

51036-429

5/21/2004

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg.
Number:

51036-
429 ✓

Date of Issuance:

MAY 21 2004

NOTICE OF PESTICIDE:

☒ Registration
☐ Reregistration
(under FIFRA, as amended).

Term of Issuance:

Conditional

Name of Pesticide Product:

Thidiazuron-Diuron EC
Cotton Defoliant

Name and Address of Registrant (include ZIP Code):

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

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 following label changes listed below before you release the product for shipment:

- a. Add the phrase, "EPA Reg. No. 51036-429".
- b. When final printed labels are prepared assure that the Signal Word DANGER and Keep Out of the Reach of Children on the front panel meets the type size requirements specified by 40 CFR 156.60(b)(1).

Signature of Approving Official:

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Date:

MAY 21 2004

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c. On page 4 Delete WARNING. Only one Signal Word DANGER is allowed on this pesticide labeling. You may use the term Precaution.

3. Prior to formulation of this product, submit to this office the following information:

a. Registration number and establishment number of the product for which your product is derived,

b. The name and address of the entity from which the product was obtained, and

c. A copy of the bill of sale

4. Submit the results of storage stability (GRN 830.6317) and corrosion characteristics (GRN 830.6320) studies to EPA upon completion.

5. Submit one (1) copy of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

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.

Joanne I. Miller
Product Manager (23)
Herbicide Branch
Registration Division (7505C)

Enclosure

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MICRO FLO COMPANY LLC

THIDIAZURON-DIURON EC

COTTON DEFOLIANT

For Agricultural Use Only

ACTIVE INGREDIENTS: Thidiazuron: N-phenyl-N'-1,2,3-thidiazol-5-ylurea*	12%
Diuron: 3-(3,4-dichlorophenyl)-1,1-dimethylurea*	6%
Other Ingredients:	82%
TOTAL	100%

Contains 1 lb. Thidiazuron per gallon and 0.5 lb. Diuron per gallon

KEEP OUT OF REACH OF CHILDREN
ANGER - PELIGRO

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.)

FIRST AID

IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> 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 IN EYES:	<ul style="list-style-type: none"> 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. Call a poison control center or doctor for treatment advice.
IF INHALED:	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth is possible. Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> Immediately call a poison control center or doctor for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Have person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor or going for treatment.	
EMERGENCY NUMBERS: <ul style="list-style-type: none"> Transportation or spill, call CHEMTREC 800-424-9300. Human health, 800-832-HELP (4357). Animal health, call ASPCA at 800-345-4735. 	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

EPA Reg. No. 51036-XXX

EPA Est. No. XXX-XX-XXX

Manufactured by
Micro Flo Company LLC
P. O. Box 772099
Memphis, TN 38117

ACCEPTED
with COMMENTS
in EPA Letter Dated
MAY 21 2004

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

51036-429

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER

Corrosive. Causes irreversible eye damage. Causes burns. Harmful if inhaled. Do not get in eyes, on skin, or on clothing. Avoid breathing dust or spray mist. Prolonged or frequently repeated skin-contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers (other than mixers and loaders) must wear:

- Coveralls worn over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or butyl rubber gloves
- Chemical-resistant footwear plus socks
- Protective eyewear

Mixers and loaders must wear:

- Coveralls worn over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or butyl rubber gloves
- Chemical-resistant footwear plus socks
- Protective eyewear

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.

ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- 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.
- 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

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters. Do not apply when weather conditions favor drift from the target area.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container and keep closed. Store in a cool, dry place. Do not use or store near heat or open flame. Do not contaminate food or foodstuffs.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. 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 sanitary landfill, or by other procedures approved by State and local authorities.

DO NOT REUSE EMPTY CONTAINER

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

In case of spillage, cover with an absorbent such as soda ash, lime, clay, or sawdust. Sweep up and bury. Wash area thoroughly with detergent and water.

GENERAL INFORMATION

THIDIAZURON-DIURON EC is a harvest aid for cotton; used for leaf removal prior to harvest. THIDIAZURON-DIURON EC can be applied in most weather conditions, both warm and cool.

USE PRECAUTIONS

This product is not to be applied through any type of irrigation system.

Effectiveness of THIDIAZURON-DIURON EC will be reduced if rainfall occurs within 12 hours post application.

