

## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

#### FIPRONIL 200G/L SC

Supplier name	Shandong Weifang Rainbow Chemical Co., Ltd.
Supplier address	Binhai Economic Development Area, Weifang, Shandong, China
Supplier phone	+86-531-88875230, 88875231
Supplier fax	+86-531-88875232, 88875224
Chemical name	(±)-5-amino-1-(2,6-dichloro- $\alpha,\alpha,\alpha$ -trifluoro-p-tolyl)-4-trifluoromethylsulfinylpyrazole-3-carbonitrile
Cas number	120068-37-3
Molecular formula	C <sub>12</sub> H <sub>4</sub> Cl <sub>2</sub> F <sub>6</sub> N <sub>4</sub> OS
Molecular weight	437.15
Chemical family	Phenylpyrazole
Use	Insecticides

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Fipronil	200G/L
Other no hazard ingredients	Up to 1L

### 3. HAZARDS IDENTIFICATION

#### Major Health Hazard:

Harmful if swallowed. Maybe harmful in contact with skin.

Fipronil is a reversible gamma-aminobutyric (GABA) receptor inhibitor.

Inhalation: Avoid inhalation of spray mist. Long-term inhalation of nuisance dust may overload lung clearance mechanism.

Eye: The product may cause severe irritation. Avoid contact with eyes.

Skin: Avoid contact with skin. Harmful if absorbed through skin.

Swallowed: If swallowed, immediately contact a doctor and follow the advice given. Keep under medical supervision.

### 4. FIRST - AID MEASURES

**Inhalation:** Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

**Skin contact:** Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

**Eye contact:** Rinse with pure water for at least 15 minutes. Consult a doctor.

**Ingestion:** Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

### 5. FIRE FIGHTING MEASURES

#### Suitable Extinguishing Media:

If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.

#### Hazards from Combustion Products:

If involved in a fire, the dehydrated components may emit oxides of carbon, nitrogen and sulphur and

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compounds of chlorine and fluorine.

### **Special Protective:**

Equipment for fire fighters: Breathable air apparatus should be worn when fighting a fire in which this product is involved.

### **Specific Hazards:**

Considered low risk due to water content, however upon evaporation of water the product is combustible.

Other Information STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES

## **6. ACCIDENTAL RELEASE MEASURES**

### **Personal precautions:**

Avoid contact with skin, eyes and clothing and inhalation of the product. Do not breathe in spray or fumes. For personal protection see Section 8.

### **Environmental precautions:**

Contain spill and absorb with absorbent material such as earth, sand or clay and store in properly labelled, sealed drums for safe disposal in an approval landfill, or bury under at least 500 mm of soil in a non-crop, non-pasture area away from water sources or homes. Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

### **Occupational spill:**

In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Do not contaminate water while cleaning equipment or disposing of wastes. Keep spectators away and upwind.

## **7. HANDLING AND STORAGE**

### **Conditions for Safe Storage:**

Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.

Other Information Always read the label and any attached leaflet before use.

## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure.

Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

### **Personal protective equipment:**

If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection.

Respirator: Wear an organic cartridge respirator suitable for protection from mists of pesticides if inhalation is likely to occur.

Clothing: Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

Gloves: Employee must wear appropriate synthetic protective gloves to prevent contact with this substance.

Eye protection: Wear a face shield when handling the concentrate and when applying the product. The use of safety goggles is recommended if the face shield is not used.

Emergency eyewash: Where there is any possibility that an employee's eyes may be exposed to this

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substance; the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White flowable suspension liquid
pH Range	5-7
Density:	1.06g/cm <sup>3</sup>
Explosivity:	Not explosive
Flammability:	The flash point is >100°C.
Corrosivity:	Not corrosive

### 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable under normal conditions.

**Hazardous Reactions:** Keep away from strong oxidising agents.

**Hazardous Polymerization:** Hazardous polymerisation is not possible.

### 11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Oral Id50 (rat):	MALES: 206.1 mg/Kg, FEMALES: 441.9 mg/kg
Dermal Id50 (rabbit):	MALES: 4465.1 mg/Kg, FEMALES: 3543.9 mg/kg
Inhalation (rat):	MALES: > 18.6 mg/L, FEMALES: > 18.6 mg/L
Eye irritation (rabbit):	No eye irritation
Skin irritation (rabbit):	Not a dermal irritant
Skin sensitization (guinea pigs):	Not a dermal sensitizer

### 12. ECOLOGICAL INFORMATION

#### Mobility, degradability & accumulation:

In plants, animals and the environment, Fipronil is metabolised via reduction to the sulphide, oxidation to the sulfone, and hydrolysis to the amide. In the presence of sunlight, a photodegradate also forms via sulfoxide extrusion. The sulphide, sulfone and photodegradate are known to act at the GABA receptor site, whereas the amide does not. Animals In rats, once absorbed, the distribution and metabolism of Fipronil is rapid.

Elimination is mainly via the faeces as Fipronil and its sulfone. The two major urinary metabolites were identified as conjugates of ring-opened pyrazole products. The distribution of radioactive residues in tissues was extensive after seven days. In goats and hens, the sulfone was the only metabolite identified in tissues.

Plants When applied as an incorporated soil treatment to cotton, maize, sugar beet or sunflowers, uptake of Fipronil into plants in all cases was low (c. 5%). At crop maturity, the major residue components observed in all plants were Fipronil, the sulfone, and the amide. Following foliar application to cotton, cabbage, rice and potatoes, at crop maturity, Fipronil and the photodegradate were the major residue components.

#### Ecotoxicology:

Bees: Highly toxic to honeybees, both by direct contact and by ingestion. However, no risk to bees when used as a soil or seed treatment.

Birds: Acute oral LD50 for bobwhite quail 11.3, mallard ducks >2000, pheasants 31, red-legged partridges 34, house sparrows 1120, pigeons >2000 mg/kg. Dietary LC50 (5 d) for bobwhite quail 49, mallard ducks >5000 mg/kg diet.

Fish: Acute LC50 (96 h) for bluegill sunfish 85, rainbow trout 248, European carp 430 µg/l.

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Daphnia: LC50 (48 h) 0.19 mg/l; for *D. carinata* (48 h) 3.8mg/l.

Algae: EC50 (96 h) for *Scenedesmus subspicatus* 0.068 mg/l; (120 h) for *Selenastrum capricornutum* >0.16, *Anabaena flos-aquae* >0.17 mg/l.

Earthworms: Non-toxic.

### 13. DISPOSAL CONSIDERATIONS

#### Product Disposal:

On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals.

#### Container Disposal

Do not use this container for any other purpose.

Triple rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations.

If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, puncture or shred and bury containers in local authority landfill.

If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots.

Empty containers and product should not be burnt.

### 14. TRANSPORT INFORMATION

#### UN number:

3082

#### UN proper shipping name:

ENVIRONMENTALY HAZARDOUS SUBSTANCE, LIQUID, N. O. S.

#### Transport hazard class(es):

9

#### Packing group, if applicable:

III

### 15. REGULATORY INFORMATION

The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given.

Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and /or local laws.

### 16. OTHER INFORMATION

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.