



51036-214

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

JUN 19 1998

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OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. Lee Tharrington
Registration Assistant
Microflo Co.
P.O. Box 5948
Lakeland, FL 33807

Dear Mr. Tharrington:

Subject: Addition of Several Use Sites
Malathion 8EC
EPA Reg. No. 51036-214
Application of September 18, 1997

The labeling amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, As Amended (FIFRA), is acceptable, provided that you:

Submit one copy of your final printed label incorporating the following corrections before you release the product for shipment.

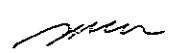
1. Correct the signal word, CAUTION appearing on the second page of the submitted label to WARNING so that it agrees with the signal word appearing on the front panel of the label.
2. Clarify the general directions for use on the proposed label so that it is clear to the user that ULV application may not be used on those crops for which the ULV application is not being supported. Refer to the attached copy of the Agency letter dated June 15, 1992 regarding the supported uses of Malathion as a ULV application.
3. Add a 7-day pre-harvest interval for endive in the directions for use on lettuce (head, leaf), and endive.
4. In the second paragraph under the GENERAL CHEMIGATION INSTRUCTIONS, add the wording, "or illegal pesticide residues in the crop" so that the sentence reads as follows:

"Crop injury or lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water."

If this condition is not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product bearing the amended label constitutes acceptance of this condition.

A stamped copy of the label is enclosed for your records.

Sincerely,



Marilyn A. Mautz
Biologist
Insecticide-Rodenticide Branch
Registration Division (7504C)

Attachment

ACCEPTED 312
with COMMENTS
in EPA Letter Dated:
JUN 19 1998

MALATHION 8EC
ORGANOPHOSPHATE

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
51036-214

ACTIVE INGREDIENT:		
	Malathion (0,0-dimethyl phosphorodithioate of diethyl mercaptosuccinate	80.75%
INERT INGREDIENTS:	19.25%
	TOTAL	100.00%

(1 gallon contains 8 pounds of Malathion)

KEEP OUT OF REACH OF CHILDREN

WARNING

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

STATEMENT OF PRACTICAL TREATMENT

Organophosphate

IF SWALLOWED: Call a physician or poison control center. Drink one or two glasses of water and induce vomiting by touching back of throat with finger. Avoid alcohol. Do not induce vomiting or give anything by mouth to an unconscious person.

IF INHALED: Remove victim to fresh air immediately. Get medical attention.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

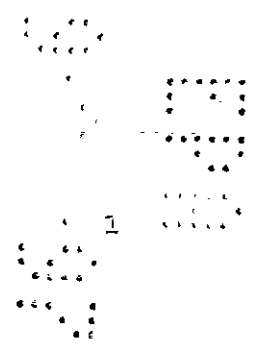
IF IN EYES: Hold eyelids open and flush with steady, gentle stream of water for 15 minutes. Get medical attention.

NOTE TO PHYSICIAN: Treat symptomatically. Atropine is an antidote. This product is an organophosphorus ester that inhibits cholinesterase.

EPA Reg. No. 51036-214

EPA Est. No. 51036-GA-1

Manufactured By
MICRO FLO COMPANY
P.O. BOX 5948
LAKELAND, FLORIDA 33807



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PRECAUTIONARY STATEMENTS
Hazards To Humans And Domestic Animals

CAUTION

Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through the skin. Do not get in eyes or on clothing. Avoid contact with eyes, skin or clothing.

PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category F on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

1. Long-sleeved shirt and long pants
2. Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton
3. Shoes plus socks
4. Protective eyewear

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.

<p>USER SAFETY RECOMMENDATIONS</p>

Users should:

- | |
|--|
| <ol style="list-style-type: none"> 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. |
|--|

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, and aquatic life stages of amphibians. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in areas near the application site. Do not contaminate water when disposing of equipment washwaters. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

PHYSICAL OR CHEMICAL HAZARDS

Before using read the directions contained on this label for the proper methods and procedures which must be followed to achieve effective insect control.

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 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
- 2. Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton
- 3. Shoes plus socks
- 4. Protective eyewear

~~CHEMIGATION PROHIBITION~~

~~Do not apply this product through any type of irrigation system.~~

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. STORAGE: Malathion 8EC should be stored at temperatures not exceeding 25 degrees C (77 degrees F). It should never be heated above 55 degrees C (131 degrees F), and also local heating above this temperature should be avoided.

