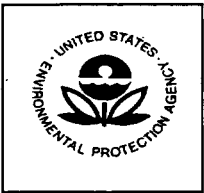


264-821

12/17/2009

Talco

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

EPA Reg. Number:
264-821

Date of Issuance:
DEC 17 2009

NOTICE OF PESTICIDE:
Registration
[X] Reregistration
(under FIFRA, as amended)

Term of Issuance:

Name of Pesticide Product:

Ginstar 4.5 SC Cotton Defoliant

Name and Address of Registrant (include ZIP Code):

Bayer CropScience LP
P.O. Box 12014
2 T.W. Alexander Drive
Research Triangle Park, NC 27709

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 reregistered in accordance with FIFRA provided that you:

- 1) Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data.

Signature of Approving Official:

JSI

Joanne Miller
Senior Registration Specialist
Herbicide Branch, Team 23
Registration Division (7505P)

Date:

DEC 17 2009

2) Add the following to the spray drift section “(In general, a decrease in droplet size or increase in wind speed at the time of application will result in risk to non-target organisms. Alternatively, if droplet size is coarser or wind speeds are lower, exposures due to drift would be reduced).”

3) The general prohibition “DO NOT APPLY BY AIR IF SENSITIVE NON-TARGET CROPS ARE WITHIN 100 FEET OF THE APPLICATION SITE” must be qualified with the addition of the phrase “... except as noted below for lettuce and citrus.” Also, “OR CANTALOUPE” appears in the subheading, “CARE SHOULD BE TAKEN WHEN APPLYING GINSTAR® SC COTTON DEFOILANT ADJACENT TO LETTUCE, CITRUS, OR CANTALOUPE” at the top of page 4 of the label. Although specific restrictions are provided for lettuce and citrus, there is no mention of special precautions when applying adjacent to cantaloupe, cantaloupes must be addressed as well.

4) Based on toxicity ranking per the acute toxicity review, the First Aid statements should be placed on the label in the following order:

“IF SWALLOWED:...
IF ON SKIN OR CLOTHING:...
IF INHALED:...
IF IN EYES:...”

5) Per the Diuron and Thidiazuron REDs, the User Safety Recommendation text must be revised to read:

“User Safety Recommendations

User should wash hands before, eating, drinking, chewing gum, tobacco, or using the toilet.

User should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.”

6) Per the Thidiazuron RED, the Environmental Hazard statements currently on the label must be revised to read:

“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 when disposing of equipment washwater or rinsate.

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Page 3
EPA Reg. 264-821

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."

7) Per the Thidiazuron and Diuron REDs, the following restrictions must be added to the restrictions currently on label:

"Maximum of 2 applications per year.
Minimum retreatment interval is 21 days."

8) On page 3, change "general information" to "product information". Change "the spray boom should be mounted" to "the spray boom must be mounted". On page 4, change "care should be taken" to "care must be taken". Change "rate recommendations" to "rate directions". On page 5, change "per season" to "per year". Add "to the extent consistent with applicable law" in front of "Bayer CropScience accepts no liability".

A stamped copy of the label is enclosed for your records. You must submit one copy of the final printed label before you release the product for shipment. Products shipped after 12 months from the date of this letter or the next printing of the label whichever occurs first, must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA. Your release for shipment of the product constitutes acceptance of these conditions. This label supersedes all other previously accepted labels. If you have any questions please call Erik Kraft at 703-308-9358 or email at Kraft.Erik@epa.gov.

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Ginstar® 4.5 SC COTTON DEFOLIANT

For Agricultural Use Only

ACTIVE INGREDIENTS: Thidiazuron: N-phenyl-N'-1,2,3-thidiazol-5-ylurea*	30.3%
Diuron: 3-(3,4-dichlorophenyl)-1,1-dimethylurea*	15.1%
INERT INGREDIENTS:	54.6%
Contains 3.0 lbs. Thidiazuron per gallon and 1.5 lb. Diuron per gallon.	TOTAL 100%

EPA Reg No. 264-821

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN CAUTION

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577 In EPA Letter Dated:
For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

ACCEPTED
with COMMENTS

DEC 17 2009

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

FIRST AID

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.
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 if possible. Call a poison control center or doctor for further 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 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.

264-821

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.

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 (PPE)

Some materials that are chemical-resistant to this product are made of polyethylene or polyvinyl chloride. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection chart.

All pilots, flaggers, and groundboom applicators must wear:

Long-sleeved shirt and long pants and shoes plus socks.

In addition to the above, groundboom applicators must also wear chemical resistant gloves.

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

Long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves, chemical-resistant apron when mixing, loading, or cleaning equipment or spills, and a NIOSH approved particulate filtering respirator equipped with N, R, or P class filter media. The

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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

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.

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 when disposing of equipment washwaters or rinsate. Do not apply when weather conditions favor drift from the target area.

Apply this product only as specified on this label.

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

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. 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 or reconditioning, or puncture and dispose of in sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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. vs EPA, C01-132C (W.D. WA). For further information, please refer to ww.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
- Chemical-resistant gloves made of any waterproof material.
- Shoes plus socks

GENERAL INFORMATION

Ginstar® 4.5 SC is a defoliant to be used as a pre-harvest aid for cotton. Ginstar® 4.5 SC 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® 4.5 SC 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® 4.5 SC:

small grains, sorghum or 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
	<i>with deep-plowing of soil (12–15 inches);</i>
	<i>or nine (9) months when soil is only disced (4–6 inches).</i>

Cover Crops: Small grains and/or legumes intercropped within the cotton crop to which Ginstar® 4.5 SC 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® 4.5 SC 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® 4.5 SC.

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.

