

GROUP 3

INSECTICIDE

# **DeltaGard SC Insecticide**

**SUSPENSION COMMERCIAL** 

# REGISTRATION NUMBER 28791 PEST CONTROL PRODUCTS ACT

ACTIVE INGREDIENT: deltamethrin 50 g/L

Contains propyl p-hydroxybenzoate at 0.08%, or 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0009% and 2-methyl-4-isothiazolin-3-one at 0.0003%, or 2-bromo-2-nitropropane-1,3-diol at 0.03% as preservatives.

DANGER POISON

TRIPLE RINSE

SEVERE EYE AND SKIN IRRITANT POTENTIAL SKIN SENSITIZER

#### READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

NET CONTENTS: 1, 2, 10, 200 LITRES and bulk

Product Information: 1-888-283-6847 www.cropscience.bayer.ca

BAYER CROPSCIENCE INC.\* SUITE 200, 160 QUARRY PARK BLVD. SE CALGARY, ALBERTA T2C 3G3

In case of spills, poisoning or fire, telephone emergency response number 1-800-334-7577 (24 hours a day)

PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN. DeltaGard EC Insecticide is a skin sensitizer. Avoid contact. Do not breathe vapour or spray mist. Protective Clothing and Equipment: Wear protective clothing such as coveralls, a long-sleeved shirt, chemical resistant gloves and apron, and eye protection (goggles or face shield) during mixing, loading and cleanup. In addition, workers must wear a respirator with either a NIOSH approved organic vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH approved canister approved for pesticides when mixing and loading DeltaGard SC. Change contaminated clothing daily and wash, separate from other laundry, before reusing. Clean protective equipment daily. DO NOT handle product with bare hands. Chemical resistant gloves significantly reduce hand exposure. ALWAYS wear gloves for mixing/loading operations and when making sprayer and nozzle repairs and adjustments. DO NOT USE LEATHER OR CLOTH GLOVES. Rinse gloves with soap and water before removal, and wash hands thoroughly before eating, smoking or drinking.

Apply only to agricultural crops (sod farms) when the potential for drift to areas of human habitation and human activity such as houses, cottages, schools, and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

<u>Sod Farms</u>: **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

<u>Commercial Greenhouse</u>: **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. When working with treated foliage, workers should wear chemical resistant gloves.

FIRST AID: Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention. IF SWALLOWED: Call a poison control centre 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 centre or doctor. Do not give anything by mouth to an unconscious person.

IF IN EYES: 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 eye. Call a poison control centre or doctor for treatment advice. IF ON SKIN OR ON CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice. IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice. TOXICOLOGICAL INFORMATION: Medical personnel should contact Bayer Environmental Science medical information services toll-free 1-800-334-7577. Skin exposure may cause transient sensations (tingling, burning, itching, numbness). Treat symptomatically. This product contains antifreeze. The treatment of intoxication should be symptomatic and supportive. If the product has been ingested, carry out gastric lavage with care to prevent aspiration.

#### **ENVIRONMENTAL PRECAUTIONS**

TOXIC to aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.

Toxic to small wild animals

TOXIC to bees. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site. Avoid applications when bees are foraging in the treatment area in ground cover containing blooming weeds. To further minimize exposure to pollinators, refer to the complete guidance "Protecting Pollinators during Pesticide Spraying – Best Management Practices" on Canada.ca. Follow crop specific directions for application timing. May harm bees used in greenhouse production. Avoid application when bees are actively foraging in the treatment area.

Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland. Deltamethrin may impact predatory and parasitic arthropod species used in IPM programs within the treatment area. Unsprayed refugia for beneficial species of at least 1 metre from treatment area will help maintain beneficial arthropod populations. May harm beneficial insects used in greenhouse production. Avoid application when beneficial insects are actively foraging in the treatment area.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waste.

STORAGE: Keep away from fire, flame or other sources of heat. This product CANNOT be stored below freezing. If stored for 1 year or longer, shake well before using. Store the tightly closed container away from feeds, seeds, fertilizers, plants and foodstuffs. Keep in original container during storage. CONTAINER DISPOSAL: FOR RECYCLABLE CONTAINERS: Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site: 1. Triple-or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank. 2. Make the empty, rinsed container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements. For information on disposal of unused or unwanted product, contact Bayer CropScience or the provincial regulatory agency. Contact Bayer CropScience and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offence under the Pest Control Products Act to use this product in a way that is inconsistent with the directions on the label.

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For More Information, Contact:

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Telephone: 1-888-283-6847 www.cropscience.bayer.ca

#### GENERAL INFORMATION

Section 1: The Product

DeltaGard SC Insecticide is not a systemic product.

DeltaGard SC Insecticide controls insects through contact and/or ingestion.

