

1812-439

6/17/2003

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

JUL 17 2003

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Ms. P. Leanne Pruett  
Griffin L.L.C.  
P.O. Box 1847  
Valdosta, GA 31603-1847

Dear Ms. Pruett:

Subject: Cotoran 4L Herbicide  
EPA Registration Number 1812-439  
Application Dated June 13, 2003

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended is acceptable, provided you make the following changes before you release the product for shipment.

1. Reorder Precautionary Statements to match order of First Aid statements. Make sure both are ordered so that the most severe routes of exposure are listed first.
2. Reformat STORAGE AND DISPOSAL section. After the sentence "Do not contaminate water, food or feed by storage and disposal," divide the information into 3 categories: "Pesticide Storage," "Pesticide Disposal," and "Container Disposal."
3. Add proper "Pesticide Storage" instructions under STORAGE AND DISPOSAL section.
4. Change "Pesticide Disposal" instructions to "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 the use according to label instructions, contact your State Pesticide of Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance."

Submit three (3) copies of final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling will supercede all previously accepted ones. A stamped copy of labeling is enclosed for your records.

Sincerely,

A handwritten signature in black ink, appearing to read "James A. Tompkins".

James A. Tompkins, haj  
Product Manager 25  
Herbicide Branch  
Registration Division (7505C)

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ACCEPTED  
with COMMENTS  
In EPA Letter Dated:  
JUL 17 2003

# Cotoran® 4L

HERBICIDE

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
~~1817-439~~

## FLOWABLE FLUOMETURON

For Preemergence and Postemergence Weed Control in Cotton

### Active Ingredient

Fluometuron: 1,1-dimethyl-3-(a,a,a-trifluoro-m-tolyl) urea .....41.7%

Inert Ingredients ..... 58.3%

Total ..... 100.0%

Cotoran 4L Contains 4 Pounds Active Ingredient Per Gallon

### KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eyes open and rinse slowly and gently with water for 15 – 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 – 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>Note to Physician:</b> If Cotoran 4L is ingested, lavage stomach or induce vomiting. A slurry of activated charcoal in water can be left in the stomach. Give a saline laxative and supportive therapy.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment	
<b>For medical emergencies involving this product, call toll free 1-888-324-7598.</b>	

Griffin L.L.C.  
VALDOSTA, GEORGIA 31601

EPA REG. NO. 1812-439  
EPA EST. NO. \_\_\_\_\_

NET CONTENTS \_\_\_\_\_

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION**

Harmful if swallowed, inhaled, or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist.

**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 C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or viton
- Shoes plus socks

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 Control Statements**

When handlers use closed systems or enclosed cabs 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.

**ENVIRONMENTAL HAZARDS**

This chemical is known to leach through soil into ground water under certain conditions, as a result of registered uses. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

### 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 this product through any type of irrigation system.

### 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 (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. Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or viton
- Shoes plus socks

### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of federal law. If these wastes cannot be used 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 in proper disposal methods.

Triple rinse container (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. Stay out of smoke from burning jugs.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

### GENERAL INFORMATION

Cotoran 4L is effective for both annual grass and annual broadleaf weed control in cotton.

#### Weed Control

Cotoran 4L applied according to directions will selectively control annual weeds in cotton, such as:

#### Annual Grass Weeds

Barnyardgrass	Foxtail
Crabgrass	Goosegrass
Crowfootgrass	Ryegrass
Fall Panicum	Signalgrass (Brachiaria)

#### Annual Broadleaf Weeds

Buttonweed	Prickly Sida (teaweed)
Cocklebur	Purslane
Florida Pusley	Ragweed
Groundcherry (Wright)	Sesbania
Jimsonweed	Sicklepod
Lambsquarters	Smartweed
Morningglory	Tumbleweed
Pigweed	

Cotoran 4L at rates up to 4 pints per acre in cotton is not effective for the control of established perennial weeds, such as johnsongrass, from rhizomes.

### APPLICATION PROCEDURES

#### Mixing Instructions

(1) Fill spray tank 1/2 to 3/4 full with clean water or nitrogen solution. (2) Start agitation. (3) Pour Cotoran 4L directly from the container into the partially filled spray tank. (4) If Cotoran 4L is to be tank-mixed with another herbicide, add that product after the Cotoran 4L is thoroughly mixed in the partially filled spray tank. (5) Add the rest of the water or nitrogen solution. (6) Provide agitation during mixing and application to maintain a uniform suspension.

To determine compatibility, add 2 teaspoons of Cotoran 4L to 1 pint of nitrogen solution (equals 4 pints in 25 gallons; if using other application rates, adjust compatibility test amounts proportionally). Stir or shake thoroughly. Let stand 5 minutes. If it remains mixed or can be remixed readily, the mixture is compatible and can be used. If Cotoran 4L settles out when mixed with a nitrogen solution, a suspensibility agent, such as Compex®, Unite®, or equivalent at 1 to 3 pints per 100 gallons of fertilizer, may improve compatibility. Add 1/8 to 3/8 teaspoon of Unite to the compatibility test to determine its effectiveness.

