

**Safety Data Sheet****DELTAGARD® SC INSECTICIDE**

SDS Number: 102000003167

SDS Version 1.1

Revision Date: 06/06/2012

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SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name	DELTAGARD® SC INSECTICIDE
SDS Number	102000003167
Product code (UVP)	05946468
PCP Registration No.	28791
Product Use	Insecticide

Bayer CropScience Inc
#200, 160 Quarry Park Blvd, SE
Calgary, Alberta T2C 3G3
Canada

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
For Product Information call: 1-888-283-6847

SECTION 2. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview Danger! Do not breathe vapours or spray mist. Contact with product may result in transient tingling and reddening of the skin. Remove and wash contaminated clothing before re-use.

Physical State liquid suspension

Odor none

Appearance white

Exposure routes Inhalation, Eye contact, Skin contact, Ingestion

Immediate Effects

Eye Severe eye irritation. Avoid contact with eyes.

Skin May cause sensitization by skin contact. Severe skin irritation. Avoid contact with skin and clothing.

Ingestion Do not take internally.

Inhalation Harmful if inhaled. Do not breathe vapours or spray mist.

Potential Environmental Effect Toxic to fish and aquatic organisms. Toxic to bees.



Safety Data Sheet

DELTAGARD® SC INSECTICIDE

SDS Number: 102000003167

SDS Version 1.1

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Deltamethrin	52918-63-5	4.75
1,2-Propanediol	57-55-6	15.20
Nonylphenol ethoxylate, branched	127087-87-0	2.85

SECTION 4. FIRST AID MEASURES

General	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye	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 physician or poison control center immediately.
Skin	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Notes to physician Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	no data available
Autoignition temperature	no data available
Lower Flammability Limit	not applicable
Upper Flammability Limit	not applicable
Explosiveness	no data available



Safety Data Sheet

SDS Number: 102000003167
SDS Version 1.1

DELTAGARD® SC INSECTICIDE

Suitable extinguishing media	Carbon dioxide (CO ₂), Dry chemical, Foam, Water
Fire Fighting Instructions	Evacuate personnel to safe areas. Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Isolate hazard area. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces.
Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Decontaminate tools and equipment following cleanup. Clean contaminated floors and objects thoroughly, observing environmental regulations.
Additional advice	Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

SECTION 7. HANDLING AND STORAGE

Handling procedures	Avoid contact with skin, eyes and clothing. Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation. Keep away from heat and sources of ignition.
Storing Procedures	Store in original container. Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Protect from freezing.
Work/Hygienic Procedures	Smoking, eating and drinking should be prohibited in the application area. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.



Safety Data Sheet

DELTAGARD® SC INSECTICIDE

SDS Number: 102000003167
SDS Version 1.1

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection Eye wash facility and safety shower should be available. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

Follow all label instructions. Train employees in safe use of the product.

Eye/Face Protection Tightly fitting safety goggles

Hand protection Chemical-resistant gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber.

Body Protection Wear long-sleeved shirt and long pants and shoes plus socks.

Respiratory protection When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Exposure Limits

Deltamethrin	52918-63-5	OES BCS*	TWA	0.02 mg/m ³
1,2-Propanediol	57-55-6	CAD ON OEL	TWAEV	50 ppm
		CAD ON OEL	TWAEV	10 mg/m ³

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white
Physical State	liquid suspension
Odor	none
pH	<= 7.0 (100 %)
Vapor Pressure	no data available
Density	ca. 1.05 g/cm ³ at 20 °C
Evaporation rate	no data available
Boiling Point	no data available
Melting / Freezing Point	no data available



Safety Data Sheet

DELTAGARD® SC INSECTICIDE

SDS Number: 102000003167
SDS Version 1.1

Water solubility	immiscible
Minimum Ignition Energy	no data available
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	no data available
Viscosity	1,300 - 1,800 cps

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	freezing
Incompatibility	Strong oxidizing agents Strong reducing agents
Hazardous Decomposition Products	Thermal decomposition can lead to release of: Carbon monoxide Carbon dioxide (CO ₂)
Hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Chemical Stability	Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity data have been bridged from a similar formulation containing a slightly higher percentage of the active ingredient, deltamethrin. The non-acute information pertains to the technical-grade active ingredient.

