

PM 21  
4581-352  
pg. 1 of 3

**PROPOSED LABEL**

**TOPSIN®M 4.5F**  
**TURF AND ORNAMENTALS FUNGICIDE**  
EPA Reg. No. 4581-352

**SUPPLEMENTAL LABELING FOR USE ON TURF**  
**ADDITION OF DISEASE NAMES**

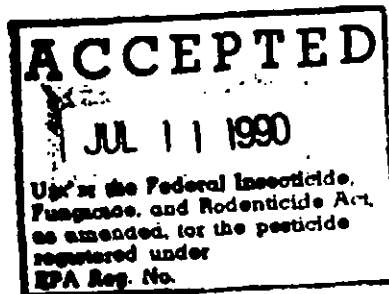
**DIRECTIONS FOR USE**

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

**FUSARIUM BLIGHT (Fusarium roseum), NECROTIC RING SPOT (Leptosphaeria korrae), and SUMMER PATCH (Phialophora graminicola)** - Apply TOPSIN M at 5 to 10 fluid 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.

**NOTE:** This label and the Federally registered label must be in the possession of the user at the time of pesticide application.

Observe all applicable restrictions, precautions and limitations on the Federally registered label.



# TOPSIN® M 4.5F

## TURF AND ORNAMENTALS FUNGICIDE

NOT FOR USE IN CALIFORNIA

SHAKE WELL BEFORE USING

4.5 Pounds per Gallon Flowable

### ACTIVE INGREDIENT:

Thiophanate-methyl (dimethyl[(1,2-phenylene)-bis(iminocarbonothioyl)]bis(carbamate))\* . . . . . 46.2%

INERT INGREDIENTS: . . . . . 53.8%

TOTAL . . . . . 100.0%

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

\*TOPSIN is a registered trademark of Nippon Soda Company, Ltd., and is licensed to Penwalt Corporation. Covered by one or more of the following U.S. Patents: 3,769,306; 3,856,847; 4,020,095; and 4,029,813.

EPA Registration No. 4581-352

EPA Establishment No. 4581-TX-1

## 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. See back panel for Precautionary Statements

#### PRECAUTIONARY STATEMENTS

##### HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)

HARMFUL IF SWALLOWED, ABSORBED THROUGH SKIN, OR INHALED. CAUSES MODERATE EYE IRRITATION.

Avoid contact with skin, eyes or clothing. Avoid breathing 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. Do not apply where runoff is likely to occur. Do not contaminate water by disposal of equipment washwaters.

#### 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 copper-containing materials or with highly alkaline pesticides, such as Bordeaux mixture or lime sulfur. No claim of compatibility with other pesticides is implied. Use the higher rates under conditions of severe disease pressure. Also, see local State Extension Service recommendations for application schedules.

**IMPORTANT:** If, after using TOPSIN M as recommended, treatment is not effective, a tolerant strain of fungi may be present (consult your local Penwalt representative). Consult your State Agricultural Experiment Station or your State Agricultural Extension Service for advice on the prompt use of some other suitable fungicide.

tioned 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 5 to 10 fluid 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 (*Gloeosporangium*)**—Apply TOPSIN M at 1 to 2 fluid ounces per 1,000 square feet beginning when the disease first appears. Continue at 10 to 14-day intervals through the season or as needed.

**LARGE BROWN PATCH (*Rhizoctonia solani*)**—Apply TOPSIN M at 1 to 2 fluid 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 5 to 10 fluid 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.

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

**POLIAR 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 10 fluid ounces per 100 gallons (1 teaspoonful per 2 gallons) for Powdery Mildew and Botrytis Gray Mold.

Use 20 fluid ounces 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 10-20 fluid ounces 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, clematis, and privet. Use 20 fluid ounces 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 *Phytophthora* spp.

#### PREPLANT DIP TREATMENT:

**Plants or Cuttings**—For diseases listed under Drench Treatment, use 20 fluid ounces per 100 gallons of water; immerse plants or cuttings for 10 to 15 minutes; remove and allow to drain.

**Topain® M 4.5F Turf and Ornamentals**

**Bulbs (Water Lily, Tulip, Gladiolus, Daffodil, Iris) Fusarium and Penicillium Rot**—Use 33 fluid ounces per 100 gallons of water (2 teaspoons per gallon). 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.

**CHEMIGATION**

**NOT FOR THIS USE IN CALIFORNIA  
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, 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 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 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 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 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.

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

**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 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 and then the remaining volume of water.

**APPLICATION INSTRUCTIONS**

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 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.

**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, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**WARRANTY AND DISCLAIMER**

Pennwalt Corporation warrants that this material conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use, subject to the risks referred to therein. PENN-WALT MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL PENN-WALT OR SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, BUSINESS REPUTATION, OR CUSTOMERS, LABOR COST, OR OTHER EXPENSES INCURRED IN PLANTING OR HARVESTING.

Pennwalt and seller offer this product and the buyer and user accept it subject to the foregoing conditions of sale and warranty which may be varied only by agreement in writing signed by a duly authorized representative of Pennwalt.

**BEST AVAILABLE COPY**