

3/25-452

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134

Merit® 1 G

Greenhouse and Nursery Insecticide

For systemic insect control on ornamental plants in greenhouses, nurseries and interior plantscapes.

ACTIVE INGREDIENT:

Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-
-N-nitro-2-imidazolidinimine 1.0%

OTHER INGREDIENTS 99.0%
100.0%

EPA Reg. No. 3125-452

Net Contents: ___ Ounces

STOP - Read the label before use.
Keep out of reach of children.

CAUTION

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed or absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes, or clothing.

Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Water-proof 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.

Engineering controls statements:

- 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:

User 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.

FIRST AID

If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.

In case of emergency call toll free the Bayer Kansas City Emergency Response Telephone No. 800-414-0244. Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

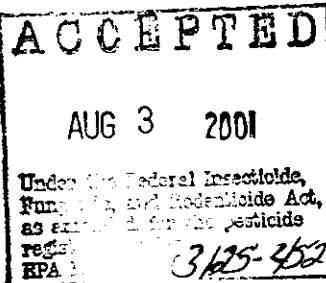
Note To Physician: No specific antidote is available. Treat the patient symptomatically.

ENVIRONMENTAL HAZARDS

This product is highly toxic to aquatic invertebrates. 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.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.



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.

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 12 hours.

Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

IMPORTANT: Read these entire DIRECTIONS FOR USE, GENERAL INFORMATION, AND CONDITIONS OF SALE before using MERIT 1 G Greenhouse and Nursery Insecticide.

CONDITIONS OF SALE: THE DIRECTIONS ON THIS LABEL WERE DETERMINED THROUGH RESEARCH TO BE APPROPRIATE FOR THE CORRECT USE OF THIS PRODUCT. THIS PRODUCT HAS BEEN TESTED UNDER DIFFERENT ENVIRONMENTAL CONDITIONS BOTH INDOORS AND OUTDOORS UNDER CONDITIONS SIMILAR TO THOSE THAT ARE ORDINARY AND CUSTOMARY WHERE THE PRODUCT IS TO BE USED. INSUFFICIENT CONTROL OF PESTS OR PLANT INJURY MAY RESULT FROM THE OCCURRENCE OF EXTRAORDINARY OR UNUSUAL CONDITIONS, OR FROM FAILURE TO FOLLOW LABEL DIRECTIONS. IN ADDITION, FAILURE TO FOLLOW LABEL DIRECTIONS MAY CAUSE INJURY TO ANIMALS, MAN, AND DAMAGE TO THE ENVIRONMENT. BAYER OFFERS, AND THE BUYER ACCEPTS AND USES, THIS PRODUCT SUBJECT TO THE CONDITIONS THAT EXTRAORDINARY OR UNUSUAL ENVIRONMENTAL CONDITIONS, OR FAILURE TO FOLLOW LABEL DIRECTIONS ARE BEYOND THE CONTROL OF BAYER AND ARE, THEREFORE, THE RESPONSIBILITY OF THE BUYER.

GENERAL INFORMATION

MERIT 1 G Greenhouse and Nursery Insecticide is for insect control on ornamental plants in nurseries and greenhouses. MERIT 1 G Greenhouse and Nursery Insecticide is a systemic product and will be translocated upward within the plant. To assure optimum effectiveness, the product must be placed by incorporation where the roots of the plant can absorb the active ingredient. Irrigate moderately but thoroughly after application, allowing no leaching and runoff from containers for at least three irrigations or 10 days whichever is longer.

Resistance: Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area. Consult your Cooperative Extension Service for resistance management strategies and recommended pest management practices for your area.

For resistance management purposes, a foliar application of any chloronicotynyl insecticide following a MERIT 1 G Greenhouse and Nursery Insecticide soil application in the same crop is not recommended.

Incorporation: Incorporation of MERIT 1 G Greenhouse and Nursery Insecticide can be achieved by cultivation, irrigation, rainfall, mechanical placement or by using mechanical soil or media mixing equipment.

Woody Perennials: Onset of protection is slower than in herbaceous species. A delay of 2 or more weeks should be expected. Longer delays may be expected with larger plants. Application should therefore be made in advance of expected insect activity.

