

FMC Corporation**Talstar®****NURSERY FLOWABLE INSECTICIDE/MITICIDE**

For Commercial Non-Food Use on Indoor and Outdoor Ornamentals, Greenhouses, Nurseries, Turf on Golf Courses and Sod Farms.

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 the uses covered by the certified applicator's certification.

Active Ingredient:	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%
TOTAL:	100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

Talstar® Flowable insecticide/miticide contains ⅓ pound active ingredient per gallon.

U.S. Patent No. 4,238,505

EPA Reg. No. 279-3155

EPA Est. 279-

KEEP OUT OF REACH OF CHILDREN**CAUTION**

See below for additional precautionary information.

NOTE: USERS OF THIS PRODUCT IN CALIFORNIA MUST BE IN POSSESSION OF STATE SPECIFIC SUPPLEMENTAL LABELING

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

IF INHALED: Remove victim 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 IN EYES: Flush with plenty of water. Call a physician if irritation persists.

Note to Physician: This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

For Emergency Assistance Call: (800) 331-3148

PRECAUTIONARY STATEMENTS**Hazards to Humans (and Domestic Animals)****CAUTION**

Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing dust (vapor or 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 (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. 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.

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.

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 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.
- Shoes plus socks

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.

Do not allow people or pets on treated surfaces until the spray has dried.

STORAGE AND DISPOSAL

Prohibitions: 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 replace 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: (800) 331-3148.

To Confine 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.

Returnable/Refillable Sealed Container: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

General Application Instructions

Talstar® Flowable insecticide/miticide formulation mixes readily with water and other aqueous carriers, and controls a wide spectrum of insects and mites on trees, shrubs, foliage plants, non-bearing fruit and nut trees, and flowers in greenhouses and outdoor nurseries, and turf on golf courses and sod farms. Non-bearing crops are perennial crops that will not produce a harvestable raw agricultural commodity during the season of application.

Talstar Flowable may be tank-mixed with other products, including insect growth regulators. When tank mixing Talstar Flowable with other products, observe all precautions and limitations on each separate product label. The addition of spreader stickers is not necessary. The physical compatibility of Talstar Flowable may vary with different sources of pesticide products, and local cultural practices. Any tank mixture which has not been previously tested should be prepared on

a small scale (pint or quart jar), using the proper proportions of chemicals and water to ensure the physical compatibility of the mixture.

The following procedure is recommended for preparation of a new tank mix, unless specified otherwise in label directions: (1) Add wettable powders to tank water, (2) Agitate, (3) Add liquids and flowables, (4) Agitate, (5) Add emulsifiable concentrates, and (6) Agitate. If a mixture is found to be incompatible following this order of addition, try reversing the order of addition, or increase the volume of water. **Note:** If the tank-mixture is found to be compatible after increasing the amount of water, then the sprayer will need to be recalibrated for a higher volume application. Do not allow tank mix to stand overnight.

Maximum rates: Do not apply more than 0.1 lb ai/acre in a single application, no more than 0.2 lb ai/acre/year for outdoor applications.

APPLICATION RECOMMENDATIONS

Ornamentals in Greenhouses, Lath Houses, Shade Houses and Outdoor Nurseries, including Non-Bearing Fruit and Nut Trees

For greenhouse applications, dilute 8 to 20 fluid ounces of Talstar® Flowable insecticide/miticide per 100 gallons of water and apply at the rate of 100 gallons per acre. One gallon of finish spray will treat 435 square feet. If a higher volume application is required for adequate coverage of the plant canopy, Talstar Flowable may be diluted in large volumes of water as long as the maximum label rate (20 fluid ounces per acre) is not exceeded. Talstar Flowable may be applied through low volume equipment by dilution with water and providing the maximum label rate (20 fluid ounces per acre) is not exceeded.

ORNAMENTAL APPLICATION RATES

Pest	Rate lb ai/acre	Rate fl. oz./acre	Comments
Ants	0.04 to 0.1	8.0 to 20	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.
Aphids			
Bagworms			
Black Vine Weevil (adults)			
Brown Soft Scales			
Broad Mites			
Budworms			
California Red Scale (crawlers)			To control Bagworm: Apply when larvae begin to hatch. Spray larvae directly. Applications made when larvae are young will be most effective.
Centipedes			
Clover Mites			
Crickets			
Cutworms			
Earwigs			
Elm Leaf Beetles			To control scale crawlers and twig borers: Treat trunks, stems, and twigs in addition to plant foliage.
Fall Webworms			
Flea Beetles			
Fungus Gnats (adults)			
Grasshoppers			
Lace Bugs			
Leafhoppers			
Leaf feeding Caterpillars			Certain cultivars may be sensitive to the final spray solution. A small number of plants should be treated and observed for one week prior to application to the entire planting.
Mealybugs			
Millipedes			
Mole Crickets*			
Orchid Weevil			Use of an alternate class of chemistry in a treatment program is recommended to prevent or delay pest resistance.
Pillbugs			
Pine Needle Scales (crawlers)			
Plant Bugs (incl. Lygus spp)			
San Jose Scales (crawlers)			Use sufficient water to obtain uniform coverage. Typical use rates are 100 gallons of spray per acre.
Sowbugs			
Spiders			
Tent Caterpillars			
Tip Moths			
Weevils			
Whiteflies			
Citrus Thrips	0.06 to 0.1	12 to 20	To control Black Vine Weevil and Fungus Gnat larvae, apply as a drench at the rate of approximately 8 ounces of finished spray per 6 inch pot.
Beet Armyworm			
Diaprepes (larvae, adult)			
European Red Mite			
Leafrollers			
Spider Mites			
Thrips			
Twig Borers			

