

**CHIPCO Firestar™ Fire Ant Bait**

MSDS Version 1.3

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name	CHIPCO Firestar™ Fire Ant Bait
Chemical Name	FIPRONIL: 5-amino-1-(2,6-dichloro-4-(trifluoromethyl) phenyl)-4-((1,R,S)-(trifluoromethyl)sulfinyl)-1-H-pyrazole-3-carbonitrile
Synonym	Fipronil
MSDS Number	1671
Chemical Family	
Chemical Formulation	C12H4Cl2F6N4OS
EPA Registration No.	432-1219
Canadian Registrat. No.	

Bayer Environmental Science
95 Chestnut Ridge Road
Montvale, NJ 07645
USA

For Product Use Information: (800)331-2867 Monday through Friday(CRLF) 8:00AM-4:30PM(CRLF) For Medical Emergency contact DART: (800) 334-7577 24 Hours/Day(CRLF)
For Transportation Emergency CHEMTREC: (800) 424-9300 24 Hours/Day

Product Use Description For Use on Home Lawns, Golf Courses and Commercial and Recreational Turf and Sodfarms. CHIPCO Firestar Fire Ant Bait is intended for use to control imported fire ants in turfgrass. The activity of the product may vary with rate of application, environmental conditions, and life-stages of the insect at time of application.

FIFRA regulated use only.

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component Name</u>	<u>CAS No.</u>	<u>Concentration % by Weight</u>	
		<u>Minimum</u>	<u>Maximum</u>
FIPRONIL	120068-37-3		0.0002
Other ingredients (Trade secret)			99.9999

The values of the above components were rounded. The actual formulation for Chipco Firestar Insecticide is as follows: Fipronil is 0.00015% and Other Ingredients are 99.99985%.

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SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview

Caution. Keep out of the reach of children. Hazard to humans and domestic animals. Harmful if absorbed through the skin. Causes eye irritation. Avoid contact with skin, eyes and clothing. Wash thoroughly with soap and water after handling.

Always wear protective clothing and use appropriate equipment during application and handling. Avoid contact with granules. Avoid breathing dust.

Physical State

solid granules

Odor

slight

Appearance

off-white to yellow

Immediate Effects

Eye

Causes eye irritation. Avoid contact with eyes.

Skin

Harmful if absorbed through skin. Avoid contact with skin or clothing. May produce symptoms similar to those from ingestion. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

Ingestion

Harmful if swallowed. May cause shortness of breath, involuntary shaking, convulsions, excitement.

Inhalation

Harmful if inhaled. Avoid breathing dust. May produce symptoms similar to those from ingestion.

Chronic or Delayed Long-Term

This product does not contain any ingredients designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

Medical Conditions Aggravated by Exposure

Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

Signs and Symptoms

In severe cases of overexposure by oral ingestion, lethargy, muscle tremors, and, in extreme cases, possibly convulsions, may occur.

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

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

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Ingestion	Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Inhalation	Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation). Seek medical attention.
Note to Physician	There is no specific antidote. All treatment should be based on observed signs and symptoms of distress in the patient.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point	Not applicable
Fire and Explosion Hazards	Like all organic and most dry chemicals, as a powder or dust, this product (when mixed with air in critical proportions and in the presence of an ignition source) may present an explosion hazard. Under fire conditions, toxic, corrosive fumes are emitted.
Suitable Extinguishing Media	dry chemical, foam, water spray, carbon dioxide (CO2)
Fire Fighting Instructions	Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Keep unnecessary people away, isolate hazard area and deny entry. Evacuate residents who are downwind of fire. Persons who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation.

SECTION 6. ACCIDENTAL RELEASE MEASURES

General and Disposal	Evacuation Procedures and Safety: Wear appropriate gear for the situation. See Personal Protection information in Section 8. Cleanup and Disposal of Spill: Sweep up spilled granules, transfer to a marked container, and dispose of wastes on site or at an approved waste disposal facility.
Land Spill or Leaks	Containment of Spill: Follow procedure under Cleanup and Disposal of Spill. Environmental and Regulatory Reporting: If spilled on the ground, the affected area should be scraped clean and placed in an appropriate container for disposal. Prevent material from entering public sewer system or any waterway.

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SECTION 7. HANDLING AND STORAGE

Handling Procedures	Always wear protective clothing and use appropriate equipment during application and handling. Avoid contact with granules. Avoid breathing dust.
Storing Procedures	<p>Do not contaminate water, food, or feed by storage or disposal.</p> <p>Do not store in or around the home. Store in original container. Keep out of reach of children and domestic animals. Never transfer this product to another container for storage.</p>
Work/Hygienic Procedures	<p>Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.</p> <p>Remove clothing immediately if pesticide gets inside. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. Then wash thoroughly and put on clean clothing.</p> <p>Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.</p> <p>Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation. Do not apply to pastures or grazing lands.</p> <p>Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.</p>
Min/Max Storage Temperatures	Not Available

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Where engineering controls are indicated by use conditions of a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: local exhaust ventilation at the point of generation.

When handlers used closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [(40 CFR 170.240(d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Eye/Face Protection

Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area.

Body Protection

Skin contact should be minimized through use of gloves and suitable long-sleeved clothing (i.e., shirts and pants). Consideration must be given both to durability as well as permeation resistance.

