

SAFETY PRECAUTIONS:

1. Handle with care. Avoid splashing/contact. Poisonous by swallowing, inhalation and contact with skin and eyes.
2. Wear protective clothing, boots, rubber gloves and safety goggles.
3. KEEP OUT OF THE REACH OF CHILDREN.
4. KEEP APART FROM FOOD AND FOODSTUFFS.
5. KEEP UNDER LOCK AND KEY.
6. Do not inhale fumes or spray mist.
7. Avoid contact with skin and eyes.
8. Prevent spray drift onto other crops, grazing, rivers, dams or other areas not under treatment.
9. Do not eat, drink or smoke whilst mixing or applying or before washing hands and face and changing clothes.
10. Wear protective clothing, boots, rubber gloves and face shield when handling the product.
11. Wash contaminated clothing daily.
12. FLAMMABLE – keep away from open flame.
13. Toxic to fish and birds.
14. Wash with soap and water after use and accidental skin contact.
15. Clean all equipment thoroughly after use. Dispose of wash water where it will not contaminate crops, grazing, rivers, dams and boreholes.
16. Triple rinse empty containers in the following manner : Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the described manner.
17. Destroy the empty container by perforating and flattening and dispose of it in a safe manner. Never re-use the empty container for any other purpose whatsoever.

SYMPTOMS OF POISONING

Symptoms of overexposure include respiratory difficulty, decreased reflexes, lethargy, tremors, and in severe cases, convulsions. Repeated exposure at dose levels that are not acutely toxic may result in symptoms of toxicity.

FIRST AID

Inhalation:

Remove source of contamination or move victim to fresh air. Monitor for respiratory distress. Seek medical attention if necessary.

Skin contact:

Remove contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Seek medical advice if necessary.

Eye contact:

Immediately flush the eyes with gently flowing lukewarm water for 20 minutes. Obtain medical attention if necessary.

Ingestion:

In case of ingestion of significant quantities of the insecticide, medical advice should be sought immediately.

NOTE TO PHYSICIAN

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 entero-hepatic recirculation). Continue monitoring – due to the slow elimination of the compound.

FIPRONIL 200SC

Insecticide/Termiticide

Reg. No.: 19-D-155-38

1L



Composition

mass/volume

Fipronil.....200g/L

Inert ingredientsto 1 L

Supplied by Maguires-
A member of
CropLife
ZIMBABWE

Chemical group:

Phenyl pyrazole

A suspension concentrate contact and stomach insecticide/termiticide for agricultural and household use

KEEP OUT OF REACH OF CHILDREN

TO CAUSE A HAZARD IN THE USE, STORAGE OR DISPOSAL OF THIS PRODUCT IS AN OFFENCE

DIRECTIONS FOR USE - USE ONLY AS DIRECTED

MIXING INSTRUCTIONS

Half fill the spray tank with clean water. Shake the **FIPRONIL 200SC** container just prior to use. Measure out the required quantity of **FIPRONIL 200SC** and mix this with at least 10 litre of water. Add this mixture to the water in the spray tank while agitating thoroughly. Fill the spray tank with water while maintaining agitation to ensure thorough mixing of the spray mixture before spraying commences. Maintain agitation while spraying. Prepared spray mixture must not be left in the spray tank for any length of time e.g. overnight. Tank mixtures with other chemicals must be used within 6 hours after mixing.

GENERAL INSTRUCTIONS

- **FIPRONIL 200SC** resists rain wash-off provided the spray mixture has **dried off completely before the start of the rain.**
- **FIPRONIL 200SC is toxic to bees and fish.** Beehives should be removed from the area prior to treatment with **FIPRONIL 200SC**. Spray drift must not be allowed to contaminate the surroundings of beehives.

CROP/PEST	DOSAGE RATE	REMARKS
MAIZE and OTHER ROW CROPS Termites, Stalk Borer, Wireworms, White Grubs	200ml/ha	Apply 8-10 weeks after planting as a 30cm band in at least 200l water/ha. OR Apply as a single, light cover spray to wet the foliage canopy.
LAWNS Crickets, Termites	10ml of Fipronil in 10L of water	Mix in 10L watering can - apply as an overall drench to affected area - one watering can will treat a metre square of lawn. In the case of ant hills - cut off the top of the structure with a spade and pour 10L of Fipronil mix down the hole. It will take 3-4 weeks for the entire population in the mound to be controlled. Alternatively Fipronil can be applied with a knapsack sprayer - but sprayed as a drench to the affected area.
HOUSEHOLD COCKROACHES	4ml of Fipronil in 10L of water	Remove all utensils, pots and cooking materials - area should be completely clear. Spray the area well and behind wall cavities. REPEAT THE TREATMENT AFTER 2 WEEKS

Batch No.: 2020511 Date of Mfg.: 11 MAY 2022 Date of Exp.: 11 MAY 2025

Manufactured by:

NOVA AGRO (HK) LTD
6TH FLOOR, WYNDHAM PLACE,
44 WYNDHAM STREET,
CENTRALHONG KONG



1. Triple rinse clean container after use
2. Punctures holes in bottom
3. Return to Maguires Recycling Facilitator / Return to nearest recycling facility

Registration held by:
MAGCHEM (PVT) LIMITED,
2274 TILBURY ROAD,
WORKINGTON, HARARE,
ZIMBABWE



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SUBJECT : FIPRONIL 200SC
EFFECTIVE DATE : August 2003
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SUPPLIER: NOVA AGRO (HK) LTD.
(Reg. No. 1023146)
6th Floor Wyndham Place
44 Wyndham Street
CENTRAL HONG KONG.

