-bearing years of new plantings, and on nursery stock. All use directions and limitations must be followed, except for the PHI, which is not applicable for non-bearing stock. Begin applications as disease is first observed or expected. Tank mixing with a protectant fungicide is strongly recommended for resistance management.

Chemigation instructions are presented at the end of the application rate tables.. Do not apply through any irrigation system unless these instructions are followed.

For crops without labeled uses of thiophanate-methyl, observe a 30-day plantback restriction.

**RESISTANCE MANAGEMENT:** To avoid the development of tolerant or resistant strains of fungi, Topsin M WSB should always be tank-mixed with a fungicide of different chemistry,

and/or a fungicide of different chemistry should be alternated with Topsin M WSB. DO NOT USE PRODUCTS CONTAINING THIABENDAZOLE OR OTHER PRODUCTS CONTAINING THIOPHANATE-METHYL IN COMBINATION, IN ROTATION, OR AS A SUBSTITUTE FOR TOPSIN M WSB AS THEY ARE OF SIMILAR CHEMISTRY AND WILL CONTRIBUTE TO THE DEVELOPMENT OF RESISTANCE. If after using Topsin M WSB as recommended, and the treatment is not effective, a tolerant or resistant strain of fungi may be present. Discontinue the use of Topsin M WSB for at least one season. As long as these precautions are followed, Topsin M WSB can be useful for disease control, even if resistant strains are present.

**MIXING INSTRUCTIONS**

Topsin M WSB consists of a protective outer resealable package containing water-soluble bags. First, fill the spray tank with approximately half the required volume of water. Begin agitation. Remove the required number of unopened water-soluble bags from the outer package and add to the tank. Reseal outer bag to protect any unused bags. Avoid adding bags near recirculation outlets as they might block them before being fully dissolved.

- Do not allow the bags to become wet prior to adding to the tank.
- Do not handle water-soluble bags with wet hands or wet gloves.

Depending on the degree of agitation and water temperature, the water-soluble bags should be completely dissolved and ready to spray within 5 minutes. If other materials are to be added to the tank, especially fertilizers high in nitrogen or boron, wait until the Topsin M WSB is fully dissolved before adding them. Once all materials have been added, fill the tank with the remaining volume of water. Maintain continuous agitation at all times, and use the spray suspension as soon as possible.

| <b>CONVERSION TABLE</b><br>ACRES TREATED PER 1 LB WATER SOLUBLE BAG |   |
|---|---|
| <b>LABEL USE RATE<br/>LBS/A TOPSIN M WSB</b>                        | <b>ACRES TREATED WITH<br/>ONE WATER SOLUBLE BAG</b> |
| ½ LB  | 2.0   |
| 1 LB  | 1.0   |
| 2 LB  | 0.5   |

| <b>CONVERSION TABLE</b><br>ACRES TREATED PER 2.5 LB WATER SOLUBLE BAG |   |
|---|---|
| <b>LABEL USE RATE<br/>LBS/A TOPSIN M WSB</b>                          | <b>ACRES TREATED WITH<br/>ONE WATER SOLUBLE BAG</b> |
| ½ LB  | 5   |
| 1 LB  | 2.5   |
| 2 LB  | 1.25  |