#### SAFETY AND HANDLING

Section 2: Precautions, Protective Clothing and Equipment

**PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN.** DeltaGard SC Insecticide is a skin sensitizer. Avoid contact. Do not breathe vapour or spray mist.

Protective Clothing and Equipment:

- Wear protective clothing such as coveralls, a long-sleeved shirt, chemical resistant gloves and apron, and eye protection (goggles or face shield) during mixing, loading and cleanup. In addition, workers must wear a respirator with either a NIOSH approved organic vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH approved canister approved for pesticides when mixing and loading DeltaGard SC.
- Change contaminated clothing daily and wash, separate from other laundry, before reusing. Clean protective equipment daily.
- DO NOT handle product with bare hands. Chemical resistant gloves significantly reduce hand exposure. ALWAYS wear gloves for mixing/loading operations and when making sprayer and nozzle repairs and adjustments. DO NOT USE LEATHER OR CLOTH GLOVES. Rinse gloves with soap and water before removal, and wash hands thoroughly before eating, smoking or drinking.

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<u>Commercial Greenhouse</u>: **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. When working with treated foliage, workers should wear chemical resistant gloves.

Section 3: First Aid and Toxicological Information

FIRST AID: Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

IF SWALLOWED: Call a poison control centre 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 centre or doctor. Do not give anything by mouth to an unconscious person.

IF IN EYES: 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 eye. Call a poison control centre or doctor for treatment advice.

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#### TOXICOLOGICAL INFORMATION:

Medical personnel should contact Bayer CropScience medical information services toll-free 1-800-334-7577. Skin exposure may cause transient sensations (tingling, burning, itching, numbness). Treat symptomatically. This product contains antifreeze. The treatment of intoxication should be symptomatic and supportive. If the product has been ingested, carry out gastric lavage with care to prevent aspiration.

#### Section 4: ENVIRONMENTAL PRECAUTIONS

TOXIC to aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.

Toxic to small wild animals.

TOXIC to bees. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site. Avoid applications when bees are foraging in the treatment area in ground cover containing blooming weeds. To further minimize exposure to pollinators, refer to the complete guidance "Protecting Pollinators during Pesticide Spraying – Best Management Practices" on Canada.ca. Follow crop specific directions for application timing. May harm bees used in greenhouse production. Avoid application when bees are actively foraging in the treatment area.

Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland. Deltamethrin may impact predatory and parasitic arthropod species used in IPM programs within the treatment area. Unsprayed refugia for beneficial species of at least 1 metre from treatment area will help maintain beneficial arthropod populations. May harm beneficial insects used in greenhouse production. Avoid application when beneficial insects are actively foraging in the treatment area.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waste.

Section 5: Storage

Keep away from fire, open flame, or other sources of heat.

This product CANNOT be stored below freezing.

If stored for 1 year or longer, shake well before using.

Store the tightly closed container away from feeds, seeds, fertilizers, plants and foodstuffs.

Keep in original container during storage.

Section 6: Disposal

#### DISPOSAL OF UNUSED SPRAY SOLUTION:

If any spray solution remains in the tank after spraying is finished, it should be sprayed on the perimeter of the field just sprayed, NOT ON THE CROP, away from water supplies, ditches and irrigation canals.

#### **CONTAINER DISPOSAL:**

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

- 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank
- 2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused or unwanted product, contact Bayer CropScience or the provincial regulatory agency. Contact Bayer CropScience and the provincial regulatory agency in case of a spill and for clean-up of spills.

#### DIRECTIONS FOR USE

Section 7: Application Instructions and Cautions

# APPLICATION INSTRUCTIONS:

Use sufficient water to ensure thorough, uniform coverage over entire plant surface for optimum insect control. More water may be required when dense foliage is present and depending on the type of spray equipment used.

Thorough wetting of all plants is essential for good results.

<u>Field sprayer application</u>: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply when wind speed is greater than 8 km/h at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE D572.1) mediumclassification. Air-induction nozzles must be

used for the ground application of this product. Boom height must be 60 cm or less above the crop or ground.

DO NOT apply using aerial application equipment. **DO NOT** apply using handheld or automated fogging, mist blower, or airblast equipment.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.

#### **APPLICATION PRECAUTIONS:**

AVOID APPLICATION WHEN TEMPERATURE INVERSIONS ARE PREVAILING OR DURING PERIODS OF EXCESS HEAT (over 25°C) as control will be reduced. Best control will be achieved when DeltaGard SC Insecticide is applied during the cooler portions of the day (normally early morning or at dusk).

USE ONLY FOR RECOMMENDED PURPOSES AND AT RECOMMENDED RATES.

#### **Buffer zones:**

Spot treatments using hand-held equipment DO NOT require a buffer zone.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

	Сгор	<b>Buffer Zones (metres) Required for the Protection of:</b>				
Method of		Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial
Application		Less	Greater	Less	Greater	Habitat
		than 1m	than 1 m	than 1m	than 1 m	
Field Sprayer	Turf (golf courses, residential lawns,	3	2	120	65	1
	sod farms)					

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

Buffer zones for field sprayer application CANNOT be modified using the Buffer Zone Calculator on the PMRA website.