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

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CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

GENERAL INFORMATION

This product is to be used with water (or oil for ultra low volume aerial application to cotton and for aerial or turbine-blower application to pasture/rangeland). See cotton and pasture/rangeland use directions for specific recommendations for these application sites. Do not use in undiluted form. Before using, mix the recommended amount of Malathion 8EC with an equal amount of water and add this mixture to the spray tank. Maintain agitation while mixing and applying. For aerial application to vegetable and field crops, apply 1-3 gallons of spray mixture per acre except where otherwise noted in specific crop directions. For ground application to vegetable and field crops, apply 10-15 gallons of spray mixture per acre except where otherwise noted in specific crop directions. Rates for tree crops are expressed as pints per 100 gallons of water for thorough coverage sprays (maximum rates per acre per application are listed). May be applied by chemigation to all listed crops (see "General Chemigation Instructions" below). Apply at first sign of an insect infestation and repeat as necessary. Best results are obtained with thorough coverage of all exposed plant surfaces. Consult your State Agricultural Extension Service or Experiment Station for additional information as to proper timing of application.

GENERAL CHEMIGATION INSTRUCTIONS

Apply this product only through one or more of the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation system(s). Do not apply this product through any other type of irrigation system.

Crop injury or lack of effectiveness 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.

A. Center Pivot, Traveler, Big Gun, Motorized Lateral Move, End Tow, and Side (Wheel) Roll Irrigation Equipment: Operate system and injection equipment at normal pressures recommended by the

manufacturer of injection equipment used. Fill tank or injection equipment with water. Operate system for one complete circle for center pivot or one complete run for the other recommended equipment, measuring time required, amount of water injected, and acreage contained in circle or run. Mix recommended amount of product for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run, but continue to operate irrigation system until the product has been cleared from last sprinkler head. Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.

B. Solid Set and Hand Move Irrigation Equipment: Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a thirty to forty-five minute period. Mix desired amount of product for acreage to be covered into quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. Provide constant mechanical agitation in the mix tank to insure that the product will remain in suspension during the injection cycle. This product can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until pesticide is cleared from last sprinkler head.

SAFETY DEVICES

- (1) The systems designated above 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) All pesticide injection pipelines 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 shut down.
- (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.

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SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water systems 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.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) 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. 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.

For additional instructions on safety precautions refer to statements (2), (3), (4), (6), and (7) in the section on SAFETY DEVICES.

USE DIRECTIONS

ALFALFA, CLOVER: Alfalfa Weevil Larvae, Aphids, Armyworms, Clover Leaf Weevil, Grasshoppers, Lygus Bugs, Pea Aphid, Potato Leafhoppers, Spider Mites, Spittlebugs, Vetch Bruchid - 1 pt. to 2 pt. per acre. Use 1 1/2 pt. to 2 pt. per acre for armyworm control. May be applied on day of harvest at rates up to 1 1/2 pt. per acre. Do not apply within 7 days of harvest at rates higher than 1 1/2 pt. per acre. Apply to alfalfa in bloom only in the evening or early morning when bees are not working in the field or are not hanging on the outside of the hives.

BEANS: Aphids, Cucumber Beetles - 1 1/4 pt. per acre. Spider Mites - 5/8 pt. to 1 pt. per acre. Mexican Bean Beetle - 1 pt. per acre. Leafhoppers, Thrips - 1 pt. to 1 3/4 pt. per acre. Lygus Bugs (Dry Beans - California) - 1 pt. to 1 3/4 pt. per acre. Do not apply within 1 day of harvest. Do not allow livestock to graze on treated vines/straw or to feed on treated forage/hay.

BEETS (TABLE): Aphids - 1 pt. to 1 1/4 pt. per acre. Do not apply within 7 days of harvest.

BROCCOLI, BRUSSELS SPROUTS, CABBAGE, CAULIFLOWER, KALE, MUSTARD, TURNIPS: Aphids, Imported Cabbageworm, Cabbage Looper, Flea Beetles - 1 pt. to 2 pt. per acre. Do not apply to broccoli and turnips within 3 days of harvest. Do not apply to Brussels sprouts,

cauliflower, kale and mustard within 7 days of harvest.

CELERY: Aphids, Spider Mites - 1 pt. per acre. Do not apply within 7 days of harvest.