Foliage from treated plants or gin trash is not to be fed to livestock.

Rotation to the following crops requires the minimum specified periods below after the last application of THIDIAZURON-DIURON EC:

small grains, sorghum, corn, or root crops (except carrots, onions).....	two (2) months
legumes (including alfalfa) or leafy vegetable (except lettuce).....	two (2) months
cole crops, garlic, safflower, tomatoes, and watermelon.....	two (2) months
carrots.....	three (3) months
onions.....	four (4) months
cantaloupe, honeydew melon/casaba melon, muskmelon, or peppers	five (5) months
lettuce..... when soil has been deep-plowed (12-15 inches)	two (2) months
OR lettuce when soil is only disced (4-6 inches)	nine (9) months
All other crops.....	twelve (12) months

Special Note for inter-cropped grains and legumes planted either as cover crops or planted into treated fields before the minimum two (2) month plant back time after the final THIDIAZURON-DIURON EC application. These grains and/or legumes may be used only as cover crops and may not be used for any feed or food use.

Immature crops should not be used for food or feed.

Prevent spray drift from contacting crops other than mature cotton, since this product may defoliate or injure other plant species.

Mixtures with organophosphates can increase nontarget crop phytotoxicity. Additional care should be exercised when lettuce, citrus, cantaloupes or any other edible crops are adjacent to THIDIAZURON-DIURON EC treated cotton fields.

PROCEDURES TO LOWER SPRAY DRIFT POTENTIAL ONTO NONTARGET CROPS

Under windy conditions, applications of THIDIAZURON-DIURON EC may drift to nontarget crops. The following guidelines may help reduce drift potential:

- When wind speeds exceed ten (10) miles per hour at time of application do not apply THIDIAZURON-DIURON EC either by air or ground equipment.
- Nozzle pressure of (20-30 psi) is recommended.
- When a temperature inversion is present and/or conditions favor an inversion to develop prior to completing application(s) do not apply THIDIAZURON-DIURON EC.
- In addition, do not apply THIDIAZURON-DIURON EC by air within one-half (1/2) mile of lettuce. If using ground equipment do not apply THIDIAZURON-DIURON EC within 100 feet of lettuce.

RIO GRANDE VALLEY OF TEXAS PROCEDURES TO LOWER SPRAY DRIFT POTENTIAL

The following procedures can help reduce the potential for drift:

- If wind speeds exceed ten (10) miles per hour, do not apply THIDIAZURON-DIURON EC either by ground or air. If wind speeds are less than ten (10) miles per hour follow local recommendations from your State Extension Cotton Specialist.
- Nozzle pressure of (20-30 psi) is recommended.

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- When a temperature inversion is present and/or conditions favor an inversion to develop prior to completing application(s) do not apply THIDIAZURON-DIURON EC.
- The maximum nozzle orifice size that provides proper coverage and deposition of product should be used.
- In citrus areas do not apply THIDIAZURON-DIURON EC by air within five (5) miles downwind of the point of application of citrus in flush. If ground equipment is used, do not apply THIDIAZURON-DIURON EC within one-half (1/2) mile downwind of the point of application of citrus in flush.

DIRECTIONS FOR USE

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

Do not make applications of this product that may contact workers or other person either by drift or directly. Protected handlers only are allowed in the area during application. Consult your State or Tribe agency responsible for pesticide regulations for any specific recommendation.

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 statement 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:

- Coveralls worn over long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate or butyl rubber gloves
- Chemical-resistant footwear plus socks
- Protective eyewear

TIME OF APPLICATION

THIDIAZURON-DIURON EC defoliant applications are to be made only on mature cotton plants when the uppermost harvestable boll is mature. Boll maturity is defined as 1) when boll is too hard to be dented when squeezed between thumb and finger, 2) when cutting a cross section with a sharp knife is difficult, 3) when seeds in cross section lack liquid within the seed coat or outer edges of seed coat are light brown, and 4) when fully developed cotyledons are present.

Make applications of THIDIAZURON-DIURON EC at least 5 days prior to expected harvest date.

NOTE: Adequate defoliation with THIDIAZURON-DIURON EC depends on three factors:

- Cotton is actively growing.
- High relative humidity.
- Cotton plant leaves are turgid and not desiccated.

