

51036-122

08/07/2001

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



OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

August 7, 2001

Mr. Matthew Talley
Micro Flo Company
P.O. Box 772099
Memphis, TN 38117-2099

Subject: Chlorpyrifos Termite Concentrate
EPA Reg. No. 51036-122
Submission dtd 7/26/01

Dear Mr. Talley:

The revised labeling referred to above, submitted in connection with the registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable provided that you make the labeling changes indicated before you release the product for shipment bearing the amended labeling:

- 1) On page 9 add the following after "low pressure spray": "(not to exceed 50 psi when measured at the application tool to minimize exposure and potential for drift)".

Submit one copy of the revised final printed label before releasing the product for shipment. The Agency requests that this label revision be included in your next label printing. If you have questions, please contact me at (703) 308-6742 or electronically at McNeilly.Dennis@EPA.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Dennis McNeilly", written over the typed name.

Dennis McNeilly, Chemist
Insecticide-Rodenticide Branch
Registration Division (7505C)

RESTRICTED USE PESTICIDE

For retail sale and use by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

MICRO FLO
CHLORPYRIFOS TERMITE CONCENTRATE

ACTIVE INGREDIENT:

Chlorpyrifos (0,0-diethyl 0-(3,5,6-trichloro-2-pyridinyl) phosphorothioate)

42.8%

INERT INGREDIENTS: 57.2%

TOTAL 100.0%

Contains 4 pounds of chlorpyrifos per gallon
Contains petroleum distillate

KEEP OUT OF REACH OF CHILDREN

WARNING AVISO

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que le etiqueta haya sido explicada ampliamente.

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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.

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.

EPA Reg. No. 51036-122

EPA Est. No. 51036-CA-1

ACCEPTED
with COMMENTS
In EPA Letter Dated:

AUG - 7 2001

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

51036-122

3/13

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

PRECAUTIONARY STATEMENTS
Hazards To Humans And Domestic Animals

WARNING

May be fatal if swallowed. Harmful if absorbed through skin or clothing. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Harmful if inhaled. Avoid breathing of vapors. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse. Keep away from food, feed stuffs and water supplies. When treating adjacent to an existing structure, the applicator must check the area to be treated, and immediately adjacent areas of the structure, for visible and accessible cracks and holes to prevent any leaks or significant exposures to persons occupying the structure. People present or residing in the structure during application must be advised to remove their pets and themselves from the structure if they see any signs of leakage. After application, the applicator is required to check for leaks. All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy contaminated areas of the structure until the clean up is completed.

EMERGENCY TELEPHONE NUMBERS: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact:

- (800) 424-9300 CHEMTREC (transportation and spills)
- (800) 900-4044 Poison Control Center (human health)
- (800) 345-4735 ASPCA (animal health)

NOTE TO PHYSICIAN: Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate degree of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. In case of severe acute poisoning, use antidotes immediately after establishing an open airway and respiration. May pose an aspiration hazard.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish, birds, and other wildlife. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. Cover or incorporate spills. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.

PHYSICAL OR CHEMICAL HAZARDS

COMBUSTIBLE! Do not use or store near heat or open flame. Do not cut or weld container.

DIRECTIONS FOR USE

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

Treated areas must be inspected annually for signs of reinfestation.

Spot treatments not to exceed 25% of the amount required to treat the entire structure at the label rate.

Spot treatments are allowed only where there is clear evidence that reinfestation or barrier disruption has occurred.

This product cannot be used for spot and local treatments to existing structures after December 31, 2002.

STORAGE AND DISPOSAL

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

STORAGE: Storage below 55 degrees F may result in formation of crystals. If product crystallizes out of solution, store at 72 degrees F to 90 degrees F and agitate to redissolve crystals.

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 by use 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: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers and loaders must wear a minimum of long-sleeved shirt and long pants, chemical-resistant footwear with socks, chemical-resistant gloves (such as nitrile or butyl), and protective eyewear (goggles, a faceshield, or safety glasses with front, brow and temple protection). Mixers and loaders who do not use a mechanical system (such as an in-line injector) to transfer the contents of this container must wear coveralls or chemical-resistant apron in addition to other required PPE.

Pesticide applicators must wear long-sleeved shirt and long pants, shoes plus socks and chemical-resistant gloves.

In addition, all pesticide handlers must wear a respiratory protection device (MSHA/NIOSH approved number TC-21C), or a NIOSH approved respirator with any R, P or HE filter, and protective eyewear when working in a non-ventilated space and all pesticide applicators must wear protective eyewear when applying termiticide by rodding or sub-slab injection.

