



Material Safety Data Sheet

BAYER ADVANCED COMPLETE BRAND INSECT KILLER FOR SOIL & TURF READY-TO-SPREAD GRANULES

MSDS Number: 102000011911
 MSDS Version 1.0
 Revision Date: 08/31/2005

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name BAYER ADVANCED COMPLETE BRAND INSECT KILLER FOR SOIL & TURF READY-TO-SPREAD GRANULES
MSDS Number 102000011911
EPA Registration No. 72155-31
Product Use Insecticide, for use on: Lawns, Ground Cover, Flower Beds, Around Trees & Shrubs, and Around Homes

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	0.15
beta-Cyfluthrin	68359-37-5	0.05
Wood dust		

SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview Caution! Moderate eye irritation Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes and clothing. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before re-use.

Physical State granular
Appearance light brown
Routes of Exposure Ingestion, Inhalation, Skin contact, Eye contact
Immediate Effects
Eye Moderate eye irritation Avoid contact with eyes.
Skin Harmful if absorbed through skin. No skin irritation



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Ingestion Harmful if swallowed. Do not take internally.
Inhalation Harmful if inhaled. Avoid breathing dust.

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. 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 poison control center or doctor for further treatment advice.

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 water, foam, dry chemical

Fire Fighting Instructions Keep out of smoke. Equipment or materials involved in pesticide fires may become contaminated. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Wear self-contained breathing apparatus and protective suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES



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- 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** Food utensils such as teaspoons or measuring cups must not be used for food purposes after use in measuring pesticides.
- Storing Procedures** Keep tightly closed in a dry, cool and well-ventilated place. Store in original container and out of the reach of children, preferably in a locked storage area.

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** light brown
- Physical State** granular
- pH** 6.7 (5 %)
- Bulk Density** 40 - 60 lb./cu.ft.

SECTION 10. STABILITY AND REACTIVITY

- Chemical Stability** Stable under recommended storage conditions.



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SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity studies for this product have been bridged from another product containing a higher percentage of the active ingredients Beta-cyfluthrin (1.35%), an enriched isomer mixture of Cyfluthrin and Imidacloprid (10%). The non-acute information pertains to the active ingredients, Beta-cyfluthrin technical, Cyfluthrin technical, and Imidacloprid technical. Toxicology information on Cyfluthrin technical can be obtained by calling the Product Use Information Number on page 1.

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

Acute Dermal Toxicity male/female rat: LD50: > 4,000 mg/kg

Acute Inhalation Toxicity male/female rat: LC50: > 1.2 mg/l
Exposure time: 4 h
Maximum attainable concentration.
Determined in the form of liquid aerosol.
(actual)

male/female rat: LC50: > 4.8 mg/l
Exposure time: 1 h
Determined in the form of liquid aerosol.
Extrapolated from the 4 hr LC50.
(actual)

Skin Irritation rabbit: non-irritant

Eye Irritation rabbit: non-irritant

Sensitization guinea pig: Non-sensitizing

Subchronic Toxicity BETA-CYFLUTHRIN TECHNICAL
In a subchronic dietary study, dogs treated with beta-cyfluthrin, exhibited vomiting, diarrhea, decreased body weight gain and clinical neurological symptoms at the highest dose level (360 ppm).

In a subchronic dietary study in rats treated with beta-cyfluthrin, effects included reduced body weight gains and feed consumption, uncoordinated gait, and skin injuries of the neck and head from excessive preening due to the local irritant effect of the test material.

In a 4-week inhalation study in rats exposed to beta-cyfluthrin, effects observed included ungroomed fur, piloerection, hyper- and hypoactivity, reduced body weight gains, hematological changes and reduced organ weights (thymus, spleen).

IMIDACLOPRID TECHNICAL
In a 3-week dermal toxicity study, rabbits treated with imidacloprid showed no



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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

IMIDACLOPRID TECHNICAL

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

Assessment Carcinogenicity

IMIDACLOPRID TECHNICAL

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

ACGIH

Wood dust

Group A1

NTP

Wood dust

IARC

Wood dust

Overall evaluation: 1

OSHA

None.

**Reproductive &
Developmental Toxicity**

BETA-CYFLUTHRIN TECHNICAL

DEVELOPMENTAL TOXICITY: In an oral developmental toxicity study in rats treated with beta cyfluthrin, decreased fetal body weights and an increased incidence of skeletal findings were observed at the maternally toxic and lethal high dose level (40 mg/kg).

IMIDACLOPRID TECHNICAL

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.

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.

Neurotoxicity

BETA-CYFLUTHRIN TECHNICAL

In acute and subchronic neurotoxicity screening studies in rats, beta-cyfluthrin produced slight transient neurobehavioral effects in each study at the highest dose tested. There were no correlating morphological changes in neural tissues in either study.

IMIDACLOPRID TECHNICAL

In acute and subchronic neurotoxicity screening studies in rats, imidacloprid produced slight neurobehavioral effects in each study at the highest dose tested. There were no correlating morphological changes observed in the neural tissues.



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In a one-generation developmental neurotoxicity screening study in rats, offspring exposed to imidacloprid showed decreased body weights and 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

BETA-CYFLUTHRIN TECHNICAL

Numerous in vitro and in vivo mutagenicity studies have been conducted on beta-cyfluthrin, all of which are negative.

IMIDACLOPRID TECHNICAL

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

SECTION 12. ECOLOGICAL INFORMATION

**Environmental
Precautions**

Apply this product only as specified on the label. Do not apply directly to water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Toxic to fish.

SECTION 13. DISPOSAL CONSIDERATIONS

**General Disposal
Guidance**

It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow any applicable state or local guidelines. Never place unused product down any indoor or outdoor drain.

Container Disposal

Empty remaining contents. Do not reuse empty bag. Place bag in trash.

SECTION 14. TRANSPORT INFORMATION

DOT CLASSIFICATION:

Not regulated for transportation

FREIGHT CLASSIFICATION:

Insecticide or Fungicides, N.O.I., other than poison

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 72155-31

US Federal Regulations

TSCA list

None.



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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
beta-Cyfluthrin 68359-37-5

1.0%

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

beta-Cyfluthrin 68359-37-5 NJ
Wood dust IL, MN, RI

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.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)
beta-Cyfluthrin 68359-37-5

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 0 Reactivity - 1 Others - none

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

Reason to Revise: Re-numbered due to system update.

Revision Date: 08/31/2005

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