

70506-187

03-12-2010

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

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

MAR 12 2010

Mr. Timothy M. Formella  
Senior Registration Manager  
United Phosphorus, Inc.  
630 Freedom Business Center, Suite 402  
King of Prussia, PA 19406

RE: Notification of Adding a Pest, the disease Powdery Mildew under the uses on Atichokes  
EPA Registration Number: 70506-187  
Date of Submission: February 22, 2010

Dear Mr. Formella:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated February 22, 2010, for the above mentioned product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at 703-305-6249 or Joyce Edwards of my staff at 703-308-5479.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Arrington".

Linda Arrington  
Notifications & Minor Formulations Team Leader  
Registration Division (7505P)  
Office of Pesticide Programs

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Please read instructions on reverse before completing form.

Form Approved, OMB No. 2070-0060, Approval expires 05-31-98

 <b>EPA</b>	United States <b>Environmental Protection Agency</b> Washington, DC 20460	<input type="checkbox"/> <b>Registration</b> <input type="checkbox"/> <b>Amendment</b> <input checked="" type="checkbox"/> <b>Other:</b>	OPP Identifier Number
	<b>Application for Pesticide - Section I</b>		

1. Company/Product Number 70506-187	2. EPA Product Manager Mary L Waller	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Microthiol Disperss	PM# 21	
5. Name and Address of Applicant (Include ZIP Code) United Phosphorus, Inc. 630 Freedom Business Center, Suite 402 King of Prussia, PA 19406  <input type="checkbox"/> Check if this is a new address		6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to: EPA Reg. No. _____  Product Name _____

**Section - II**

<input type="checkbox"/> Amendment - Explain below. <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application <input type="checkbox"/> Other - Explain below
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NOTIFICATION  
MAR 12 2010

**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)  
 Notification of addition of a pest per PR Notice 98-10. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec 1001 to willfully make any false statements to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other _____	
*Certification must be submitted		If "Yes" Unit Packaging wgt.    No. per container	If "Yes" Package wgt.    No. per container		
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 30 pound bag		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Other _____ <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled					

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)		
Name <b>Timothy M. Formella</b>	Title Senior Registration Manager	Telephone No. (Include Area Code) 610-491-2813
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received <b>(Stamped)</b>
2. Signature 		
3. Title Senior Registration Manager		
4. Typed Name Timothy M. Formella		5. Date February 22, 2010





red-lined copy  
5/22

**GROUP M2 FUNGICIDE**

# MICROTHIOL<sup>®</sup> DISPERSS<sup>®</sup>

## MICRONIZED WETTABLE SULFUR



ACTIVE INGREDIENT:		
Sulfur .....	80.0%	
OTHER INGREDIENTS .....	20.0%	
TOTAL	100.0%	

**NOTIFICATION**  
MAR 12 2010

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

**FIRST AID**

**IF ON SKIN OR CLOTHING:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:**

- Call a poison control center or doctor for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

**IF INHALED:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

EPA Reg. No. 70506-187  
Net Contents: \_\_\_\_\_

EPA Est. No. 44420-FR-1  
Batch/Lot # \_\_\_\_\_

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

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

**CAUTION**

Harmful if swallowed, inhaled, or absorbed through skin. Avoid breathing dust or spray mist. Avoid contact with skin, eyes, or clothing.

**PERSONAL PROTECTIVE EQUIPMENT**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- shoes plus socks
- personal protective eyewear

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.

**USER SAFETY RECOMMENDATIONS**

**Users should:**

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

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not contaminate water when disposing of equipment washwaters.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling, and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains

requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

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

- coveralls
- shoes plus socks
- chemical resistant gloves made of any waterproof material
- protective eyewear

**NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box only apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

For non-agricultural turf and grass uses (golf courses, home lawns, and landscapes around buildings) do not enter or allow entry into treated area until sprays have dried.

**APPLICATION INSTRUCTIONS**

Apply through any type of handheld, knapsack, mechanical or pneumatic spraying equipment.

