

**MATERIAL SAFETY DATA SHEET**

Agricultural Products Group  
P.O.Box 13528,  
Research Triangle Park, NC 27709  
(919) 547-2000

**EMERGENCY TELEPHONE NUMBERS:**

**BASF Corporation: 1 (800) 832-HELP**

**CHEMTREC: 1 (800) 424-9300**

**Product No.: 58A053                      Regent® 4 SC Insecticide**

**Date Prepared: 3/4/2003    Date Revised: 5/9/2005**

**SECTION I**

**Trade Name: Regent® 4 SC Insecticide**

**Chemical Name: 5-amino-1-(2,6-dichloro-4-(trifluoromethyl) phenyl)-4-((1,R,S)-(trifluoromethyl)sulfinyl)-1-H-pyrazole-3-carbonitrile**

**Synonyms: Fipronil**

**Formula: C(12) H(4) Cl (2) F (6) N (4) O S**

**Chemical Family: Phenyl pyrazole**

**Mol Wt: 437.15**

**SECTION II - INGREDIENTS**

COMPONENT	CAS NO.	%	PEL/TLV - SOURCE
Fipronil	120068-37-3	39.4	Not Established
1,2-Propylene glycol	57-55-6		ACGIH/TWA 3 mg/m <sup>3</sup>
Cellulose	9004-34-6		ACGIH/TWA 10 mg/m <sup>3</sup>
Attapulgate Clay	12174-11-7		Not Established

**SARA Title III Section 313: none**

**SECTION III - PHYSICAL DATA**

**BOILING/MELTING POINT@760mm Hg: N/A**

**pH: 8.6 - 8.8 1 wt/wt%**

**VAPOR PRESSURE mmHg @ 20°C: N/A**

**SPECIFIC GRAVITY OR BULK DENSITY: 1.24 g/mL**

**SOLUBILITY IN WATER: dispersible**

**APPEARANCE: tan liquid (viscous)**

**ODOR: odorless**

**INTENSITY: N/A**

**SECTION IV - FIRE AND EXPLOSION DATA**

**FLASH POINT (TEST METHOD): 194 °F TCC**

**AUTOIGNITION TEMP: N/A**

**FLAMMABILITY LIMITS IN AIR (% BY VOL):**

**LOWER: 2.6**

**UPPER: 12.6**

**NFPA 704 HAZARD CODES**

**HEALTH: 2**

**FLAMMABLE: 2**

**INSTABILITY: 0**

**OTHER: N/A**

**NFPA 30 STORAGE CLASSIFICATION:****EXTINGUISHING MEDIUM**

Use water fog, foam, CO(2), or dry chemical extinguishing media.

**SPECIAL FIREFIGHTING PROCEDURES**

Firefighters should be equipped with self-contained breathing apparatus and turnout gear.

**UNUSUAL FIRE EXPLOSION HAZARDS**

Containers may explode (due to the build-up of pressure) when exposed to extreme heat.

**SELECT ACRONYM KEY**

N/A - Not available; N/D - Not determined; N/R - Not rated; N/E - Not established

**SECTION V - HEALTH DATA****TOXICOLOGICAL TEST DATA:**

Rat, Oral LD50 336 mg/kg  
 Rabbit, Dermal LD50 382 mg/kg  
 Rat, Inhalation LC50 (4 hr) > 0.4 mg/L  
 Rat, Inhalation LC50 (1 hr) calculated > 1.6 mg/L  
 Rabbit, Skin Irritation - moderately irritating  
 Rabbit, eye Irritation - moderately irritating  
 Guinea pig, Dermal Sensitizer - Non sensitizing

No evidence of carcinogenicity was observed in the mouse.

An increase in tumors was observed in the rat thyroid, but only at a very high dose.

It has been determined that the mechanism of tumor induction only occurs at high doses in rats.

Therefore, fipronil is not considered to pose a carcinogenic risk at low human exposure levels.

**OSHA, NTP, or IARC Carcinogen:** No.

**EFFECTS OF OVEREXPOSURE:**

**See Product Label and Directions For Use for additional precautionary statements.**

Keep out of the reach of children. Hazard to humans and domestic animals. Harmful if swallowed, inhaled or absorbed through the skin.

Causes eye irritation. Do not get in eyes, on skin, or on clothing. Do not breathe spray mist.

This pesticide is toxic to birds, fish and aquatic invertebrates.

**Acute Effects:**

**Eye:** Causes eye irritation. May cause redness, tearing. Do not get in eyes.

**Skin:** Harmful if absorbed through the skin. Do not get on skin or clothing. May produce symptoms similar to those from ingestion.

May cause irritation, redness, swelling.

**Ingestion:** Harmful if ingested. May cause shortness of breath, drowsiness, involuntary shaking, muscle weakness, convulsions.

**Inhalation:** Harmful if inhaled. Avoid breathing spray mist. May produce symptoms similar to those from ingestion.

May cause shortness of breath, excitement, involuntary shaking, irritability.

