Bayer CropScience

Ginstar® 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%**
INERT INGREDIENTS:	**82%**
TOTAL	**100%**

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

This product may be protected by one or more U.S. and/or foreign patents or pending applications either owned by or licensed to Bayer CropScience LP, including but not limited to U.S. Patent Nos. 5,071,463, 5,156,666, 5,160,528, 5,176,736, 5,250,499 and 5,294,644.

EPA Reg No. 264-634 **EPA Est. No. 3125-MO-001**

KEEP OUT OF REACH OF CHILDREN
DANGER — 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.)

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577

For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

FIRST AID

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 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. • 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.
IF SWALLOWED:	• 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.
For MEDICAL Emergencies Call 24 Hours A Day 1-800-334-7577. **Have the product container or label with you when calling a poison control center or doctor or going for treatment.**	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER

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

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are made of barrier laminate or butyl rubber. If you want more options, follow the instructions for category B on an EPA chemical resistance category selection chart.

All pilots, flaggers, and groundboom applicators must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks.
- In addition to the above, groundboom applicators must also wear chemical resistant gloves and protective eyewear (such as goggles, or face shield, or shielded safety glasses).

All mixers, loaders, other applicators, and other handlers must wear:

- Coveralls worn over short-sleeved shirt and short pants
- Socks plus chemical-resistant footwear
- Chemical resistant gloves
- Protective eyewear (such as goggles, or face shield, or shielded safety glasses)
- Chemical-resistant apron when mixing, loading, or cleaning equipment or spills
- Chemical-resistant headgear for overhead exposure
- A NIOSH approved particulate filtering respirator equipped with N, R, or P class filter media. The respirator should have a NIOSH approval number prefix TC-84A. It is recommended that you require the respirator wearer be fit tested, and trained in the use, maintenance, and limitations of the respirator.

See engineering controls for additional requirements.

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 exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENT

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for Agricultural Pesticides [40 CFR 170.240(d)(6)]. Flaggers supporting aerial applications must use an enclosed cab that meets the definition in the WPS for Agricultural Pesticides [40 CFR 170.240(d)(5)] for dermal protection. In addition, flaggers must wear long-sleeved shirt, long pants, shoes, and socks.

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/PPE 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. Apply this product only as specified on this label.

This product may contaminate water through drift of spray in wind. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination. This chemical has properties and characteristics associated with chemicals detected in ground water. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

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: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, 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.

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.

Use of this product in certain portions of California, Oregon and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition.. et al. v. EPA, C01-0132C, (W.D. WA). For further information, please refer to www.epa.gov/espp/wtc/.

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.

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

GENERAL INFORMATION

GINSTAR® EC is a defoliant to be used as a pre-harvest aid for cotton. GINSTAR® EC Cotton Defoliant has performed well under both cool and warm weather conditions.

USE PRECAUTIONS

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

Rainfall within 12 hours after application can reduce the effectiveness of GINSTAR® EC Cotton Defoliant.

Do not feed foliage from treated cotton plants or gin trash to livestock.

Do not plant the following crops **earlier than** the specified periods after application of GINSTAR® EC:

small grains, sorghum, corn ..... one (1) month

root crops (except carrots, onions) ..... two (2) months

legumes (including alfalfa) or leafy vegetables (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.....two (2) months
with deep-plowing of soil (12–15 inches);
or nine (9) months when soil is **only disked** (4–6 inches).

Cover Crops: Small grains and/or legumes intercropped within the cotton crop to which GINSTAR® EC Cotton Defoliant will be applied may **only** be used as cover crops and may not be harvested for food or feed. Small grains and/or legumes planted earlier than two (2) months following GINSTAR® EC application may **only** be used as cover crops and may not be harvested for food or feed.

Do not plant any other rotational crops (*except* those specified above) within one year of application of GINSTAR® EC.

Do not use immature crops for food or feed.

Do not allow spray drift to contact trees or crops other than the target crop of mature cotton, or cotton you desire to defoliate, as this product may injure or defoliate other crops.

SPRAY DRIFT MANAGEMENT FOR GROUND AND AERIAL APPLICATIONS

Use best practices to avoid drift to all other crops and non-target areas. Do not apply when conditions favor drift from target areas. The interaction of many equipment- and weather-related factors determine the potential for spray drift. Avoiding spray drift at the application site is the responsibility of the applicator. The applicator must follow the most restrictive precautions to avoid drift, including those found in this labeling as well as applicable state and local regulations and ordinances. A drift control agent may reduce drift, however, it may also decrease weed control.

Make aerial or ground applications only when the wind speed is less than or equal to 10 miles per hour.

Do not make aerial or ground applications into temperature inversions.

Apply with medium or coarser spray (according to ASAE standard 572) for standard nozzles.

Additional requirements for ground applications:
When applying to crops, apply with nozzle height no more than 2 feet above the ground or crop canopy.

Additional requirements for aerial applications:
The spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The boom length must not exceed 75% of the wingspan or 90% of rotor blade diameter.

Use upwind swath displacement

When applying to crops, do not release spray at a height greater than 6 to 10 feet above the ground or crop canopy.

DO NOT APPLY BY AIR IF SENSITIVE NON-TARGET CROPS ARE WITHIN 100 FEET OF THE APPLICATION SITE.

