



**Material Safety Data Sheet**  
**ALLECTUS SC INSECTICIDE**

MSDS Number: 102000011740  
 MSDS Version 1.0  
 Revision Date: 03/16/2005

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

**Product Name** ALLECTUS SC INSECTICIDE  
**MSDS Number** 102000011740  
**EPA Registration No.** 432-1415  
**Product Use** Insecticide for general insect control in turfgrass and landscape ornamentals of residential lawns, commercial, industrial, institutional and recreational areas including athletic field and parks. Not for use on golf course or sod farms.

Bayer Environmental Science  
 95 Chestnut Ridge Road  
 Montvale, NJ 07645  
 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	5.00
Bifenthrin	82657-04-3	4.00

**SECTION 3. HAZARDS IDENTIFICATION**

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

**Emergency Overview** Caution! Harmful if swallowed. Avoid contact with skin, eyes and clothing.

**Physical State** suspension

**Appearance** off-white

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

**Immediate Effects**

**Eye** May cause mild irritation to eyes. Avoid contact with eyes.

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



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

**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**  
**Hazards** This product/preparation contains a pyrethroid.  
**Treatment** There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.  
 Do not administer milk, cream or other substances containing vegetable or animal fats, which enhance the absorption of lipophilic substances.

**SECTION 5. FIRE FIGHTING MEASURES**

**Flash Point** > 110 °C / > 230 °F  
 Method: Setaflash

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



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**Fire Fighting Instructions**

Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Contain contaminated water/fire fighting water. Dike area to prevent runoff and contamination of water sources. Equipment or materials involved in pesticide fires may become contaminated. Prevent use of contaminated buildings, area, and equipment until decontaminated.

Wear self-contained breathing apparatus and protective suit.

**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**

Take up with absorbent material (e.g. sand, earth or a proprietary absorbent material). Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

**Additional Advice**

Use personal protective equipment. Avoid breathing vapors and avoid skin contact. 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**

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.

Do not freeze.

**Work/Hygienic Procedures**

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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.



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

<b>Engineering Controls</b>	Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.
<b>Eye/Face Protection</b>	Safety glasses with side-shields
<b>Hand Protection</b>	chemical resistant gloves
<b>Body Protection</b>	Wear long-sleeved shirt and long pants and shoes plus socks.
<b>Respiratory Protection</b>	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.
<b>General Protection</b>	Educate and train employees in safe use of the product. Follow all label instructions.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Do not allow children and pets to enter the treated area until it has dried.

**Exposure Limits**

Glycerine	56-81-5	ACGIH	TWA		10 mg/m3
		Form of Exposure		Mist.	
		OSHA Z1	PEL		5 mg/m3
		Form of Exposure		Respirable fraction.	
		OSHA Z1	PEL		15 mg/m3
		Form of Exposure		Total dust.	
		OSHA Z1A	TWA		5 mg/m3
		Form of Exposure		Respirable fraction.	
		OSHA Z1A	TWA		10 mg/m3
		Form of Exposure		Total dust.	
		US CA OEL	TWA PEL		5 mg/m3
		Form of Exposure		Respirable fraction.	
		US CA OEL	TWA PEL		10 mg/m3
		Form of Exposure		Total dust.	

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	off-white
<b>Physical State</b>	suspension



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<b>pH</b>	7.8 at 25 °C Aqueous suspension
<b>Density</b>	1.07 g/cm <sup>3</sup> at 20 °C
<b>Bulk Density</b>	8.91 lbs/gal
<b>Viscosity</b>	350 - 500 mPa.s

**SECTION 10. STABILITY AND REACTIVITY**

**Chemical Stability**            Stable under normal conditions.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Only acute toxicity studies have been performed on this product as formulated. The non-acute information pertains to the active ingredients, imidacloprid technical and bifenthrin technical.