Acute oral toxicity	rat: LD50: > 15,000 mg/kg
Acute dermal toxicity	rabbit: LD50: > 10,000 mg/kg



Safety Data Sheet

DELTAGARD® SC INSECTICIDE

SDS Number: 102000003167
SDS Version 1.1

Acute inhalation toxicity rat: LC50: > 1.02 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.
Highest attainable concentration.
No deaths

rat: LC50: > 4.08 mg/l
Exposure time: 1 h
Determined in the form of liquid aerosol.
Extrapolated from the 4 hr LC50.

Skin irritation rabbit: Slight irritation

Eye irritation rabbit: Minimally irritating.

Sensitisation guinea pig: Non-sensitizing.

Chronic toxicity Deltamethrin caused neurobehavioral effects and/or neuropathological changes in animal studies. The toxic effects of Deltamethrin are related to transient hyperactivity typical for pyrethroid neurotoxicity.

Assessment Carcinogenicity

Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

None.

NTP

None.

IARC

Deltamethrin

52918-63-5

Overall evaluation: 3

OSHA

None.

Reproductive toxicity Deltamethrin did not cause reproductive toxicity in a two-generation study in rats.

Developmental Toxicity Deltamethrin caused developmental toxicity only at doses toxic to the dams. The developmental effects seen with Deltamethrin are related to maternal toxicity.

Mutagenicity Deltamethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity to fish Oncorhynchus mykiss (rainbow trout)
LC50: 0.00026 mg/l
Exposure time: 96 h



Safety Data Sheet

DELTAGARD® SC INSECTICIDE

SDS Number: 102000003167
SDS Version 1.1

	Lepomis macrochirus (Bluegill sunfish) LC50: 0.00017 mg/l Exposure time: 96 h
Acute Toxicity to Aquatic Invertebrates	Eastern Oyster LC50: 0.0082 mg/l Exposure time: 96 h
	Mysidopsis bahia (mysid shrimp) LC50: 0.000001 mg/l Exposure time: 96 h
Stability in water	Half life: 55 - 65 h pH: 9.0
Bioaccumulation	Lepomis macrochirus (Bluegill sunfish) BCF: 189 - 3,930
Environmental precautions	Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Apply this product as specified on the label.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance	Do not contaminate water, food, or feed by disposal. Dispose in accordance with all local, state/provincial and federal regulations.
Container Disposal	Triple rinse containers. Add washings to sprayer at time of filling. Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.

SECTION 14. TRANSPORT INFORMATION

TDG	Not dangerous goods / not hazardous material
49CFR	Not dangerous goods / not hazardous material
IMDG	
UN-Number	3082
Class	9
Packaging group	III
Marine pollutant	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.



Safety Data Sheet

DELTAGARD® SC INSECTICIDE

SDS Number: 102000003167
SDS Version 1.1

(DELTAMETHRIN SOLUTION)

IATA

UN-Number **3082**
 Class 9
 Packaging group III
 Environm. Hazardous Mark YES
 Description of the goods ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (DELTAMETHRIN SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

Freight Classification: INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN POISON

SECTION 15. REGULATORY INFORMATION

PCP Registration No. 28791

US Federal Regulations

TSCA list

1,2-Propanediol 57-55-6
 Nonylphenol ethoxylate, branched 127087-87-0

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

None.

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

1,2-Propanediol 57-55-6 MN, RI

Canadian Regulations

Canadian Domestic Substance List

1,2-Propanediol 57-55-6
 Nonylphenol ethoxylate, branched 127087-87-0

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels



Safety Data Sheet

DELTAGARD® SC INSECTICIDE

SDS Number: 102000003167
SDS Version 1.1

None.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)

Deltamethrin	52918-63-5
1,2-Propanediol	57-55-6

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 1 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 2 Flammability - 1 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Reviewed and updated for general editorial purposes. The following sections have been revised: Section 3: Composition / Information on Ingredients. Section 8: Exposure Controls / Personal Protection. Section 9: Physical and Chemical Properties.

Prepared by the HSE Department of Bayer CropScience Inc. (306)-721-0310.

Revision Date: 06/06/2012

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