CHERRIES: Cherry Fruit Fly, Eyespotted Bud Moth - 5/8 pt. per 100 gal. of water. Black Cherry Aphid, Fruittree Leafroller - 1 pt. per 100 gal. of water. A maximum of 8 pt. per acre per application may be used. Do not apply within 3 days of harvest. May injure foliage of some varieties.

CITRUS (GRAPEFRUIT, KUMQUATS, LEMONS, LIMES, ORANGES, TANGERINES, TANGELOS): California Red Scale, Yellow Scale, Purple Scale, Black Scale (single and off-brooded), Soft Scale, Thrips, Citricola Scale, Orangeworm, Aphids - 3/4 to 25 pt. per acre. Do not apply within 7 days of harvest. Do not apply when trees are in full bloom. Note in California: Do not apply unless parasite activity in the scale is at a low level or absent.

CORN (FIELD, SWEET, POP): Aphids, Grasshoppers - 1 pt. per acre. For best grasshopper control, apply when nymphs are in the first through third instar. Sap Beetles - 1 pt. per acre beginning when 10% of ears show silk and repeat at 2 to 5 day intervals. Do not apply within 5 days of harvest.

COTTON (+0):

Aphids (Green Peach and Cotton) - 1 pt. to 1 1/4 pt. ~~16 to 20 fluid ounces~~ per acre.

Boll Weevils - 5/8 pt. to 1 1/4 pt. ~~10 to 20 fluid ounces~~ per acre for early to midseason control. Use 1 pt. to 1 1/4 pt. ~~15 to 20 fluid ounces~~ for late season control.

Grasshoppers - 5/8 pt. ~~10 fluid ounces~~ per acre.

Fleahoppers, Leafhoppers - 1/3 pt. to 5/8 pt. ~~5 to 10 fluid ounces~~ per acre.

Lygus Bugs (including Tarnished Plant Bugs) - 5/8 pt. to 1 pt. ~~10 to 15 fluid ounces~~ per acre for moderate populations. Use 1 1/4 pt. ~~20 fluid ounces~~ per acre for heavy or migrating populations.

Thrips - 1/3 pt. to 5/8 pt. ~~5 to 10 fluid ounces~~ per acre.

May be applied on the day of harvest regardless of rate.

Do not feed treated cotton forage to livestock.

COTTON APPLICATION INSTRUCTIONS

Aerial Applications:

If water is used for dilution, apply at least one gallon of finished spray per acre. Some states may require more dilution; consult your appropriate state agency if in doubt. Malathion 8EC can be used in specially designed aircraft capable of applying ultra low volumes for control of cotton insects indicated. When Malathion 8EC is applied ultra low volume, use a sufficient amount of once refined vegetable oil to make at least one quart of finished spray solution per acre.

Conventional Ground Application:
Use water for dilution and apply at least 5 gallons of finished spray per acre.

Apply only when weather conditions are favorable. Wind or rising air currents may cause undesirable spray drift and reduce insect control. Cover foliage uniformly. Time treatments and set dosages according to insect populations or damage. Repeat treatments as necessary to maintain control. Consult your local extension service or professional consultant for treatment thresholds.

Undiluted spray droplets of Malathion 8EC will permanently damage automobile paint. If accidental exposure does occur, the vehicle should be washed immediately. Apply Malathion 8EC uniformly at the volumes and dosage rates above below.

COTTON TANK MIX INSTRUCTIONS

For a complete cotton spray program, this product may be combined with other registered cotton insecticides. Carefully follow all precautions and directions in the labeling of any product used in combination with Malathion 8EC. Do not use registered products at higher dosages than is recommended on the label. Do not use in combination with Malathion 8EC any product that prohibits such use. The use of Malathion 8EC in combination with products containing carbaryl may cause injury to cotton.

CUCUMBERS, SQUASH: Aphids, Spider Mites, Pickleworm - 1 pt. per acre. Squash Vine Borer - 1 7/8 pt. per acre. For squash vine borer control, apply weekly to stems and vines at base of plant. Do not apply unless plants are dry. Do not apply to cucumbers and squash within 1 day of harvest.

EGGPLANTS: Aphids, Spider Mites - 5/8 pt. to 1 pt. per acre. Lace Bug - 1 7/8 pt. to 2 pt. per acre. Do not apply within 3 days of harvest.

