

**Material Safety Data Sheet****BAYER ADVANCED VEGETABLE & GARDEN INSECT
SPRAY READY-TO-SPRAY**

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 READY-TO-SPRAY
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

General	When possible, 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 physician or poison control center immediately.
Skin	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.
Ingestion	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.
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 physician or poison control center immediately.
Notes to physician Treatment	Treat symptomatically. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media	Dry chemical, Foam, Water spray
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

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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.
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Min/Max Storage Temperatures	Recommended minimum transport/storage temperature: 0 °C / 32 °F
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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.
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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

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

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	freezing
Chemical Stability	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.

Acute oral toxicity	male rat: LD50: 647 mg/kg female rat: LD50: 695 mg/kg
Acute dermal toxicity	male/female combined rabbit: LD50: > 2,000 mg/kg
Acute inhalation toxicity	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)
Skin irritation	rabbit: Moderate skin irritation.
Eye irritation	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

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 container label instructions and applicable local guidelines. Never place unused product down any indoor or outdoor drain.
Container Disposal	Do not re-use empty containers. Triple rinse containers. Place empty container in trash.
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

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

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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.

SECTION 16. OTHER INFORMATION

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

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.