WARNING: Desiccation and/or leaf freezing may occur during periods of high temperature when adjuvants are added to THIDIAZURON-DIURON EC application solution. Products and adjuvants known to cause desiccation of cotton leaf tissue should not be used.

Applications made under adverse or very cool weather conditions will result in less than desirable defoliation and possibly less regrowth inhibition.

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APPLICATION INFORMATION

Use a sufficient amount of water with the specified dosage of THIDIAZURON-DIURON EC defoliant to give complete and uniform coverage of leaf surfaces. For ground equipment apply 10-25 gallons per acre and by air use 2-10 gallons per acre. Maintain agitation during application.

DOSAGE INFORMATION

Use 6.4 to 16 ounces (0.4 to 1.0 pints) of formulated product per acre prior to harvest.

One gallon of THIDIAZURON-DIURON EC will treat 8 - 20 acres. Refer to the dose rate table below.

In some situations a follow-up application may be needed. THIDIAZURON-DIURON EC may be used for this application. Other defoliants may be needed. If additional boll opening is required, Ethephon 6 may be used at recommended rates, see product label for rates and timings. Consult your local State Extension Cotton Specialist recommendations for rates and timings.

The maximum annual use rate of THIDIAZURON-DIURON EC is 16 oz. per acre per season.

MIXING INSTRUCTIONS

1. Fill spray applicator tank at least one half full
2. Start agitation
3. Add recommended amount of THIDIAZURON-DIURON EC
4. Continue agitation and fill tank
5. Agitation should continue throughout the application

CALIFORNIA ONLY: PRECONDITIONING

THIDIAZURON-DIURON EC can be used to enhance the activity of a defoliant application by acting as a pre-conditioner. Apply THIDIAZURON-DIURON EC at 4 oz. to 6 oz. of product per acre in 10-25 gallons of solution by ground application or 2-10 gallons of solution by air. Recommended preconditioner timing is 7-10 days prior to the use of THIDIAZURON-DIURON EC or other defoliant compounds. Prior to using any additional products, read and follow label recommendations of any other products used.

APPLICATION RATE TABLE for THIDIAZURON-DIURON EC

THIDIAZURON-DIURON EC Formulated Product	One Gallon of THIDIAZURON- DIURON EC Will Treat	Active Ingredients per Acre
6.4 oz./Acre (0.4 pt./Acre)	20 Acres	0.075 lbs. ai/Acre
8.8 oz./Acre (0.55 pt./Acre)	15 Acres	0.10 lbs. Ai/Acre
12.8 oz./Acre (0.8 pt./Acre)	10 Acres	0.15 lbs. Ai/Acre
16.0 oz./Acre (1.0 pt./Acre)	8 Acres	0.1875 lbs. ai/Acre

DO NOT APPLY MORE THAN 1.0 PINT OF THIDIAZURON-DIURON EC PER ACRE PER SEASON.

IMPORTANT CLEANOUT INSTRUCTIONS

When applying THIDIAZURON-DIURON EC, a residue may form in application equipment. This residue can best be flushed out of the spraying system by using a commercial tank cleaner when done while residue is still fresh and moist. **DO NOT ALLOW EQUIPMENT TO DRY BEFORE CLEANOUT.** Consult your State Extension Cotton Specialist for recommended tank cleaners and cleaning procedures.

Tank cleaner and water should be used immediately after application. The entire system including nozzles, booms, application tanks, sumps, pumps, and transfer lines should be flushed. Allowing the spray solution to dry in the application equipment can result in residues that are more difficult to remove. **Dried residues are extremely difficult to remove and require commercial tank cleaner to remain in equipment filled to capacity, for 7 days and then thoroughly flushed and rinsed.**

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Spray application equipment that has been inadequately cleaned will contain residue of THIDIAZURON-DIURON EC. This residue may be released during subsequent applications that could cause damage to subsequent crops.

Micro Flo Company, LLC assumes no liability due to equipment that has not been properly cleaned.

CONDITIONS OF SALE AND WARRANTY

The Directions For Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with 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 use of the product in a manner inconsistent with its labeling, all of which are beyond the control of MICRO FLO COMPANY LLC ("Micro Flo") or the Seller. All such risks shall be assumed by the Buyer. Micro Flo warrants that this product 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 inherent risks, referred to above. MICRO FLO MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL MICRO FLO OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. Micro Flo and the 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.