| Crop/<br>Restrictions   | Diseases   | Lbs/<br>Acre                    | Lb/100<br>Gal  | Remarks/Restrictions  |
|---|--|---------------------------------|----------------|---|
| <p>Almonds</p> <p>Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 3 days.</p> | <p>Brown Rot Blossom Blight (Monilinia)<br/>Scab (Cladosporium)<br/>Jacket Rot (Monilinia, Sclerotinia, Botrytis)<br/>Leaf Blight (Seimatosporium)</p>   | <p>1 - 1½</p>                   |                | <p>Apply as needed between pink bud and petal fall. Topsin M WSB may be applied alone at pink bud for Brown Rot control. For all other applications, Topsin M WSB should be applied with a contact fungicide, such as a Ziram product (e.g. Ziram 76DF) for broad spectrum control and resistance management.</p> <p>Do not apply more than 3 lbs of product (2.1 lbs a.i.)/A/year.</p> |
| <p>Apples</p> <p>Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 2 days.</p>  | <p>Apple Scab (Venturia)<br/>Black Pox* (Helminthosporium papulosum)<br/>Flayspeck (Zygophiala)<br/>Powdery Mildew (Podosphaera)<br/>Sooty Blotch (Gloeodes)<br/>Black Rot (Botryosphaeria obtusa)<br/>Brooks Fruit Spot (Mycosphaerella)<br/>White Rot* (Botryosphaeria dothidia)</p> | <p>¾ - 1<br/>(in CA use 1½)</p> | <p>1/5-1/4</p> | <p>Apply at 5 to 10-day intervals from green tip through petal fall; continue at 7 to 14-day intervals in cover sprays.</p> <p>Do not apply more than 4 lbs of product (2.8 lbs a.i.)/A/year.</p> <p>Pre-harvest interval: 1 day</p> <p>Follow resistance management guidelines under Directions for Use.</p>   |
| <p>Pre-Harvest use to control Post-Harvest Diseases on Apples</p>   |  |                                 |                |   |
|   | <p>Storage Rot<br/>Blue Mold (Penicillium expansum)<br/>Gray Mold (Botrytis cinerea)</p>   | <p>1</p>                        |                | <p>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</p>   |



9/24

| Crop/<br>Restrictions  | Diseases  | Lbs/<br>Acre                                 | Lb/100<br>Gal | Remarks/Restrictions  |
|--|---|--|---------------|---|
|  | Bulls-Eye Rot<br>(Neofabraea spp.)  |  |               | <p>efficacy.<br/>For resistance management, do not use a benzimidazole fungicide (i.e. Mertect®) post-harvest following Topsin M WSB pre-harvest application.<br/>Application of a non-benzimidazole post-harvest fungicide such as Penbotec™ or Scholar® will provide additional protection from post-harvest diseases.</p> <p>Do not apply more than 4 lbs of product (2.8 lbs a.i.)/A/year.<br/>Pre-harvest interval: 1 day</p>  |
| <p>Beans, dry and succulent</p> <p>Including:<br/>Lima bean<br/>Snap bean<br/>Kidney bean<br/>Mung bean<br/>Navy bean<br/>Pinto bean<br/>Wax bean<br/>Broad bean<br/>Fava bean<br/>Asparagus bean<br/>Blackeyed pea<br/>Cowpea<br/>Sweet lupine<br/>White lupine<br/>White Sweet lupine<br/>Grain lupine<br/>Chick pea<br/>Garbanzo bean</p> <p>Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours for</p> | <p>White Mold (Sclerotinia)<br/>Gray Mold (Botrytis)<br/>Anthracnose (Colletotrichum)</p> | <p>1½ - 2</p> <p><b>OR</b></p> <p>1 - 1½</p> |               | <p>For one application: Apply when 100% of plants have at least one open bloom or when conditions are favorable for disease development.</p> <p><b>OR</b></p> <p>For multiple applications: Make the first application when 10% to 30% of plants have at least one open bloom and follow with sequential applications on a 4 to 7 day interval. Apply prior to the development of disease for best results.</p> <p>Do not apply more than 4 lbs of product (2.8 lbs a.i.)/A/year.<br/>Pre-harvest interval: <b>California only</b>, 14 days for succulent beans, 28 days for dry beans and lima beans.</p> <p>Pre-harvest interval: <b>all other States</b>, 14 days for succulent beans and lima beans, 28 days for dry beans.</p> |