SUBTERRANEAN TERMITES

Chlorpyrifos Termite Concentrate for soil treatment is used to establish a barrier which is lethal to termites. The chemical emulsion must be adequately dispersed in the soil to provide a barrier between the wood in the structure and the termite colonies in the soil.

It is important that the service technician be familiar with current control practices including trenching, rodding, and low pressure spray applications. These techniques must be correctly employed to prevent or control infestations by subterranean termite species of RETICULITERMES, ZOOTHERMOPSIS, and COPTOTERMES. Choice of appropriate procedures includes consideration of such variable factors as the design of the structure, water table, soil type, soil compaction, grade conditions, and the location and type of domestic water supplies. The biology and behavior of the involved termite species are important factors to be known as well as suspected location of the colony and severity of the infestation within the structure to be protected. For advice concerning current control practices for specific local conditions, consult resources in structural pest control.

GENERAL USE PRECAUTIONS

Do not contaminate wells or cisterns. Contamination of public and private water supplies must be avoided by following these precautions:

1. Use antiback-flow equipment or procedures to prevent siphonage of pesticide back into water supplies.
2. Do not treat soil that is water saturated or frozen.
3. Consult state and local specifications for recommended distances of treatment areas from wells, and refer to Federal Housing Administration Specifications for further guidance.

PRE-CONSTRUCTION APPLICATION OF STRUCTURES WITH WELLS/CISTERNS
INSIDE FOUNDATIONS

Post construction application is prohibited.

Structures that contain wells or cisterns within the foundation of a structure can only be treated using the following techniques:

1. Do not treat soil while it is beneath or within the foundation or along the exterior perimeter of a structure that contains a well or cistern. The treated backfill method must be used* if soil is removed and treated outside/away from the foundation. The treated backfill technique is described as follows:
 - (a) Trench and remove soil to be treated onto heavy plastic sheeting or similar material or into a wheelbarrow.
 - (b) Treat the soil at the rate of 4 gallons of dilute emulsion per 10 linear feet per foot of depth of the trench, or 1 gallon per 1.0 cubic foot of soil. See "Dilution Directions" section of the label. Mix thoroughly into the soil taking care to contain the liquid and prevent runoff or spillage.
 - (c) After the treated soil has absorbed the diluted emulsion, replace the soil into the trench.
2. Treat infested and/or damaged wood in place using an injection technique such as described in the "Control of Wood Infesting Insects" section of this label.

STRUCTURES WITH ADJACENT WELLS/CISTERNS
AND/OR OTHER WATER BODIES

Applicators must inspect all structures with nearby water sources such as wells, cisterns, surface ponds, streams, and other bodies of water and evaluate, at a minimum, the treatment recommendations listed below prior to making an application.

1. Prior to treatment, if feasible, expose the water pipe(s) coming from the well to the structure, if the pipe(s) enter the structure within 3 feet of grade.
2. Prior to treatment applicators are advised to take precautions to limit the risk of applying the termiticide into subsurface drains that could empty into any bodies of water. These precautions include evaluating whether application of the termiticide to the top of the footer may result in contamination of the subsurface drain. Factors such as depth to the drain system and soil type and degree of compaction should be taken into account in determining the depth of treatment.
3. When appropriate (i.e., on the water side of the structure), the treated backfill technique (described above) can also be used to minimize off-site movement of termiticide.

All nonessential wood and cellulose containing materials, including scrap wood and form boards, should be removed from around foundation walls, crawl spaces, and porches. This does not include existing structural soil contact wood that either has been or needs to be treated.

RATE DETERMINATION GUIDELINES

Consult the local extension agent or state entomologist for application rate recommendations.

An initial treatment using a maximum of a 0.5% dilution will provide effective, optimum long-term residual control.

A 0.5% dilution may also be used to protect utility poles and fence posts.

Mixing Directions

It is important that the termiticide dilution be uniformly mixed in the spray tank before beginning the treatment. Once mixed, Chlorpyrifos TC will not settle out in the tank although the initial mixing will be enhanced by agitation, circulation through the treating hose, and the filling process.

1. Fill tank 1/4 to 1/3 full.
2. Start pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose.
3. Add appropriate amount of Chlorpyrifos TC.
4. Add remaining amount of water.
5. Let pump run and allow recirculation through the hose for 2 to 3 minutes.

