

Yangzhou Sunchem Co.,Ltd.

Material Safety Data Sheet

Fipronil 97%TC

SECTION 1 IDENTIFICATION OF PRODUCT

Common name : Fipronil Chemical
name :5-amino-[2,6-dichloro-4-(trifluoromethyl)phenyl]-4-[(1R,S)-(trifluoromethyl)sulfinyl]-1H-pyrazole-3-carbonitrile
CAS No. : [120068-37-3]

SECTION 2 COMPOSITON/INFORMATION ON INGREDIENTS

COMPOSITION:

Fipronil 95% Tech.	% w/w
Fipronil content	95.0
Other ingredients	5.0
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Total	100.0

SECTION 3 HAZARDOUS INGREDIENTS/ IDENTITY

Toxicological Data on Ingredients: Fipronil: ORAL (LD50): Acute oral LD50 for rats 97, mice 95 mg/kg. DERMAL (LD50): Acute percutaneous LD50 for rats >2000, rabbits 354 mg/kg.

Potential Acute Health Effects: Not a skin or eye irritant (OECD criteria). Not a skin sensitiser.

Slightly hazardous in case of ingestion.

Potential Chronic Health Effects: Fipronil is not mutagenic and not teratogenic and is not considered to pose an increased risk of cancer to humans.

SECTION 4 FIRST AID MEASURE

Swallowed If swallowed, immediately contact a doctor or Poisons Information Centre, and follow the advice given. Keep under medical supervision.

Eye Rinse immediately with clean water, including under eyelids, for at least 15 minutes and obtain medical advice.

Skin Remove contaminated clothing. Wash affected areas with plenty of soap and water.

First Aid Measures If poisoning occurs, immediately contact a doctor or Poisons Information Centre, and follow the advice given. Show this Material Safety Data Sheet to a doctor.

First Aid Facilities Ensure washing facilities are available.

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

During intoxication it will induce neurological stimulation with possible convulsions. Treat symptoms. No specific antidote known. Phenobarbital, and to a lesser extent, benzodiazepines, have been shown experimentally to be effective in preventing convulsions induced by fipronil.

Due to slow absorption of fipronil through the gut, symptoms of intoxication may be delayed several hours to one day. Absorption may be decreased by the use of gastric lavage, saline

purgative and activated charcoal (possible enterohepatic recirculation). Continue monitoring due to slow elimination of the compound.

SECTION 5 FIRE AND EXPLOSION HAZARD DATA

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flammable Limits: Not available.

Products of Combustion: Thermal decomposition may produce toxic by-products of carbon and nitrogen oxides.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

SECTION 6 SPILL OR LEAK PROCEDURES

Spills & Leaks

Avoid contact with eyes, skin and clothing. Dealing with spills and disposals may result in the potential for increased personal exposure. During such operations it is recommended that the following protective clothing is worn: cotton overalls buttoned to the neck and wrist, elbow-length PVC gloves, face-shield or goggles. 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 approved landfill, or bury under at least 500mm of soil in a non-crop, non-pasture area away from water sources or homes. DO NOT burn empty containers or product. Deal with all spillages immediately. Do NOT contaminate streams, rivers or waterways.

Disposal

Dispose of empty container by wrapping in paper, placing in plastic bag and putting in the garbage. Do NOT contaminate streams, rivers or waterways with the chemical or used containers.

SECTION 7 PRECAUTIONS TO BE TAKEN IN HANDLING

Precautions:

Keep locked up. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, moisture.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do NOT store in direct sunlight. Must be stored and transported according to local State/Territory and Federal regulations.

SECTION 8 EXPOSURE CONTROLS & PERSONAL PROTECTION

Engineering Controls:

use general ventilation to minimize exposure.

Body Protection:

Applicators and other handlers must wear: Long-sleeved shirt and long pants. Shoes plus socks. Chemical-resistant gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber. All pesticide handlers (mixers, loaders, and applicators) must wear a long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves.

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. 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.

SECTION 9 PHYSICAL AND CHEMICAL CHARACTERISTICS

Physical state and appearance: White powder

Molecular Weight: 437.2

Color: White

pH (1% soln/water): Not applicable.

Melting Point: 200-201 ° C

Specific Gravity: 1.477-1.626 (20 ° C)

Vapor Pressure: 3.7×10^{-4} mPa (25 ° C)

Solubility: In water 1.9 (pH 5), 2.4 (pH 9), 1.9 (distilled) (all in mg/l, 20 ° C). In acetone 545.9, dichloromethane 22.3, hexane 0.028, toluene 3.0 (all in g/l, 20 ° C).

SECTION 10 REACTIVITY DATA

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Reactive with oxidizing agents, moisture.

Corrosivity: Non-corrosive in presence of steel, of aluminum, of zinc, of copper, of stainless steel(304), of stainless steel(316).

Polymerization: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Oral: Acute oral LD50 for rats 97, mice 95 mg/kg.

Skin and eye: Acute percutaneous LD50 for rats >2000, rabbits 354 mg/kg. Not a skin or eye irritant (OECD criteria). Not a skin sensitizer.

NOEL: (2 y) for rats 0.5 mg/kg diet; (18 mo) for mice 0.5 mg/kg diet; (52 w) for dogs 0.2 mg/kg b.w. daily (combined sexes).

ADI: (JMPR) 0.0002 mg/kg b.w. [2000]; group ADI for fipronil and fipronil desulfanyl.

Other: Non-mutagenic, non-teratogenic; no adverse effect on reproductive performance. Clinical signs of toxicity consistent with the interaction of the molecule at a neurotransmitter receptor were observed in all species tested, but were completely reversible.

Toxicity class: WHO (a.i.) II EPA (formulation) II

SECTION 12 ECOLOGICAL INFORMATION

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 mg/l.

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

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.

Worms: Non-toxic.

SECTION 13 DISPOSAL CONSIDERATIONS

Treat/store/transport/dispose of in accordance local regulations.

Emptied container retains product residue.

Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

SECTION 14 TRANSPORT INFORMATION

DOT

UN Number: UN3077

Class: 9

Packing Group: Packing Group III

Proper Shipping Name: Pesticide, Solid, Toxic, N. O. S. (Fipronol)

PIH: Not PIH

IMDG

UN Number: UN3077

Class: 9

Packing Group: Packing Group III

Proper Shipping Name: Pesticide, Solid, Toxic, N. O. S. (Fipronol)

Marine pollutant: No

IATA

UN Number: UN3077

Class: 9

Packing Group: Packing Group III

Proper Shipping Name: Pesticide, Solid, Toxic, N. O. S. (Fipronol)

SECTION 15 REGULATORY INFORMATION

EU DIRECTIVES CLASSIFICATION

Symbol of Danger: Xn

Indication of Danger: Harmful.

R: 22

Risk Statements: Harmful if swallowed.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Harmful.

Risk Statements: Harmful if swallowed.

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: Yes

NOTES: This product is subject to SARA section 313 reporting requirements.

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

SECTION 16 OTHER INFORMATION

The above information is believed to be correct on the date it is published and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. Persons not specifically and properly trained should not handle this chemical or its container. This MSDS is provided without any warranty expressed or implied, including merchantability or fitness for any particular purpose.