



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 M St. S.W.
Washington D.C. 20460

EPA Reg Number

51036-330

Date of Issuance

OCT 10 2001

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance

Conditional

Name of Pesticide Product

Thiophanate Methyl 50W

Name and Address of Registrant (include ZIP Code)

Micro-Flo Company
P.O. Box 772099
Memphis, TN, 38117

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 registered/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.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit/cite all data required for the registration/ reregistration of your product when the Agency requires all registrants of similar products to submit data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. Make the following changes to the label:

a. Add the phrase "EPA registration number 51036-328" to the label before you release your product for shipment.

b. Replace the text following "Container disposal following non-commercial residential use" with:
If empty: Do not reuse this container. Place in trash or offer for recycling if available.
If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain. Move this new text so that it follows the "Container Disposal following commercial use" text.

3. Submit one copy of the revised final printed label before you release this product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

Enclosures: Stamped Labels

Signature of Approving Official:

Mary L. Waller
Mary L. Waller, Product Manager, Team 21
Fungicide Branch, Registration Division

Date:

10/10/01

THIOPHANATE METHYL 50W
IN WATER SOLUBLE BAGS

For prevention and control of fine turf diseases and diseases of annual and perennial flowers, ground covers, plus deciduous and evergreen trees and shrubs.

ACTIVE INGREDIENTS:

Thiophanate Methyl: Dimethyl 4,4'-o-phenylenebis[3-thioallophanate] 50.0%

INERT INGREDIENTS:..... 50.0%

TOTAL:..... 100.0%

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

IF SWALLOWED:

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

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

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 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 further treatment advice.

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

EMERGENCY NUMBERS:

- Transportation or spill, call CHEMTREC 800-424-9300.
- Human health, call Poison Control Center at 800-900-4044.
- Animal health, call ASPCA at 800-345-4735.

EPA Reg. No. 51036-GGN

EPA Est. No. 51036-GA-001

NET CONTENTS: 4 8-ounce water-soluble bags

Manufactured By:
MICRO FLO COMPANY
P.O. BOX 772099
MEMPHIS, TN 38117

ACCEPTED 3 7 14
with COMMENTS
In EPA Letter Dated:
OCT 10 2001

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.

51086-330

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed, inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, vapor or spray mist. Remove contaminated clothing and wash clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

WPS Uses: Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard, 40 CFR Part 170, must wear:

- Long-sleeved shirt and long pants.
- Shoes with socks.

NON-WPS USES

Applicators and other handlers who handle this pesticide for any use NOT covered by the Worker Protection Standard, 40 CFR Part 170, should wear:

- Long-sleeved shirt and long pants.
- Shoes with socks.

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

USER SAFETY RECOMMENDATIONS

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

This pesticide is toxic to fish. Do not apply directly to water, where surface water is present, or to intertidal areas below the mean high water mark. Application equipment should be thoroughly cleaned after use. Do not contaminate water when disposing of equipment washwater. Do not apply, allow to drift, or drain, or flush equipment onto non-target areas.

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 statements and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Personal Protective Equipment (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:

- 1. Coveralls
- 2. Chemical resistant gloves made of any waterproof material.
- 3. Shoes with socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box 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.

Turf and Landscape Uses: Keep children and pets out of treated area until sprays have dried.

RESTRICTIONS

Do not graze animals on treated turf. Do not feed clippings to livestock or poultry.

STORAGE AND DISPOSAL

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

STORAGE: Store in a cool, dry area in original unopened container. Store in a secured area unavailable to unauthorized persons.

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 following non-commercial residential use: Securely wrap original container in several layers of newspaper and discard in trash.

CONTAINER DISPOSAL following commercial use: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration or, if allowed by State and local authorities, by burning. If the bag is disposed of by burning, stay out of smoke.

GENERAL INFORMATION

Apply THIOPHANATE METHYL 50W with ground or aerial equipment, using sufficient volume of spray to provide thorough coverage. Add required amount of THIOPHANATE METHYL 50W to a partially filled tank, agitate 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 of 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 THIOPHANATE METHYL 50W as recommended a treatment is not effective, a tolerant strain of fungi may be present. Consult your local State Agricultural Extension Service for advice on the prompt use of some other suitable fungicide.

INSTRUCTIONS FOR APPLICATION

TO MIX: Slowly add THIOPHANATE METHYL 50W into spray tank while it is being filled and the agitator is running. THIOPHANATE METHYL 50W should be added prior to other pesticides or nutrients.

TANK MIXING: To broaden the spectrum of fungicidal control this product can be mixed with other fungicides such as iprodione 50% wettable powders, iprodione 2 lb/gallon liquids, chlorothalonil 6 lb/gallons liquids, vinclozolin 50% extruded granules, triadimefon 50% wettable powders, fenarimal 1 lb/gallon liquids, PCNB 75% wettable powders, thiram, 75% wettable powders, mancozeb wettable powders or propiconazole 1.3 lb/gallon liquids

for use on turf and ornamentals. Use only in accordance with the more restrictive label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

NOTE: Residential use is prohibited for several of the other fungicides listed as possible tank mix components. Do not apply tank mixtures of these products to residential areas unless the label of the other fungicide specifically allows residential uses.

