

51036-373

7/29/2002

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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-
373

Date of Issuance:

JUL 29 2002

NOTICE OF PESTICIDE:

 X Registration
 Reregistration

(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Permethrin 0.5%GC

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 and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. Make the labeling changes listed below before you release the product for shipment:

a. Add the phrase "EPA Registration No. 51036-373".

b. Under early entry item 1 "coveralls" is all that is required.

Signature of Approving Official:

Date:

3. Submit two (2) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 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.

Enclosure

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RESTRICTED USE PESTICIDE

Toxic to Fish and Aquatic Organisms

For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

PERMETHRIN 0.5%G GC

A granular insecticide for use to control Ants (including Imported Fire Ants), Mole Crickets and other Insect pests on lawns in landscaped areas and perimeters around residential, institutional, public, commercial and industrial buildings, parks, recreational areas, golf courses, sod farms and athletic fields.

ACTIVE INGREDIENT:

*Permethrin 0.5%

INERT INGREDIENTS: 99.5%

TOTAL: 100.0%

*(3-phenoxyphenyl) methyl (+/-) cis/trans 3-(2,2-dichloroethenyl) 2,2 dimethyl cyclopropanecarboxylate.

Cis/Trans ratio: Maximum 55% (+/-) cis and minimum 45% (+/-) trans.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

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.

EPA Reg. No. 51036-GTG

EPA Est. No. 51036-GA-001

NET CONTENT: XX lbs.

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

ACCEPTED
with COMMENTS
in EPA Letter Dated

JUL 29 2002

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

51036-373

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

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.

The following Personal Protective Equipment (PPE) requirements apply to sod farm use only.

Applicators and other handlers must wear:

1. Long-sleeved shirt and long pants
2. Waterproof gloves
3. Shoes plus socks

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

USER SAFETY RECOMMENDATIONS

Users should:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

DIRECTIONS FOR USE

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

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

Do not apply by air. Do not apply within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.

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 and restricted-entry intervals. 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.

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 over long-sleeved shirt and long pants
2. Waterproof gloves
3. Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENT

The requirement 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.

Keep children, pets, and other unprotected persons out of treated areas until treated area is dry.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to fish. Do not apply directly to water or to areas where surface water is present or to intertidal area below the mean high water mark. Drifts and runoffs from treated areas may be hazardous to aquatic organisms in treated areas. Do not contaminate water when disposing of equipment washwaters. Do not apply when weather conditions favor drift from treated areas.

STORAGE AND DISPOSAL

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

STORAGE: Store product in its original container in a cool dry locked place out of reach of children.

DISPOSAL: Completely empty bag into application equipment. Do not reuse empty container. Wrap bag and put in trash collection.

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LAWN GRASS, TURF AND PERIMETER APPLICATIONS (including Golf Courses and Sod Farms)

LAWN GRASS AND TURF APPLICATION: Broadcast PERMETHRIN .5% GC Granular insecticide with suitable application equipment to ensure uniform coverage over the treatment area. For best results, granules should be activated (release of active ingredient from granule into the soil) with approximately ½ inch water by sprinkler irrigation.

APPLICATION RATES

The application rates listed in the following table will provide control of the respective pests under typical conditions. However, at the discretion of the applicator, PERMETHRIN .5% GC may be applied at up to 1.0 lb a.i./A to control each of the pests listed in this Table.

PEST	ACTIVE INGREDIENT LBS. PER ACRE	APPLICATION RATE OF PERMETHRIN 0.5%G GC	
Annual Bluegrass Armyworms Weevil (Hyperodes) (Adult) ¹ Billbugs (Adult) ² Black Turfgrass Ataenius (Adult) ³ Leafhoppers Mealybugs	0.25 - 0.50	50 - 100 lbs. per acre	1.15 - 2.3 lbs. per 1000 sq.ft.
Ants Centipedes Chinch Bugs ⁴ Cutworms Fleas (Adults) Fleas (Larvae) ⁵ Imported Fire Ants (Adult) ⁶ Imported Fire Ants (Mounds) ⁶ Millipedes Mole Cricket (Adult) ⁷ Mole Cricket (Nymph) ⁸ Sod Webworms Ticks ⁹	0.5 - 1.0	100 - 200 lbs. per acre	2.3 - 4.6 lbs. per 1000 sq.ft.
Pillbugs Sowbugs	1.0	200 lbs. per acre	4.6 lbs per 1000 sq.ft.

