



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

SEP 21 1994

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OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

Mr. John Wright
FMC Corporation
Pest Control Specialties Operations
PO Box 8
Princeton, NJ 08543

Dear Mr. Wright:

Subject: Addition of Ornamental and Lawn Uses
Talstar WP
EPA Registration No. 279-3057
Talstar Flowable
EPA Registration No. 279-3105
✓ Your Submissions Dated September 23, 1993

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

1. Under Application Recommendations revise the heading to read:

"Landscape Ornamentals, Greenhouse and Home Lawn Uses (Including Interiorscapes, Plantscapes, . . . etc.)."
2. Delete the "Applications Precautions" and "Application to Ornamental" sections. These types of directions imply wide area major crop broadcast use patterns. The rate information given on the chart (per 10 Gal.) is more appropriate for home lawns, landscape ornamentals and greenhouses.
3. Revise the table heading to read "Recommended Application Rates for Landscape Ornamentals and Greenhouses."
4. We recommend replacement of the "lbs AI per 10 gals" in the table.

Submit three copies of your final printed labeling before you release the product for shipment. A stamped copy of the labeling is enclosed for your records.

Sincerely,



George T. LaRocca
Product Manager 13
Insecticide-Rodenticide Branch
Registration Division (7505C)

Code 1349

385
not comments



FLOWABLE INSECTICIDE/MITICIDE

For Agricultural and Commercial Use Only

EPA Reg. No. 279-3105

EPA Est. 279-

Active Ingredients:	By Wt.
Bifenthrin: (2-methyl [1,1'-biphenyl]-3-yl) methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropane carboxylate*	7.9%
Inert Ingredients:	92.1%
	100.0%

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

Talstar Flowable contains 3/4 pound active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See other panels for additional precautionary information.

STATEMENT OF PRACTICAL TREATMENT

If swallowed: Contact a medical doctor or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger or by giving syrup of ipecac. Do not induce vomiting or give anything by mouth to an unconscious person.

If inhaled: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

If in eyes: Flush with plenty of water. Contact a medical doctor if irritation occurs and persists.

Note to Medical Doctor: Talstar Flowable has moderate inhalation, and oral and dermal toxicity. It is practically non-irritating to the eyes and non-irritating to the skin. Reversible skin sensations (paresthesia) may occur and ordinary skin salves have been found useful in reducing discomfort. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

For Emergency Assistance Call 1-800-331-3148

PRECAUTIONARY STATEMENTS

Hazards to Human (and Domestic Animals)

CAUTION

Harmful if swallowed, inhaled or absorbed through skin. Causes minimal eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

Personnel Protective Equipment:

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions or category C on an EPA chemical resistance category selection chart.

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

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

Mixers and Loaders must wear:

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

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 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. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops if bees are visiting the treatment area.



FMC Corporation
Agricultural Chemical Group
Philadelphia PA 19103

ACCEPTED
with COMMENTS
in EPA Letter Dated

SEP 21 1994

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended for the pesticide registration under EPA Reg. No. 279-3105

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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 kind of irrigation system.

AGRICULTURE 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 users 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 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
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride or viton.

• *Show plus socks*

STORAGE AND DISPOSAL

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

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 recaps lids and close tightly. Do not put concentrate or dilute material into food or drink container.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call FMC: 1-800-331-3148.

To Contain Spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. Do not contaminate water, food or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: Plastic Container: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

APPLICATION RECOMMENDATIONS

ORNAMENTAL AND HOME LAWN USES

(Including Greenhouse, Interiorscapes, Plantscapes, and Ornamental Plantings Grown for Aesthetic Purpose)

General Applications Instructions

Talstar Flowable formulation mixes readily with water and other aqueous carriers, and may be applied using all types of spray equipment. Talstar may be tank mixed with other products, including insect growth

regulators, to control a wide spectrum of insects including aphids, beetles, caterpillars, flies, mosquitoes, termites, and whiteflies on shrubs, tallage plants, non-bearing fruit and nut trees, and flowers in greenhouses and interiorscapes including hotels, shopping malls, office buildings, etc., and, outdoor plantscapes, such as around residential dwellings, parks, institutional, recreational, athletic fields and home lawns.

When tank mixing Talstar with other products, observe all precautions and limitations on each separate product label.