Bark Media: Media with 30% or more bark content when treated with MERIT 1 G Greenhouse and Nursery Insecticide may confer a shorter period of protection.

APPLICATION TO GRASSY AREAS IN NURSERIES

MERIT 1 G Greenhouse and Nursery Insecticide can be used for the control of soil inhabiting pests of grassy areas of nurseries, such as Northern and Southern masked chafers, *Cyclocephala borealis*, *C. immaculata*, and/or *C. lurida*; Asiatic garden beetle, *Maladera castanea*; European chafer, *Rhizotrogus majalis*; Green June beetle, *Cotinis nitida*; May or June beetle, *Phyllophaga* spp.; Japanese beetle, *Popillia japonica*; Oriental beetle, *Anomala orientalis*; Billbugs, *Sphenophorus* spp.; Annual bluegrass weevil, *Hyperodes* spp.; Black turfgrass ataenius, *Ataenius spretulus* and *Aphodius* spp. and mole crickets, *Scapteriscus* spp. MERIT 1 G Greenhouse and Nursery Insecticide can also be used for suppression of cutworms and chinchbugs. MERIT 1 G Greenhouse and Nursery Insecticide can be used as directed on nursery grass in sites such as under or around field or container grown plants, on roadways or other grassy areas in or around nurseries. MERIT 1 G Greenhouse and Nursery Insecticide cannot be used on commercial sod farms.

The active ingredient in MERIT 1 G Greenhouse and Nursery Insecticide has sufficient residual activity so that applications can be made preceding the egg laying activity of the target pests. High levels of control can be achieved when applications are made preceding or during the egg laying period. The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other

methods. Optimum control will be achieved when applications are made prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

Applications should not be made when grassy areas are waterlogged or the soil is saturated with water. Adequate distribution of the active ingredient cannot be achieved when these conditions exist. The treated grassy area must be in such a condition that the rainfall or irrigation will penetrate vertically in the soil profile. Application cannot exceed a total of 40 lbs. of product (0.4 lb. of active ingredient) per acre per year.

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Recommended Applications For Use

For systemic insect control on greenhouse, interior plantscapes and nursery ornamentals grown in flats, benches, beds and containers.

PEST	USE PATTERN	DOSAGE					REMARKS
		Container size (inches)	Bulk Application		Topical Application		
			Pots/cu. yd. of mix	Bulk Rate lbs/cu.yd.	Topical Rate level teaspoon	Grams/pot	
Adelgids	Herbaceous Species	2.0 to 3.0	4500 to 3200	7.0 to 3.5	1/8 to 1/4	0.5 to 1.0	<u>Bulk Rate Application:</u> Mix the required amount of MERIT 1 G Greenhouse and Nursery Insecticide per cubic yard of medium. Mix thoroughly before filling pots and transplanting.
Aphids	(one or two plants per pot)	3.5 to 5.0	1600 to 1300	3.9 to 3.0	1/4 to 1/3	1.0 to 1.4	
Armored scale (suppression)		5.5 to 7.0	900 to 400	1.8 to 1.2	1/3 to 1/2	1.4 to 2.0	
Fungus gnats (larvae only) ¹		8.0 to 10.0	200 to 160	1.0 to 0.8	1/2 to 2/3	2.0 to 2.7	
Japanese beetles (adults)	Woody Perennial Species	11.0 to 12.0	80 to 60	0.8 to 0.5	2/3 to 1	2.7 to 4.1	<u>Topical Application:</u> May be made at transplanting, repotting, or on established containerized plants. Irrigate moderately after application to move the active ingredient into the root zone. Do not allow significant leaching and runoff for at least 3 irrigations or 10 days, whichever is longer.
Lacebugs		2.0 to 3.0	4500 to 3200	9.0 to 7.0	1/4 of 1/3	1 to 1.3	
Leaf beetles (including Elm and Viburnum leaf beetles)		3.5 to 5.0	1600 to 1300	6.0 to 4.0	1/3 to 1/2	1.3 to 2.0	
Leafhoppers (including glassy-winged sharpshooter)		5.5 to 7.0	900 to 400	2.5 to 2.0	1/2 to 2/3	2.0 to 2.7	
Leafminers		8.0 to 10.0	200 to 160	1.5 to 1.0	2/3 to 1	2.7 to 4.1	Use the above Woody Perennial Species rates
Mealybugs		11.0 to 12.0	80 to 60	1.0 to 0.8	to 1-1/2	4.1 to 6.1	
Psyllids							
Root Weevil Complex (such as Black Vine Weevil, Apopka Weevil, Citrus Root Weevil ²)							
Soft scale	Ornamental plants grown in flats, benches, or beds	Apply 15 ounces per 1000 sq ft					Apply as a broadcast treatment and incorporate into the soil or media before planting. On established plants, irrigate moderately after application to move the active ingredient into the root zone. Minimize leaching and runoff for at least 3 irrigations or 10 days, whichever is longer.
Thrips (suppression) ³							
Whiteflies							
White Grub larvae (such as Japanese Beetle, Chafers, European Chafer, Oriental Beetle, Asiatic Garden Beetle)							
	Containerized plants	1 Gallon	260 to 230	5.0 to 2.5	1-1/4 to 2-1/2	5 to 10	For optimum control, make applications prior to egg hatch of the target pest. Irrigate moderately after application to move the active ingredient into the root zone.
		2 Gallon	125 to 100	4.4 to 2.2	2-1/2 to 5.0	10 to 20	
		3 Gallon	70 to 60	3.3 to 1.7	3-2/3 to 7-1/3	15 to 30	
		5 Gallon	50 to 30	2.0 to 1.0	4-1/2 to 9.0	18.5 to 37	
1 level tsp of MERIT 1 G = 4.1 grams 3 teaspoons = 1 tablespoon							
¹ Fungus gnat larvae in the soil will be controlled by incorporation. No adult Fungus Gnat control. Other foliar insect control is achieved by the uptake of MERIT 1 G from a healthy root system translocating the active ingredient up into the plant.							
² Citrus Root Weevil: For use on non-bearing citrus nursery stock.							
³ Thrips suppression on foliage only. Thrips in buds and flowers will not be suppressed.							

