



## Bayer Advanced Garden Power Force Kills Bugs Fast Mosquito Killer II Ready-To-Spray

### SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product Name** Bayer Advanced Garden Power Force Kills Bugs Fast Mosquito Killer II Ready-To-Spray

**Chemical Name**

**Common Name** Cyfluthrin

**MSDS Number** 2013

**Chemical Family**

**Chemical Formulation**

**EPA Registration No.** 3125-502-72155

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

**Product Use Description** Bayer Advanced Garden Power Force Kills Bugs Fast Mosquito Killer II Ready-To-Spray is an insecticide. Kills mosquitos on contact and also kills fleas, ticks and other nuisance pests.

### SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS No.</u>	<u>Concentration % by Weight</u>	
		<u>Minimum</u>	<u>Maximum</u>
Cyfluthrin Technical Insecticide	68359-37-5	0.6700	0.8300

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### SECTION 3. HAZARDS IDENTIFICATION

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

<b><u>Emergency Overview</u></b>	Caution! Harmful if swallowed or inhaled. Causes eye irritation. Avoid contact with skin, eyes and clothing. Wash thoroughly with soap and water after handling.
<b>Physical State</b>	Liquid
<b>Appearance</b>	Off-white
<b>Routes of Exposure</b>	Inhalation, Ingestion, Eye contact, Skin contact
<b>Immediate Effects</b>	
<b>Eye</b>	Causes eye irritation.
<b>Skin</b>	Avoid contact with skin.
<b>Ingestion</b>	Harmful if swallowed.
<b>Inhalation</b>	Harmful if inhaled.

### SECTION 4. FIRST AID MEASURES

<b>General</b>	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 poison control center or doctor for treatment advice.
<b>Ingestion</b>	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 or give anything by mouth to an unconscious person.
<b>Inhalation</b>	Move person 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.
<b>Notes to physician</b>	
<b>Treatment</b>	Call the Medical Emergency Telephone Number on page 1 for additional information and/or instructions.

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### SECTION 5. FIRE FIGHTING MEASURES

<b>Flash Point</b>	> 93 °C / > 199 °F
<b>Suitable Extinguishing Media</b>	Dry chemical, Foam
<b>Fire Fighting Instructions</b>	Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Contain runoff to prevent entry into sewers or waterways. Keep out of smoke. Stay upwind.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

<b>General and Disposal</b>	Use proper protective equipment to minimize personal exposure (see Section 8). Dispose in accordance with all local, state/provincial and federal regulations.
<b>Land Spill or Leaks</b>	Do not allow material to enter streams, sewers, or other waterways or contact vegetation. Do not allow wash and/or rinse water to enter any stream or body of water. Absorb with vermiculite or other inert absorbent. Place in an approved chemical waste container for disposal.

### SECTION 7. HANDLING AND STORAGE

<b>Handling Procedures</b>	For personal protection see section 8. Wash thoroughly with soap and water after handling.
<b>Storing Procedures</b>	Store in a cool, dry secured storage area. Keep out of reach of children and domestic animals. Keep from freezing.
<b>Work/Hygienic Procedures</b>	Handle in accordance with good industrial hygiene and safety practice. Keep and wash PPE separately from other laundry. Shower and change into street clothes before leaving the work site. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
<b>Min/Max Storage Temperatures</b>	Do not transport or store below 32 °C / 90 °F

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### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering Controls</b>	Control exposure levels through the use of general and local exhaust ventilation.
<b>Eye/Face Protection</b>	Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles.
<b>Hand Protection</b>	Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber or Viton)
<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/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.
<b>General Protection</b>	Educate and train employees in safe use of the product. Follow all label instructions. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations.

#### Exposure Limits

None Established

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Off-white
<b>Physical State</b>	Liquid
<b>pH</b>	3.5
<b>Bulk Density</b>	1.0 g/ml at 20 °C
<b>Boiling Point</b>	100 °C

### SECTION 10. STABILITY AND REACTIVITY

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**Chemical Stability** Stable under recommended storage conditions.

**Conditions to Avoid** Freezing

**Hazardous Polymerization (Conditions to avoid)** Hazardous polymerization will not occur.

### 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.

Further toxicology information on Cyfluthrin Technical can be obtained by calling the Product Use Information Number which is listed in Section 1 of this MSDS.

**Acute Oral Toxicity** Male Rat: LD50: 647 mg/kg

Female Rat: LD50: 695 mg/kg

**Acute Dermal Toxicity** Male and Female Rabbit: LD50: > 2,000 mg/kg

**Acute Inhalation Toxicity** Male Rat: LC50: 4-hr exposure to liquid aerosol: 0.716 mg/l

Female Rat: LC50: 4-hr exposure to liquid aerosol: 0.924 mg/l

Male and Female Rat: LC50: > 2.029 mg/l 1 HR Exposure to Liquid Aerosol.

