Material Safety Data Sheet

DELTAGARD® G INSECTICIDE GRANULE

MSDS Number: 102000015309
MSDS Version 1.0
Revision Date: 06/20/2008

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name	DELTAGARD® G INSECTICIDE GRANULE
MSDS Number	102000015309
EPA Registration No.	432-836

Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
For Product Information call: 1-800-331-2867

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Average % by Weight
Deltamethrin	52918-63-5	0.10

SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview Caution! Harmful if swallowed. Moderate eye irritation. Avoid contact with skin, eyes and clothing. Wash thoroughly with soap and water after handling.

Physical State granular

Appearance grey to tan

Routes of Exposure Ingestion, Eye contact, Skin contact

Immediate Effects

Eye Moderate eye irritation. Avoid contact with eyes.

Skin Did not cause sensitization on laboratory animals. Avoid contact with skin and clothing.

Ingestion Harmful if swallowed. Do not take internally.

Chronic or Delayed Long-Term This product or its components may have long term (chronic) health effects.

Potential Environmental Effect	Extremely toxic to fish and aquatic invertebrates.

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	There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	not applicable
Suitable Extinguishing Media	Carbon dioxide (CO2), Dry chemical, Foam, Water
Fire Fighting Instructions	Keep out of smoke. Fight fire from upwind position. Evacuate personnel to safe areas. 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	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods for Cleaning Up	Clean contaminated floors and objects thoroughly, observing environmental regulations. Collect and transfer the product into a properly labelled and tightly closed container. Decontaminate tools and equipment following cleanup. Contaminated soil may have to be removed and disposed.
Additional Advice	Do not allow product to contact vegetation. Do not allow to enter soil, waterways or waste water canal. Contact Bayer for further assistance if necessary. Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7. HANDLING AND STORAGE

Handling Procedures	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.
Storing Procedures	Store in original container. Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed.
Work/Hygienic Procedures	Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.
Min/Max Storage Temperatures	no data available

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection	Train employees in safe use of the product. 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.
Eye/Face Protection	protective eyewear
Hand Protection	Wear suitable gloves.
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*	0.02 mg/m3

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	grey to tan
Physical State	granular
Bulk Density	55 - 63 lb/ft³

SECTION 10. STABILITY AND REACTIVITY

Incompatibility	Strong oxidizing agents Bases chlorates nitrates
Hazardous Decomposition Products	Carbon monoxide
Hazardous Reactions	No hazardous reactions when stored and handled according to prescribed instructions. Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

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

Acute Oral Toxicity	rat: LD50: 2,613 mg/kg
Acute Dermal Toxicity	rabbit: LD50: > 5,000 mg/kg
Skin Irritation	rabbit: No skin irritation.
Eye Irritation	rabbit: Moderate eye irritation.
Sensitization	guinea pig: Non-sensitizing.
Chronic Toxicity	Deltamethrin caused neurobehavioral effects (e.g., tremors) in chronic toxicity

studies in rats and dogs.

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 & Developmental Toxicity	REPRODUCTION: Deltamethrin was not a reproductive toxicant in multi-generation reproduction studies in rats. DEVELOPMENTAL TOXICITY: Deltamethrin was not a primary developmental toxicant in developmental toxicity studies in rats and rabbits. Developmental effects (e.g., delayed ossifications) were observed in rabbits at the high-dose but were considered secondary to maternal toxicity.
Neurotoxicity	Deltamethrin caused neurobehavioral effects (e.g., tremors) without correlating neuropathological changes in acute and subchronic neurotoxicity screening studies in rats. In a developmental neurotoxicity screening study in rats, developmental landmarks were delayed in male offspring at the maternally toxic high-dose.
Mutagenicity	Deltamethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION

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 allow to get into surface water, drains and ground water.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance	Do not contaminate water, food, or feed by disposal. Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility. Dispose in accordance with all local, state/provincial and federal regulations.
Container Disposal	Completely empty container into application equipment, then dispose of empty container in a sanitary landfill, by incineration or by other procedures approved by state/provincial and local authorities. If burned, stay out of smoke.

SECTION 14. TRANSPORT INFORMATION

TRANSPORTATION CLASSIFICATION:
Not regulated for Domestic Surface Shipment

FREIGHT TRANSPORTATION:
Insecticides or Fungicides, N.O.I., other than poison

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 432-836

US Federal Regulations

TSCA list
None.

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
None.

Canadian Regulations

Canadian Domestic Substance List
None.

Environmental

CERCLA
None.

Clean Water Section 307 Priority Pollutants
None.

Safe Drinking Water Act Maximum Contaminant Levels
None.

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):
Health - 1 Flammability - 1 Reactivity - 0 Others - none
0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason to Revise: New Material Safety Data Sheet.

Revision Date: 06/20/2008

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