COMMENTS

¹Annual Bluegrass Weevil (Hyperodes) adults: Applications should be timed to control adult weevils as they leave their overwintering sites and move into grass areas. This movement generally begins when Forsythia is in full bloom and concludes

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when flowering dogwood is in full bloom. Consult your State Cooperative Extension Service for more specific information regarding application timing.

²Billbugs: Applications should be made when adult billbugs are first observed during April and May. Degree-day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate regions, spring applications targeting billbug adults will also provide control of over-wintered chinch bugs.

³Black Turfgrass Ataenius: Applications should be made during May and July to control the first and second generation of black turfgrass ataenius adults, respectively. The May application should be timed to coincide with the full bloom stage of Vanhoutte spiraea (*Spiraea vanhouttei*) and horse chestnut (*Aesculus hippocastanum*). The July application should be timed to coincide with the blooming of Rose of Sharon (*Hibiscus syriacus*).

⁴Chinchbugs: Chinchbugs infest the base of grass plants and are often found in the thatch layer. To ensure optimum control, applied granules should be activated (release from granule into the soil) with approximately $\frac{1}{2}$ inch water by sprinkler irrigation immediately after application. Chinch bugs can be one of the most difficult pests to control in grasses and the higher applications rates may be required to control populations that contain both nymphs and adults during the summer.

⁵Flea larvae: Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. To ensure optimum control, applied granules should be activated (release from granule into the soil) with approximately $\frac{1}{2}$ inch water by sprinkler irrigation immediately after application.

⁶Imported Fire Ants: Control will be optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound treatments that will eliminate existing colonies. If the soil is not moist, then it is important to irrigate before application.

⁶Fire Ant Mound Treatment: Apply $\frac{1}{2}$ to 1 cup of PERMETHRIN .5% GC per mound and an area one foot around the mound and then drench the mound with 1 to 2 gallons of water. The mound should be drenched with sufficient force to break its apex and allow the insecticide to flow into the ant tunnels. For best results, apply in cool weather (65 to 80 F) or in early morning or late evening hours. Treat new mounds as they appear.

⁷Mole Cricket adults: Achieving acceptable control of adult mole crickets is difficult because preferred grass areas are subject to continuous invasion by this extremely active stage. To ensure optimal control, applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of

water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized. Grass areas that receive pressure from adult mole crickets should be treated at peak egg hatch to ensure optimum control of subsequent nymph populations (see below).

⁸Mole Cricket nymphs: To ensure optimal control, grass areas that received intense adult mole cricket activity should be treated immediately prior to peak egg hatch. Optimal control is achieved at this time because young nymphs are more susceptible to insecticides and they are located near the soil surface where the insecticide is most concentrated. Control of larger, more damaging, nymphs later in the year may require both higher application rates and more frequent applications to maintain acceptable control. To ensure optimal control, applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized.

⁹Ticks: Do not make spot applications. Treat the entire area where exposure to ticks may occur. Use higher application rates when treating areas with dense ground cover or heavy leaf litter. Ticks may be reintroduced from surrounding areas on host animals. Retreat as necessary to maintain adequate control. Do not allow public use of treated areas during application.

Deer ticks (*Ixodes* sp.) have a complicated life cycle that ranges over a two-year period and involves four life stages. Applications should be made in mid to late spring for optimal control of larvae and nymphs that reside in the soil and leaf litter.

American dog ticks may be a considerable nuisance in suburban settings, particularly where homes are built on land that was previously field or forest. These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Applications should be made as necessary from mid-spring to early fall to control American dog tick larvae, nymphs and adults.

Perimeter Application: Apply to ground area 5 to 10 feet wide around and adjacent to the structure.

Boundary Application: Apply to soil areas, ornamental gardens, pavement crevices, fencelines, planter areas, vegetation areas and mulch areas.

