



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

July 21, 2021

Catherine Rice
Product Registration Manager
FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104

Subject: Registration Review Label Mitigation for Bifenthrin
Product Name: TALSTAR GC GRANULAR INSECTICIDE
EPA Registration Number: 279-3167
Application Date: 3/23/2021
Decision Number: 572507

Dear Ms. Rice:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Bifenthrin Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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If you have any questions about this letter, please contact DeMariah Koger by phone at (703)-347-0425, or via email at koger.demariah@epa.gov .

Sincerely,



Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

NOTE to EPA Product Manager: Text in brackets [] is optional.

Bifenthrin GROUP 3A INSECTICIDES

RESTRICTED USE PESTICIDE
Toxic to Fish and Aquatic Organisms
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.

Talstar® GC Granular Insecticide

For use to control Ants (including Imported Fire Ants), Mole Crickets and other Insect pests on lawns in landscaped areas and perimeters around residential, institutional, public, commercial and industrial buildings, parks, recreational areas, golf courses, sod farms and athletic fields.

[Insert photo of golf course]

EPA Reg. No. 279-3167 EPA Est. No.

Active Ingredient	
Bifenthrin*	0.2%
Other Ingredients	<u>99.8%</u>
Total	100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.
[U.S. Patent No. 4,238,505]

KEEP OUT OF REACH OF CHILDREN

CAUTION

See [other panels][booklet][back] for additional precautionary information.

[DO NOT USE THIS PRODUCT ON GOLF COURSES AND SOD FARMS IN NASSAU COUNTY OR SUFFOLK COUNTY, NEW YORK.]

FMC
FMC Corporation
2929 Walnut Street
Philadelphia PA 19104

ACCEPTED
Jul 21, 2021
Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 279-3167

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.

MEDICAL HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-(800)-331-3148 for Emergency Assistance.

NOTE TO PHYSICIAN

This product is a pyrethroid. If large amounts have been ingested, milk, cream and other digestible fats and oils may increase absorption and so should be avoided.

For Technical Support or information regarding the use of this product, call 1-800-321-1FMC (1362).

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Caution

Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing.

Personal Protective Equipment [Applies only to sod farm use]

Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Waterproof gloves
- 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.

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

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas.

DIRECTIONS FOR USE

Restricted Use Pesticide

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

For outdoor use only.

Do not apply by air.

For soil or foliar applications, do not apply by ground within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.

Do not apply the product into fish pools, ponds, streams or lakes. Do not apply directly to sewers or storm drains, or any area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.

Do not allow the product to enter any drain during or after application.

Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios. Sweeping any product that lands on a driveway, sidewalk, or street, back onto the treated area of the lawn or garden will help to prevent run off to water bodies or drainage systems.

Do not make applications during rain.

Do not irrigate to the point of runoff.

Do not apply when the wind speed is greater than 15 mph.

Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area.

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 intervals. 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 to treated areas during the restricted entry interval (REI) of 12 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.
- Waterproof gloves
- Shoes plus socks.

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.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses.

If watering-in of the granules is necessary, do not allow people or pets on treated areas until the grass or soil is dry.

Do not touch treated surface until dry.

Resistance Management: Talstar GC Granular Insecticide contains a Group 3A Insecticide. Any insect population may contain individuals naturally resistant to Talstar GC Granular Insecticide and other Group 3A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of this product or other Group 3A insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
 - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
 - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
 - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
 - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.

- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological, and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.

Contact your local extension specialist or university researchers for additional pesticide resistance-management and/or IPM recommendations for specific site and pest problems in your area.

For further information or to report suspected resistance, contact FMC at 215-299-6000 or www.fmcprosolutions.com

TURFGRASS AND PERIMETER (Including golf courses and sod farms)

Application Information

Apply this product directly to the lawn or garden area.

Water treated area as directed on this label. Do not water to the point of run-off.

Not for use on nurseries, commercial greenhouses or grass grown for seed.

Broadcast with suitable application equipment to ensure uniform coverage over the treatment area.

Use Rate Conversion		
lbs. Talstar GC per 1000 sq. ft.	lbs. bifenthrin per acre	lbs. Talstar GC per acre
1.15	0.1	50
2.3	0.2	100
2.9	0.25	125
3.9	0.34	170
4.6	0.4	200

The maximum annual application rate is 200 lbs product (equivalent to 0.4 lbs. bifenthrin) per acre per year.

Do not apply more than 100 lbs product (0.2 lbs. bifenthrin) per acre per application on residential use sites (i.e., around private homes, apartment buildings, condominiums, non-agricultural outbuildings, non-commercial greenhouses, pre-schools or day-care facilities).