| Crop/<br>Restrictions  | Diseases   | Lbs/<br>Acre   | Lb/100<br>Gal | Remarks/Restrictions   |
|--|--|--|---------------|--|
| succulent beans and 3 days for dry beans.  |  |  |               |  |
| <p>Canola, Crambe</p> <p>In North Dakota, Minnesota, and Montana (east of Interstate 15 only)</p> <p>Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.</p>             | <p>White Mold<br/>Sclerotinia Stem Rot (Sclerotinia sclerotiorum)</p>                      | <p>1-2 in a single application<br/><b>OR</b><br/>1 per application when applying twice</p> |               | <p>Apply at 20 to 50% flowering for single application.</p> <p><b>OR</b></p> <p>Apply twice with the first application at 20% - 30% flowering and the second application at 40% - 50% flowering.</p> <p>Pre-harvest interval: 40 days</p> <p>Do not apply more than 2 lbs of product (1.4 lbs a.i.)/A/year.</p> <p>Thorough coverage of the flowers, stems, and branches is essential for control of White Mold.</p> |
| <p>Cucurbits : Cantaloupe, Casaba, Cucumbers, Melons, Pumpkins, Summer and Winter Squash, and Watermelons</p> <p>Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.</p> | <p>General Information</p>   |  |               | <p>Do not apply more than 3 lbs of product (2.1 lbs a.i.)/A/year from any combination of application timings.</p> <p>Pre-harvest interval: 1 day</p> <p>Topsin M WSB can be used in a tank mix with Penncozeb<sup>®</sup> (mancozeb) or chlorothalonil for additional disease control and resistance management.</p> <p>Follow resistance management guidelines under Directions for Use.</p>                        |
|  | <p>Acremonium/<br/>Cephalosporium<br/>Hypocotyl Rot</p>                                    | <p>½</p>   |               | <p>Apply in-furrow, on top of the seeds at planting. Do not use less than 10 gallons of water per acre.</p>  |
|  | <p>Anthracnose* (Colletotrichum)<br/>Gummy Stem Blight* (Didymella)<br/>Powdery Mildew</p> | <p>½</p>   |               | <p>Begin applications when plants begin to run or when disease first appears, and repeat at 7-14 day intervals or as needed.</p> <p>For Target Spot, use at 7-day intervals as needed.</p>   |

11/24

| Crop/<br>Restrictions   | Diseases   | Lbs/<br>Acre | Lb/100<br>Gal | Remarks/Restrictions  |
|---|--|--------------|---------------|---|
|   | (Erysiphe,<br>Sphaerotheca,<br>Podospaera)<br>Target Spot*<br>(Corynespora)      |              |               |   |
|   | Belly Rots*<br>(Rhizoctonia,<br>Fusarium)  | ½            |               | Apply in sufficient volume to allow runoff to the soil. Will not control Pythium or Phytophthora.   |
|   | Suppression of Vine Decline<br>(Monosporascus)<br>Charcoal Rot<br>(Macrophomina) | ½            |               | Apply through buried drip irrigation (chemigation) to the root zone. For disease suppression, apply at 14-day intervals, beginning at emergence and continuing to harvest. Applications weekly or biweekly, beginning 4-6 weeks prior to harvest will also offer suppression, but may not be as effective as a season-long program. |
| Garlic<br>(clove treatment)                                   | Penicillium Clove Rot  |              | 1             | Completely immerse garlic cloves in suspension for at least 5 minutes. Continuously agitate the solution tank by hydraulic or mechanical means. After treatment, remove cloves from solution and drain. Dry cloves after treatment and prior to planting.   |
| Grapes<br><br>Do not enter or allow worker entry into treated | General Information  |              |               | Do not apply more than 4 lbs of product (2.8 lbs a.i.)/A/year. Pre-harvest interval: 14 days Follow resistance management guidelines under Directions for Use.  |

12/24

| Crop/<br>Restrictions  | Diseases  | Lbs/<br>Acre   | Lb/100<br>Gal | Remarks/Restrictions   |
|--|---|----------------|---------------|--|
| areas during<br>the restricted<br>entry interval<br>(REI) of 2<br>days.                      | <b>WEST OF THE<br/>ROCKY<br/>MOUNTAINS:</b><br>Bunch Rot<br>(Botrytis)<br>Powdery Mildew<br>(Uncinula)  | 1 - 1½         |               | Apply at first bloom and repeat<br>14 days later or as needed if<br>severe disease conditions exist.<br>Make an additional application 3<br>to 4 weeks before harvest or<br>when sugar begins to build;<br>repeat 14 days later if conditions<br>favorable for disease persist.<br>For Powdery Mildew, continue<br>applications through the season.<br>Use in combination or rotation<br>with a sulfur product such as<br>Microthiol® Disperss® and/or<br>other systemic fungicides. |
|  | <b>EAST OF THE<br/>ROCKY<br/>MOUNTAINS:</b><br>Bitter Rot<br>(Melanconium)<br>Black Rot<br>(Guignardia)<br>Powdery Mildew<br>(Uncinula)<br>Phomopsis Cane and<br>Leaf Spot<br>(Phomopsis) | ¾ - 1½         |               | Apply when foliage first develops<br>and repeat at 14 to 21-day<br>intervals or as needed.   |
|  | Bunch Rot (Botrytis)  | 1 - 1½         |               | Apply at first bloom and repeat<br>14 days later or as needed if<br>severe disease conditions exist.<br>Make an additional application 3<br>to 4 weeks before harvest or<br>when sugar begins to build;<br>repeat 14 days later if conditions<br>favorable for disease persist.<br>Do not use where resistant strains<br>of Botrytis are present.  |
| Onions*<br>Garlic<br>(In furrow)<br>Do not enter<br>or allow<br>worker entry<br>into treated | White Rot<br>(Sclerotium<br>cepivorum)  | 2<br>broadcast |               | Spray directly into the open<br>furrow at the time of planting<br>seed, sets or bulbs. Not for this<br>use through any type of irrigation<br>system.<br><br>Do not apply more than 2 lbs of  |