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Application Rate	Pounds of Permethrin 0.5%G GC for Perimeter Application								
	Linear Distance (Feet) Around Structure								
Pounds Per 1000 sq.ft.	Band Width	100	150	200	250	300	400	500	1000
2.3	5 ft	1.3	1.9	2.5	3.0	3.6	4.8	5.9	11.7
	10 ft	3.0	4.2	5.3	6.5	7.6	9.9	12.2	23.7
3.0	5 ft	1.7	2.5	3.3	3.9	4.7	6.3	7.7	15.2
	10 ft	3.9	5.4	6.9	8.5	9.9	12.9	15.9	30.9
3.5	5 ft	2.0	2.9	3.8	4.5	5.4	7.2	8.9	17.5
	10 ft	4.5	6.3	8.0	9.8	11.4	14.9	18.3	35.5
4.6	5 ft	2.6	3.8	5.0	6.0	7.2	9.6	11.8	23.4
	10 ft	6.0	8.4	10.6	13.0	15.2	19.8	24.4	47.4

Note: The amounts of Permethrin 0.5%G GC listed in the above table are based on the total area being treated. This area is determined by multiplying the linear distance by the bandwidth and then adding to that value the area of a circle whose radius is equal to the bandwidth (to account for the area treated at the four corners of a rectangular structure).

INDUSTRIAL NON-AGRICULTURAL APPLICATIONS

(including Industrial Sites, Parks, Ball Fields and Cemeteries)

Broadcast Applications: For the control of actively foraging ants (including Imported Fire Ants) broadcast uniformly 2.3 to 4.6 lbs. PERMETHRIN .5% GC per 1000 sq. ft. (0.5 to 1.0 lbs. ai/Acre).

See comments section under Grass Applications for additional rate recommendations.

Pad Mounted Electrical Sites: To reduce or prevent ant mound building activity on electrical pads, uniformly distribute 1.0 to 1.5 Tablespoons (0.06 to 0.09 lbs.) of PERMETHRIN .5% GC per 4 sq. ft. of mounting pad. Where existing transformers are completely or partially filled with soil excavated by resident ants, remove any excess fill and level the remaining soil prior to application.

Note: Electrical transformers appear to be more attractive to ants during the cooler months. For best results treat in the Fall or early Spring.

SPREADER SETTINGS

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EQUIPMENT	GROUND SPEED (MPH)	SPREADER SETTING			
		100 POUNDS PER ACRE		200 POUNDS PER ACRE	
		ONCE OVER	TWICE OVER	ONCE OVER	TWICE OVER
HAND PUSH					
LESCO Rotary	3	X	X	X	X
Scotts R-BA-1 Rotary	3	X	X	X	X
Gandy Models (42, 36, 30, 24"	3	X	X	X	X
Spyker (all models)	3	X	X	X	X
EQUIPMENT DRAWN					
Gandy Models (42, 36, 30, 24")	4.5	X	X	X	X
Gandy 6500 Series	4.5	X	X	X	X
Gandy 10T Series	5.0	X	X	X	X
Herd GT-77	4.0	X	X	X	X
Herd GT-77	8.0	X	X	X	X
Lely 2.3202.0000.1	4.5	X	X	X	X
Lely Model L-400	4.5	X	X	X	X
Vicon PS402	4.5	X	X	X	X
Vicon PS1002T	4.5	X	X	X	X

Note: These recommended settings should be used as starting points when calibrating a spreader to achieve the desired application rate of PERMETHRIN 0.5%G GC. After calibration, the technician should regularly observe the amount of PERMETHRIN 0.5%G GC that is applied to a known area and make further setting adjustments, as necessary, to maintain the appropriate application rate. Spreaders should be calibrated periodically to ensure that equipment wear or other factors have not altered the flow rate of PERMETHRIN 0.5%G GC. Calibration instructions are included in the Owners Manual that was provided by the equipment manufacturer at the time of purchase.

Resistance: If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and suspect that resistance is a reasonable cause, immediately consult your pest management advisor for the best alternative method of control for your area.

Dealers Should Sell in Original Packages Only.

Terms of Sale or Use: On purchase of this product buyer and user agree to the following conditions:

WARRANTY

MICROFLO COMPANY makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label.

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Except as so warranted, the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

Directions and Recommendations: Follow directions carefully. Timing, method of application and weather conditions, mixture with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the seller and are assumed by the buyer at his own risk.

Use of Product: Recommendations for the use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice.

Damages: Buyer's or user's exclusive remedy for damages for breach of warranty or negligence shall be limited to direct damages not exceeding the purchase price paid and shall not include incidental or consequential damages.