**Acute Oral Toxicity**            female rat: LD50: 1,030 mg/kg

**Acute Dermal Toxicity**        female rat: LD50: > 5,000 mg/kg

**Acute Inhalation Toxicity**    female rat: LC50: > 2.03 mg/l  
 Exposure time: 4 h  
 Determined in the form of liquid aerosol.  
 (actual)

female rat: LC50: > 8.12 mg/l  
 Exposure time: 1 h  
 Determined in the form of liquid aerosol.  
 Extrapolated from the 4 hr LC50.  
 (actual)

**Skin Irritation**                rabbit: slight irritation

**Eye Irritation**                rabbit: Minimally irritating.

**Sensitization**                 guinea pig: Non-sensitizing

**Subchronic Toxicity**         IMIDACLOPRID TECHNICAL  
 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.

BIFENTHRIN TECHNICAL



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In a 21-day dermal toxicity study in rabbits, bifenthrin caused a loss of muscle coordination. In subchronic toxicity studies, tremors were observed in rats and dogs following dietary exposure to bifenthrin.

**Chronic Toxicity**

**IMIDACLOPRID TECHNICAL**

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

**BIFENTHRIN TECHNICAL**

The principal effect observed in rats, mice and dogs from long-term exposure to bifenthrin was clinical signs of toxicity (e.g., tremors).

**Assessment Carcinogenicity**

**IMIDACLOPRID TECHNICAL**

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

**BIFENTHRIN TECHNICAL**

Bifenthrin was not carcinogenic in a chronic feeding study in rats. In an oncogenicity study in mice, there was an increased incidence of tumors (urinary bladder, liver, lung). EPA classified bifenthrin as Group C (possible human carcinogen) chemical based on urinary bladder tumors in mice. The Agency used a non-linear methodology approach for determining the Margin of Exposure (MOE) for the estimation of cancer risk. Therefore, EPA has a reasonable certainty that no harm will result from exposure to residues of bifenthrin.

**ACGIH**

None.

**NTP**

None.

**IARC**

None.

**OSHA**

None.

**Reproductive & Developmental Toxicity**

**IMIDACLOPRID TECHNICAL**

**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.

**BIFENTHRIN TECHNICAL**

**REPRODUCTION:** Bifenthrin is not a reproductive toxicant based on a multigeneration reproduction study in rats.

**DEVELOPMENTAL TOXICITY:** Bifenthrin is not a developmental toxicant based on developmental toxicity studies in rats and rabbits.



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**Neurotoxicity**

**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.

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.

**BIFENTHRIN TECHNICAL**

Bifenthrin did not cause delayed neurotoxicity in hens. In acute and subchronic neurotoxicity screening studies in rats, transient well-defined neurobehavioral effects were seen without correlating morphological changes in the neural tissues.

**Mutagenicity**

**IMIDACLOPRID TECHNICAL**

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

**BIFENTHRIN TECHNICAL**

Bifenthrin is not considered genotoxic or mutagenic based on in vitro and in vivo mutagenicity studies.

**SECTION 12. ECOLOGICAL INFORMATION**

**Environmental Precautions**

This product is extremely toxic to fish and 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. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas.

**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.



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**SECTION 13. DISPOSAL CONSIDERATIONS**

<b>General Disposal Guidance</b>	Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
<b>Container Disposal</b>	Do not re-use empty containers. Triple rinse containers. Then dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**SECTION 14. TRANSPORT INFORMATION**

DOT CLASSIFICATION:  
Not regulated for Domestic Surface Transportation

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

**SECTION 15. REGULATORY INFORMATION**

**EPA Registration No.** 432-1415

**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**

Bifenthrin	82657-04-3	1.0%
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**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**

Bifenthrin	82657-04-3	NJ
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**Canadian Regulations**

**Canadian Domestic Substance List**

None.

**Environmental**





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**CERCLA**

None.

**Clean Water Section 307 Priority Pollutants**

None.

**Safe Drinking Water Act Maximum Contaminant Levels**

None.

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**SECTION 16. OTHER INFORMATION**

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NFPA

Health - 2      Flammability - 1      Reactivity - 1      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: 03/16/2005

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