| Crop/<br>Restrictions  | Diseases   | Lbs/<br>Acre | Lb/100<br>Gal | Remarks/Restrictions   |
|--|--|--------------|---------------|--|
| areas during the restricted entry interval (REI) of 3 days.  |  |              |               | product (1.4 lbs a.i.)/A/year.   |
| Peanuts<br><br>Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours. | Early Leaf Spot (Cercospora)<br>Late Leaf Spot (Cercosporidium)<br>Rust (Puccinia)<br>Limb Rot (Rhizoctonia)<br>Web Blotch (Ascochyta) | ½            |               | Begin applications when disease first appears and repeat at 14-day intervals as needed.<br><br>Do not apply more than 2 lbs of product (1.4 lbs a.i.)/A/year.<br><br>Pre-harvest interval: 14 days<br><br>Topsin M WSB should not be used alone. Use only in combination with a non-benzimidazole fungicide such as Penncozeb® 75DF (mancozeb) at 1½ lbs per acre or chlorothalonil. Follow resistance management guidelines under Directions for Use. |
| Pears<br><br>Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 2 days.     | Pear Scab (Venturia)<br>Sooty Blotch (Gloeodes)<br>Flayspeck (Zygophiala)<br>Powdery Mildew (Podosphaera)<br>Leaf Spot (Fabraea)       | 1            | ¼             | Apply at 5 to 10-day intervals from green tip through petal fall; continue at 7 to 14-day intervals in the cover sprays.<br><br>Do not apply more than 4 lbs of product (2.8 lbs a.i.)/A/year.<br><br>Pre-harvest interval: 1 day<br><br>Follow resistance management guidelines under Directions for Use.   |
| <b>Pre-Harvest use to control Post-Harvest Diseases on Pears</b>   |  |              |               |  |
|  | Storage Rot<br>Blue Mold (Penicillium expansum)<br>Gray Mold (Botrytis cinerea)  | 1            |               | Apply as a pre-harvest spray within 2 weeks to 3 dys of harvest. Thorough coverage of the fruit is required. Application closer to harvest may provide better  |

| Crop/<br>Restrictions  | Diseases   | Lbs/<br>Acre | Lb/100<br>Gal | Remarks/Restrictions   |
|--|--|--------------|---------------|--|
|  | Bulls-Eye Rot<br>(Neofabraea spp.)   |              |               | <p>efficacy.<br/>For resistance management, do not use a benzimidazole fungicide (i.e. Mertect®) post-harvest following Topsin M WSB pre-harvest application.<br/>Application of a non-benzimidazole post-harvest fungicide such as Penbotec™ or Scholar® will provide additional protection from post-harvest diseases.</p> <p>Do not apply more than 4 lbs of product (2.8 lbs a.i.)/A/year.<br/>Pre-harvest interval: 1 day</p> |
| <p>Pecans</p> <p>Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 3 days.</p>     | <p>Brown Spot (Cercospora)<br/>Downy Spot (Mycosphaerella)<br/>Liver Spot (Gnomonia)<br/>Powdery Mildew (Microsphaera)<br/>Scab (Fusicladium)<br/>Stem End Blight (Botryosphaeria)<br/>Zonate Leaf Spot (Cristulariella)</p> | 1            |               | <p>Begin applications when first leaves are showing and repeat at 3 to 4-week intervals until shuck split. Do not apply after shuck split.</p> <p>Do not apply more than 3 lbs of product (2.1 lbs a.i.)/A/year.</p> <p>Follow resistance management guidelines under Directions for Use.</p>  |
| <p>Pistachios</p> <p>Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 3 days.</p> | <p>Shoot Blight (Botrytis, Botryosphaeria)</p>   | 1½ - 2       |               | <p>Apply at bloom.</p> <p>Apply in a minimum of 100 gallons per acre by ground or 20 gallons per acre by air.<br/>For aerial application, fly over every row or center.</p> <p>Do not apply more than 2 lbs of product (1.4 lbs a.i.)/A/year.</p>  |
| <p>Potatoes</p> <p>Do not enter or allow</p>   | <p>White Mold (Sclerotinia sclerotiorum)</p>   | 1 - 1½       |               | <p>Make first application just prior to row closure. Repeat the application within 7-14 days and at 7-14 day intervals if conditions</p>   |