# Section 8: Crops, Insects, Rates, Timing

For maximum efficacy, it is necessary to:

- use sufficient water to ensure thorough, uniform coverage of the crop;
- keep crop and pest under observation to be able to spray at the right moment;
- unless otherwise stated, make the first application of DeltaGard SC Insecticide when pests first appear;
- ensure that insects are contacted during spraying, especially if they are found on the underside of leaves or if the foliage is very dense;
- follow provincial recommendations for application timing.

Where a rate range is given, the higher rate should be used when the crop canopy is dense and foliage is inhibiting spray penetration and/or pest populations are very high.

CROP	INSECTS	RECOMMENDATIONS	RATE
Turf (including residential lawns, golf courses, athletic fields, recreational areas, sod farms, and other turf areas in commercial sites)	Chinch bugs, sod webworm, cutworm ants.	GROUND Apply when insects are present or signs of insect feeding are visible. A second application may be necessary in 2-3 weeks time, where heavy infestations occur.  For dense turfgrass canopies and/ or turf maintained under high mowing heights, and/or turf with thatch, minimum water volumes of 10 L per 100m² or greater are recommended to ensure material moves through the thatch.	1.2 L/ha in 600- 1500 L of water per ha (12 mL/100m <sup>2</sup> in 6-15 L of water per 100m <sup>2</sup> )
	Ticks	GROUND Apply DeltaGard SC as a coarse wet spray as follows:	12 mL product per 100 m <sup>2</sup> in a minimum of 8 L of water per 100 m <sup>2</sup>
		Apply as a 3 meter band to turf areas around property lines or around structures such as dog houses, kennels, sidewalks, pathways or patios where ticks are a problem.	
		Turf areas that are of particular importance to observe for ticks include those adjacent to forested areas, stonewalls, ornamental plantings and other areas where there is overgrown vegetation.	
		Reduce tick habitat through landscape management practices including but not limited to mowing the turf and removal of weeds, leaf litter and other debris where ticks are found.	

DO NOT apply more than 2 times per year on turf.

DO NOT allow people or pets to re-enter the treated area until product has dried.

<u>Sod Farms</u>: **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Delay irrigation or mowing for 24 hours following application.

CROP	INSECTS	RECOMMENDATIONS	RATE
Commercial	Western	Foliar Application: Apply as a high	
Greenhouse	Flower	volume spray using a compressed air	35-50 mL per
Floriculture Crops	Thrip	sprayer. Spray to run-off to ensure	100 L of water
(Chrysanthemum,		complete coverage. Three	
Cineraria, Easter		applications at 5-7 day intervals may	
Lilies, Geraniums)		be necessary to achieve control.	

Consult local greenhouse advisors for	
timing, identification of thrips species	
and information on rotation of	
materials to reduce resistance	
possibilities.	
PRECAUTION: All species and	
varieties have not been tested. When	
treating large numbers of plants of a	
single variety, treat a few plants and	
observe prior to full-scale application.	

DO NOT apply DeltaGard SC Insecticide with fogging machines.

DO NOT apply within 7 days of harvest of flower crop.

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

RE-ENTRY PERIOD: **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. When working with treated foliage, workers should wear chemical resistant gloves.

# Section 9: Mixing Instructions

The volumes of water may vary greatly, depending on the equipment, the crop, and cultural conditions. The volumes of water to be used will vary between 11 and 1,500 litres per hectare. Ensure spray tank is thoroughly clean. Fill sprayer half-full with clean water. Add product while agitating. Add the remaining amount of water.

#### Section 10: Resistance Management Recommendations

For resistance management, please note that DeltaGard SC Insecticide contains a Group 3 insecticide. Any insect population may contain individuals naturally resistant to DeltaGard SC Insecticide and other Group 3 insecticides. The resistant biotypes may dominate the insect population if this group of insecticides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance management strategies should be followed.

To delay insecticide resistance:

- Where possible, rotate the use of DeltaGard SC Insecticide or other Groups 3 Insecticides with different groups that control the same pests in a field.
- Use tank mixtures with insecticides from a different group when such use is permitted.
- Insecticide use should be based on an integrated pest management (IPM) program that includes scouting and record keeping and considers cultural, biological, and other chemical control practices;
- Monitor treated pest populations for resistance development.
- Contact the local extension specialist or certified crop advisors for any additional pesticide resistance-management and IPM recommendations for the specific site and pest problems in the area.

For further information or to report suspected resistance, contact Bayer CropScience at 1-888-283-6847.

# Section 11: Notices

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

# FOR MORE INFORMATION CONTACT:

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Calgary, Alberta T2C 3G3
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