MIXING: Pour the required amount of MICROTHIOL DISPERS into the indicated amount of water while stirring. MICROTHIOL DISPERS disperses instantly.

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

**Dilute Application:**

Field: Specified rate in 20 to 60 gallons of water per acre.

Orchard: Specified rate in 100 to 800 gallons of water per acre.

**Concentrated Application:**

Field: Specified rate in 5 to 10 gallons of water per acre.

Orchard: Specified rate in 20 to 100 gallons of water per acre.

**Aerial Application:**

Field: Specified rate in 3 to 20 gallons of water per acre.

Orchard: Specified rate in 10 to 20 gallons of water per acre.

**SPRAY COVERAGE**

Foliage must be completely covered on both the upper and lower leaf surfaces for effective control. Dense canopies can limit complete coverage. Adequate spray volume for thorough coverage is essential.

**COMPATIBILITY**

MICROTHIOL DISPERSS is compatible with most Bordeaux mixtures, copper fungicides, liquid fertilizers, organic fungicides, insecticides, acaricides and herbicides.

**USE INSTRUCTIONS**

Some crops may be damaged by sulfur under certain climatic conditions, such as when temperature is high. United Phosphorus, Inc. does not recommend application if temperature will exceed 90° F within the three days following spraying, due to the risk of crop injury. Crops grown in greenhouses may be more sensitive to sulfur injury, so the lowest labeled rate (or below labeled rates) should be tried initially. Do not use on any crop unless sulfur has been shown to be safe in your locality. Do not allow spray to drift onto sulfur-sensitive crops such as apricots, cranberries, spinach and d'Anjou pears.

Do not use within two weeks of an oil spray treatment, except for Dormant, Delayed Dormant, or Postharvest applications with a suitable oil. For citrus, do not apply within 21 days of an oil spray. Spreader/stickers are not required for use with MICROTHIOL DISPERSS. If spreader/stickers are used with MICROTHIOL DISPERSS, foliar injury may be enhanced under high temperatures. When growing crops for processing, consult the processor before applying sulfur.

NOTE: The application rates specified for each crop are the maximum that may be applied. These amounts may be reduced if experience or local practice indicates that lesser amounts may be effective. Consult State Agriculture Experiment Station or State Extension Service specialist for rates recommended in your local area.

**NUTRIENT USE**

Microthiol Disperss applications will provide sulfur needed to meet a plant's nutrient requirements and should be considered for use in total nutrient applications. Microthiol Disperss can be used as a micronutrient supplement when applied on the foliage or soil to the crops listed on this label. Consult your State Agricultural Experiment Station or Extension Specialist for advice in selecting treatments that best fit local conditions.

**VEGETABLE CROPS**

Crop	Pest	Rate Lbs/A	Directions
Artichokes (all varieties)	Leaf Spot <u>Powdery</u> <u>Mildew</u>	10-20	Begin when disease first appears and repeat at 7- to 10-day intervals or as needed.
Asparagus	Mites Rust	10-30	Apply after cutting, irrigate and cultivate before applying. Repeat at 7- to 10-day intervals, or as needed, through fern growth season.