DILUTION DIRECTIONS

Gallons of Finished Dilution Desired	Chlorpyrifos Termite Concentrate Needed for a 0.5% Dilution
1	1 1/3 fl oz
5	6 2/3 fl oz
10	13 1/3 fl oz
24	1 qt
48	2 qt
97	1 gal

Application Volume

To provide maximum control and protection against termite infestation apply the specified volume of the finished water emulsion and active ingredient as set forth in the directions for use section of this label. If soil will not accept the labeled application volume, the volume may be reduced provided there is a corresponding increase in concentration so that the amount of active ingredient applied to the soil remains the same. NOTE: Large reductions of application volume reduce the ability to obtain a continuous barrier. Variance is allowed when volume and concentration are consistent with label directed rates and a

continuous barrier can still be achieved.

Do not treat soil that is water saturated or frozen or in any conditions where run-off or movement from the treatment area (site) is likely to occur.

PRECONSTRUCTION SUBTERRANEAN TERMITE TREATMENT

PRECONSTRUCTION TREATMENT: DO NOT APPLY AT A LOWER DOSAGE AND/OR CONCENTRATION THAN SPECIFIED ON THIS LABEL FOR APPLICATIONS PRIOR TO INSTALLATION OF THE FINISHED GRADE.

Prior to each application, applicators must notify the general contractor, construction superintendent, or similar responsible party, of the intended termiticide application and intended sites of application and instruct the responsible person to notify construction workers and other individuals to leave the area to be treated during application and until the termiticide is absorbed into the soil.

Areas treated must be inspected annually for signs of reinfestation.

Effective preconstruction subterranean termite control requires the establishment of an unbroken vertical and/or horizontal chemical barrier between wood in the structure and the termite colonies in the soil. Follow state and local regulations to meet minimum treatment standards for preventive preconstruction treatments. IN FLORIDA: The vertical barrier application is required to complete the preconstruction application. After completion, a consumer notice must be posted in an accessible location on or in the structure that informs the consumer that the soil under and around the structure has been treated for the prevention of termites and contains the following information: date of application, identity of treatment provider, and the need for annual inspection and renewal of treatment contract.

All holes in commonly occupied areas into which material has been applied must be plugged. Plugs must be of a non-cellulose material or covered by an impervious, non-cellulose material.

See "Rate Determination Guidelines" and Table 1 for dilution directions

When treating foundations deeper than 4 feet, apply the termiticide as the backfill is being replaced, or if the construction contractor fails to notify the applicator to permit this, treat the foundation to a minimum depth of 4 feet after the backfill has been installed. The applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to a minimum depth of 4 feet. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

1. For Horizontal barriers, applications shall be made using a low pressure spray after grading is completed and prior to the pouring of the slab or footing.

- a. Apply 1 gallon of dilution per 10 square feet in sufficient water (no less than $\frac{1}{2}$ gallon or more than 2 gallons) to provide thorough and continuous coverage of the area being treated.

See Table 1 for directions for dilution. Do not exceed a 0.5% dilution.

If the fill is washed gravel or other coarse material, it is important that a sufficient amount of dilution be used to reach the soil substrate beneath the coarse fill.

- b. If concrete slabs cannot be poured over the soil the same day it has been treated, a vapor barrier should be placed over the treated soil to prevent disturbance of the termiticide barrier.

2. For Vertical barriers, apply the 0.5% dilution at a rate of 4 gallons per 10 linear feet per foot of depth. Establish vertical barriers in areas such as around the base of foundations, plumbing lines, backfilled soil against foundation walls and other areas which may warrant more than just a horizontal barrier.

- a. Rodding and/or trenching applications should be made to reach the top of the footing. Rod holes should be spaced to provide a continuous barrier.
 - b. Trenches need not be wider than 6 inches. Treat soil with the dilution as it is being replaced in the trench.

See Table 1 for directions for dilution. Do not exceed a 0.5% dilution.

- c. Hollow block foundations or voids of masonry can be treated to make a complete chemical barrier especially if the soil was not treated prior to pouring the footing. Apply the dilution at a rate of 2 gallons per 10 linear feet so that it reaches the top of the footing.

See Table 1 for directions for dilution. Do not exceed a 0.5% dilution.

- d. For crawl spaces, establish a vertical barrier on both sides of the foundation and around all piers and areas where underground utilities exit the soil. Do not apply the dilution to the entire surface area intended as the crawl.

See Table 1 for directions for dilution. Do not exceed a 0.5% dilution.