The addition of spreader stickers is not necessary.

Application Precautions

Application equipment must be properly maintained and calibrated using appropriate carriers.

Make applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph.

Do not apply by ground equipment within 75 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. Do not apply within 100 yards of aquatic habitat that support endangered species. Do not allow to drift to wetlands.

Do not apply by air.

Application to Ornamentals: For high volume applications apply the specified dosage in 75 to 150 gallons of carrier per acre, and spray until wet. Talstar Flowable may be applied through low volume application equipment providing sufficient carrier is used to ensure thorough coverage.

RECOMMENDED APPLICATION RATES

Pest	Application Talstar Flowable per 10 Gal.	Comments
Ants Aphids Bagworms Blackvine Weevil Brown Soft Scales Broad Mites Budworms California Red Scale (crawlers) Centipedes Clover Mites Crickets Cutworms Earwigs Elm Leaf Beetles Fall Webworms Flea Beetles Fungus Gnats Grasshoppers Lacebugs Leathoppers Leaf Feeding Caterpillars Mealybugs Millipedes Orchid Weevil Pillbugs Pine Needle Scales (crawlers) Plant Bugs (incl. Lygus spp) San Jose Scales (crawlers) Sawbugs Spiders Tent Caterpillars Tip Moths Weevils Whiteflies	0.8 - 4.0 oz.	Apply the specified rate as a full coverage foliar spray. Repeat as necessary to achieve control using higher rates as pest pressure and foliage area increases. To control Bagworm: Apply when larvae begin to hatch. Spray larvae directly. Applications made when larvae are young will be most effective. To control scale crawlers and twig borers: Treat trunks, stems, and twigs in addition to plant foliage. Certain cultivars may be sensitive to the final spray solution. A small number of plants should be treated prior to application of the entire planting. Use of an alternate class of chemistry in a treatment program is recommended to prevent or delay pest resistance.
Citrus Thrips Beet Armyworm European Red Mite Leafrollers Spider Mites Thrips Twig Borers	1.2 - 4.0 oz.	

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Pest	Application Talstar Flowable per 10 Gal	Comments
Japanese Beetles (adult) Leafminers Pecan Leaf Scorch Mite	2.0 - 4.0 oz	

Application to Home Lawns: Apply Talstar Flowable as a broadcast treatment in 2 to 10 gallons of carrier per 1000 ft². Use higher volumes to get uniform coverage when treating dense grass foliage.

Keep children and pets off treated areas following application until the lawn has dried.

RECOMMENDED LAWN APPLICATION RATES

Pest	Talstar Flowable	Comments
Ants Armyworms Bluegrass billbugs Chinchbugs Crickets (Mole)* Cutworms Earwigs Fall Webworms Fleas Grasshoppers Mites Sod Webworms Ticks	0.23 - 0.46 oz. per 1000 ft ² - or - 10 - 20 oz. per Acre	*For control of overwintered Mole Crickets apply the lower rate early Spring. For the control of adult Mole Crickets late-Summer or early Fall apply the higher rate. To enhance control a non-ionic surfactant or a silicon based surfactant (0.25% w/v) may be applied as a tank-mix for the control of late Summer or Fall Adult Mole Crickets. For best results irrigate immediately after application with a minimum of 0.25 inches of water.
Imported Fire Ants Japanese Beetles (adult)	0.46 - 0.92 oz. per 1000 ft ² - or - 20 - 40 oz. per Acre	

Rate Talstar Flowable in oz. (lbs. a.i.)	Talstar Flowable/Gallons of Finished Spray				
	1 gal.	3 gal.	5 gal.	25 gal.	100 gal.
0.80 (0.004)		1/3	1/2	2	8
0.12 (0.006)	1/3	1/2	3/4	3	12
0.20 (0.010)	1/2	3/4	1	5	20

Buyers Should Call to Order 17 Packages Only

Terms of Sale or Use: On purchase of this product buyer and user agree to the following conditions

Warranty: FMC makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Except as so warranted, the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

Use of Product: FMC's recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice.

Damages: Buyer's or user's exclusive remedy for damages for breach of warranty or negligence shall be limited to direct damages not exceeding the purchase price paid and shall not include incidental or consequential damages.

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