| Crop/<br>Restrictions   | Diseases   | Lbs/<br>Acre | Lb/100<br>Gal | Remarks/Restrictions   |
|---|--|--------------|---------------|--|
| worker entry into treated areas during the restricted entry interval (REI) of 2 days.   |  |              |               | <p>for disease development are favorable.</p> <p>Thorough coverage of the flowers, stems, and branches is essential for disease control. Use a minimum of 6 gallons/A for aerial application.</p> <p>Do not apply more than 4 lbs of product (2.8 lbs a.i.)/A/year.</p> <p>Pre-harvest interval: 21 days</p> <p>May be tank mixed with Penncozeb (mancozeb) for Early and Late Blight control.</p>                                 |
| Soybeans<br><br>Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours. | General Information  |              |               | <p>Do not apply more than 2 lbs product (1.4 lbs a.i.)/A/year. Pre-harvest interval: 21 days</p> <p>Do not graze or feed treated vines or hay to livestock.</p>  |
|   | <p>Anthracnose (Colletotrichum)</p> <p>Brown Spot (Septoria)</p> <p>Frogeye Leaf Spot (Cercospora)</p> <p>Pod and Stem Blight (Diaporthe, Phomopsis)</p> <p>Purple Seed Stain (Cercospora)</p> | 1/2 - 1      |               | <p>Apply from full bloom to when pods are 1/8" to 1/4" in length. Make a second application 14 to 21 days later. Do not make the second application later than 14 days after pods average 1/4" in length or when beans form in the pod. Use the high rate under severe disease pressure.</p> <p>FOR SEED BEANS ONLY---For seed quality, make a single application at the high rate (1 lb per acre) when beans form in the pod.</p> |
|   | White Mold (Sclerotinia)   | 3/4 - 1      |               | <p>Make one application at early bloom (R-1 to R-2 stage) followed by a second application 7-14 days later if conditions are favorable for continued disease pressure.</p> <p>Thorough coverage of the</p>   |

| Crop/<br>Restrictions   | Diseases   | Lbs/<br>Acre             | Lb/100<br>Gal | Remarks/Restrictions   |
|---|--|--------------------------|---------------|--|
|   | Aerial Blight<br>(suppression)                           | 1                        |               | flowers, stems, and branches is essential for disease control. Use a minimum of 5 gallons water/A by air.<br><br>Make initial application when disease threatens and repeat 14-21 days later if needed.                    |
| <u>Stone Fruit</u><br><br>Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 2 days. | General Information                                      |                          |               | Do not apply more than 4 lbs of product (2.8 lbs a.i.)/A/year.<br><br>Pre-harvest interval: 1 day<br><br>Follow resistance management guidelines under Directions for Use.   |
| - Apricots  | Brown Rot Blossom Blight,<br>Fruit Brown Rot (Monilinia) | 1 - 1½<br>(in CA use 1½) | ⅓ - ½         | Apply at early bloom (red bud). Make a second application at full bloom. If needed, under severe disease pressure, apply additional sprays at 10 to 14-day intervals between full bloom and final pre-harvest sprays.      |
| - Cherries<br>Sweet<br>and Sour   | Brown Rot Blossom Blight<br>Fruit Brown Rot (Monilinia)  | 1 - 1½<br>(in CA use 1½) | ⅓ - ½         | Apply at early bloom (early popcorn). Make a second application at full bloom. If needed under severe disease pressure, apply additional sprays at 10 to 14-day intervals between full bloom and final pre-harvest sprays. |
|   | Cherry Leaf Spot (Coccomyces)                            | 1⅓ - 1½                  | ⅜ - ½         | Applications may be made at petal fall or before (when leaves first unfold) and at first, second, and third cover at 10 to 14-day intervals and one spray 14 to 21 days after harvest.                                     |