3. For Plenum type structures which use a sealed underfloor space to circulate heated and/or cooled air throughout the structure, apply the dilution at the rate of 4 gallons per 10 linear feet per foot of depth. Soil adjacent to both sides of foundation walls, supporting piers, plumbing and conduits should be treated by trenching or rodding (where soil conditions permit) to a depth of 6 inches or, if less shallow, to the top of the footing. When conditions will not permit trenching or rodding, surface application adjacent to interior foundation walls may be made but the treated strip shall not exceed a width of 18 inches, horizontally, from the foundation walls, piers or pipes. The surface application should be made at a rate of 1 gallon per 10 square feet as a very coarse spray under low pressure (not to exceed 20 P.S.I. when measured at the treating tool). After soil treatment, a continuous vapor barrier of at least 6 mil polyethylene film or other suitable vapor barrier must be installed on the ground surface over the entire subfloor area and on the inside of the plenum walls, in accordance with the recommended practices for plenum type structures. For outside structures only.

CONTROL OF WOOD INFESTING INSECTS

Dosage and Mixing Instructions:

Chlorpyrifos Termite Concentrate is recommended for use as an aqueous emulsion containing 0.5% chlorpyrifos.

Treatment Directions

To control wood-infesting beetles such as powderpost beetles (LYCTIDAE), false powder post beetles (BOSTRICHIDAE), deathwatch beetles (ANOBIIDAE), old house borers (CERAMBYCIDAE) and ambrosia beetles (SCOLYTIDAE) in industrial plant sites areas either as coarse sprays or by brushing the product onto targeted surfaces. Use a sufficient amount of spray to cover the area to the point of wetness but avoid runoff. Use the following guidelines to determine appropriate rates of application:

For control of carpenter ants in outdoor non-residential structures only. Apply dilution around doors and windows and other places where carpenter ants enter the premises and where they crawl and hide. Use a sufficient amount of coarse spray to cover the area to the point of wetness but avoiding runoff.

For control of termites (localized areas of infested wood in structures), apply dilution to voids and channels in damaged wood and in spaces between members of a structure and between wood and foundations where termite infestation is likely to occur. Application may be made to inaccessible areas by drilling, and then injecting the emulsion. Use a sufficient amount of spray to cover the area to the point of wetness but avoiding runoff. Treatment of localized areas is intended to kill workers and winged reproductive forms of termites in the treated areas and to prevent infestations for a temporary period. This type of application is not intended to be a substitute for soil treatment or mechanical alteration to control subterranean termites.

INDUSTRIAL PLANT SITES

To control ants, bees, carpenter ants, clover mites, cockroaches, crickets, earwigs, hornets, millipedes, scorpions, spiders, ticks, wasps and yellowjackets.

Outside surface: Apply Chlorpyrifos TC termiticide as a residual spray to outside surfaces of non-residential buildings including porches, window frames, eaves, patios, garages, refuse dumps and other areas where pests congregate or have been observed.

Perimeter sprays: To help prevent infestation of buildings, treat a band of soil and vegetation 6 to 10 feet wide around and adjacent to the building. Also, treat the building foundation to a height of 2 to 3 feet where pests are active and may find entrance. For scorpions, treat or remove accumulations of lumber, firewood, and other materials which serve as insect harborage sites.

Dosage and Mixing Instructions: Use Chlorpyrifos TC mixed as a 0.25% to 0.5% dilution as indicated in the following table:

Gallons of finished dilution desired	Chlorpyrifos Termite Concentrate Needed	
	0.25%	0.5%
1	2/3 fl oz	1 1/3 fl oz
5	3 1/3 fl oz	6 2/3 fl oz
10	6 2/3 fl oz	13 1/3 fl oz
24	16 fl oz	1 qt
48	1 qt	2 qt
97	2 qt	1 gal

Small amounts of solution mixed at 0.5% to termiticide rates remaining in the spray tank can be diluted as indicated in the following table and used to treat surfaces or perimeter areas:

Concentration of Termiticide Dilution to	Amount of Water to Add to Each Gallon of Termiticide Dilution to Provide a 0.25% Spray	Amount of Water to Add to Each Gallon of Termiticide Dilution to Provide a 0.5% Spray
0.5%	1 gallon	none

CONDITIONS OF SALE

All statements concerning the use of this product apply only when used as directed.

THE MANUFACTURER MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THIS PRODUCT OR ITS USE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE LABEL.

Read all directions carefully.