Tank mix products containing boron or releasable free chlorine will affect the solubility of water-soluble (PVA) film. Thoroughly rinse the spray tank of any boron containing spray solution prior to adding any water-soluble bags. Even minimal carryover concentrations of boron in the spray tank may cause the water soluble bag material dissolved in water to precipitate and form insoluble residue inside the spray tank.

FOR AERIAL APPLICATION: Use at rate indicated in sufficient water for thorough coverage or a minimum of 2 gallons per acre. Use a spreader-sticker if needed. Add product slowly to water in the spray tank with agitation or premix thoroughly in separate holding tank for concentrate or aircraft sprayers. Continuous agitation is required to keep the product in suspension.

TURF APPLICATIONS

For use on all fine turf applications such as commercial and home lawns, athletic fields, sod, cemeteries, parks, golf course greens, tees, and fairways of cool season and warm season grasses (such as Bentgrasses, Bermuda grasses, Bluegrasses, Fescues, Ryegrasses, St. Augustine grasses, and Zoysia) or their mixtures. THIOPHANATE METHYL 50W is not phytotoxic to any of the above mentioned grasses when used in accordance with the label. THIOPHANATE METHYL 50W is to be used for the prevention and control of the diseases mentioned below. It can provide both curative and protective action.

For best results use spray mixture the same day it is prepared. Spray uniformly over the area to be treated with a properly calibrated power sprayer. Apply after mowing or avoid mowing twelve hours after application. Apply recommended amounts in sufficient water to obtain thorough coverage, (2-4 gallons suggested) per 1,000 square feet. When treating golf greens, always treat aprons and approaches. Use the highest recommended rate under conditions of severe disease pressure.

DISEASES CONTROLLED	RATE oz./1000 sq. ft.	REMARKS
Anthracnose (Colletotricum graminicola), Dollar Spot (Mollerodiscus spp., Lanzia spp.), Copper Spot (Gloeocerospora sorghi), Large Brown Patch (Rhizoctonia solani), Red Thread (Corticium fuciforme)	2 (4-8)*	Apply when disease first appears. Continue at 7-14 day intervals as needed. Lightly water this application into the root zone for best results. *NOTE: Use a 4-8 oz. rate for curative response to Basal Stem Anthracnose.
Pink Snow Mold (Microdochium nivale)	2	Apply middle-late November before turf has stopped all growth activity. Lightly water this application into the root zone for best results. A second application of Thiophanate Methyl 50W WSB may be used at a 1 - 2 lb reduced rate when used in combination with thiram or PCNB. Use a spreader-sticker product for best results. Second spray should dry on leaf surfaces with no "watering in".
Summer Patch (Magnaportha poae)	4-8	For prevention, apply 3 applications beginning early May using 21 day intervals. Water material into root Zone after application. For suppression, apply two applications at 10-14 day intervals beginning when disease first appears.
Fusarium Blight (Fusarium roseum and triticum), Necrotic Ring Spot (Leptosphaeria korrea)	4-8	Apply two applications at 10-14 day intervals beginning when disease first appears. Lightly water this application into the root zone for best results.
Stripe Smut (Ustilago striiformis)	4-8	Make two applications at 7-14 day intervals when disease first appears. Water material into root zone after application. For prevention, apply in spring and fall.
Leaf Spot (Dreschlera spp.) (Helminthosporium spp.)	4-8	Make two applications at 7-14 day intervals when Disease first appears. Water material into root zone after application. Thiophanate Methyl 50W may be used at the lower 4 lb. rate when used in combination with mancozeb.

HORTICULTURAL APPLICATIONS

Nursery, Greenhouse, Landscape, and Interiorscape

Annual And Perennial Flowers, Ground Covers, Plus Deciduous And Evergreen Trees And Shrubs

Begin applications when disease first appears, or during suspected periods of disease incidence. Apply additional applications every 7-10 days or as otherwise instructed for the prevention or control of the listed diseases. Use of a wetting agent is recommended for plants that have leaves that are difficult to wet properly. Use of a spreader sticker is recommended to enhance product performance in wet weather conditions.

THIOPHANATE METHYL 50W may be used to control listed diseases on the following "backyard" (non-commercial) fruit and nut trees:

Almond, apple, apricot, cherry, nectarine, peach, pecan, plum, and prune trees.

NOTE: Fruit and nuts from trees treated with this product must not be consumed or fed to animals. Fruit or nuts intended for human or animal consumption should be treated with a thiophanate methyl product properly labeled for such use.