Crop	Pest	Rate Lbs/A	Directions
Beans, Peas	Leaf Spot Powdery Mildew Red Spider Mite Rust	3 - 10	Apply at early leaf stage and repeat at 10- to 14-day intervals or as needed.
Broccoli, Brussels sprouts, Cabbage, Cauliflower Kohlrabi	Powdery Mildew Red Spider Mite Septoria Leaf Spot	3-10	Begin in early leaf stage. Repeat every 10 to 14 days or as needed.
Carrots	Petrobia Mite Powdery Mildew	3-10	Apply at early leaf stage and repeat every 7 to 10 days or as needed.
Celery	Powdery Mildew Red Spider Mite Rust	4-6	Apply at early leaf stage and repeat every 10 to 14 days or as needed.
Cowpeas	Rust	2-9	Begin applications soon after seedlings emerge. Repeat at 7- to 10-day intervals as needed throughout the season.
Cucumbers	Powdery Mildew	2-4	Apply when disease first appears and repeat as necessary. Do not apply more than 2 pounds MICROTHIOL DISPERSS per acre per application during periods of high temperatures.
Eggplant	Powdery Mildew	4-6	Apply when first true leaves appear. Repeat at weekly intervals or as needed.
Endive Escarole Swiss Chard Salsify	Powdery Mildew Red Spider Mite Rust	4-6	Apply at early leaf stage and repeat every 10 to 14 days or as needed.
Greens: Collards, Kale, Mustard, Beet, Turnip	Powdery Mildew Red Spider Mite Rust Septoria Leaf	3-10	Apply at early leaf stage and repeat every 14 days or as needed.

Crop	Pest	Rate Lbs/A	Directions
	Spot		
Lettuce (Head and Leaf)	Powdery Mildew Red Spider Mite Rust	5-10	Apply at early leaf stage and repeat every 14 days or as needed. Thorough coverage is required.
Melons	Powdery Mildew	5-10	Apply when disease first appears and repeat as needed. Sulfur can injure plants, especially when temperature reaches 90° F. Do not use on sulfur sensitive varieties.
Okra	Leaf Spot Mites Powdery Mildew	3-10	Apply at early leaf stage and repeat every 14 days or as needed.
Onions, Garlic, Dry Onions Dry Shallots	Petrobia Mite Powdery Mildew	3-10	Apply when disease and/or mites first appear and repeat as needed.
Potatoes Sweet Potatoes	Leaf Spot Powdery Mildew Red Spider Mite	5-10	Apply at early leaf stage and repeat every 10 to 14 days or as needed.
Peppers	Broad Mite Leaf Spot Powdery Mildew Red Spider Mite	3-10	Apply at early leaf stage and repeat every 10 to 14 days or as needed.
Spinach	Powdery Mildew Rust	4-6	For use on spinach to be processed only. Do not use on fresh spinach as sulfur has been shown to have phytotoxic effects on certain varieties of spinach. Spray on a small area first to test for phytotoxicity before making a full application. Apply when disease first appears and repeat at 7- to 10-day intervals or as needed.
Squash (including Pumpkins, Summer and	Powdery Mildew	5-10	Apply when disease first appears and repeat as needed. Sulfur can injure plants, especially when temperature reaches 90° F. Do not use on sulfur sensitive varieties.

Crop	Pest	Rate Lbs/A	Directions
Winter Squash)			
Table Beets	Powdery Mildew Red Spider Mite	3-5	Apply at first indication of problem with or without other pesticides. Repeat as necessary.
Tomatoes	Powdery Mildew Russet Mite Two-Spotted Mite	5-20	Begin application when symptoms first appear and repeat at 7- to 10-day intervals or as needed. Thorough coverage is required. For Russet Mite apply 10 to 20 pounds per acre.
Turnips Parsnips Horseradish Radishes Rutabagas	Powdery Mildew Red Spider Mite Rust Septoria Leaf Spot	3-10	Apply at early leaf stage and repeat every 10 to 14 days or as needed.

**FRUIT AND NUT CROPS**

Crop	Pest	Rate Lbs/A	Directions
Almonds	Brown Rot Flat Mite Leaf Spot Powdery Mildew Red Spider Mite Rust Silver Mite	10-20	Apply at dormant through harvest, alone or in tank-mixes with other fungicides/miticides for disease protection, mite suppression, and resistance management. Repeat applications at 7- to 10-day intervals or as needed.
Apples, Pears	Powdery Mildew Scab Blister Mite Red Spider Mite Silver Mite Two-Spotted	10-20	Apply at prebloom and petal fall. Apply with cover sprays throughout the season. Do not apply to d'Anjou pears or sensitive apple varieties (i.e. Ontario or Cox Orange).