SPILLAGES:

Emergency telephone +27(0)83 676 1998

POISONINGS:

National Poison Centre +27 (0)21-9316129 (after hours).

1. IDENTIFICATION OF THE SUBSTANCE

Product Name	FIPRONIL 96SC
Common Name	Fipronil
Chemical Name Of The Substance (IUPAC)	(+)-5-amino-1-(2,6-dichloro alpha, alpha, alpha-trifluoro-p-tolyl)-4-tri=fluoromethylsulfinylpyrazole-3-carbonitrile
CAS N^o.	[120068-37-3]
Chemical family	Phenyl pyrazole
Chemical formula	C ₁₂ H ₄ Cl ₂ F ₆ N ₄ OS (Mol. wt.: 437.2)
Use	Systemic insecticide.
NIOSH No.	Not available
Hazchem code	2X

2. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components: Fipronil 96g/litre

R Phases: R20/21/22, R41

3. HAZARD IDENTIFICATION

Toxicity class:

WHO (a.i.) II (Table 5) EPA (formulation) II

Health Effects:

No adverse health effects are expected if this product is used at normal recommended dosage rates.

No symptoms of intoxication are to be expected.

Chronic: In a chronic toxicity study, rats receiving the highest dose of fipronil showed an increased incidence of thyroid tumors. The rat thyroid gland is very sensitive to chemicals and functions differently from the human thyroid, and therefore,

fipronil is not considered to pose an increased risk of cancer to humans. Similar studies in mice and dogs did not show an increased incidence of thyroid tumors. Fipronil is not mutagenic and not teratogenic.

Eye contact:

Will irritate eyes. May cause weeping and redness.

Skin contact:

Will irritate skin. Fipronil does not readily penetrate the skin.

Ingestion:

Harmful if swallowed.

Inhalation:

Harmful if inhaled.

3. FIRST AID MEASURES AND PRECAUTIONS

Symptoms of overexposure include respiratory difficulty, decreased reflexes, lethargy, tremors, and in severe cases, convulsions. Repeated exposure at dose levels that are not acutely toxic may result in symptoms of toxicity.

Inhalation:

Remove source of contamination or move victim to fresh air.

Monitor for respiratory distress. Seek medical attention if necessary.

Skin contact:

Remove contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Seek medical advice if necessary.

Eye contact:

Immediately flush the eyes with gently flowing lukewarm water for 20 minutes. Obtain medical attention if necessary.

Ingestion:

In case of ingestion of significant quantities of the insecticide, medical advice should be sought immediately.

Advice to physician:

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



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delayed several hours to one day. Absorption may be decreased by the use of gastric lavage, saline purgative and activated charcoal (possible entero-hepatic recirculation). Continue monitoring – due to the slow elimination of the compound.

5. FIRE FIGHTING MEASURES

Extinguishing agents:

Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

Fire fighting:

Remove spectators from surrounding area. Remove container from fire area if possible. Fight fire from maximum distance. For massive fire, use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Use a recommended extinguishing agent for the type of surrounding fire. Water can be used to cool unaffected containers but must be contained for later disposal. Avoid inhaling hazardous vapours. Keep upwind.

Special Hazards:

Stable under normal conditions of use. No dangerous reaction known under normal conditions of use. Avoid extreme heat and fire. Toxic thermal decomposition products may include oxides of carbon, sulfur and nitrogen, and compounds of chlorine and fluorine.

Personal protective equipment:

Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal precautions:

Do not inhale fumes. Ventilate area of spill or leak, especially confined areas. Avoid contact with skin, eyes or clothes. For personal protection see Section 8.

Environmental precautions:

Do not allow entering drains or watercourses. When the product contaminates public waters, inform appropriate authorities immediately in accordance with local regulations.

Occupational spill:

Avoid contact with the spilled material or contaminated surfaces. When dealing with spills do not eat, drink or smoke and wear personal protective clothing and equipment as described in Section 8. Prevent spilled material from entering drains or watercourses. Contain spill and absorb with earth, sand, clay, or other absorbent material. Collect and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

Neutralising Chemicals: Hydrated lime.

7. HANDLING AND STORAGE REQUIREMENTS

Handling:

Avoid contact with eyes and skin and inhalation of fumes. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the insecticide gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination

Storage:

Store in its original container in isolated, dry, cool and well-ventilated area. Avoid cross contamination with other pesticides and fertilizers. Product is incompatible with alkaline media. Keep under lock and key out of reach of unauthorized persons, children and animals. Store away from incompatible substances. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Standards:

NOHSC exposure standards have not been assigned for the active ingredient nor the ingredients in the formulation.

