



Material Safety Data Sheet

Bayer Advanced Fire Ant Killer Ready-To-Use Dust

MSDS Version: 1.0

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name	Bayer Advanced Fire Ant Killer Ready-To-Use Dust
Chemical Name	
Common Name	
MSDS Number	2231
Chemical Family	
Chemical Formulation	
EPA Registration No.	72155-32
Product Use	Insecticide, for use on: Lawns and Around Homes

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>Concentration % by Weight</u>	
		<u>Minimum</u>	<u>Maximum</u>
Beta-cyfluthrin Technical	68359-37-5	0.4000	0.6000
Crystalline Silica (Quartz)	14808-60-7	0.0340	5.1000

SECTION 3. HAZARDS IDENTIFICATION

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

<u>Emergency Overview</u>	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	Powder
Appearance	Brown
Routes of Exposure	Inhalation, Ingestion, Eye contact, Skin contact
Immediate Effects	
Eye	Causes eye irritation. Do not get in eyes.
Skin	May cause slight irritation.

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Ingestion	Harmful if swallowed. Do not take internally.
Inhalation	Do not breathe dust. Harmful if inhaled.
Chronic or Delayed Long-Term	This product is not listed as a carcinogen by ACGIH, NTP, IARC or OSHA. However, it may contain crystalline silica (quartz), a substance which has been listed as a carcinogen by ACGIH, NTP and IARC. Crystalline silica is a naturally-occurring mineral component of many sands and clays. Although the carcinogenic potential of crystalline silica in humans is controversial, it must be considered if it is inhaled under excessive exposure conditions. The respirable portion of the silica that may be contained in this product, however, is small, such that excessive inhalation exposure during anticipated conditions of use is unlikely.
Medical Conditions Aggravated by Exposure	No specific medical conditions are known which may be aggravated by exposure to this product. As with all materials which can cause upper respiratory tract irritation, persons with a history of asthma, emphysema, or hyperreactive airways disease may be more susceptible to overexposure. Pulmonary and respiratory diseases may be aggravated by exposure to respirable crystalline silica.

SECTION 4. FIRST AID MEASURES

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	Get medical attention if irritation develops and persists.
Ingestion	Never give anything by mouth to an unconscious person. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Have person sip a glass of water if able to swallow. Call a poison control center or doctor immediately for treatment advice.
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.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point	Not applicable
Suitable Extinguishing Media	Water, Foam, Dry chemical
Fire Fighting Instructions	<p>Keep out of smoke. Fight fire from upwind position. Equipment or materials involved in pesticide fires may become contaminated. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.</p> <p>In the event of fire, wear self-contained breathing apparatus.</p>

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SECTION 6. ACCIDENTAL RELEASE MEASURES

- General and Disposal** Keep unnecessary people away, isolate hazard area and deny entry. Avoid contact with spilled product or contaminated surfaces.
- Land Spill or Leaks** Avoid dust formation. Avoid breathing dust. Avoid contact with skin. Use recommended protective equipment while carefully sweeping up spilled material. Place in covered container for reuse or disposal. Scrub contaminated area with soap and water. Rinse with water. Use dry absorbent material such as clay granules to absorb and collect wash solution for proper disposal. Contaminated soil may have to be removed and disposed. Do not allow material to enter streams, sewers, or other waterways.

SECTION 7. HANDLING AND STORAGE

- Handling Procedures** Food utensils such as teaspoons or measuring cups must not be used for food purposes after use in measuring pesticides.
- Storing Procedures** Keep tightly closed in a dry, cool and well-ventilated place. Store in original container and out of the reach of children, preferably in a locked storage area.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- General Protection** There are no known hazards associated with this product when used according to the label directions. At the same time, the following guidelines should be used.
- Avoid breathing dust.
- Avoid contact with skin and eyes.
- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Do not allow children or pets on treated areas until granules have been watered into the soil and the grass or soil is dry.

Exposure Limits

Crystalline Silica (Quartz)	14808-60-7	NIOSH	REL	0.05 mg/m3
		Form of Exposure	Respirable dust.	
		OSHA Z1A TWA		0.1 mg/m3
		Form of Exposure	Respirable dust.	
		US CA OEL TWA PEL		0.1 mg/m3
		Form of Exposure	Respirable dust.	
		US CA OEL TWA PEL		0.3 mg/m3
		Form of Exposure	Total dust.	
		ACGIH TWA		0.05 mg/m3
		Form of Exposure	Respirable fraction.	
		OSHA Z1 PEL		5 mg/m3
		Form of Exposure	Respirable fraction.	
		OSHA Z1 PEL		15 mg/m3
		Form of Exposure	Total dust.	
		ACGIH NIC TWA		0.025 mg/m3

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Form of Exposure Respirable fraction.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Brown
Physical State	Powder
pH	7.8 - 8.2 at 25 °C Aqueous solution
Bulk Density	30 - 50 lbs/cubic feet

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions.
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SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity studies for this product have been bridged from another product containing 20% of the active ingredient, Cyfluthrin. The non-acute information pertains to the active ingredients Beta-cyfluthrin technical, an enriched isomer of Cyfluthrin, and Cyfluthrin technical. Toxicology information on Cyfluthrin technical can be obtained by calling the Product Use Information number on page 1.

