



Safety Data Sheet

MERIT® GRANULAR INSECTICIDE

SDS Number: 102000018463

SDS Version 1.0

Revision Date: 05/20/2014

Print Date: 05/20/2014

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name	MERIT® GRANULAR INSECTICIDE
SDS Number	102000018463
Product code (UVP)	79231857
PCP Registration No.	25933
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 Caution! Harmful if swallowed or absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes and clothing. Wash thoroughly with soap and water after handling.

Physical State	granular
Odor	characteristic
Appearance	light tan to brown
Exposure routes	Eye contact, Skin Absorption, Inhalation, Ingestion
Immediate Effects	
Eye	Causes eye irritation.
Skin	Harmful if absorbed through skin.
Ingestion	Harmful if swallowed.
Chronic or Delayed Long-Term	This product or its components may have target organ effects.



Safety Data Sheet

MERIT® GRANULAR INSECTICIDE

SDS Number: 102000018463
SDS Version 1.0

Medical Conditions Aggravated by Exposure No specific medical conditions are known which may be aggravated by exposure to this product. As with all materials which can cause upper respiratory tract irritation, persons with a history of asthma, emphysema, or hyperreactive airways disease may be more susceptible to overexposure. Pulmonary and respiratory diseases may be aggravated by exposure to respirable crystalline silica.

Potential Environmental Effect Highly toxic to aquatic invertebrates.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Imidacloprid	138261-41-3	0.50

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
Signs and Symptoms To date no symptoms are known.

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



Safety Data Sheet

MERIT® GRANULAR INSECTICIDE

SDS Number: 102000018463
SDS Version 1.0

SECTION 5. FIRE FIGHTING MEASURES

Flash point	not applicable
Autoignition temperature	no data available
Lower Flammability Limit	not applicable
Upper Flammability Limit	not applicable
Explosiveness	no data available
Fire and Explosion Hazards	Hazardous decomposition products due to incomplete combustion.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	None known.
Fire Fighting Instructions	<p>Keep out of smoke. Fight fire from upwind position. Avoid contact with spilled product or contaminated surfaces. Do not allow water to come into direct contact with the product.</p> <p>Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.</p>
Dust explosion class	no data available

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Isolate hazard area. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.
Methods for cleaning up	Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.
Additional advice	Do not allow to enter soil, waterways or waste water canal.

SECTION 7. HANDLING AND STORAGE

Handling procedures	Handle and open container in a manner as to prevent spillage. Avoid dust formation. Avoid contact with skin, eyes and clothing. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.
----------------------------	---



Safety Data Sheet

MERIT® GRANULAR INSECTICIDE

SDS Number: 102000018463
SDS Version 1.0

Storing Procedures 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. Store in original container and out of the reach of children, preferably in a locked storage area.

Work/Hygienic Procedures Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Smoking, eating and drinking should be prohibited in the application area.

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.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection 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 Tightly fitting safety goggles

Hand protection Chemical resistant nitrile rubber 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

Imidacloprid	138261-41-3	OES BCS*	TWA	0.7 mg/m3
Calcium sulfate	13397-24-5	CAD BC OEL	TWA	10 mg/m3
		CAD BC OEL	STEL	20 mg/m3
		CAD BC OEL	TWA	3 mg/m3

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance light tan to brown

Physical State granular



Safety Data Sheet

MERIT® GRANULAR INSECTICIDE

SDS Number: 102000018463
SDS Version 1.0

Odor	characteristic
pH	no data available
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Specific Gravity	no data available
Bulk density	56 - 64 lb/ft ³
Evaporation rate	not applicable
Boiling Point	not applicable
Melting / Freezing Point	not applicable
Water solubility	no data available
Minimum Ignition Energy	no data available
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	no data available
Viscosity	not applicable

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	Elevated temperatures
Incompatibility	Aluminium Diazomethane
Hazardous Decomposition Products	Thermal decomposition can lead to release of: Sulphur oxides Calcium oxides
Hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Chemical Stability	Stable under recommended storage conditions.



Safety Data Sheet

MERIT® GRANULAR INSECTICIDE

SDS Number: 102000018463
SDS Version 1.0

SECTION 11. TOXICOLOGICAL INFORMATION

Only an acute eye irritation study has been performed on this product as formulated. All other acute toxicity data have been bridged from a similar granular formulation containing a higher percentage of the active ingredient, imidacloprid. The non-acute information pertains to the technical-grade active ingredient.

Acute oral toxicity

male/female combined rat: LD50: > 4,820 mg/kg

Acute dermal toxicity

male/female combined rabbit: LD50: > 2,000 mg/kg

Acute inhalation toxicity

male/female combined rat: LC50: > 5.09 mg/l
Exposure time: 4 h
Determined in the form of dust.
(actual)

male/female combined rat: LC50: > 20 mg/l
Exposure time: 1 h
Determined in the form of dust.
Extrapolated from the 4 hr LC50.
(actual)

Skin irritation

rabbit: No skin irritation

Eye irritation

rabbit: Mild eye irritation.

Sensitisation

guinea pig: Non-sensitizing.

Chronic toxicity

Imidacloprid did not cause specific target organ toxicity in experimental animal studies.

Assessment Carcinogenicity

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

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

Reproductive toxicity

Imidacloprid caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Imidacloprid is related to parental toxicity.

Developmental Toxicity

Imidacloprid caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Imidacloprid are related to maternal toxicity.



Safety Data Sheet

MERIT® GRANULAR INSECTICIDE

SDS Number: 102000018463
SDS Version 1.0

Mutagenicity Imidacloprid was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity to fish Rainbow trout (*Oncorhynchus mykiss*)
LC50: 211 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient imidacloprid.

Toxicity to aquatic plants *Desmodemus subspicatus*
Growth rate
EC50: > 10 mg/l
The value mentioned relates to the active ingredient imidacloprid.

Acute Toxicity to Aquatic Invertebrates Water flea (*Daphnia magna*)
EC50: 85 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient imidacloprid.

Chironomus riparius (non-biting midge)
LC50: 0.0552 mg/l
Exposure time: 24 h
The value mentioned relates to the active ingredient imidacloprid.

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. Dispose in accordance with all local, state/provincial and federal regulations. Follow advice on product label and/or leaflet.

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. Follow advice on product label and/or leaflet.

SECTION 14. TRANSPORT INFORMATION

According to national and international transport regulations this material is not classified as dangerous goods / hazardous material.



Safety Data Sheet

MERIT® GRANULAR INSECTICIDE

SDS Number: 102000018463
SDS Version 1.0

SECTION 15. REGULATORY INFORMATION

PCP Registration No. 25933

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 Instability - 1 Others - none

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

Health - 1 Flammability - 1 Physical Hazard - 1 PPE -

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

Reason for Revision: New Safety Data Sheet.



Safety Data Sheet

MERIT® GRANULAR INSECTICIDE

SDS Number: 102000018463
SDS Version 1.0

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

Revision Date: 05/20/2014

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.