GRAPES: Leafhoppers, Mealybugs, Spider Mites - 1 pt. per acre. Do not apply within 3 days of harvest. May injure Ribier, Italia, Cardinal and Almeria varieties if applied after clusters appear.

GRASS (GRASS HAY PASTURE AND RANGELAND - INCLUDES BARN GRASS, CANARY GRASS, FESCUE, ORCHARD GRASS, RED TOP, TIMOTHY AND YELLOW FOXTAIL): Aphids, Leafhoppers - 1 pt. to 1 1/4 pt. per acre. Repeat application as necessary. Apply up to and including one day of harvest on grasses.

LETTUCE (HEAD, LEAF), ENDIVE: Aphids, Leafhoppers, Loopers - 1 pt. to 2 pt. per acre. Do not apply to leaf lettuce within 14 days of harvest. Do not apply to head lettuce within 7 days of harvest.

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ONIONS: Thrips - 1 pt. per acre. Onion Maggot - 1 1/2 pt. per acre. Do not apply within 3 days of harvest for green onions.

ORNAMENTALS: Aphids, Whiteflies, Mealybugs - 1 pt. to 1 1/2 pt. per 100 gal. of water. Birch Leafminer, Bagworm, Tent Caterpillar, Soft Brown Scale, Monterey Pine Scale - 1 1/2 pt. per 100 gal. of water. Apply to completely cover. Do not use on Canaerti Junipers. The use of Malathion 8EC may cause injury to certain ferns including Boston, Maidenhair and Pteris and some species of Crassula.

PASTURE AND RANGELAND: Aphids, Grasshoppers, Leafhoppers - 1 1/4 pt. per acre in sufficient water for good coverage. Can be applied at 1 1/4 pt. in 1 gallon of diesel fuel oil per acre by means of an airplane or a turbine-blower type sprayer. May be applied on day of harvest or grazing.

PEACHES: Aphids - 5/8 pt. per 100 gal. of water. Oriental Fruit Moth, Plum Curculio - 1 1/4 pt. per 100 gal. of water. A maximum of 9 pt. per acre per application may be used. Apply at petal fall and every 10 to 14 days thereafter until control is achieved. Do not apply within 7 days of harvest.

PECANS: Aphids, Spider Mites - 5/8 pt. to 1 pt. per 100 gal. of water. A maximum of 12 1/2 pt. per acre per application may be used.

PEPPERS: Aphids - 5/8 pt. per acre. Pepper Maggot - 1 1/2 pt. per acre. Do not apply within 3 days of harvest.

POTATOES: Aphids, Leafhoppers - 5/8 pt. per acre.

SMALL GRAINS (BARLEY, OATS, RYE, WHEAT): Armyworms, English Grain Aphids, Grasshoppers, Greenbugs - 1 pt. to 1 1/4 pt. per acre. Do not apply within 7 days of harvest.

STRAWBERRIES: Aphids, Lygus Bugs, Spider Mites, Spittlebugs, Potato Leafhopper, Field Crickets, Strawberry Leafhopper, Strawberry Root Weevil, Whiteflies - 1 pt. to 2 pt. per acre. Do not apply within 3 days of harvest.

TOMATOES: Aphids, Spider Mites, Tomato Russet Mite - 5/8 pt. to 1 pt. per acre. Do not apply within 1 day of harvest.

MICRO FLO WARRANTS THAT THIS PRODUCT CONFORMS TO THE CHEMICAL DESCRIPTION ON THE LABEL THEREOF AND IS REASONABLY FIT FOR THE PURPOSE STATED ON SUCH LABEL ONLY WHEN USED IN ACCORDANCE WITH THE DIRECTIONS FOR USE. IT IS IMPOSSIBLE TO ELIMINATE ALL RISKS INHERENTLY ASSOCIATED WITH THE USE OF THIS PRODUCT. CROP INJURY, INEFFECTIVENESS, OR OTHER UNINTENDED CONSEQUENCES MAY RESULT BECAUSE OF SUCH FACTORS AS WEATHER CONDITIONS, PRESENCE OF OTHER

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MATERIALS, OR THE MANNER OF USE OR APPLICATION, ALL OF WHICH ARE BEYOND THE CONTROL OF MICRO FLO. IN NO CASE SHALL MICRO FLO BE LIABLE FOR THE CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER.

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