

51036-294

7/28/2000

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

JUL 28 2000

Mr. Matt Talley
MicroFlo Company
P.O. Box 772099
Memphis, TN 38117-2099

Subject: Chlorpyrifos 4# Wheat, Chlorpyrifos Memorandum Of Agreement (MOA)
EPA Reg. No. 51036-294
Submission dtd 7/5/00

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 you incorporate the Agency's conditions as enumerated in this letter below and submit one copy of your final, printed labeling prior to releasing the product for shipment. A stamped copy of the current label is enclosed.

1. Delete the statement; "Due to acute avian and aquatic organisms" in the Restricted Use Pesticide box as indicated in the attached marked-up label.

Failure to comply with any of the conditions of registration set forth in the Chlorpyrifos MOA, specifically paragraph 10 of the MOA shall be grounds for cancellation of the affected registration(s) under FIFRA 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions. As specified in paragraph 5 of the MOA this label amendment is effective Dec 1, 2000. 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", is written over the typed name.

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

Enclosure: stamped label



Recycled/Recyclable
Printed on paper that contains
at least 75% recycled fiber

2 3 10

RESTRICTED USE PESTICIDE

~~DUE TO ACUTE TOXICITY TO AVIAN AND AQUATIC ORGANISMS~~

delete

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.

CHLORPYRIFOS 4# WHEAT

For distribution and use only in Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, New Mexico, Nevada, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington and Wyoming.

For control of aphids, including Russian wheat aphid, grasshoppers, wheat midge, and cutworms infesting wheat.

Active Ingredient:

chlorpyrifos: O,O-diethyl-O-(3,5,6-trichloro-2-pyridinyl) phosphorothioate.....

44.7%

Inert Ingredients: 55.3%

TOTAL: 100.0%

ACCEPTED

Contains 4 pounds of chlorpyrifos per gallon.
Contains aromatic petroleum distillates.

with COMMENTS
In EPA Letter Dated:

KEEP OUT OF REACH OF CHILDREN

WARNING

AVISO

JUL 28 2000
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.

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

FIRST AID

Organophosphate

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.

NOTE TO PHYSICIAN: Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. Atropine only by injection is an antidote.

EPA Reg. No. 51036-294

EPA Est. No. 51036-GA-1

Manufactured By:
MICRO FLO COMPANY
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 inhaled. Causes eye irritation. Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. May cause skin sensitization reactions in certain individuals.

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)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category H on an EPA chemical resistance category selections chart. Applicators and other handlers must wear:

1. Long-sleeved shirt and long pants
2. Chemical-resistant gloves such as Barrier Laminate or Viton
3. Shoes plus socks
4. Protective eyewear
5. Chemical resistant headgear for overhead exposure
6. Chemical resistant apron when cleaning equipment and mixing or loading

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Follow manufacturer's instructions for cleaning/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.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds and wildlife, and extremely toxic to fish and aquatic organisms. 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. This product is highly toxic to bees exposed to direct treatment or residues 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. Protective information may be obtained from your cooperative agricultural extension service.

PHYSICAL OR CHEMICAL HAZARDS

Combustible--Do not use or store near heat or open flame. Do not cut or weld container.

Notice: Read the entire label. Use only according to label directions. Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies." In case of emergency endangering health or the environment involving this product, call 1-800-451-8461.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying. 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 exemptions 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 24 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 or Viton
3. Shoes plus socks
4. Protective eyewear

STORAGE AND DISPOSAL

Storage: Store in original container in secured dry storage area. Prevent cross-contamination with other pesticides and fertilizers. Do not store above 100F for extended periods of time. Storage below 20F may result in formation of crystals. If product crystallizes, store at 50 to 70F and agitate to redissolve crystals. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

Pesticide Disposal: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. 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 for Refillable Containers: Replace the dry disconnect cap, if applicable, and seal all openings which have been opened during use. Return the empty container to a collection site designated by MICRO FLO. If the container has been damaged and cannot be returned according to the recommended procedures contact the MICRO FLO CO. Customer Service Department at 1-800-451-8461 to obtain proper handling instructions.

Container Disposal for Non-Refillable Containers: 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.

or

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

GENERAL INFORMATION

CHLORPYRIFOS 4#-WHEAT insecticide forms an emulsion when diluted with water and is suitable for use in all conventional spray equipment. Consult your state experiment station or state extension service for proper timing of applications.

MIXING DIRECTIONS

To prepare the spray, add a portion of the required amount of water to the spray tank and with agitation add the CHLORPYRIFOS 4#-WHEAT. Complete filling the tank with the balance of water needed. Maintain sufficient agitation during both mixing and application to ensure uniformity of the spray mixture. CHLORPYRIFOS 4#-WHEAT may also be used in tank mixtures with certain herbicides and/or with non-pressure fertilizer solutions as recommended under specific crop use directions. Prepare tank mixtures in the same manner as recommended above for use of CHLORPYRIFOS 4#-WHEAT alone. When tank mixtures of CHLORPYRIFOS 4#-WHEAT and herbicides are involved, add wettable powders first, flowables second, and emulsifiable concentrates last. Where a fertilizer solution is involved, it is strongly recommended that a fertilizer pesticide compatibility agent such as Unite or Compex be used. Maintain constant agitation during both mixing and application to ensure uniformity of the spray mixture. Do not allow spray mixtures to stand overnight.

Note: Test compatibility of the intended tank mixture before adding CHLORPYRIFOS 4#-WHEAT to the spray or mix tank. Add proportionate amounts of each ingredient to a pint or quart jar, cap, shake, and let set 15 minutes. Formation of precipitates that do not readily redisperse indicates an incompatible mixture that should not be used.

