ROSSI INSECT BAIT SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **ROSSI INSECT BAIT**
Other identifier: **Fipronil 0.05% BAIT GEL**
Recommended use: Insecticide
Restrictions on use: Public health

Supplier: **Villa Crop Protection (Pty) Ltd.**
Co. Reg. No.: 1992/002474/07
PO Box 10413
Aston Manor, 1630, South Africa
Telephone: (011) 396 2233
Fax: (011) 396 4666
Website: www.villacrop.co.za

Emergency telephone numbers:
24 Hr Transport / Spill emergency no:
(Hazcall24) +27 86 044 4411
(Client: Villa Crop Protection)
Griffon Poison Information Centre +27 82 446 8946
(Client: Villa Crop Protection)
Poisoning Emergency telephone numbers:
Griffon Poison Information Centre +27 82 446 8946
Poisons Information Centre +27 861 555 777

2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	**Hazard categories**	**H-statements**
Health		
Carcinogenicity	Carcinogenicity 1B	H350
Reproductive Toxicity	Reproductive Toxicity 1B	H360
Environment		
Aquatic Acute	Aquatic Acute 1	H400
Aquatic Chronic	Aquatic Chronic 1	H410

The most important adverse effects:
Physiochemical effects: None known.
Human health effects:
May cause cancer.
May damage fertility or the unborn child.

Label elements:

Signal word: Danger.
Hazard statements:
H350: May cause cancer.
H360: May damage fertility or the unborn child.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.
Precautionary statements:
P203: Obtain, read and follow all safety instructions before use.
P273: Avoid release into the environment.
P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P318: IF exposed or concerned, get medical advice.
P391: Collect spillage.
P405: Store locked up.
P501: Dispose of contents/container to suitable landfill in accordance with local regulations.
Special labelling of certain mixtures:
None known.
Other hazards:
None known.
Toxicity:
Classification according to GHS: Unclassified.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.
Composition:

Chemical Name	CAS	Conc. (m/m %)	Classification EC 1272/2008
Fipronil	120068-37-3	0.05 %	Acute Toxicity 3 (H301) Acute Toxicity 3 (H311) Acute Toxicity 3 (H331) STOT RE 1 (H372) (central nervous system) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Boric acid	10043-35-3	<20 %	Reproductive Toxicity 1B (H360)
Petrolatum	8009-03-8	<40 %	Carcinogenicity 1B (H350)

4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure. IF exposed or concerned, get medical advice.

Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.
Skin: Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Obtain medical attention if irritation persists.
Eyes: Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention if irritation persists.
Ingestion: Seek medical attention or call a poison control centre for treatment advice. Do not induce vomiting unless instructed to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.
Anticipated acute effects: None known.
Anticipated delayed effects: May cause cancer. May damage fertility or the unborn child.
Most important symptoms/effects: None known.
Advice to physician: Fipronil is a reversible gamma-aminobutyric (GABA) receptor inhibitor. During intoxication it will reduce neurological stimulation with possible convulsions. Treat symptomatically. 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 absorption.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Extinguish fires with carbon dioxide, dry powder, water or alcohol-resistant foam.
Unsuitable Extinguishing Media: High volume water jet. Use a water jet only to cool heated containers.
Specific hazards: Fire may produce irritating or poisonous vapours or gases (oxides of chlorine and sulphur) or other products of combustion.
Special Fire Fighting Procedures: Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Keep upwind. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site.
Personal protective equipment: Wear NIOSH / MSHA approved self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with skin and eyes. Ventilate area of spill or leak, especially in contained areas.
Protective equipment: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.
Emergency procedures: Alert firefighting personnel, evacuate unprotected personnel and animals.
Environmental Precautions: Prevent spilled product from entering sewers, waterways or ground water. This product is classified to be very toxic to aquatic organisms and will cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into water courses should be reported immediately to the police and the Department of Water/Environmental Affairs.
Methods and Materials for Containment: Contain spilled product by diking area with sand, earth or silica gel.
Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, earth or other appropriate non-combustible material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spilled material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent (i.e. organic solvent, detergent bleach or caustic). Add the solution to the drums already collected. Open burning or dumping of this material is prohibited. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:
Precautions for safe handling: Avoid contact with eyes and skin. Ensure adequate ventilation during handling and use. Do not handle broken containers without protective equipment. Immediately clean up spills that occur during handling. Keep containers tightly closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.
General occupational hygiene: Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or

applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used.