Crop	Pest	Rate Lbs/A	Directions
	Mite		
Apples, Pears (Dormant, Delayed Dormant or Postharvest)	Blister Mite Pear Psylla Red Spider Mite Two-Spotted Mite	10-20	Apply with a suitable spray oil postharvest and during the dormant periods of bud development. Do not apply to sensitive varieties of pears except at these stages.
Avocados	Brown Mite	10-20	Apply as needed.
Bananas	Mites	10-30	Apply as needed.
Citrus	Broad Mite Bud Mite Citrus Rust Mite Flat Mite Red Spider Mite Silver Mite Six-spotted Mite Thrips Yuma Spider Mite	10-20	Apply as needed. Do not apply within 21 days of an oil spray.
Dates	Banks Grass Mite	20	Apply in sufficient water to provide thorough coverage of the date clusters. Begin applications as mites or mite webbing are first observed. Repeat applications every 14 days or as necessary, until dates are mature and are no longer subject to mite feeding injury.
Figs	Mites including: Eriophyid Mites Fig Mite	5	Apply at a minimum of 100 gallons per acre. Begin applications in the spring, and continue on a 3-4 week schedule or as necessary.
Grapes	Powdery Mildew Phomopsis Blister Mite Bud Mite Red Spider Mite	3-10	Apply throughout the season at 7- to 14-day intervals or as needed. Thorough coverage is required. Note: Use with caution on Concord, Labrusca type, and other sulfur sensitive grape cultivars as injury can occur after bloom.

Crop	Pest	Rate Lbs/A	Directions
Mangos	Powdery Mildew	10-30	Begin application before bloom. Repeat at bloom, after fruit set, and 3 weeks later or as necessary.
Olives	Olive Mites	10-30	Apply as needed.
Papaya	Mites	10-30	Apply when mites first appear and repeat as necessary to maintain control. Do not apply in combination with emulsifiable pesticide formulations as foliar injury may occur. Do not apply to low vigor or moisture stressed plants. Do not apply prior to or during periods of excessively high temperatures, periods of low rainfall or within two weeks of an oil spray.
Pecans	Leaf Spot Powdery Mildew Sooty Mold Eriophyid Mites (including Hickory and Pecan) Flat Mite Red Spider Mite Silver Mite Two-Spotted Mite	5-10	Apply throughout the season as needed. Note: Some varieties of pecans are sensitive to sulfur sprays under certain conditions. Do not apply unless varieties are known to be tolerant of sulfur.
Pineapple	Mites	10-30	Apply as needed.
Pistachios	Mites	10-20	Begin applications in June-July. Make additional applications as necessary. When temperatures exceed 90° F, lower rates and more frequent applications are advised in order to avoid crop injury.
Pomegranate	Mites	3-10	Begin applications in May or June. Make additional applications on a 3-4 week schedule, or as necessary. Use higher rates if past mite damage has been high. If temperatures exceed 90° F, lower rates and more frequent applications are advised in order to avoid crop injury.
Quince	Brown Rot	10-30	Begin applications at early leaf stage and repeat

Crop	Pest	Rate Lbs/A	Directions
	Powdery Mildew Scab		as necessary. Do not use on sulfur sensitive varieties.
Stone Fruit: Peaches, Plums, Cherries, Nectarines, Prunes	Brown Rot Flat Mite Leaf Spot Powdery Mildew Red Spider Mite Rust Silver Mite	10-20	Apply at dormant through harvest, alone or in tank-mixes with other fungicides/miticides for disease protection, mite suppression, and resistance management. Repeat applications at 7- to 10-day intervals or as needed. For Brown Rot of fruit, apply when fruit starts to ripen. Do not apply to apricots.
Walnuts, Macadamias	Almond Mite Broad Mite European Red Mite Pacific Mite Red Spider Mite Two-Spotted Mite	10-20	Apply throughout the season as needed. Note: Some varieties of walnuts are sensitive to sulfur sprays under certain conditions. Do not apply unless varieties are known to be tolerant of sulfur.

