



**Material Safety Data Sheet**

**ALLECTUS® SC INSECTICIDE**

MSDS Number: 102000011740

MSDS Version 1.1

Revision Date: 08/31/2011

Print Date: 09/01/2011

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

**Product name** ALLECTUS® SC INSECTICIDE  
**MSDS Number** 102000011740  
**Product code (UVP)** 06369588  
**EPA Registration No.** 432-1415  
**Product Use** Insecticide

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. 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 liquid

**Appearance** off-white

**Exposure routes** 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.

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

**Inhalation** Avoid inhalation of vapour or mist.

**Chronic or Delayed Long-Term**

This product or its components may have long term (chronic) health effects. This product or its components may have target organ effects.

**Potential Environmental Effect**

Extremely toxic to fish and aquatic invertebrates.



**Material Safety Data Sheet**

**ALLECTUS® SC INSECTICIDE**

MSDS Number: 102000011740

MSDS Version 1.1

**SECTION 3. 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 4. FIRST AID MEASURES**

<b>General</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>Eye</b>	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.
<b>Skin</b>	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.
<b>Ingestion</b>	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.
<b>Inhalation</b>	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.
<b>Notes to physician</b>	
<b>Hazards</b>	This product contains a pyrethroid.
<b>Treatment</b>	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

**SECTION 5. FIRE FIGHTING MEASURES**

<b>Flash point</b>	> 110 °C / > 230 °F
<b>Autoignition temperature</b>	no data available
<b>Lower Flammability Limit</b>	no data available
<b>Upper Flammability Limit</b>	no data available
<b>Explosiveness</b>	no data available



**Material Safety Data Sheet**

MSDS Number: 102000011740  
MSDS Version 1.1

**ALLECTUS® SC INSECTICIDE**

**Suitable extinguishing media** Carbon dioxide (CO<sub>2</sub>), Dry chemical, Foam

**Fire Fighting Instructions** Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. 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. Do not breathe vapour.

**Methods for cleaning up** Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations.

**Additional advice** Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact vegetation.

**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 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.

Protect from freezing.

**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 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.



**Material Safety Data Sheet**

**ALLECTUS® SC INSECTICIDE**

MSDS Number: 102000011740  
MSDS Version 1.1

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

<b>General Protection</b>	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 warm/tepid water. Keep and wash PPE separately from other laundry.
<b>Eye/Face Protection</b>	Safety glasses with side-shields
<b>Hand protection</b>	Chemical resistant nitrile rubber 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.

**Exposure Limits**

Imidacloprid	138261-41-3	OES BCS*	TWA	0.7 mg/m3
		TX ESL	ST ESL	50 ug/m3
Glycerine	56-81-5	TX ESL	AN ESL	5 ug/m3
		ACGIH	TWA	10 mg/m3
		OSHA Z1	PEL	5 mg/m3
		OSHA Z1	PEL	15 mg/m3
		OSHA Z1A	TWA	5 mg/m3
		OSHA Z1A	TWA	10 mg/m3
		TX ESL	ST ESL	50 ug/m3
		TX ESL	AN ESL	5 ug/m3
		TWA	10 mg/m3	
		TWA	5 mg/m3	

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

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	off-white
<b>Physical State</b>	suspension liquid
<b>pH</b>	7.8 at 25 °C aqueous suspension
<b>Vapor Pressure</b>	no data available
<b>Vapor Density (Air = 1)</b>	no data available



**Material Safety Data Sheet**

**ALLECTUS® SC INSECTICIDE**

MSDS Number: 102000011740  
MSDS Version 1.1

<b>Density</b>	ca. 1.07 g/cm <sup>3</sup> at 20 °C
<b>Bulk density</b>	8.91 lbs/gal
<b>Evaporation rate</b>	no data available
<b>Boiling Point</b>	no data available
<b>Water solubility</b>	no data available
<b>Solubility in other solvents</b>	no data available
<b>Minimum Ignition Energy</b>	no data available
<b>Decomposition temperature</b>	no data available
<b>Partition coefficient: n-octanol/water</b>	no data available
<b>Viscosity</b>	500 - 1,000 mPa.s

**SECTION 10. STABILITY AND REACTIVITY**

<b>Conditions to avoid</b>	no data available
<b>Incompatibility</b>	no data available
<b>Hazardous Decomposition Products</b>	no data available
<b>Chemical Stability</b>	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.

<b>Acute oral toxicity</b>	female rat: LD50: 1,030 mg/kg
<b>Acute dermal toxicity</b>	female rat: LD50: > 5,000 mg/kg



**Material Safety Data Sheet**

MSDS Number: 102000011740  
MSDS Version 1.1

**ALLECTUS® SC INSECTICIDE**

**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.

**Sensitisation** guinea pig: Non-sensitizing.

**Chronic toxicity** Imidacloprid caused thyroid and/or liver effects in chronic dietary studies in rats and dogs.

Bifenthrin caused clinical signs of toxicity (e.g., tremors) in chronic studies in rats, mice and dogs.

**Assessment Carcinogenicity**

Imidacloprid was not carcinogenic in studies in rats and mice.

Bifenthrin was not carcinogenic in a lifetime 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 toxicity**

**REPRODUCTION**

Imidacloprid was not a reproductive toxicant in a multi-generation study in rats.

Bifenthrin was not a reproductive toxicant in a two-generation study in rats.

**DEVELOPMENTAL TOXICITY**

Imidacloprid is not considered a primary developmental toxicant in rats and rabbits. Developmental effects were observed at doses that caused maternal



**Material Safety Data Sheet**

MSDS Number: 102000011740  
MSDS Version 1.1

**ALLECTUS® SC INSECTICIDE**

toxicity.

Bifenthrin was not a developmental toxicant in rats and rabbits.

**Assessment  
neurotoxicity**

Imidacloprid showed slight behavioral and activity changes only at the highest dose tested in neurotoxicity studies in rats. There were no correlating morphological changes observed in the neural tissues.

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

**Mutagenicity**

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

Bifenthrin 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**

**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. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites.

**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.

**Container Disposal**

Do not re-use empty containers. Triple rinse containers. Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.

**RCRA Information**

Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

**SECTION 14. TRANSPORT INFORMATION**



**Material Safety Data Sheet**

MSDS Number: 102000011740  
MSDS Version 1.1

**ALLECTUS® SC INSECTICIDE**

**49CFR** Not dangerous goods / not hazardous material

**IMDG**

UN-Number **3082**  
 Class 9  
 Packaging group III  
 Marine pollutant YES  
 Description of the goods ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IMIDACLOPRID, BIFENTHRIN SOLUTION)

**IATA**

UN-Number **3082**  
 Class 9  
 Packaging group III  
 Environm. Hazardous Mark YES  
 Description of the goods ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IMIDACLOPRID, BIFENTHRIN SOLUTION )

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

Freight Classification: 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%

**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

**Canadian Regulations**

**Canadian Domestic Substance List**





**Material Safety Data Sheet**

**ALLECTUS® SC INSECTICIDE**

MSDS Number: 102000011740  
MSDS Version 1.1

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: Reviewed and updated for general editorial purposes. The following sections have been revised: Section 1: Chemical Product and Company Information. Section 2: Hazards Identification. Section 5: Fire Fighting. Section 8: Exposure Controls / Personal Protection. Section 9: Physical and Chemical Properties. Section 10. Stability and reactivity Section 11: Toxicological Information. Section 14: Transport Information. Section 16: Other Information.

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