

NOT FOR USE IN CALIFORNIA

PM21
4581-372
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TOPSIN[®] M 85WDG

FOR TURF AND ORNAMENTALS

Thiophanate-Methyl Fungicide 85% Water Dispersible Granule

ACCEPTED

ACTIVE INGREDIENT:

Thiophanate-Methyl(dimethyl[1,2-phenylene]-
bis(iminocarbonothioyl))bis(carbamate))*

INERT INGREDIENTS:

TOTAL:

Under the Federal Insecticide, Fungicide and
Rodenticide Act, as amended, for the
purpose of registration under
the FIFRA Act, the following information is provided:
85%
15%
100%

*Also known as dimethyl 4,4'-O-phenylenebis[3-thioallophanate]

•TOPSIN is a registered trademark of Nippon Soda Company, Ltd., and is licensed to Atochem North America and is covered by one or more of the following U.S. Patents: 3,769,308; 3,856,847; 4,020,095; and 4,029,813.

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Call a physician. Never give anything by mouth to an unconscious person.

IF IN EYES, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

IF ON SKIN, immediately flush skin with plenty of water. Get medical attention if irritation persists.

See brochure attached to container for other precautionary statements, Directions for Use, and Chemigation Instructions

ATO
ATO CHEM
NORTH AMERICA

SEP 24 1990

EPA Reg. No. 4581-372
EPA Est. No. 4581-TX-1

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4581-372

NET CONTENTS 3.3 Lbs/1.5 Kg

Sold by:

AGCHEM DIVISION—ATO CHEM NORTH AMERICA

Philadelphia, PA 19102

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Topsin M 85WDG

DIRECTIONS FOR USE ON TURF AND ORNAMENTALS**DIRECTIONS FOR USE**

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

TURF

For use on golf course greens, tees, and fairways of Bentgrasses, Bluegrasses, Bermudagrasses, Fescues, Ryegrasses, St. Augustine grasses, or their mixtures. TOPSIN M is not phytotoxic to any of the above mentioned grasses when used in accordance with the label. TOPSIN M is to be used for the prevention and control of the below mentioned diseases (provides both curative and protective action).

Use spray mixture the same day it is prepared. Spray uniformly over the area to be treated. Apply after mowing or avoid mowing for twelve hours after application.

Apply recommended amounts in sufficient water to obtain thorough coverage, usually five gallons per 1,000 square feet of turf area. When treating golf greens, always treat aprons and approaches. Use the highest recommended rate under conditions of severe disease pressure.

FUSARIUM BLIGHT (*Fusarium roseum*) - Apply TOPSIN M at $2 \frac{2}{5}$ to $4 \frac{4}{5}$ ounces per 1,000 square feet. Water into the root zone by irrigating with one inch of water immediately after application. Make two applications at 10 to 14-day intervals, beginning applications when the disease first appears.

DOLLAR SPOT (*Sclerotinia homoeocarpa*) - **COPPER SPOT** (*Gloeocercospora sorghi*) - Apply TOPSIN M at $\frac{3}{5}$ to $1 \frac{1}{15}$ ounces per 1,000 square feet beginning when the disease first appears and continue at 10 to 14-day intervals through the season or as needed.

LARGE BROWN PATCH (*Rhizoctonia solani*) - Apply TOPSIN M at $\frac{3}{5}$ to $1 \frac{1}{15}$ ounces per 1,000 square feet beginning when the disease first appears and continue at 10 to 14-day intervals through the season or as needed. When conditions are unusually favorable for development of disease, reduce interval to 5 to 7 days.

STRIPE SMUT (*Ustilago striiformis*) - Apply TOPSIN M at $2 \frac{2}{5}$ to $4 \frac{4}{5}$ ounces per 1,000 square feet. Water into the root zone by irrigating with one inch of water immediately after application. Make two applications at 14 to 21-day intervals. Begin applications when the disease first appears, either in the spring or fall.

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ORNAMENTALS, ROSES, FLOWERS, SHADE TREES (FIELD AND GREENHOUSE)

FOLIAR SPRAY: Begin applications when disease first appears and repeat at 10 to 14-day intervals throughout the growing season; shorten interval during humid, rainy weather.

Use at the following rates:

Use 0.4 pound per 100 gallons for Powdery Mildew and Botrytis Gray Mold.