**FIELD CROPS**

Crop	Pest	Rate Lbs/A	Directions
Alfalfa Including: Seed Alfalfa	Atlantic Mite Pacific Mite Red Spider Mite Lygus (suppression)	12-25	Apply throughout the season as necessary.
Cereals: Corn, Wheat, Barley, Oats, Rye, Sorghum	Atlantic Mite Banks Grass Mite Pacific Mite Powdery Mildew Red Spider Mite	8-15	Apply when mites or symptoms first appear and repeat applications as necessary.

Crop	Pest	Rate Lbs/A	Directions
	Two-spotted Mite		
Clover	Mites Powdery Mildew	2-9	Apply as needed.
Cool Season Forage Grasses (including; Timothy, Orchard Grass, Fescues, Sudan Grass, Bermuda Grass, Bluegrass, and Bromegrass)	Mites (including Banks Grass Mite)	5-10	<p>Apply at first sign of mites. Continue applications at 7-day intervals, or as needed, until mites are below economic levels. The addition of adjuvants (spreaders, surfactants, etc.) can increase the chance of crop injury, and is not recommended.</p> <p>For aerial applications: Use the specified rate in a minimum of 3 gallons of water per acre. For ground applications: Use the specified rate in a minimum of 20 gallons of water per acre.</p>
Cotton	Atlantic Mite Red Spider Mite Two-Spotted Mite	5-10	Apply throughout the season as necessary.
Flax	Powdery Mildew	2-9	Apply at first sign of disease. Repeat at 7- to 10-day intervals or as necessary.
Peanuts	Leaf Spot Powdery Mildew Red Spider Mite Rust Two-Spotted Mite	5-8	Apply at early leaf stage and repeat applications as necessary.
Soybeans	Leaf Spot Powdery Mildew Rust	10-15	Apply at early leaf stage and repeat at 7- to 14-day intervals or as needed.
Sugar Beets	Powdery Mildew	5-10	Apply as soon as symptoms appear and repeat every 7 to 14 days or as needed.

Crop	Pest	Rate Lbs/A	Directions
	Red Spider Mite		
Sugarcane	Mites	8-15	Apply when mite pressure is imminent and repeat applications as necessary.

**SMALL FRUITS AND BERRIES**

Crop	Pest	Rate Lbs/A	Directions
Blackberry, Boysenberry Dewberry, Loganberry, Blueberry, Gooseberry, Huckleberry , Currant	Powdery Mildew	6-15	Begin application before blossoms open and continue at 10-day intervals or as needed.
Raspberries	Powdery Mildew Red Berry Mite	6-15	Apply each week from first bloom to fruit set. Repeat as the weather requires.
Strawberries	Powdery Mildew Red Spider Mite Two-Spotted Mite	5-10	Begin application at early leaf stage and repeat as needed. Do not use on sulfur-sensitive varieties.

**MISCELLANEOUS CROPS**

Crop	Pest	Rate Lbs/A	Directions
Spearmint, Peppermint	Powdery Mildew	4-6	Apply when mint is 5-6" tall or when disease appears. Repeat twice, at 30-day intervals. Do not apply within 30 days of harvest.
Hops	Red Spider Mite	2-6	Begin applications at early leaf stage, and repeat as needed.
Ornamentals , Roses	Leaf Spot Powdery Mildew	3-10 by ground or 3-20 by air	Apply to ensure complete plant coverage. Begin when disease first appears and repeat at 5-10 day intervals.



	Two-Spotted Mite		
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**OTHER ORNAMENTALS**

For the ornamentals listed below apply 3 to 10 pounds in 100 gallons of water. Begin when disease first appears and repeat at 5 to 10 day intervals as needed.

