



**Material Safety Data Sheet**

**BAYER ADVANCED VEGETABLE & GARDEN INSECT  
SPRAY CONCENTRATE**

MSDS Number: 102000012174

MSDS Version 2.2

Revision Date: 06/07/2010

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

**Product name** BAYER ADVANCED VEGETABLE & GARDEN INSECT SPRAY  
CONCENTRATE  
**MSDS Number** 102000012174  
**EPA Registration No.** 72155-39

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 by inhalation and if swallowed. Causes eye irritation. Avoid contact with skin, eyes and clothing. Wash thoroughly with soap and water after handling.

**Physical State** liquid opaque

**Appearance** off-white

**Exposure routes** Skin contact, Eye contact, Ingestion, Inhalation

**Immediate Effects**

**Eye** Causes eye irritation. Avoid contact with eyes.

**Skin** Avoid contact with skin.

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

**Inhalation** Harmful if inhaled. Do not breathe vapours or spray mist.

**Potential Environmental Effect** Highly toxic to bees. Highly toxic to fish.



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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Cyfluthrin	68359-37-5	0.75

**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 Treatment</b>	Treat symptomatically. There is no specific antidote.

**SECTION 5. FIRE FIGHTING MEASURES**

<b>Suitable extinguishing media</b>	Dry chemical, Foam, Water spray
<b>Fire Fighting Instructions</b>	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**



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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**    Clean contaminated floors and objects thoroughly, observing environmental regulations. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container.
- Additional advice**            Use personal protective equipment.

**SECTION 7. HANDLING AND STORAGE**

- Storing Procedures**        Store in original container and out of the reach of children, preferably in a locked storage area. Keep containers tightly closed in a dry, cool and well-ventilated place.  
  
Keep away from food, drink and animal feedingstuffs.

**Min/Max Storage Temperatures**      Recommended minimum transport/storage temperature: 0 °C / 32 °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. The following guidelines should be followed.  
  
Avoid inhalation of vapour or mist. Avoid contact with skin and eyes.  
  
Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.  
  
Do not allow children or pets to enter the treated area until it has dried.

**Exposure Limits**

Cyfluthrin	68359-37-5	TX ESL	ST ESL	50 ug/m3
		TX ESL	ST ESL	50 ug/m3
		TX ESL	AN ESL	5 ug/m3
		TX ESL	AN ESL	5 ug/m3
		OES BCS*	TWA	0.01 mg/m3

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



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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	off-white
<b>Physical State</b>	liquid opaque
<b>Density</b>	1.00 g/cm <sup>3</sup> at 20 °C

**SECTION 10. STABILITY AND REACTIVITY**

<b>Conditions to avoid</b>	freezing
<b>Chemical Stability</b>	Stable under recommended storage conditions.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute toxicity studies for this product have been bridged from other products containing the active ingredient, Cyfluthrin. The acute eye irritation study has been performed on a formulation containing 0.1% Cyfluthrin. All other acute toxicity data have been bridged from a formulation containing 24% Cyfluthrin. The non-acute information pertains to Cyfluthrin technical.

<b>Acute oral toxicity</b>	male rat: LD50: 647 mg/kg female rat: LD50: 695 mg/kg
<b>Acute dermal toxicity</b>	male/female combined rabbit: LD50: > 2,000 mg/kg
<b>Acute inhalation toxicity</b>	male rat: LC50: 0.716 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. (actual)  female rat: LC50: 0.924 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. (actual)  male/female combined rat: LC50: > 2.029 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. (actual)
<b>Skin irritation</b>	rabbit: Moderate skin irritation.
<b>Eye irritation</b>	rabbit: Minimally irritating.



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**Sensitisation** guinea pig: Sensitising

**Chronic toxicity** Cyfluthrin caused clinical signs of toxicity including neurological symptoms in chronic studies in rats and dogs.

**Assessment Carcinogenicity**

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

**ACGIH**

None.

**NTP**

None.

**IARC**

None.

**OSHA**

None.

**Reproductive toxicity** REPRODUCTION: Cyfluthrin caused toxicity in offspring at doses producing systemic toxicity in adult rats.

DEVELOPMENTAL TOXICITY: Cyfluthrin was not a primary developmental toxicant in rats and rabbits. Developmental effects were observed but were considered secondary to maternal toxicity.

**Neurotoxicity** Cyfluthrin caused neurobehavioral effects and/or minimal nerve damage in neurotoxicity studies in mice, rats and hens.

**Mutagenicity** Cyfluthrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**SECTION 12. ECOLOGICAL INFORMATION**

**Environmental precautions** 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. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.

Apply this product as specified on the label. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.



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**SECTION 13. DISPOSAL CONSIDERATIONS**

<b>General Disposal Guidance</b>	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 container label instructions and applicable local guidelines. Never place unused product down any indoor or outdoor drain.
<b>Container Disposal</b>	Do not re-use empty containers. Triple rinse containers. Place empty container in trash.
<b>RCRA Information</b>	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**

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

**SECTION 15. REGULATORY INFORMATION**

**EPA Registration No.** 72155-39

**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**

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**

Cyfluthrin 68359-37-5 NJ



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**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.

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**SECTION 16. OTHER INFORMATION**

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NFPA 704 (National Fire Protection Association):

Health - 2      Flammability - 1      Reactivity - 0      Others - none

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

Reason to Revise: Updated for general editorial purposes. The following sections have been revised: Section 8: Exposure Controls / Personal Protection.

Revision Date: 06/07/2010

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