#### Equipment

Thoroughly clean sprayer prior to use. Do not use a sprayer contaminated with 2,4 D or other materials, as crop damage or sprayer clogging may result.

Use properly calibrated conventional spray equipment that will apply spray uniformly and has hydraulic or mechanical agitation, except in Arizona where only mechanical agitators are recommended. Screens in nozzles, in suction, and in-line strainers should be no finer than 50-mesh. Use a pump with capacity to maintain 35-40 psi at the nozzles. If hydraulic agitation is used, the pump should also provide sufficient agitation in the tank to keep the mixture in suspension. Avoid leaving spray mixture in tank without constant agitation. If bypass agitation is used, it should terminate at the bottom of the tank to minimize foaming. Wash sprayer thoroughly with clean water immediately after use.

Apply in a minimum of 10 gallons per acre for preplant incorporated or preemergence applications, or apply in a minimum of 20 gallons per acre for postemergence application.

**Band Treatment**

For band treatment, calculate the amount of Cotoran 4L needed by the formula:

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

**COTTON**

Cotoran 4L may be applied as a preemergence treatment to the surface of the soil, or lightly incorporated immediately after planting, or as a directed, semi-directed, or over-the-top postemergence application. For preemergence treatment only, Cotoran 4L may be tank-mixed with most liquid nitrogen fertilizers. Cotoran 4L may be combined with other herbicides in cotton as directed in the Combinations section.

**Cotoran 4L is most effective when used as follows:**

**1st Application:** Preemergence broadcast. See the **Preemergence Treatment** section.

**2nd Application:** Postemergence, directed, semi-directed, or over-the-top when cotton is 3 to 6 inches high. See the **Postemergence Treatments** section.

**3rd Application:** If needed, postemergence, directed, or semi-directed, at lay-by (last normal cultivation), using no more than 2 pints per acre.

**Preemergence Treatment**

Apply Cotoran 4L at a rate of 2 to 4 pints per acre. On light silt and sandy soils, low in organic matter, use the lower rate.

Cotoran 4L may be applied to the surface of the soil, or lightly incorporated into the soil, after planting cotton.

**Preplant Incorporated Use (AZ and NM)**

Cotoran 4L may be applied preplant as a broadcast spray at 3.2 pints per acre after the beds for preplant irrigation have been formed. Apply before the beds are dragged off (using a bed shaper set to remove 1 to 2 inches from beds) in preparation for planting. Furrow irrigation should precede the application and planting should follow as soon as possible. Plant into untreated soil after drag-off

and return treated soil to the beds when furrows are reformed. Do not allow furrow irrigation water to pond over the beds.

### **Postemergence Treatments**

Cotoran 4L may be applied postemergence to cotton, but preemergence to weeds, or postemergence to both cotton and weeds. Cotoran 4L should be applied at rates of 2 to 4 pints per acre. Apply as a directed, semi-directed, or over-the-top spray. Cotoran 4L may be applied to cotton plants at any stage of growth from 3 inches high to lay-by. Use the higher rate when applying postemergence to weeds; weeds should be 2 inches high or less. Use of a surfactant that is approved for use on food and feed crops and is compatible with Cotoran 4L when applied to cotton, may enhance the postemergence herbicidal activity of Cotoran 4L. The surfactant rate should not exceed 0.5% of the carrier volume (1 pint per 25 gallons of water).

**Precautions:** Rainfall that is sufficient to germinate seeds or for growing crops is adequate to activate the herbicidal activity of Cotoran 4L; where dry weather conditions prevail, the herbicidal activity of Cotoran 4L may be delayed or reduced. Cultivate if weeds develop.

Do not make more than three applications of Cotoran 4L to the same crops or field in any 1 year. Do not plant crops other than cotton within 6 months of the last application of Cotoran 4L, or injury may result.

The use of Cotoran (any application method) in conjunction with a systemic insecticide at planting may result in injury to cotton. In addition, Cotoran applied to cotton with any application of Command® (clomazone) herbicide may result in crop injury. Griffin will not be held responsible for losses or damage resulting from such uses.

**West TX only:** Do not use Cotoran 4L on sandy, loamy sand, or fine sandy loam soils. Do not use Cotoran 4L on cotton planted in furrows.

**AR, LA, and MS only:** Use 1.6 pints of Cotoran 4L per acre on sandy loam soils low in organic matter.

**AZ and NM only:** Cotton, corn, and grain sorghum can be planted the next spring. Do not plant treated areas to other crops until 1 year after last application. Do not use on sandy or coarse-textured soil of less than 1% organic matter.

**Note:** Do not apply within 60 days of harvest. Do not feed foliage from treated cotton plants or gin trash to livestock.

### **Combinations**

**Dual® 8E:** Use in a tank mixture with Cotoran 4L preemergence in cotton for control of all weeds as listed on both labels. This combination will also control spotted spurge, hyssop spurge, nodding spurge, and prostrate spurge. Apply to the soil surface at planting or after planting, but before weeds or crop emerge, using the appropriate rates from the following table.