**For Control of Powdery Mildew on:** Alder, Asters, Azalea, Buttonbush, Catalpa, Carnations, Chrysanthemum, Cosmos, Crepe Myrtle, Dahlia, Daisy, Delphinium, Dogwood, Euonymus, Gladiolus, Golden Fleece, Hibiscus, Honeysuckle, Horse chestnut, Hydrangea, Lady's Mantle, Ligustrum, Lilac, Linden, Matrimony vine, Phlox, Poplar, Rhododendron, Sage, Silver vine, Smilax, Spirea, Stag horn sumac, Sunflowers, Sweet Peas, Sycamore, Trumpet vine, Verbena, Violets, Willow, Witch hazel, and Zinnia.

**For Control of Red Spider Mites on:** Arborvitae, Carnation, Cedars, Chrysanthemums, Clematis, Hydrangea, Rose, Snapdragon, and Sweetpeas.

**For Control of Rust on:** Aster, Carnation, Chrysanthemum, Rose, and Snapdragon.

**For Control of Leaf Spot on:** Calendula, Cherry Laurels, Clematis, Columbine, English Ivy, Foxglove, Hollyhock, Hydrangea, Petunia, Phlox, Sage, Smilax, and Snapdragon.

**For Control of Botrytis Blight on:** Hydrangea.

**TURF AND GRASS**

Crop	Pest	Rate Lbs/A	Directions
Commercial Turf including (but not limited to) golf courses, sod farms, and grass grown for seed	Powdery Mildew Rust	3-10	Begin applications at the very first sign of disease, or as a preventative when conditions favor disease. These are explosive diseases and are very difficult to control once fully established. Repeat applications as needed. Tank mixing with systemic fungicides will improve control and help in a resistance management program with these fungicides.
Bentgrass, Bluegrass, Ryegrass and Fescue	Suppression of Fusarium Patch Suppression of Take-all in	10-55	Apply monthly from September through May. Apply prior to outbreak of disease and use higher rate when conditions favor disease and temperatures are below 80° F. Use lower rates when temperatures are greater than 80° F. May cause Poa Annuua decline.

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22

	Bentgrass		
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**DIRECTIONS FOR USE THROUGH CHEMIGATION SYSTEMS**

**GENERAL INSTRUCTIONS**

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

**PRECAUTION:** Corrosion of aluminum and carbon/galvanized steel irrigation sprinkler systems may be experienced with the use of sulfur fungicides. If the user elects to apply this product through such systems, it is essential that all application equipment containing this product be thoroughly flushed with clean water after each day's use. Continue to operate system with clean water until all product has cleared the last sprinkler head.

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 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.

MICROTHIOL DISPERSS may be applied in conjunction with chemically neutral liquid fertilizers.

**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 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.

Apply MICROTHIOL DISPERSS only through systems containing anti-siphon 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.

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

### **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 MICROTHIOL DISPERSS in a mix tank. Fill the tank with  $\frac{1}{2}$  or  $\frac{3}{4}$  the desired amount of water. Start mechanical or hydraulic agitation. Slowly add the required amount of MICROTHIOL DISPERSS and then the remaining volume of water.

### **Sprinkler Irrigation- Notes:**

Observe all System Requirements and Application Instructions above.

Set sprinkler system to deliver 0.1 to 1.25 inches of water per acre. Volumes of water higher than this may reduce efficacy. Start sprinkler and then uniformly inject the suspension of MICROTHIOL DISPERSS into the irrigation water line so as to deliver the desired rate per acre. The suspension of MICROTHIOL DISPERSS 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 MICROTHIOL DISPERSS has been completed, do not irrigate the treated area for 24 to 48 hours to prevent washing the chemical off the crop.

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

Where sprinkler distribution 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.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in a closed package in a cool, dry, secure place. Do not store near flammable materials. 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 below.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container.** Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. Then offer for recycling if available or 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.

**EMERGENCY TELEPHONE NUMBERS:**

CHEMTREC: (800) 424-9300

MEDICAL: (866) 673-6671 Rocky Mountain Poison Control Center

**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.

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