Acute Oral Toxicity	Male Rat: LD50: 3,084 mg/kg Female Rat: LD50: 1,733 mg/kg
Acute Dermal Toxicity	Male/Female Rat: LD50: > 2,000 mg/kg
Acute Inhalation Toxicity	Male/Female Rat: LC50: > 1.18 mg/l Exposure time: 4 h Determined in the form of dust. (actual) Maximum attainable concentration. Male/Female Rat: LC50: > 4.72 mg/l Exposure time: 1 h Determined in the form of dust. Extrapolated from the 4 hr LC50. (actual)
Skin Irritation	Rabbit: slight irritation
Eye Irritation	Rabbit: Mild irritation to the iris and conjunctiva was observed with all irritation resolving with 7 days.
Sensitization	Guinea pig: non-sensitizing
Subchronic Toxicity	BETA-CYFLUTHRIN TECHNICAL In a subchronic dietary study, dogs treated with beta-cyfluthrin, exhibited vomiting, diarrhea, decreased body weight gain and clinical neurological symptoms at the highest dose level (360 ppm).

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In a subchronic dietary study in rats treated with beta-cyfluthrin, effects included reduced body weight gains and feed consumption, uncoordinated gait, and skin injuries of the neck and head from excessive preening due to the local irritant effect of the test material.

In a 4-week inhalation study in rats exposed to beta-cyfluthrin, effects observed included ungroomed fur, piloerection, hyper- and hypoactivity, reduced body weight gains, hematological changes and reduced organ weights (thymus, spleen).

Assessment Carcinogenicity

ACGIH

Crystalline Silica (Quartz) 14808-60-7 Group A2

NTP

Crystalline Silica (Quartz) 14808-60-7

IARC

Crystalline Silica (Quartz) 14808-60-7 Overall evaluation: 1

OSHA

None

Reproductive & Developmental Toxicity

BETA-CYFLUTHRIN TECHNICAL

DEVELOPMENTAL TOXICITY: In an oral developmental toxicity study in rats treated with beta-cyfluthrin, decreased fetal body weights and an increased incidence of skeletal findings were observed at the maternally toxic and lethal high dose level (40 mg/kg).

Neurotoxicity

BETA-CYFLUTHRIN TECHNICAL

In acute and subchronic neurotoxicity screening studies in rats, beta-cyfluthrin produced slight transient neurobehavioral effects in each study at the highest dose tested. There were no correlating morphological changes in neural tissues in either study.

Mutagenicity

BETA-CYFLUTHRIN TECHNICAL

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

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions

Apply this product only as specified on the label. Do not apply directly to water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Toxic to fish.

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 any applicable state or local guidelines. Never place unused product down any indoor or outdoor drain.

Container Disposal

Empty remaining contents. Wrap and discard in trash. Do not re-use empty containers.

RCRA Classification

Not Regulated under this Statute

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SECTION 14. TRANSPORT INFORMATION

TRANSPORTATION CLASSIFICATION:
Not regulated for transportation

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

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 72155-32

US Federal Regulations

TSCA list

Crystalline Silica (Quartz) 14808-60-7

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

Beta-cyfluthrin Technical 68359-37-5 1.0%

US States Regulatory Reporting

CA Prop65

This product contains a chemical known to the State of California to cause cancer.

Crystalline Silica (Quartz) 14808-60-7

This product does not contain any substances known to the State of California to cause reproductive harm.

US State right-to-know ingredients

Crystalline Silica (Quartz) 14808-60-7 IL, MA, MN, PA

Canadian Regulations

Canadian Domestic Substance List

Crystalline Silica (Quartz) 14808-60-7

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)

Beta-cyfluthrin Technical 68359-37-5

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SECTION 16. OTHER INFORMATION

NFPA 704: (National Fire Protection Association)

Health - 1 Flammability - 0 Reactivity - 1 Others - None

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

Reason to Issue: New Material Safety Data Sheet.

Approval Date: 11/19/2004

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