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

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

**FIRST AID PROCEDURES**

**If swallowed:** 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 unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

**If on skin or clothing:** 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.

**If inhaled:** 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.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**Note to physician:** All treatment should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

**TREATMENT FOR FIPRONIL OVERDOSE:**

Recommendations for treatment are based on anticonvulsant therapy as routinely administered to humans. Phenobarbital or diazepam may be useful in controlling convulsions induced by fipronil.

For phenobarbital: Start with 10 to 20 mg/kg of phenobarbital in rapid intravenous perfusion (about 60 mg/minute in adults) and continue according to the patient's response.

For diazepam: Start with 10 to 30 mg diazepam by intravenous injection according to body weight. This dose is to be repeated every 10 to 30 minutes according to the patient's response.

Even when symptoms of fipronil intoxication are rapidly reversed by treatment, the treatment must be continued for several days, gradually decreasing the dose of anticonvulsant based on the patient's clinical response. This is necessary due to the slow elimination of the compound.

## SECTION VI - REACTIVITY DATA

**STABILITY:** Stable. Store at temperatures above 32 ° F.

**CONDITIONS TO AVOID:** Direct sunlight, extreme heat, spark and open flame.

**CHEMICAL INCOMPATIBILITY:** Strong bases, strong acids and strong oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hf,oxides of nitrogen,sulfur,carbon, HCl.

**HAZARDOUS POLYMERIZATION:** Does not occur.

**CONDITIONS TO AVOID:** None

**CORROSIVE TO METAL:** N/A

**OXIDIZER:** N/A

## SECTION VII - PERSONAL PROTECTION

**PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions For Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170.**

### **RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:**

#### **Engineering Controls**

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

#### **Eye Protection:**

Chemical goggles when respirator does not provide eye protection.

#### **Protective Clothing:**

Chemically resistant suit, chemically resistant boots, and neoprene gloves as necessary to minimize skin contact.

#### **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): dust/mist filtering respirator.

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 materials 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.

**SECTION VIII - ENVIRONMENTAL DATA****ENVIRONMENTAL TOXICITY DATA**

Data available for Fipronil:

Bluegill Sunfish, 96h-flow through LC50 = 85 ug/L

Rainbow Trout, 96h-flow through LC50 = 248 ug/L

Daphnia magna, 48h-flow though EC50 = 190 ug/L

Mallard Duck, 8 days LC50 &gt; 5000 mg/kg

Bobwhite Quail, 8 days LC50 = 48 mg/kg

**SARA 311/312 REPORTING****FIRE:N      PRESSURE:N      REACTIVITY:N      ACUTE:Y      CHRONIC:N      TPQ(lbs): N/R****SPILL AND LEAK PROCEDURES:**

In case of large scale spillage of this product, avoid contact, isolate area and keep out animals and unprotected persons. Call CHEMTREC (800 424-9300) or BASF Corporation (800 832-HELP). For a small spill, wear personal protective equipment as specified on the label.

FOR A LIQUID SPILL: Dike and contain the spill with inert material (sand, earth , etc.) and transfer the liquid and solid diking materials to separate containers for disposal.

FOR A SOLID SPILL: Sweep solid into a drum for re-use or disposal. Remove personal protective equipment and decontaminate it prior to re-use.

**HAZARDOUS SUBSTANCE SUPERFUND:      No      RQ(lbs): None****WASTE DISPOSAL METHOD:**

Pesticide wastes are acutely hazardous. Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**HAZARDOUS WASTE 40CFR261:****HAZARDOUS WASTE NUMBER:****CONTAINER DISPOSAL:**

Plastic or metal containers: Triple rinse container (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state or local authorities, by burning. If burned, stay out of smoke.

**SECTION IX - SHIPPING DATA - PACKAGE AND BULK****D.O.T. PROPER SHIPPING NAME (49CFR172.101-102):**

See below

**HAZARDOUS SUBSTANCE (49CFR CERCLA LIST):**

See below

**RQ(lbs): None****D.O.T. HAZARD CLASSIFICATION (CFR 172.101-102):****PRIMARY**

See below

**SECONDARY**

See below

**D.O.T. LABELS REQUIRED (49CFR172.101-102):**

See below

**D.O.T. PLACARDS REQUIRED (CFR172.504):**

See below

**POISON CONSTITUENT (49CFR172.203(K)):**

See below

**BILL OF LADING DESCRIPTION**

Pesticides, Liquid, Toxic, N.O.S. (Fipronil), 6.1, UN 2902, PGIII  
When shipping by water add: Marine Pollutant.

**CC NO.:****UN/NA CODE:**

**SECTION X - ADDITIONAL INFORMATION****Regent® 4 SC Insecticide**

Hazard to humans and domestic animals.

CA Prop65: This product contains a chemical known to the state of California to cause cancer (ATTAPULGITE CLAY)

Restricted Use Pesticide due to toxicity to aquatic invertebrates.

**KEEP OUT OF REACH OF CHILDREN****WARNING**

**Complete Label and Directions For Use are attached to the product.**

**Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

**BASF Corporation**

Agricultural Products Group  
P.O.Box 13528,  
Research Triangle Park, NC 27709  
(919) 547-2000

**DISCLAIMER**

**IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY BASF HEREUNDER ARE GIVEN GRATIS AND BASF ASSUMES NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.**