CEASEFIRE™ FIRE ANT BAIT

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: CeaseFire™ 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: 1947

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. CeaseFire 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

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS No.</th>
<th>Concentration % by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>FIPRONIL</td>
<td>120068-37-3</td>
<td>0.0002</td>
</tr>
<tr>
<td>Other ingredients (Trade secret)</td>
<td></td>
<td>99.9999</td>
</tr>
</tbody>
</table>

The values of the above components were rounded. The actual formulation for CeaseFire Fire Ant Bait Insecticide is as follows: Fipronil is 0.00015% and Other Ingredients are 99.99985%.
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.
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.
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
Do not contaminate water, food, or feed by storage or disposal. 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.

Work/Hygienic Procedures
Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 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.

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.

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.

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

Min/Max Storage Temperatures
Not Available
# 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 |
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 into 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 (40 CFR 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.
## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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

<table>
<thead>
<tr>
<th>Chemical Stability</th>
<th>This material is stable under normal handling and storage conditions described in Section 7.</th>
</tr>
</thead>
</table>
| 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

<table>
<thead>
<tr>
<th>Acute Oral Toxicity</th>
<th>Rat: LD50: &gt; 5,000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Dermal Toxicity</td>
<td>Rabbit: LD50: &gt; 2,000 mg/kg</td>
</tr>
</tbody>
</table>
| 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
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.
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 Regulations
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 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 Registrat. No.
None

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

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>1</td>
<td>1</td>
<td>0</td>
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<tr>
<td>NFPA</td>
<td>1</td>
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</table>

Reason for Revisions:
MSDS REVISION INDICATOR: New MSDS.

Print Date: 05/08/2003
Supersedes MSDS, which is older than: 05/08/2003

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