ADDITIONAL PRACTICES TO LOWER THE POTENTIAL FOR DRIFT ONTO NONTARGET CROPS

During applications, particularly under windy conditions, GINSTAR® EC Cotton Defoliant may drift to nontarget crops. To help reduce the drift potential, use the following practices:

- Do not apply GINSTAR® EC by ground or air when wind speeds exceed ten (10) miles per hour at the time of application. Follow local recommendations if wind speeds of less than ten (10) miles per hour are specified in those recommendations.
- Use of low nozzle pressure (20–30 psi) is recommended.
- Use the largest nozzle orifice possible which permits proper deposition and coverage of product.
- Do not apply GINSTAR® EC when a temperature inversion is present or when conditions favor an inversion prior to completing application(s).

CARE SHOULD BE TAKEN WHEN APPLYING GINSTAR® EC ADJACENT TO LETTUCE, CITRUS, OR CANTALOUPE.

- Do not apply GINSTAR® EC by air within one-half (½) mile of lettuce. Do not apply GINSTAR® EC by ground equipment within 100 feet of lettuce.
- In addition, for citrus crops, particularly in the Rio Grande Valley of Texas, do not apply GINSTAR® EC by air when citrus in flush is within five (5) miles downwind of the point of application. Do not apply GINSTAR® EC by ground when citrus in flush is within one-half (½) mile downwind of the point of application.

TIME OF APPLICATION

Apply GINSTAR® EC Cotton Defoliant only to mature cotton plants when the last boll you expect to harvest is mature. A boll can be described as “mature” when it is too hard to be dented when squeezed between thumb and fingers, is difficult to slice with a sharp knife, and/or when seeds cut in cross sections have fully developed cotyledons, as evidenced by an absence of jelly within the seed.

Apply GINSTAR® EC at least 5 days prior to anticipated harvest.

PRECAUTION: The addition of adjuvants can cause desiccation and/or leaf freezing during periods of high temperature. The use of compounds that desiccate leaf tissue is not recommended.

Use of GINSTAR® EC Cotton Defoliant under extremely cool or adverse conditions can result in less than desirable defoliation and/or growth inhibition.

APPLICATION

GINSTAR® EC Cotton Defoliant may be applied by air or ground equipment. Apply specified dosages in 10–25 gallons of spray per acre with ground equipment or 2–10 gallons per acre by aircraft.

DOSAGE

Apply GINSTAR® EC Cotton Defoliant at a rate of 0.4 to 1.0 pint of formulated product per acre prior to harvest (see *Application Rate Table*). At some locations, following the initial GINSTAR® EC application, it may be necessary to make a second application of GINSTAR® EC (**DO NOT** exceed 1.0 pint/acre per season), or an application of a standard defoliant.

MIXING INSTRUCTIONS

Fill the spray tank with one-half of the required amount of water. Add the proper amount of GINSTAR® EC Cotton Defoliant and start the spray tank agitator. Finish filling the tank with the balance of water needed. Maintain sufficient agitation during both mixing and application to ensure uniformity of the spray mixture.

PRECONDITIONING
FOR USE IN CALIFORNIA ONLY

GINSTAR® EC Cotton Defoliant may be used as a preconditioner to enhance the activity of a defoliant application. Apply GINSTAR® EC at 4–6 oz. formulated product per acre. Apply in 10–25 gallons of water per acre by ground or 2–10 gallons of water per acre by aerial application. Timing of application is recommended 7–10 days prior to a defoliation application of GINSTAR® EC (see *Application Rate Table*) or the use of another defoliant. Refer to the second product label prior to use for complete recommendations.

GINSTAR® EC COTTON DEFOLIANT APPLICATION RATE TABLE

To Achieve an Application Rate of:	Use This Amount of GINSTAR® EC	At the Indicated Rate, One Gallon of GINSTAR® EC Will Treat:
0.075 lbs. ai/Acre	0.4 pts./A (6.4 oz./A)	20 Acres
0.10 lbs. ai/Acre	0.55 pts./A (8.8 oz./A)	15 Acres
0.15 lbs. ai/Acre	0.8 pts./A (12.8 oz.A)	10 Acres
0.1875 lbs. ai/Acre	1.0 pts./A (16.0 oz./A)	8 Acres

DO NOT APPLY MORE THAN 1.0 PINT OF GINSTAR® EC PER ACRE PER SEASON.

CLEANOUT INSTRUCTIONS

Do not allow the spray solution to dry in the application equipment. Immediately following application, clean all equipment (mix tanks, pumps, transfer lines, application tanks, sumps, booms, nozzles, and all related equipment) thoroughly with commercial tank cleaner and water. Consult your State Extension cotton specialist for recommended tank cleaners and cleaning procedures.

The procedure for removing dried residues in the application equipment requires allowing the diluted solution of a commercial tank cleaner to stand in equipment, filled to capacity, for 7 days followed by thorough flushing.

Should small quantities of GINSTAR® EC Cotton Defoliant remain in inadequately cleaned equipment, they may be released during subsequent applications and may cause damage to crops. Bayer CropScience accepts no liability for damage to crops due to inadequately cleaned equipment.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks 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 Bayer CropScience. All such risks shall be assumed by the user or buyer.

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NET CONTENTS: 2.5 GALLONS

Produced For

Bayer CropScience

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