May be applied up to 200 lbs product (0.4 lbs. bifenthrin) per acre per application on non-residential use sites (i.e., around institutional, public, commercial or industrial buildings; parks; recreational areas or athletic fields). **In settings where children may visit and application rates are over 170 lbs product (0.34 lbs. bifenthrin) per acre per application, then granules must be watered in.**

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. At the discretion of the applicator, Talstar GC may be applied at rates up to 0.4 lbs. bifenthrin per acre to control each of the listed pests.

Pest	Application Rate		
	lbs. product per 1000 sq. ft.	lbs. bifenthrin per acre	lbs. product per acre
Armyworms Cutworms Sod Webworm	1.15	0.1	50
Armyworms, Cutworms, and Sod Webworms: To ensure optimum control, irrigate the treated area with up to 0.1 inches of water immediately after application to activate (release from the granule) the insecticide.			
Annual Bluegrass Weevil (<i>Hyperodes</i>) (Adult) Billbugs (Adult) Black Turfgrass Ataenius (Adult) Leafhoppers Mealybugs	1.15 - 2.3	0.1 – 0.2	50 - 100
Annual Bluegrass Weevil (<i>Hyperodes</i>) adults: Applications should be timed to control adult weevils as they leave their overwintering sites and move into grass areas. This movement generally begins when Forsythia is in full bloom and concludes when flowering dogwood is in full bloom. Consult your State Cooperative Extension Service for more specific			

information regarding application timing.

Billbug adults: Applications should be made when adult billbugs are first observed during April and May. Degree day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate regions, spring applications targeting billbug adults will also provide control of over-wintered chinch bugs.

Black Turfgrass Ataenius adults: Applications should be made during May and July to control the first and second generation of black turfgrass ataenius adults, respectively. The May application should be timed to coincide with the full bloom stage of Vanhoutte spiraea (*Spiraea vanhouttei*) and horse chestnut (*Aesculus hippocastanum*). The July application should be timed to coincide with the blooming of Rose of Sharon (*Hibiscus syriacus*).

Ants Centipedes Chinch Bugs European Crane Flies (larvae) Fleas (Larvae) Fleas (Adult) Imported Fire Ants (Adult) Imported Fire Ants (Mounds) Millipedes Mole Cricket (Adult) Mole Cricket (Nymph) Pillbugs Scorpions Sowbugs Ticks	2.3 - 4.6	0.2 – 0.4	100 - 200
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Chinch Bugs: Chinch bugs infest the base of grass plants and are often found in the thatch layer. Irrigate the treated area with up to 0.25 inches of water immediately after application to activate (release from the granule) the insecticide. Chinch bugs can be one of the most difficult pests to control in grasses and the higher applications rates may be required to control populations that contain both nymphs and adults during the summer.

European Crane Flies: Treatments should be made to control early to mid-season larvae (approximately August – February) as they feed on plant crowns. Treatments made to late-season larvae (approximately March - April) may only provide suppression. Consult your local extensions agent for specific recommendations for your area.

Flea larvae: Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. Irrigate the treated area with up to 0.5 inches of water immediately after application to activate (release from the granule) the insecticide.

Imported Fire ants: Control will be optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound treatments that will control existing colonies. If the soil is not moist, then it is important to irrigate before application. Broadcast treatments should apply 0.2 – 0.4 lbs. ai per acre. Mounds should be treated by applying ½ cup of Talstar GC Granular per mound and then drenching the mound with 1 to 2 gallons of water. The mounds should be treated with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. Treat three feet out around the mound. For best results, apply in cool weather (65 - 80° F) or in early morning or late evening hours. This treatment will kill the queen within 24 hours of application. Application of 0.25 lbs. ai per acre will provide six months residual activity for control of foraging Imported Fire Ants and newly mated Fly-In Queens.

Mole Cricket (Adults): Achieving acceptable control of adult mole crickets is difficult because preferred grass areas are subject to continuous invasion during the early spring by this extremely active stage. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized. Grass areas that receive pressure from adult mole crickets should be treated at peak egg hatch to ensure optimum control of subsequent nymph populations (see below).

Mole Cricket (Nymphs): Grass areas that received intense adult mole cricket pressure in the spring should be treated immediately prior to peak egg hatch. Optimal control is achieved at this time because young nymphs are more susceptible to insecticides and they are located near the soil surface where the insecticide is most concentrated. Control of larger, more damaging, nymphs later in the year may require both higher application rates and more frequent applications to maintain acceptable control. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized.