Note: The "Directions For Use" of this product reflect the cumulative inputs from both historical field use and product testing programs. However, it is impossible to test this product on all species and cultivars. A preliminary trial is suggested on a small scale before a full treatment is applied to any plant type not shown on this label but found in a similar use site with a listed disease problem. Wait 5 -7 days after treatment to evaluate trial results.

This product is not recommended for the following plants: Swedish Ivy (*Nephrolepis exhalta*), Boston Fern (*Plectranthus australis*), and Easter Cactus (*Hatiora gaertneri*).

FOLIAR SPRAY

DISEASES CONTROLLED	RATE oz./100 gallons	REMARKS
Ovulinia Blight of Azalea and Rhododendron	8-16	Apply as flowers open. Repeat every 7-10 days as needed during disease period.
Powdery Mildew	12-24	Apply mid-summer or at first sign of disease.
Anthracnose	12-16	Apply as buds break. Repeat every 7-10 days as needed during disease period.

DISEASES CONTROLLED	RATE oz./100 gallons	REMARKS
Ascochyta Leaf Blight	12-16	Repeat every 7-10 days as needed during disease period.
Black Spot of Rose, Botrytis Flower Blight, Corynespora Leafspot, Curvularia Leaf Blight, Iris Leaf Spot	12-16	Apply mid-summer or at first sign of disease
Rust of Crabapple*	12-16	Repeat every 10-14 days as needed during disease period.
Leaf Scabs of Crabapple*, Pyracantha, Hawthorn, Pear*, Mountain Ash (Fusicladium and Venturia spp.)	12-16	Apply mid-summer or at first sign of disease. Note: May be combined with mancozeb products for enhanced protection and control.
Tip Blight of Pine (Sphaeropsis sapinea, Diplodia pinea)	12-16	Apply along with compatible spreader/sticker at recommended rates to entire tree. Thorough coverage is essential for optimal disease control. Begin application in spring when new growth starts. Make a second application just before needles emerge from the sheath and a third application 10 days later. Note: May be combined with mancozeb products for enhanced protection and control.
Twig Blights of Juniper (Phomopsis and Kabatina spp.)	24	For Phomopsis, apply in spring. For Kabatina, apply late summer. Repeat every 7-10 days as needed during disease period.

* Do not use treated crabapples or pears for food purposes.

DRENCH TREATMENTS

DISEASE(s) CONTROLLED	RATE oz./100 gallons	REMARKS
Stem Rots, Crown Rots, and Root Rots: (Botrytis, Fusarium, Gliocladium, Myrothecium, Ramularia, Rhizoctonia, and Sclerotinia spp.) Black Root Rot (Thielaviopsis spp.) Cylindrocladium Rot	12-16	Apply after transplanting to propagation bed, container, or pot at a rate to thoroughly soak the growing media (usually 1-3 pints per square foot depending on the media type and depth). Repeat every 21-28 days to provide adequate crop protection.

BULB TREATMENTS

DISEASE(s) CONTROLLED	RATE oz./100 gallons	REMARKS
Bulb, Corm, and Rhizome Rots (Fusarium and Penicillium spp.)	12 - 16	Soak immediately after digging for 30 minutes in warm dip (80-85 degrees F). Dry well before storing.

Note: THIOPHANATE METHYL 50W does not control Pythium spp. or Phytophthora spp.

APPLICATION THROUGH IRRIGATION SYSTEMS

General Information:

Apply this product only through the following types of sprinkler systems center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move (or similar); or flood (basin) irrigation system. 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 non-uniform distribution of treated water.

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

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

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.

SPECIFIC INFORMATION FOR IRRIGATION SYSTEMS
CONNECTED TO A PUBLIC WATER SUPPLY

1. Public water system means a system for the provision to the public 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.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), backflow preventer, or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back towards the injection pump.
4. The pesticide injection pipeline must 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 drawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump or equivalent, effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

GENERAL CHEMIGATION APPLICATION INSTRUCTIONS

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

Determine the treatment rate as indicated in the directions for use for crop and pathogen and measure the intended areas of application.

Prepare a suspension of product in the mix tank or stock bucket. Fill the tank with 1/2 or 3/4 of the desired amount of water. Start agitation and add the required amount of product to the solution along with the remaining volume of water.

Maintain a gentle agitation in the mix tank during 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.

PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER AND DRIP (TRICKLE) IRRIGATION SYSTEMS

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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 shutdown.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

PRECAUTIONS FOR FOR FLOOD (BASIN),
FURROW AND BORDER CHEMIGATION

1. Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.
2. 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, quickclosing 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 function 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.

LIMITED WARRANTY AND DISCLAIMER

MICRO FLO CO. 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. MICRO FLO CO. makes no other expressed or implied warranty of fitness or merchantability or any other expressed or implied warranty. In no case shall MICRO FLO CO. 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 costs, or other expenses incurred in planting or harvesting. MICRO FLO CO. 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 MICRO FLO CO.