**Cotoran 4L + Dual 8E - Cotton (AR, LA, MS, Eastern OK, TN, Bootheel of MO, Gulf Coast, Rio Grande Valley, and Eastern TX)**

Soil Texture	Broadcast Rates Per Acre	
	Cotoran 4L	Dual 8E
Sand, Loamy sand	----- DO NOT USE -----	
Sandy loam*	2 pts.	1.25-1.5 pts.
Loam, Silt loam, Silt	2-3.2 pts.	1.5-2 pts.
Sandy clay loam, Silty clay loam, Clay loam, Sandy clay, Silty clay, Clay	3.2-4 pts.	2 pts.

\*Use on sandy loam soils only in eastern OK, Gulf Coast, Rio Grande Valley, and eastern TX.

**Precautions:** (1) Do not apply Cotoran 4L + Dual 8E on sand or loamy sand soils or in areas where water is likely to "pond" over the bed, or crop injury may occur. (2) Do not apply broadcast to furrow-planted cotton. (3) The use of Cotoran (any application method) in conjunction with a systemic insecticide at planting may result in injury to cotton. In addition, Cotoran applied to cotton with any application of Command (clomazone) herbicide may result in crop injury. Griffin will not be held responsible for losses or damage resulting from such uses. (4) Do not use on Taloka silt loam, or crop injury may occur.

Refer to the Dual 8E label for further instructions, precautions, and limitations.

**Note:** Do not feed treated forage or gin trash to livestock, or graze treated areas.

**Rotational Crops:** Refer to the crop rotation instructions for Cotoran 4L alone on this label and for Dual 8E alone on the Dual 8E label.

**Trilin®:** Use in a tank mixture with Cotoran 4L (all areas except AZ) or before an overlay with Cotoran 4L in cotton for control of all weeds listed on both labels.

For the **tank mixture**, follow soil preparation and incorporation procedures for Trilin. Apply Cotoran 4L + Trilin tank mix at rates specified below in a minimum of 15 gallons of water per acre.

**Cotoran 4L + Trilin Tank Mixture - Cotton (All areas except AZ)**

Soil Texture	Broadcast Rates Per Acre	
	Cotoran 4L	Trilin
Sand, Loamy sand, Sandy loam	2 pts.	1 pt.
Loam, Silty clay loam*, Silt loam, Silt, Sandy clay loam*	3.2 pts.	1.5 pts.
Clay, clay loam, Silty clay loam*, Silty clay, sandy clay, Sandy clay loam*	4 pts.	2 pts.

\*Silty clay loam and sandy clay loam are transitional soils. If these soils are predominantly sand or silt, they are usually classified as medium-textured soils. If predominantly clay, they are classified as fine-textured soils.



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For the **overlay**, apply Cotoran 4L as a preemergence soil surface treatment as recommended on this label at 2 to 4 pints per acre after a preplant soil incorporated treatment of Trilin. Apply Trilin as recommended on its label at 1 to 2.5 pints per acre.

**Precautions:** Do not use the tank mix in AZ. Do not apply the tank mix of Cotoran 4L + Trilin in liquid fertilizer. Refer to the Trilin label for directions, precautions, and limitations for use of that product, as well as the directions, precautions, and limitations on this Cotoran 4L label.

**Prowl®:** Apply Cotoran 4L as a preemergence surface treatment as recommended on this label at 2 to 4 pints per acre after a preplant soil-incorporated treatment of Prowl for control of all weeds listed on both labels. Apply Prowl as recommended on its label at 1 to 3 pints per acre. Refer to the Prowl label for directions, precautions, and limitations for use of that product.

**DSMA or MSMA:** Cotoran 4L may be tank-mixed with DSMA or MSMA and applied as a directed spray to cotton from 3 inches high to first bloom. Use the broadcast rate of 2 to 4 pints of Cotoran 4L per acre and the necessary amount of DSMA or MSMA plus 0.5% (1 pint/25 gallons) of a surfactant that is approved by FDA for use on food and feed crops and is compatible with Cotoran 4L + DSMA or Cotoran 4L + MSMA when applied to cotton. When using this mixture, do not allow spray to contact cotton foliage. Do not graze treated areas or feed treated forage or gin trash to livestock. Adhere strictly to the dosage, precautions, and limitations of the labels of the products.

**WARRANTY STATEMENT**

GRIFFIN warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. 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 the manner of use or application, all of which are beyond the control of GRIFFIN. In no case shall GRIFFIN be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. The exclusive remedy of any buyer or user of this product for any and all losses, injuries, or damages resulting from or in any way arising from the use, handling, or application of this product, whether in contract, warranty, tort, negligence, strict liability, or otherwise, shall not exceed the purchase price paid for this product or at GRIFFIN'S election, the replacement of this product. GRIFFIN MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

- Command trademark of FMC Corporation.
- Compex trademark of KALO Agricultural Chemicals, Inc.
- Cotoran trademark of Makhteshin Agan North America
- Dual trademarks of Novartis.
- Griffin and Design are a registered trademark of Griffin Corporation.
- Prowl trademark of American Cyanamid.
- Trilin is a registered trademark of Griffin Corporation.
- Unite trademark of HACO, Inc.