Scorpions: To ensure optimum control, treat the building perimeter at dusk to prevent outdoor scorpions from entering the building. Scorpions reside hidden in cracks and voids during the day and are active at night at temperatures above 77°F/25°C. Resting areas can be identified at night using a blacklight (UV bulb) as scorpions will fluoresce. These areas should also be treated. Prior to treatment, to increase treatment efficacy, remove trash, debris, or firewood that scorpions may use as resting sites.

Ticks (Including ticks that may transmit Lyme Disease and Rocky Mountain Spotted fever): Do not make spot applications. Treat the

entire area where exposure to ticks may occur. Use higher application rates when treating areas with dense ground cover or heavy leaf litter. Ticks may be reintroduced from surrounding areas on host animals. Do not allow public use of treated areas during application. **Deer ticks (*Ixodes sp.*)** have a complicated life cycle that ranges over a two year period and involves four life stages. Applications should be made in mid to late-spring to control larvae and nymphs that reside in the soil and leaf litter. **American dog ticks** may be a considerable nuisance in suburban settings, particularly where homes are built on land that was previously field or forest. These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Applications should be made as necessary from mid-spring to early fall to control American dog tick larvae, nymphs and adults.

Perimeter: Apply to ground area up to 7 feet wide around and adjacent to the structure. See table below.

Boundary Applications: Apply to soil areas, ornamental gardens, pavement crevices, fencelines, planter areas, vegetation areas and mulch areas.

Application Rate: lbs. per 1000 sq. ft.	Band Width (ft)	lbs. Talstar GC Granular for Perimeter Applications Linear Distance (Feet) Around Structure							
		100	150	200	250	300	400	500	1000
2.3	5	1.3	1.9	2.5	3.1	3.6	4.8	5.9	11.7
2.3	7	2.0	2.8	3.6	4.4	5.2	6.8	8.4	16.5
3.0	5	1.7	2.5	3.2	4.0	4.7	6.2	7.7	15.2
3.0	7	2.6	3.6	4.7	5.7	6.8	8.9	11.0	21.5
3.5	5	2.0	2.9	3.8	4.7	5.5	7.3	9.0	17.8
3.5	7	3.0	4.2	5.4	6.7	7.9	10.3	12.8	25.0
4.6	5	2.7	3.8	5.0	6.1	7.3	9.6	11.9	23.4
4.6	7	3.9	5.5	7.1	8.8	10.4	13.6	16.8	32.9

Note: The amounts of Talstar GC Granular listed in the above table are based on the total area being treated. This area is determined by multiplying the linear distance by the band width and then adding to that value the area of a circle whose radius is equal to the band width (to account for the area treated at the four corners of a rectangular structure).

[In New York State, this product may NOT be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).]

[In New York State, do make a single repeat application of Talstar GC Granular if there are signs of renewed insect activity, but not sooner than two weeks after the first application.]

SPREADER EQUIPMENT SETTINGS

Broadcast application should be performed with a calibrated commercial broadcast spreader to evenly distribute the granules. Approximate settings for several models are provided in the table below.

Insert spreader setting table here

INDUSTRIAL NON-AGRICULTURAL APPLICATIONS

(Including Industrial Sites, Parks, Ball Fields and Cemeteries)

Broadcast and Spot Applications: For the control of actively foraging ants (including Imported Fire Ants) broadcast uniformly 2.3 - 4.6 lbs product per 1000 sq ft (0.2 – 0.4 lbs. bifenthrin per acre). For imported Fire Ant treatment recommendations, refer to the application rate table in the “See comments section under **“TURFGRASS AND PERIMETER”** section.

Spot treatments must not exceed two square feet in size (for example, 2 ft by 1 ft or 4 ft by 0.5 ft).

Pad Mounted Electrical Sites: To reduce or prevent ant mound building activity on electrical pads, uniformly distribute 1.0 to 1.5 Tablespoons (0.06 to 0.09 lbs.) of Talstar GC granular insecticide per 4 sq. ft. of mounting pad. Where existing transformers are completely or partially filled with soil excavated by resident ants, remove any excess fill and level the remaining soil prior to application. **Food utensils such as tablespoons must not be used for food purposes after use in measuring pesticides.**

Note: Electrical transformers appear to be more attractive to ants during the cooler months. For best results treat in the Fall or early Spring.

STORAGE AND DISPOSAL

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

Pesticide Storage: Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use close tightly.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call CHEMTREC (transportation and spills): (800) 424-9300.

To confine spill: Cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

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: [Paper and plastic bags:] Non-refillable. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty bag in a sanitary landfill or by incineration, or by burning. Do not burn unless allowed by state or local authorities. If burned, stay out of smoke.

Conditions of Sale and Limitation of Warranty and Liability:

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Turf of plant injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or conditions beyond the control of FMC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.