| Crop/<br>Restrictions | Diseases  | Lbs/<br>Acre  | Lb/100<br>Gal                     | Remarks/Restrictions  |
|-----------------------|---|---|-----------------------------------|---|
|                       | Powdery Mildew<br>(Podosphaera,<br>Sphaerotheca)              | 1 - 1½<br>(in CA<br>use 1½)<br><b>PLUS</b><br>1⅛ - 1½     | ⅓ - ½<br><br><b>PLUS</b><br>⅜ - ½ | Apply at early bloom (early<br>popcorn). Make a second<br>application at full bloom.<br><b>PLUS</b><br>Apply at shuck fall and first<br>cover.  |
| - Nectarines          | Brown Rot Blossom<br>Blight<br>Fruit Brown Rot<br>(Monilinia) | 1 - 1½<br>(in CA<br>use 1½)                               | ⅓ - ½                             | Apply at early bloom (pink bud).<br>Make a second application at full<br>bloom if conditions favor disease<br>development.<br>If needed under severe disease<br>pressure, apply additional sprays<br>at 10 to 14-day intervals between<br>full bloom and final pre-harvest<br>sprays. |
| - Peaches             | Brown Rot Blossom<br>Blight<br>Fruit Brown Rot<br>(Monilinia) | 1 - 1½<br>(in CA<br>use 1½)                               | ⅓ - ½                             | Apply at early bloom (pink bud).<br>Make a second application at full<br>bloom if conditions favor disease<br>development.<br>If needed under severe disease<br>pressure, apply additional sprays<br>at 10 to 14-day intervals between<br>full bloom and final pre-harvest<br>sprays. |
|                       | Peach Scab<br>(Cladosporium)                                  | 1 - 1½<br>(in CA<br>use 1½)<br><br><b>PLUS</b><br>1⅛ - 1½ | ⅓ - ½<br><br><b>PLUS</b><br>⅜ - ½ | Apply at early bloom (pink bud).<br>Make a second application at full<br>bloom if conditions favor disease<br>development.<br><b>PLUS</b><br>Apply at shuck split and at first<br>cover sprays.   |
| - Plums<br>and Prunes | Brown Rot Blossom<br>Blight<br>Fruit Brown Rot<br>(Monilinia) | 1 - 1½<br>(in CA<br>use 1½)                               | ⅓ - ½                             | Apply at early bloom (green tip).<br>Make a second application at full<br>bloom.<br>If needed under severe disease<br>pressure, apply additional sprays<br>at 10 to 14-day intervals between<br>full bloom and final pre-harvest<br>sprays.   |
|                       | Black Knot<br>(Dibotryon)                                     | 1 - 1½<br>(in CA<br>use 1½)                               | ⅓ - ½                             | Apply at pre-bloom, petal fall,<br>and at first, second or third cover<br>sprays at 10 to 14-day intervals.   |