Storage:

Conditions for safe storage: Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in its original, labelled container, tightly closed in an isolated, dry, cool and well- ventilated area. Avoid excess heat. Not to be stored next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers.

Incompatible substances and mixtures: Refer to product label.

Packaging material: Plastic containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration:

Components	Exposure limits	Type of exposure limit	Source
Glycerin	Total dust: 10 mg/m^3	TWA (8 hours)	*"www.osha.gov"*

Engineering Controls:

It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations.

Personal Protective Equipment:

Respiratory Protection: For most well-ventilated conditions, no respiratory protection should be needed. If used in a poorly ventilated area (airborne concentrations exceed exposure limits), use a NIOSH approved, air-purifying respirator with cartridges / canisters approved for organic vapours.

Hand Protection: The use of chemically protective gloves is recommended to prevent against skin contact.

Eye Protection: The use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.

Skin and Body Protection: The use of appropriate protective clothing, boots, hat and equipment is recommended to prevent repeated or prolonged skin contact with this substance.

Emergency eyewash: Where there is any possibility that an employee's eyes may be exposed to this mixture; the employer should provide an eyewash fountain or appropriate alternative within the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White to light yellow gel / bait gel.
Odour: No characteristic odour.
pH: 5.0 to 7.0.
Melting point: Not available.
Freezing Point: Not available.
Boiling Point: Not available.
Flash Point: Not applicable.
Flammability: Not Flammable.
Upper/lower explosion limits: Not explosive.
Vapour Pressure (mm Hg): Not available.
Relative Vapour Density: Not available.
Density: 1.13 - 1.18 mg/ℓ.
Solubility: Dispersible in water.
n-octanol/water partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY

Chemical Stability: The product is stable for 2 years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50°C, preferably below 30°C, and not for prolonged periods in direct sunlight.
Reactivity: None known.
Possibility of Hazardous Reactions: Unlikely to occur.
Conditions to Avoid: Avoid extreme heat and direct sunlight. Exposure to moisture.
Incompatible Materials: Strong oxidising agents, strong bases and strong acids.
Hazardous Decomposition Products: Thermal decomposition may produce toxic by-products of carbon and nitrogen.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
Calculated according to GHS.
Oral LD_{50} (24 h) >17 000 mg/kg (rat).
Dermal LD_{50} >5000 mg/kg (rabbit).
Inhalation LC_{50} (4 h) >5 mg/ℓ (rat).
Skin Irritation/Corrosion: Not classified.
Eye Damage/Irritation: Not classified.
Skin Sensitization: Not classified.
Respiratory Sensitization: Not classified.
Reproductive cell mutagenicity: Not classified.
Carcinogenicity: May cause cancer.

Reproductive toxicity: May damage fertility or the unborn child.
Specific target organ toxicity – single exposure: Not classified.
Specific target organ toxicity – repeated exposure: Not classified.
Aspiration hazard: Not classified.
Chronic Effects: Not available.
POTENTIAL ADVERSE EFFECTS:
Inhalation: Not classified.
Skin contact: Not classified.
Ingestion: Do not ingest.

12. ECOLOGICAL INFORMATION

This product is classified as very toxic to aquatic life with long lasting effects.