Pest	Rate lb ai/acre	Rate fl. oz./acre	Comments
Imported Fire Ants	0.1	20	This product is only recommended to be used as a rescue treatment of containerized plants that are infested with Black Vine Weevil larvae.
Japanese Beetles (adult)			
Leafminers			*For control of over-wintered Mole Crickets apply the lower rate in early Spring. For the control of adult Mole Crickets in late-Summer or early Fall, apply the higher rate.
Pecan Leaf Scorch Mite			
Black Vine Weevil (larvae)			
Fungus Gnats (larvae)			

Apply with ground equipment only.

Do not apply when wind direction favors downwind drift towards nearby water bodies.

Do not apply when wind velocity exceeds 10 mph.

Avoid application when wind gusts approach 10 mph.

Do not apply when a temperature inversion exists.

Apply using the largest nozzle size compatible with adequate coverage.

Do not apply if rain is expected within 12 hours (or whatever time is necessary for the spray to dry).

Do not apply by ground equipment within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. When treating tall trees (>15 feet) from the ground with high pressure sprays or during any application with air assisted equipment (mist blower) do not apply within 150 feet of aquatic areas.

APPLICATION RECOMMENDATIONS

Turf (Golf Courses and Sod Farms)

Apply Talstar Flowable as a broadcast treatment. Use higher volumes up to 10 gallons of carrier per 1000 square feet to get uniform coverage when treating dense grass foliage.

For low water volume usage, less than 2 gallons/1000 square feet, addition of a non-ionic or silicone based surfactant (0.25% v/v) is recommended, as is immediate irrigation of treated area with at least 0.25 inches of water following application to ensure efficacy of sub-surface pests such as, but not limited to, mole crickets.

TURF APPLICATION RATES

Pest	Talstar Flowable	Comments
Ants	0.23-0.46	*For control of over-wintered Mole Crickets apply the lower rate in early Spring. For the control of adult Mole Crickets in late-Summer or early Fall, apply the higher rate.
Armyworms	fl. ozs. per 1000 square feet	
Billbugs	-or-	To enhance control a non-ionic surfactant or a silicone based surfactant (0.25% v/v) may be applied as a tank-mix for the control of late Summer or Fall Adult Mole Crickets. To maximize efficacy against sub-surface pests, Talstar should be applied with a non-ionic or silicone based surfactant (0.25% v/v) in sufficient water to ensure good penetration of spray to soil-thatch matrix. Treated areas should then be irrigated with 0.25 to 0.5 inch of water immediately afterwards paying special attention so that run-off or puddling does not occur.
Chinch Bugs	-or-	
Crane Flies	10-20 fl. ozs. per Acre	
Crickets	-or-	
Cutworms	-or-	
Earwigs	0.05-0.1	
Fall Webworms	lbs. ai per Acre	
Fleas (adults, larvae)	Acre	
Grasshoppers		
Mites		
Mole Crickets*		
Sod Webworms		
Ticks		
Imported Fire Ants	0.46	water to ensure good penetration of spray to soil-thatch matrix. Treated areas should then be irrigated with 0.25 to 0.5 inch of water immediately afterwards paying special attention so that run-off or puddling does not occur.
Japanese Beetles (adult)	fl. ozs. per 1000 square feet	
	-or-	Delay watering or mowing for 24 hours after application to ensure optimum control of Armyworms, Cutworms and Sod Webworms.
	20 fl. ozs. per Acre	
	-or-	
	0.1 lbs. ai per acre	

Apply with ground application equipment only (and apply with nozzles not more than two feet above the turf).

Do not apply when wind conditions favor downwind drift to nearby water bodies.

Do not apply when wind velocity exceeds 10 mph.

Avoid application when wind gusts approach 10 mph.

Do not apply when a temperature inversion exists.

Apply using nozzles that provide the largest droplet size compatible with adequate coverage.

Do not apply for surface feeding pests if rain is expected within 12 hours (or whatever time is necessary for the spray to dry).

Do not apply by ground equipment within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.

Do not apply when turf grass areas are water-logged or soil is saturated with water (i.e. will not accept irrigation).

Dealers Should Sell in Original 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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(1658-12/17/96)

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