Use 0.8 pound per 100 gallons for Anthracnose (for shade trees and woody ornamentals, begin at bud break and make 2 or 3 additional applications at 10 to 14-day intervals); Black Spot of roses; Cercospora, Entomosporium, Ramularia, and Septoria Leaf Spots; Ascochyta and Phomopsis Blights; Didymellina Leaf Spots of iris; Corynespora Leaf Spot of ligustrum; Ovulinia of azalea and rhododendron (begin as flowers open); Scab of pyracantha and flowering crab.

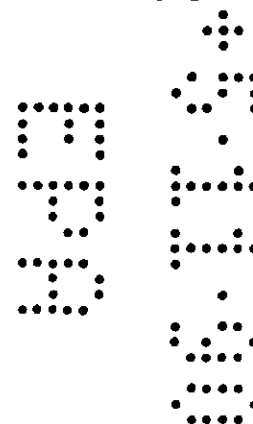
Addition of a surfactant to the spray mixture improves distribution of the spray on hard-to-wet plants such as roses.

For aerial application, use 0.4 to 0.8 pound per acre.

DRENCH TREATMENT: Botrytis, Fusarium, Rhizoctonia, and Sclerotinia stem, crown, and root rots on herbaceous annuals, perennials, and bedding plants; Cylindrocladium and Thielaviopsis rots on woody ornamentals such as azaleas, rhododendrons, conifers, and poinsettias - Use 0.8 pound per 100 gallons; apply as a drench or heavy spray (1 to 2 pints per square foot) after transplanting into propagation beds or containers. Repeat at 2 to 4 week intervals during periods favorable for disease. TOPSIN M does not control Pythium spp. or Pytophthora spp.

PREPLANT DIP TREATMENT: Plants or Cuttings - For diseases listed under Drench Treatment, use 0.8 pound per 100 gallons of water; immerse plants or cuttings for 10 to 15 minutes; remove and allow to drain.

Bulbs (Easter Lily, Tulip, Gladiolus, Daffodil, Iris) Fusarium and Penicillium Rots - Use 1.4 pounds per 100 gallons of water. Soak cleaned bulbs for 15 to 30 minutes in warm dip (80° to 85°F) preferably within 48 hours after digging. Dry bulbs after treatment. If bulbs are for forcing, treat bulbs that have been heat-cured.



GENERAL INFORMATION

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

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Chemigation instructions follow. Do not apply through any irrigation system unless these instructions are followed.

Do not enter treated areas without protective clothing until spray has dried. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When oral warnings are given, such warnings shall be given in a language customarily understood by the workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by the workers. Written warnings must include the following information: "CAUTION: Area treated with TOPSIN M (SWSG Thiophanate-methyl Fungicide on (date of application))."

CHEMIGATION GENERAL INSTRUCTIONS

Apply this product only through sprinkler irrigation systems including center pivot, lateral move, and laser, side (wheel) roll, traveler, big gun, solid set, or hand move. 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 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 shut down.

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

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

INSTRUCTIONS FOR SPRINKLER (OVERHEAD) IRRIGATION:

Observe the requirements in the System Requirements section above.

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

Apply TOPSIN M 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 loss containing the product cannot be flushed and must be dismantled and cleaned. In a center pivot system, block the nozzle set nearest the well/pivot/irrigation well 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 may be applied in conjunction with chemically neutral liquid fertilizers. Application in conjunction with highly alkaline fertilizers, such as ammonium nitrate, may cause a degradation of the pesticide, resulting in reduced performance and should be avoided.

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

SPRAY PREPARATION

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

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

APPLICATION INSTRUCTIONS

Set sprayer system to deliver 0.1 to 1.25 inches of water per acre. Volumes of water higher than this may reduce efficacy. Start sprayer and then uniformly inject the suspension of TOPSIN M into the irrigation water line so as to deliver the desired rate per acre. The suspension of TOPSIN M should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing.

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

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

HARMFUL IF SWALLOWED, ABSORBED THROUGH SKIN, OR INHALED. CAUSES MODERATE EYE IRRITATION. Avoid contact with skin, eyes, or clothing. Avoid breathing dust or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not apply directly to water or wetlands. Do not apply where runoff is likely to occur. Do not contaminate water when disposing of equipment washwaters.

STORAGE AND DISPOSAL

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

Storage Instructions: 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 Instructions: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal Instructions: 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.

WARRANTY AND DISCLAIMER

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