Applicators and other handlers must wear: Long-sleeved shirt and long pants waterproof gloves shoes plus socks

Respiratory Protection

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.

Under normal conditions, in the absence of other airborne contaminants, the following should provide protection from this material up to the conditions specified by the appropriate OSHA, WHMIS or ANSI standard(s): Air-purifying (half-mask/full-face) respirator with cartridge/canister approved for use against pesticides.

Under conditions immediately dangerous to life or health, or emergency conditions with unknown concentrations, use a full-face positive pressure air-supplied respirator equipped with an emergency escape air supply unit or use a self-contained breathing apparatus unit.

General Protection

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

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Considerations.

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

Applicators, mixers, loaders and persons cleaning application equipment must wear:

- Long sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

When handlers use closed system or enclosed cabs, in a manner that meets the requirements listed in the Worker Protection Standard (WPS) or agricultural practices (40 CFR 170.240 (d) (4-6), the handler PPE requirement may be reduced or modified as specified in the WPS.

When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for applicators and other handlers, and such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

AGRICULTURAL USE REQUIREMENTS

Use this product in accordance with its labeling and with the Worker Protection, 40 CFR 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. The requirements only apply to sodfarm uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry inot treated areas during the restricted entry interval (REI) of 24 hours.

PPE requirement for entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- coveralls
- waterproof gloves
- shoes plus socks

NON AGRICULTURAL USE REQUIREMENTS

These requirements apply to uses of this product that are not within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Always wear protective clothing and use appropriate equipment during application and handling. Avoid contact with granules. Avoid breathing dust.

Exposure Limits

None Established

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	off-white to yellow
Physical State	solid granules
Odor	slight
pH	Not applicable
Vapor Pressure	Not Available
Vapor Density (air = 1)	Not Available
Specific Gravity	Not Available
Density	0.4 g/ml at 25 °C
Boiling Point	Not Available
Melting/Freezing Point	Not available
Solubility (in water)	insoluble
Molecular Weight	437.15 g/mol
Decomposition Temperature	240 °C

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Other Information Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	This material is stable under normal handling and storage conditions described in Section 7.
Conditions to Avoid	direct sunlight extreme heat
Incompatibility	strong bases strong acids strong oxidizing agents
Hazardous Products of Decomposition	Decomposition Type: thermal hydrogen fluoride oxides of nitrogen oxides of sulfur carbon oxides hydrochloric acid
Hazardous Polymerization (Conditions to avoid)	Will Not Occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	Rat: LD50: > 5,000 mg/kg
Acute Dermal Toxicity	Rabbit: LD50: > 2,000 mg/kg
Acute Inhalation Toxicity	Acute Respiratory Irritation: No test data available for this product.
Skin Irritation	Rabbit: Non-irritating. Primary Irritation Index: 0
Eye Irritation	Rabbit: Mildly irritating.
Sensitization	Guinea pig: Non-sensitizing
Assessment Carcinogenicity	
ACGIH	
None	
NTP	
None	

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IARC
None
OSHA
None

SECTION 12. ECOLOGICAL INFORMATION

Acute and Prolonged Toxicity to Fish

The following data is based on the technical grade active ingredient(s) (TGAI).
Bluegill sunfish
LC50: 85 ug/l
Exposure Time: 96 h
Mean concentration. Flow through.

The following data is based on the technical grade active ingredient(s) (TGAI).
Rainbow trout
LC50: 248 ug/l
Exposure Time: 96 h
Mean concentration. Flow through.

Acute Toxicity to Aquatic Invertebrates

The following data is based on the technical grade active ingredient(s) (TGAI).
Daphnia
EC50: 190 ug/l
Exposure Limit: 48 h
Mean concentration. Flow through.

Toxicity Other Non Mammal Terr. Species

The following data is based on the technical grade active ingredient(s) (TGAI).
Mallard duck
LC50: > 5,000 mg/kg
Exposure Time: 8 d
Dietary concentrations. Mean concentration.

The following data is based on the technical grade active ingredient(s) (TGAI).
Bobwhite quail
LC50: 48 mg/kg
Exposure Time: 8 d
Dietary concentrations. Mean concentration.

Environmental Precautions

This pesticide is toxic to birds, fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Cover, incorporate or clean up granules that are spilled during loading or are visible on soil surface in turn areas. Do not apply directly to water. Do not contaminate water when disposing of equipment washwater or rinsate.

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Environmental Fate For chemical fate data call the product information phone number listed in Section 1.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Contamination with this product will render water, food or feed unfit for human or animal consumption. Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

EPA Hazardous Waste - No

Container Disposal Do not reuse empty container. Completely empty container into application equipment. Then dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

RCRA Classification Not Regulated under this Statute

SECTION 14. TRANSPORT INFORMATION

NOT REGULATED FOR TRANSPORTATION

SECTION 15. REGULATORY INFORMATION

US Federal

EPA Registration No. 432-1219

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

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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 Registrat. No.
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

SECTION 16. OTHER INFORMATION

	Health	Flammability	Reactivity	Others
HMIS	1	1	0	
NFPA	1	1	0	

Reason for Revisions:

MSDS REVISION INDICATOR: Company name change.

Print Date: 12/10/2002

Supersedes MSDS, which is older than: 12/10/2002

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