ECOTOXICITY DATA:
Fipronil

Fish:

Acute LC_{50} (96 h)	Bluegill sunfish	0.085 mg/ℓ
	Rainbow trout	0.248 mg/ℓ
	European carp	0.43 mg/ℓ

Daphnia:

LC_{50} (48 h)		0.19 mg/ℓ

Algae:

EC_{50} (96 h)	*Scenedesmus subspicatus*	0.068 mg/ℓ
EC_{50} (120 h)	*Selenastrum capricornutum*	>0.16 mg/ℓ
	Anabaena flos-aquae	>0.17 mg/ℓ

Birds:

Acute oral LD_{50}	Bobwhite quail	11.3 mg/kg
	Mallard ducks	>2000 mg/kg
	Pheasants	31 mg/kg
	Red-legged partridges	34 mg/kg
	House sparrows	1120 mg/kg
	Pigeons	>2000 mg/kg
Dietary LC_{50} (5 d)	Bobwhite quail	49 mg/kg diet
	Mallard ducks	>5000 mg/kg diet

Bees:
Highly toxic to honeybees, both by direct contact and by ingestion.

LD_{50} (oral)	0.00417 µg/bee
LD_{50} (contact)	0.00593 µg/bee

ENVIRONMENTAL EFFECTS:
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.
Persistence and degradability: Results of lab, and field studies: Readily degraded; major degradates in soil (aerobic) are sulfone and amide, (anaerobic) are sulfide and amide. Photolysis of soil-applied fipronil gives the photodegradate together with sulfone and amide.
Bio-accumulative Potential: Log K_{ow} 4.0. Once absorbed in rats, the distribution and metabolism of fipronil is rapid. Elimination is mainly via the faeces as fipronil and its sulfone.
Mobility in soil: K_{oc} 427 (Speyer 2.2) to 1248 (sandy loam). Both fresh and aged column leaching studies (5 soils) indicate that fipronil and its metabolites present a low risk of downward movement in soil; this is supported by field dissipation studies. Following soil incorporated in-furrow granular applications, quantifiable residues were confined to the top 30 cm of soil, with no significant lateral movement or residues.
Other adverse effects: Not determined.

13. DISPOSAL CONSIDERATIONS

Waste: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.
Container: Emptied containers retain product residues. Do not re-use the empty container for any other purpose. Empty containers by inverting the empty container over the spray or mixing tank. Thereafter, rinse the container three times with a volume of water equal to a quarter of that of the container. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

UN Number: **3077**

Road Transport ADR/IRD:
Class: 9
Packaging group: III
UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (**Fipronil 0.05 % bait gel**)

Maritime Transport IMDG/IMO:
Class: 9
Packaging group: III
UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (**Fipronil 0.05 % bait gel**)

Marine Pollutant (Y/N): Yes, Considered a marine pollutant.

Air transport IATA/ICAO:
Class: 9
Packaging group: III
UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (**Fipronil 0.05 % bait gel**)

Special/Environmental Precautions: Wedge drums tightly to avoid movement

Transport in bulk: Refer to MARPOL 73/78, Annex II and the IBC code.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:
OHSA 1993 Regulations for Hazardous Chemical Substances.
Relevant information regarding restrictions: None.
EU regulation: Regulation EC1272/2008 (EU-GHS/CLP)
Other national regulations: None.
Chemical Safety Assessment carried out? No

16. OTHER INFORMATION

Packaging: Packed in 20, 50, 100, 200 and 250 millilitre plastic containers, labelled according to South African regulations and guidelines.
Other hazard statements, abbreviations and explanations:
H301: Toxic if swallowed.
H311: Toxic in contact with skin.
H331: Toxic if inhaled.
H372: Causes damage to organs through prolonged or repeated exposure.
IATA: International Air Transport Association.
IBC: International Bulk Chemical.
ICAO: International Civil Aviation Organization.
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organization.
LD_{50} value: The median lethal dose or the amount of a toxic agent that is sufficient to kill 50 percent of a population within a certain period of time.
OEL/RL: Occupational exposure limit-recommended limit.
TWA: Time-weighted average – The average exposure over a specified period, usually a nominal eight hours.
ST/STEL: Short-term exposure limits.
Disclaimer: The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

END OF DOCUMENT

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For detailed information on revisions, contact the Registration holder.