**Skin Irritation** Rabbit: Moderate skin irritant.

**Eye Irritation** Rabbit: Minimal irritation to the conjunctiva was observed with all irritation clearing within 24 hours post-treatment.

**Sensitization** Guinea pig: Causes sensitization.

**Sub-Chronic Toxicity** In a 3 week dermal toxicity study in rats treated with cyfluthrin, effects observed included clinical signs of toxicity, as well as, topical and microscopic alterations in the treated tissue at the dose site.

In a 13 week inhalation study in rats exposed to cyfluthrin, effects included reduced body weight gains and non-specific behavioral disturbances at the mid- and high concentrations (0.71 and 4.5 mg/m<sup>3</sup>).

**Chronic Toxicity** In chronic dietary studies in rats treated with cyfluthrin, compound-related effects included decreased body weight gains and slight changes in clinical chemistries.

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In chronic dietary studies in dogs treated with cyfluthrin, compound-related effects were observed at the higher concentrations (greater than or equal to 360 ppm). These effects included an increased incidence of vomiting, decreased body weights, soft feces and clinical neurological symptoms.

### Assessment Carcinogenicity

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

**ACGIH**

None

**NTP**

None

**IARC**

None

**OSHA**

None

### Reproductive & Developmental Toxicity

In reproduction studies in rats treated with cyfluthrin, reproductive effects occurred in conjunction with parental toxicity. These effects included reductions in viability, lactation, litter size, feed consumption and body weights. In addition, coarse tremors were observed in offspring at higher concentrations (greater than or equal to 125 ppm).

In developmental toxicity studies in rats treated with cyfluthrin, there were no embryotoxic or teratogenic effects via the oral route of exposure. When rats were exposed to cyfluthrin via inhalation, embryotoxic effects occurred in conjunction with maternal toxicity. In rabbits treated orally with cyfluthrin, there was an increased incidence of post-implantation losses at maternally toxic dose levels.

### Neurotoxicity

In neurotoxicity studies with cyfluthrin, minimal nerve damage occurred in rats and hens treated by oral gavage. In dermal and inhalation studies, which are more relevant to field exposure, there was no evidence of delayed neurotoxicity in hens treated with cyfluthrin.

In a special investigative inhalation study with cyfluthrin in neonatal mice, effects observed included clinical signs of toxicity, mortality and neurobehavioral effects indicative of treatment-related hyperactivity. There were no correlating morphological changes in neural tissues in mice at 4 months of age.

### Mutagenicity

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

## SECTION 12. ECOLOGICAL INFORMATION

### Acute and Prolonged Toxicity to Fish

Rainbow trout  
LC50: 0.0006 - 0.0029 mg/l  
Exposure Time: 96 h

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	Bluegill sunfish LC50: 0.0015 mg/l Exposure Time: 96 h
<b>Acute Toxicity to Aquatic Invertebrates</b>	Daphnia LC50: 0.00016 - 0.0027 mg/l Exposure Limit: 48 h
<b>Toxicity Other Non Mammal Terr. Species</b>	Duck and Quail LC50: > 5,000 mg/kg Exposure Time: 5 d
<b>Environmental Precautions</b>	<p>This product is toxic to fish. Do not apply directly to water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment washwater.</p> <p>This product is highly toxic to bees exposed to direct treatment or residues remaining on the treated areas. Do not apply this product or allow drift when bees are actively visiting the treatment area. Apply this product only as specified on the label.</p>

### SECTION 13. DISPOSAL CONSIDERATIONS

<b>General Disposal Guidance</b>	Do not reuse empty container. 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.
<b>RCRA Classification</b>	None

### SECTION 14. TRANSPORT INFORMATION

DOT CLASSIFICATION:  
Not Regulated for Domestic surface Transportation

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

### SECTION 15. REGULATORY INFORMATION

**EPA Registration No.** 3125-502-72155

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### US Federal Regulations

#### TSCA list

None

#### TSCA 12b export notification

None

#### SARA Title III - section 302 - notification and information

None

#### SARA Title III - section 313 - toxic chemical release reporting

None

### 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

None

### 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

#### EU Classification

None

#### European Inventory of Existing Commercial Substances (EINECS)

None



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### SECTION 16. OTHER INFORMATION

NFPA	Health	Flammability	Reactivity	Others
	2	1	0	

REASON FOR ISSUE: Create and update MSDS in the SAP system.

Approval Date: 02/02/2004

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