Engineering Controls:

Not applicable.



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Personal Protection

Personal Protective Measures:

Avoid contact with eyes, skin and clothing during mixing/pouring operations. Ensure adequate ventilation. Do not inhale spray mist or vapour.

Personal Protective Equipment:

When preparing spray wear elbow-length PVC gloves and face shield.

Industrial Hygiene:

If clothing becomes contaminated with product, or wet with spray, remove clothing immediately. If product or spray on skin, immediately wash the area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash contaminated clothing, gloves etc. with detergent and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Viscous cream to yellow liquid suspension.

Odour:

Characteristic.

Flammability:

Non-flammable.

Explosive properties:

Non-explosive.

Flash point:

Not applicable.

Autoignition Temperature:

N.a.

Oxidising properties:

Non-explosive.

pH:

2.0 – 4.0

Storage stability:

Considered stable for a period of 2 years in normal air, warehouse and light conditions, if kept in closed container.

Solubility in water:

Forms a suspension when mixed in water. (Solubility of technical material is 1.9 mg/l at 20°C).

10. STABILITY AND REACTIVITY

Stability:

Stable under normal conditions of use. No dangerous reaction known under normal conditions of use. Avoid extreme heat and fire.

Incompatibility:

The product is compatible with most other pesticides (except strong alkaline materials) when used at normal rates. However, a compatibility test is required before using with other products. Do not physically mix concentrate directly with other pesticide concentrates; always dilute first.

Thermal decomposition:

Toxic thermal decomposition products may include oxides of carbon, sulphur and nitrogen, and compounds of chlorine and fluorine

11. TOXICOLOGICAL INFORMATION

Acute oral LD₅₀ : 1 099 mg/kg in rats.

Acute dermal LD₅₀: >2493 mg/kg in rabbits.

Acute inhalation LC₅₀: LC₅₀ for rats > 1.07 mg/l.

Acute skin irritation: Non-irritant to skin (rabbit).

Acute eye irritation: Irritating to eyes (rabbit).

Dermal sensitisation: No dermal sensitisation (Guinea pigs).

12. ECOLOGICAL INFORMATION

Highly toxic to fish and aquatic organisms.

Fipronil has low mobility in soil.

Fish:

Acute LC₅₀ (96 h) for rainbow trout 0.248 mg /l;

Acute LC₅₀ (96 h) for European carp 0.430 mg/l;

Daphnia:

Acute EC₅₀ for *Daphnia magna* (48 h) 0.19 mg/l

Birds:

Acute oral LD₅₀ for mallard ducks >2150 mg/kg

Acute oral LD₅₀ for pheasants 31 mg/kg

Acute oral LD₅₀ for bobwhite quail 11.3 mg/kg

Bees: Dangerous to bees.

Earthworms: Non-toxic.



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13. DISPOSAL CONSIDERATION

Pesticide disposal:

Contaminated absorbents, used containers, surplus product, etc., should be burnt at > 1000°C in an incinerator, preferably designed for pesticide disposal, or buried in an approved landfill. Comply with local legislation applying to waste disposal.

Package product wastes:

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. Is recycling, replace cap and return clean containers to recycler or designated collection point. If no recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If not 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: 2902
ADR/RID:
Substance: Pesticide, liquid, toxic, n.o.s
(contains fipronil)
Substance ID no.: 2902
IMDG/IMO:
Packaging group: III
Label of class: 6.1
Shipping name: Pesticide, liquid, toxic, n.o.s
(contains fipronil)
ICAO/IATA:
Proper Shipping name: Pesticide, liquid, toxic, n.o.s
(contains fipronil)
Class: 6.1
Hazard Label: Miscellaneous.
Packaging group: III

15. REGULATORY INFORMATION

Symbol: Xn
Indication of danger: Harmful.
Risk phrases:
R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R41 Risk of serious damage to eyes.

Safety phrases:

S 1/2 Keep locked up and out of reach children.
S36/37 Wear suitable protective clothing and gloves.

National Legislation: In accordance with 91/155/EEC Directive and with French standard T 01-102 and the South African Occupational Health and Safety Act, 1993 (Act. No.85 of 1993).

16. OTHER INFORMATION

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipients' sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

REFERENCES

- *The Pesticide Manual*; 13th Edition; Editor Clive Tomlin; Crop Protection Publications, 2003.
- *Pestline*; Material Safety Data Sheets for Pesticides and Related Chemicals; Volume II; Occupational Health Services Inc., 1991.
- *IPCS*; Health and Safety Guide No. 22; World Health Organisation, Geneva, 1990.
- *ADR-Vol. II (Annex B)*, 1 January 1997.
- *Dangerous Goods Regulations; IATA*; International Air Transport Association, 41st Edition, Effective 1 January 2000.
- *Guidelines for personal protection when using pesticides in hot climates*. GIFAP, G8/7 5M/989/ENG/QUA.