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Recommended Applications For Use			
For use only on nursery ornamentals.			
PEST	USE PATTERN	DOSAGE	REMARKS
White grub larvae (such as Japanese beetle, Masked Chafers, European Chafer, Oriental beetle, Asiatic Garden beetle)	Field and Forest Nurseries	Apply as a uniform band on either side of row using a band six (6) inches wider than the actual root ball diameter to be dug. Do not allow bands in adjacent rows to overlap. Use 45 oz. per 1000 ft. of row or 3000 sq. ft. For grub control in areas of turf, apply as a broadcast application using 45 oz. per 3000 sq. ft.	Vegetation in the area to be treated should be mowed to a height of 3 inches or less prior to application. Mowing to the lowest possible height will insure greater consistency of control. Apply May through July. For optimum control, treatment should be followed by rainfall or irrigation.

RESTRICTIONS

Do not graze treated areas or use clippings from treated areas for feed or forage.

Do not apply to soils which are water-logged, or saturated. This condition will not allow the penetration of water into the root zone of the plants.

Do not over-irrigate or allow excessive runoff to occur following an application of MERIT 1 G.

For outdoor ornamentals grown in beds or turf, applications of MERIT 1 G cannot exceed a total of 40 lb per acre per year.

On plants with a production cycle of less than one year, application is not to exceed a frequency of more than once each 16 weeks for a particular plant. On stock plants and woody crops with a production cycle of greater than one year, application may not exceed once a year.

Food Crops: Treated areas may be replanted with any crop specified on an imidacloprid label, or with any crop for which a tolerance exists for the active ingredient.

For crops not listed on an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12 month plant-back interval should be observed.

STORAGE AND DISPOSAL

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

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: Completely empty container into application equipment. Dispose of empty containers by incineration in a sanitary landfill or if allowed by the state and local authorities, by burning. If burned, stay out of smoke.

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If material is spilled for any reason or cause, carefully contain any spilled material to prevent non-target contamination. Do not walk through spilled material and dispose of as directed for pesticides above. Refer to Precautionary Statements on label for hazards associated with the handling of this material. In spill or leak incidents, keep unauthorized people away. You may contact the Bayer Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Bayer Kansas City Emergency Response telephone number is 800-414-0244, or contact Chemtrec at 800-424-9300.

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