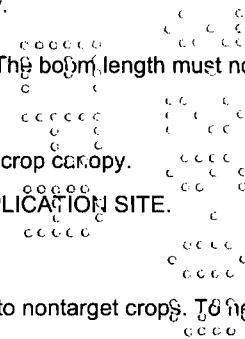
Additional requirements for aerial applications:

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® 4.5 SC Cotton Defoliant may drift to nontarget crops. To help reduce the drift potential, use the following practices:

- Do not apply GINSTAR® 4.5 SC Cotton Defoliant 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® 4.5 SC Cotton Defoliant when a temperature inversion is present or when conditions favor an inversion prior to completing application(s).

CARE SHOULD BE TAKEN WHEN APPLYING GINSTAR® 4.5 SC COTTON DEFOLIANT ADJACENT TO LETTUCE, CITRUS, OR CANTALOUPE.

- Do not apply GINSTAR® 4.5 SC Cotton Defoliant by air within one-half (½) mile of lettuce. Do not apply GINSTAR® 4.5 SC Cotton Defoliant 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® 4.5 SC Cotton Defoliant by air when citrus in flush is within five (5) miles downwind of the point of application. Do not apply GINSTAR® 4.5 SC Cotton Defoliant by ground when citrus in flush is within one-half (½) mile downwind of the point of application.

TIME OF APPLICATION

Apply Ginstar® 4.5 SC 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.

Use of Ginstar® 4.5 SC Cotton Defoliant under extremely cool or adverse conditions can result in less than desirable defoliation and/or growth inhibition.

Apply Ginstar® 4.5 SC at least 5 days prior to anticipated harvest.

USE OF ADJUVANTS

The use of adjuvants has been shown to improve performance of Ginstar® 4.5 SC. Refer to specific adjuvant labels for rate recommendations. **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.**

APPLICATION

Ginstar® 4.5 SC 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

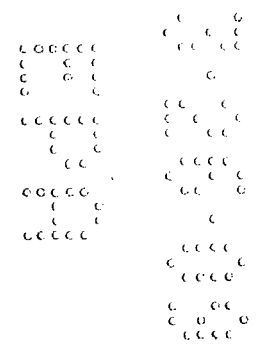
Apply Ginstar® 4.5 SC Cotton Defoliant at a rate of 2.1 to 5.3 ounces of formulated product per acre prior to harvest (see *Application Rate Table*). At some locations, following the initial Ginstar® 4.5 SC application, it may be necessary to make a second application of Ginstar® 4.5 SC (**DO NOT** exceed 5.3 ounces/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® 4.5 SC 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

Ginstar® 4.5 SC Cotton Defoliant may be used as a preconditioner to enhance the activity of a defoliant application. Apply Ginstar® 4.5 SC at 1.3 – 2.1 ounces 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® 4.5 SC (see *Application Rate Table*) or the use of another defoliant. Refer to the second product label prior to use for complete recommendations.



GINSTAR® 4.5 SC COTTON DEFOLIANT APPLICATION RATE TABLE

To Achieve an Application Rate of:	Use This Amount of Ginstar® 4.5 SC	At the Indicated Rate, One Gallon of Ginstar® 4.5 SC Will Treat:
0.075 lbs. ai/Acre	2.1 oz./A	60 Acres
0.10 lbs. ai/Acre	2.9 oz./A	44 Acres
0.15 lbs. ai/Acre	4.3 oz./A	30 Acres
0.1875 lbs. ai/Acre	5.3 oz./A	24 Acres

DO NOT APPLY MORE THAN 5.3 OUNCES OF GINSTAR® 4.5 SC PER ACRE PER SEASON.

TANK MIX OF GINSTAR® 4.5 SC PLUS FINISH® 6 PRO

The tank mix of Ginstar® 4.5 SC Cotton Defoliant plus Finish® 6 Pro is recommended to improve overall defoliation, and as an aid in accelerating the opening of mature, unopened cotton bolls. Best activity will be obtained where the tank mix is applied to mature cotton plants. Do not apply tank mix before sufficient unopened bolls have matured to produce the desired cotton yield.

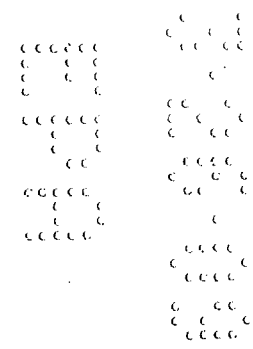
For cotton produced in non-arid conditions, apply Ginstar® 4.5 SC Cotton Defoliant at a rate of 1.1 to 2.1 fluid ounces per acre plus Finish® 6 Pro at a rate of 21 to 42 fluid ounces per acre.

For cotton produced in arid conditions, apply Ginstar® 4.5 SC Cotton Defoliant at a rate of 2.1 to 5.3 fluid ounces per acre plus Finish® 6 Pro at a rate of 21 to 42 fluid ounces per acre.

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 cleaner and water. Refer to Bayer CropScience technical information bulletins for tank cleaners which may be helpful in removing fresh residues.

Should small quantities of Ginstar® 4.5 SC 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.



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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.

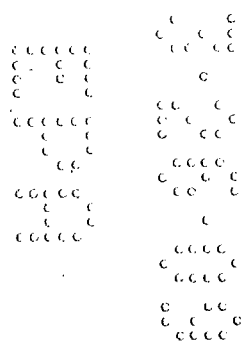
By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

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.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE'S ELECTION, THE REPLACEMENT OF PRODUCT.

NET CONTENTS: 2.5 GALLONS



Produced For



Bayer CropScience

Bayer CropScience LP
P.O. Box 12014, 2 T.W. Alexander Drive
Research Triangle Park, North Carolina 27709
1-866-99BAYER (1-866-992-2937)

Ginstar 4.5 SC Cotton Defoliant (PENDING) 03/13/09