| Crop/<br>Restrictions   | Diseases  | Lbs/<br>Acre                | Lb/100<br>Gal | Remarks/Restrictions   |
|---|---|-----------------------------|---------------|--|
|   | Leaf Spot<br>(Coccomyces)   | 1 - 1½<br>(in CA<br>use 1½) | ⅓ - ½         | Applications may be made at<br>petal fall, shuck split, and at first,<br>second, and third cover sprays at<br>10 to 14-day intervals and 1<br>spray 14 to 21 days after harvest.   |
| Strawberries<br><br>Do not enter<br>or allow<br>worker entry<br>into treated<br>areas during<br>the restricted<br>entry interval<br>(REI) of 24<br>hours. | General Information   |                             |               | Do not apply more than 4 lbs of<br>product (2.8 lbs a.i.)/A/year.<br>Pre-harvest interval: 1 day<br>Follow resistance management<br>guidelines under Directions for<br>Use.  |
|   | Crown Rot*<br>(Colletotrichum spp.)<br><br>Suppression only   | ¾ - 1                       |               | Begin applications after<br>establishment of the transplants<br>and continue through first bloom<br>at 10 to 14-day intervals. Use the<br>high rate if the fields have a<br>history of Colletotrichum crown<br>rot and/or conditions are<br>favorable for development of the<br>disease. Will not control<br>Phytophthora species. |
|   | Fruit Rot<br>(Botrytis)<br>Leaf Blight<br>(Dendrophoma)<br>Leaf Scorch<br>(Diplocarpon)<br>Powdery Mildew<br>(Sphaerotheca) | ¾ - 1                       |               | Begin applications at early bloom<br>and continue at 7 to 10-day<br>intervals. Use the higher rate<br>under conditions of severe<br>disease pressure.  |
| Sugar Beets<br><br>Do not enter<br>or allow<br>worker entry<br>into treated   | General Information   |                             |               | Do not apply more than 3 lbs of<br>product (2.1 lbs a.i.)/A/year.<br>Pre-harvest interval: 21 days<br>Follow resistance management<br>guidelines under Directions for<br>Use.  |

19/24

| Crop/<br>Restrictions   | Diseases   | Lbs/<br>Acre | Lb/100<br>Gal | Remarks/Restrictions  |
|---|--|--------------|---------------|---|
| <p>areas during the restricted entry interval (REI) of 24 hours.</p>  | <p>Cercospora Leaf Spot (Cercospora)</p>                   | <p>½ - 1</p> |               | <p>Apply when conditions become favorable for disease development before the disease appears and follow with a non-benzimidazole fungicide within 14 days of application or as needed. Topsin M WSB should be tank mixed with a protectant fungicide such as Penncozeb® or Super Tim® when resistant strains of Cercospora are present in the field.</p> <p>For areas east of the Rocky Mountains: Do not make more than one application of Topsin M WSB per season for Cercospora Leaf Spot.</p> |
|   | <p>Powdery Mildew (Erysiphe)</p>                           | <p>½ - 1</p> |               | <p>Apply as soon as disease symptoms appear and follow with a non-benzimidazole fungicide at a 14-day interval or as needed. Topsin M WSB can be tank mixed with sulfur products such as Microthiol® Dispers® at 5 to 10 lbs/A for additional disease control and resistance management.</p>  |
| <p>Triticale and Fall-seeded Wheat</p> <p><b>For this use in Idaho, Oregon, and Washington ONLY</b></p> <p>Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24</p> | <p>Foot Rot, Strawbreaker, Eye Spot (Pseudocercospora)</p> | <p>1</p>     |               | <p>Apply Topsin M WSB at the rate indicated in a single application by air or ground after tillering but before stem elongation has begun. Use sufficient water to obtain thorough coverage.</p> <p>Do not apply more than 1 lb of product (0.7 lb a.i.)/A/year.</p> <p>Do not cut for hay within 90 days of application.</p> <p>Do not allow livestock to graze in treated areas before harvest.</p>   |

20/24

| Crop/<br>Restrictions | Diseases | Lbs/<br>Acre | Lb/100<br>Gal | Remarks/Restrictions |
|-----------------------|----------|--------------|---------------|----------------------|
| hours.                |          |              |               |                      |

\* Not for this use in California

NOTE: Dilute sprays are not to exceed maximum rate per acre.