SPRINKLER IRRIGATION

Special Use Directions. The following use directions are to be followed when CHLORPYRIFOS 4#-WHEAT is applied through sprinkler irrigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues, and dispose of the residues according to state and federal laws. Flush the injector with soap and water. Determine the amount of insecticide needed to cover the desired acreage. Pump the required CHLORPYRIFOS 4#-WHEAT into a steel tank, start mechanical or hydraulic agitation, and add in order the non-emulsifiable oil and/or water. Continually agitate the mixture containing CHLORPYRIFOS 4#-WHEAT. Set the sprinkler system to deliver the desired inches of water per acre. Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injector system according to number 14 in "Special Use Precautions." The mixture containing CHLORPYRIFOS 4#-WHEAT must be injected continuously and uniformly into the irrigation water line as the sprinkler is moving. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

Special Use Precautions

The following use precautions will result in a safe and successful application of mixtures containing CHLORPYRIFOS 4#-WHEAT.

1. Apply this product only through sprinkler irrigation systems including:

center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, micro sprinkler, or hand move. Do not apply this product through any other type of irrigation system.

2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.
3. If you have questions about calibration, you should contact state extension service specialists, equipment manufacturers or other experts.
4. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.
5. 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.
6. 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. Refer to the American Society of Agricultural Engineer's Engineering Practice 409 for more information.
7. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
8. 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.
9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
10. 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.
11. 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. The metering pump must provide a greater pressure than that of the irrigation system at the point of injection. The pump must meet Section 675 for "Electrically Driven or Controlled Irrigation Machines" NEC 70 and must contain Viton or Teflon seals.
12. To insure uniform mixing of the insecticide into the water line, inject the mixture through a nozzle placed in the fertilizer injection port or just ahead of an elbow or tee in the irrigation line so that the turbulence created at those points will assist in mixing. It is suggested that the injection point be higher than the insecticide tank to prevent siphoning.
13. The steel tank holding the insecticide mixture should be large enough to allow the system to complete a revolution with one filling. It should be free of rust, fertilizer, sediment, and foreign material,

and equipped with an in-line strainer situated between the tank and the injector pump.

14. In order to calibrate the irrigation system and injector to apply the mixture containing CHLORPYRIFOS 4#-WHEAT, determine the following:
 - 1) Calculate the number of acres irrigated by the system,
 - 2) Set the irrigation rate and determine the number of minutes for the system to cover the intended treatment area,
 - 3) Calculate the total gallons of insecticide mixture needed to cover the desired acreage. Divide the total gallons of insecticide mixture needed by the number of minutes to cover the treatment area. This value equals the gallons per minute output that the injector must deliver. Convert the gallons per minute to milliliters or ounces per minute. Calibrate the injector pump with the system in operation at the desired irrigation rate. It is suggested that the injector pump be calibrated at least twice before operation, and the system should be monitored during operation.
15. Do not apply when wind speed favors drift beyond the area intended for treatment. End guns must be turned off during the application, if they irrigate nontarget areas.
16. Do not allow irrigation water to collect or runoff and pose a hazard to livestock, wells, or adjoining crops.
17. Allow foliage to dry before reentering the field.
18. Do not apply through sprinkler systems which deliver a low coefficient of uniformity such as certain water drive units.

APPROVED CROPS

WHEAT

Use and Dosage recommendations:

Apply CHLORPYRIFOS 4#-WHEAT at the rate of 1/2 to 1 pint per acre (0.25 to 0.5 lb ai/acre) to control aphids (including Russian wheat aphid) and grasshoppers.

For control of wheat midge, use 1 pint of CHLORPYRIFOS 4#-WHEAT per acre. Treatment is recommended when 75% of the wheat heads have emerged from the boot and when midge adults are found in the crop (1 midge per 4-5 heads). Application timing is critical to ensure good control. If possible, apply in the late afternoon or early evening when temperatures exceed 50F and wind speed is less than 7 mph.

For control of army cutworms and suppression of other cutworm species, use 1 pint of CHLORPYRIFOS 4#-WHEAT per acre. Control may be reduced under high temperature conditions (greater than 80F), under dry soil conditions, or if larvae are more than 1/2 inch long. Treat when field counts or crop injury indicates that damaging pest populations are developing or present. A second application of 1 pint/acre may be made for additional control. Mix the required dosage with water and apply in a minimum of 2 gallons per acre finished spray volume. Apply using

aerial (fixed wing or helicopter) or power-operated ground spray equipment. CHLORPYRIFOS 4#-WHEAT may also be applied through sprinkler-irrigation systems.

If anyone sees dead birds or fish which may have been killed by chlorpyrifos, please call 1-800-451-8461.

RESTRICTIONS

- * Do not make more than two applications per crop.
- * Do not apply within 28 days before harvest.
- * Do not allow livestock to graze or otherwise feed on treated forage within 14 days of application.
- * Do not feed straw from treated wheat within 28 days of application.
- * Do not apply directly to bodies of water.
- * Do not apply product where runoff is likely to occur to aquatic habitats (including lakes, public reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries or other natural waters).
- * Do not apply when weather conditions favor drift or runoff from treated areas.

Ground Application

- * For ground applications, the distance from treated areas to aquatic habitats (including lakes, public reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries or other natural waters) must be 30 feet or more.
- * Do not make ground applications if wind speed is greater than 15 mph.
- * Do not apply at spray boom pressures greater than 45 psi.

Aerial Application

- * Do not apply by air within 300 feet of aquatic habitats (including lakes, public reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries or other natural waters).
- * Do not make aerial applications of CHLORPYRIFOS 4#-WHEAT when wind speeds exceed 10 mph or when an atmospheric temperature inversion exists.
- * Boom length should not exceed 75% of the wing span and release height for aerial applications should be no greater than 10 feet above the crop canopy.

WARRANTY DISCLAIMER

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 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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