



**Material Safety Data Sheet**

**BAYER ADVANCED SEASON LONG GRUB CONTROL GRANULES**

MSDS Number: 102000012223  
 MSDS Version 2.1  
 Revision Date: 08/10/2005

**SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION**

**Product Name** BAYER ADVANCED SEASON LONG GRUB CONTROL GRANULES  
**MSDS Number** 102000012223  
**EPA Registration No.** 72155-36  
**Product Use** For fertilization and insect control in turfgrass and landscape ornamentals.

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**

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Imidacloprid	138261-41-3	0.25

**SECTION 3. 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** solid granular

**Appearance** various, depending on coloration

**Routes of Exposure** Skin Absorption, Skin contact, Eye contact, Ingestion

**Immediate Effects**

**Eye** Causes eye irritation. Do not get in eyes.

**Skin** May cause irritation. Avoid contact with skin and clothing.

**Ingestion** Harmful if swallowed. Do not take internally.

**Inhalation** Inhalation not likely. Avoid breathing dust.



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**Medical Conditions Aggravated by Exposure** No specific medical conditions are known which may be aggravated by exposure to this product.

**SECTION 4. FIRST AID MEASURES**

**General** 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 poison control center or doctor for treatment advice.

**Skin** Take off all contaminated clothing immediately. Rinse immediately with plenty of water for at least 15 minutes. Call a poison control center or doctor for treatment advice.

**Ingestion** 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 directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person.

**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 poison control center or doctor for further treatment advice.

**Notes to Physician Treatment** There is no specific antidote. Treat symptomatically.

**SECTION 5. FIRE FIGHTING MEASURES**

**Flash Point** not applicable

**Fire and Explosion Hazards** Under fire conditions, toxic, corrosive fumes are emitted.  
  
Accumulation of fine dust may entail the risk of a dust explosion in the presence of air.

**Suitable Extinguishing Media** water, carbon dioxide (CO2), dry chemical, foam

**Fire Fighting Instructions** Keep out of smoke. Fight fire from upwind position. Do not allow run-off from fire fighting to enter drains or water courses. Equipment or materials involved in pesticide fires may become contaminated.  
  
Wear self-contained breathing apparatus and protective suit.



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**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** 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** Use personal protective equipment. Do not allow material to enter streams, sewers, or other waterways.

**SECTION 7. HANDLING AND STORAGE**

- Handling Procedures** Handle and open container in a manner as to prevent spillage.
- Storing Procedures** Do not contaminate water, food, or feed by storage or disposal.  
  
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.
- Work/Hygienic Procedures** Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. As soon as practical, wash thoroughly and change into clean clothing.
- Min/Max Storage Temperatures** 30 day average not to exceed 38°C (100°F)

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

- General Protection** There are no known hazards associated with this product when used according to the label directions. At the same time, the following guidelines should be used.  
  
Avoid breathing dust. Avoid contact with skin and eyes.  
  
Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.  
  
Do not allow children or pets on treated areas until granules have been watered into the soil and the grass or soil is dry.
- Hand Protection** Chemical resistant gloves made of waterproof material such as polyethylene or polyvinyl chloride



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

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance**                              various, depending on coloration

**Physical State**                            solid granular

**Bulk Density**                              32 - 40 lbs/cu. ft.

**SECTION 10. STABILITY AND REACTIVITY**

**Chemical Stability**                        Stable under recommended storage conditions.

**Conditions to Avoid**                      Exposure to extreme heat.

**Hazardous Decomposition Products**    Thermal decomposition  
hydrogen chloride (HCl)  
hydrogen cyanide (hydrocyanic acid)  
Carbon monoxide  
nitrogen oxides (NOx)  
ammonia  
biuret  
cyanuric acid  
oxides of iron  
oxides of magnesium  
oxides of manganese  
oxides of phosphorus  
oxides of potassium  
formaldehyde  
Sulphur oxides

**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute toxicity studies have not been conducted on this product as formulated. The acute toxicity data provided has been bridged from a similar product, Merit 0.5% on 32-5-7 Granular Fertilizer. The non-acute information pertains to the active ingredient, imidacloprid technical.

**Acute Oral Toxicity**                        male/female rat: LD50: > 5,136 mg/kg

**Acute Dermal Toxicity**                    male/female rat: LD50: > 2,000 mg/kg



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**Acute Inhalation Toxicity** male/female rat: LC50: > 5.016 mg/l  
Exposure time: 4 h  
(actual)  
Determined in the form of dust.

male/female 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: Mild skin irritation

**Eye Irritation** rabbit: Mild eye irritation

**Sensitization** guinea pig: Non-sensitizing

**Subchronic Toxicity** In a 3-week dermal toxicity study, rabbits treated with imidacloprid showed no local or systemic effects at levels up to and including 1000 mg/kg, the limit dose.

In a 4-week inhalation study, rats exposed to high concentrations of imidacloprid exhibited decreased body weight gains and changes in clinical chemistries and organ weights.

**Chronic Toxicity** In chronic dietary studies in rats and dogs exposed to imidacloprid, the target organs were the thyroids and/or liver.

**Assessment Carcinogenicity**

In oncogenicity studies in rats and mice, imidacloprid was not considered carcinogenic in either species.

- ACGIH**  
None.
- NTP**  
None.
- IARC**  
None.
- OSHA**  
None.

**Reproductive & Developmental Toxicity**

**REPRODUCTION:** In a two-generation reproduction study in rats, imidacloprid was not a primary reproductive toxicant. Offspring exhibited reduced body weights at the high dose and in conjunction with maternal toxicity.

**DEVELOPMENTAL TOXICITY:** In developmental toxicity studies in rats and rabbits, there was no evidence of an embryotoxic or teratogenic potential for imidacloprid. In both species, developmental effects were observed only at high doses and in conjunction with maternal toxicity.

**Neurotoxicity** In acute and subchronic neurotoxicity screening studies in rats, imidacloprid



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produced slight neurobehavioral effects in each study at the highest dose tested. There were no correlating morphological changes observed in the neural tissues.

In a one-generation developmental neurotoxicity screening study in rats, offspring exposed to imidacloprid showed decreased motor activities. These effects occurred at the highest dose tested and in conjunction with maternal toxicity. There were no correlating morphological changes observed in the neural tissues.

**Mutagenicity** The imidacloprid mutagenicity studies, taken collectively, demonstrate that the active ingredient is not genotoxic or mutagenic.

**SECTION 12. ECOLOGICAL INFORMATION**

**Environmental Precautions** This product is toxic to aquatic invertebrates. 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. Apply this product only as specified on the label.

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

**SECTION 13. DISPOSAL CONSIDERATIONS**

**General Disposal Guidance** 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, 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 transportation

FREIGHT CLASSIFICATION:  
Fertilizing Compounds, N.O.I., Dry, having a density of equal to or greater than 20 LBS. per cubic foot

**SECTION 15. REGULATORY INFORMATION**



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**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 - 1      Others - none

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

Reason to Revise: Updated bulk density in Section 9.

Revision Date: 08/10/2005

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