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

| CROP  | DISEASE   |  | RATE (Lb/A),<br>MINIMUM<br>GALLONAGE  | REMARKS  |
|---|---|--|---|--|
| Conifers<br>(Pine)<br>Austrian<br>Red<br>Scots<br>Christmas<br>Trees  | Tip Blight<br>(Diplodia)  |  | 1 lb per<br>100 gal/A   | Apply at bud break.<br>Repeat 10 to 14 days<br>later, just before needles<br>emerge from sheath;<br>repeat again 10 to 14<br>days after needle<br>emergence.<br><br>Do not apply more than<br>3 lbs of product (2.1 lbs<br>a.i.)/A/year. |
| (Fir)<br>Douglas  | Swiss Needle<br>Cast<br>(Phaenocarpa)<br>Rhabdocline<br>Needle Cast |  | 1 lb per<br>50 gal/A  | Apply initially in early<br>May. Repeat at 4-week<br>intervals.<br><br>Do not apply more than<br>5 lbs of product (3.5 lbs<br>a.i.)/A/year.  |
| <ul style="list-style-type: none"> <li>- Add a spreader/sticker to improve coverage.</li> <li>- Use minimum gallonage with mist-blower types of sprayers and higher gallonage with conventional sprayers.</li> <li>- Do not graze livestock in treated areas.</li> <li>- Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.</li> </ul> |   |  |   |  |
| Conifers<br>(seedling<br>treatment)<br>Longleaf   | Brown Needle<br>Blight (Scirrhia)                                   |  | 1 oz. product<br>per 9.5 oz. dry<br>Kaolinite clay<br>for seedling<br>roots | Wet seedling roots in<br>clean water, then apply<br>Topsin M WSB<br>/Kaolinite mixture to<br>wet roots.<br><br>Do not apply mixture to<br>seedling foliage.  |
| Loblolly  | Fusarium and  |  | 2 oz. product per   | Thoroughly cover   |

21/24

|  |                         |  |  |   |
|--|-------------------------|--|--|---|
| Longleaf<br>Slash  | Rhizoctonia Root<br>Rot |  | 50 oz. Kaolinite<br>clay, plus<br>enough water to<br>make a slurry | seedling roots with<br>Topsin M WSB<br>/Kaolinite slurry.<br>Do not apply mixture to<br>seedling foliage. |
| <p>- During treatment, avoid excessive drying of roots or exposure to temperatures greater than 90° F or less than 32° F.</p> <p>- Topsin M WSB does not control Pythium or Phytophthora.</p> <p>- Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.</p> |                         |  |  |   |

**DIRECTIONS FOR USE THROUGH CHEMIGATION SYSTEMS**  
 USE IN CALIFORNIA BY CHEMIGATION ONLY FOR BEANS, CUCURBITS (CANTALOPE, CASABA, CUCUMBERS, MELONS, PUMPKINS, SQUASH, WATERMELONS), PEANUTS, POTATOES, SOYBEANS, STRAWBERRIES, AND SUGAR BEETS.

**GENERAL INSTRUCTIONS**

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

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

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

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

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

**SYSTEM REQUIREMENTS**

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

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually

22/24

shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch that 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.

### **APPLICATION INSTRUCTIONS**

Observe the requirements in the System Requirements section above.

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

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

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

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

Do not apply when wind speed favors drift, when system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product cannot be flushed and must be dismantled and drained. In a center pivot system, block the nozzle set nearest the well/pivot/injection unit to prevent spray being applied to this area.

Where sprinkler distribution patterns do not overlap sufficiently, unacceptable disease control may result.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water.

Topsin M WSB may be applied in conjunction with chemically neutral liquid fertilizers.

Application in conjunction with highly alkaline fertilizers, such as aqueous ammonia, may cause a degradation of the pesticide, resulting in reduced performance and should be avoided.

### **SPRAY PREPARATION:**

Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

Prepare a suspension of Topsin M WSB in a mix tank. Fill the tank with 1/2 or 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Slowly add the required amount of Topsin M WSB and then the remaining volume of water.

### **Sprinkler Irrigation - Notes**

Observe all System Requirements and Application Instructions above.

Set sprinkler system to deliver a maximum of 0.4 inch of water per acre. Volumes of water higher than this may reduce efficacy. Start sprinkler and then uniformly inject the suspension of Topsin M WSB into the irrigation water line so as to deliver the desired rate per acre. The suspension of Topsin M WSB should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. When treatment with Topsin M WSB has been completed, do not irrigate the treated area for 24 to 48 hours to prevent washing

23/24

the chemical off the crop.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Where sprinkler distributed patterns do not overlap sufficiently, unacceptable disease control may result.

Check local restrictions and requirements regarding sprinkler irrigation applications, as they may vary from state to state.

**Drip (Mini-Micro Sprinklers, Strip Tubing, Trickle) Irrigation - Notes**

Observe all System Requirements and Application Instructions above.

A pesticide supply tank is recommended.

**IMPORTANT INFORMATION  
READ BEFORE USING PRODUCT**

**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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

The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

To the extent consistent with applicable law, United Phosphorus, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or United Phosphorus, Inc., and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, **UNITED PHOSPHORUS, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

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