

ROSSI 200 SC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: ROSSI 200 SC
Other identifier: Fipronil
Recommended use: Insecticide
Restrictions on use: Agriculture, small-scale farming

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		
Oral	Acute Toxicity 4	H302
Dermal	Acute Toxicity 4 Skin Sensitisation 1	H312 H317
Inhalation	Acute Toxicity 4 Respiratory Sensitisation 1	H332 H334
Specific target organ toxicity - repeated exposure	STOT RE 1	H372
Environment		
Aquatic acute	Aquatic acute 1	H400
Aquatic chronic	Aquatic chronic 1	H410

The most important adverse effects:
Physicochemical effects: None known
Human health effects:
 Harmful if swallowed, inhaled or in contact with skin.
 May cause an allergic skin reaction.
 May cause an allergy or asthma symptoms or breathing difficulties if inhaled.
 Causes damage to central nervous system through prolonged or repeated exposure.

Label elements:



Signal word: Danger.

Hazard statements:
 H302: Harmful if swallowed.
 H312: Harmful if contact with skin.
 H317: May cause an allergic skin reaction.
 H332: Harmful if inhaled.
 H334: May cause an allergy or asthma symptoms or breathing difficulties if inhaled.
 H372: Causes damage to central nervous system through prolonged or repeated exposure.
 H400: Very toxic to aquatic life.
 H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:
 P260: Do not breathe mists, vapours and spray.
 P264: Wash hands and face thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P271: Use only outdoors or in a well-ventilated area.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P273: Avoid release into the environment.
 P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
 P284: In case of inadequate ventilation wear respiratory protection.
 P301+P302+P304+P317: IF SWALLOWED, INHALED OR ON SKIN: Get medical help.
 P302+P352: IF ON SKIN: Wash with plenty water and non-abrasive soap.
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P319: Get medical help if you feel unwell.
 P330: Rinse mouth.
 P333+P317: If skin irritation or rash occurs: Get medical help.
 P342+P316: If experiencing respiratory symptoms: Get emergency medical help immediately.
 P362+P364: Take off contaminated clothing and wash it before reuse.
 P391: Collect spillage.
 P501: Dispose of content/container to suitable landfill in accordance with local regulations.

Other hazards:
 None known.

Toxicity:
 Classification according to GHS: Category 4

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

ROSSI 200 SC

SAFETY DATA SHEET

Composition:

Chemical name	CAS	Conc . (m/v %)	Classification EC 1272/2008
Fipronil	120068-37-3	20%	Acute Toxicity 3 (H301) Acute Toxicity 3 (H311) Acute Toxicity 3 (H331) STOT RE 1 (H372) Aquatic acute 1 (H400) Aquatic chronic 1 (H410)
Lignin calcium sulphonate	8061-52-7	<15%	Aquatic chronic 4 (H413)
Ethylene Glycol	107-21-1	<10%	Acute Toxicity 4 (H302)
Paraformaldehyde	30525-89-4	<1%	Flammable solid 2 (H228) Acute Toxicity 4 (H302) Skin Irritation 2 (H315) Skin Sensitisation 1 (H317) Eye Damage 1 (H318) Acute Toxicity 4 (H332) Respiratory Sensitisation 1 (H334)
Sodium Benzoate	532-32-1	<5%	Eye Irritation 2A (H319)

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. Obtain 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:

Harmful if swallowed, inhaled or in contact with skin. May cause an allergic skin reaction.

May cause an allergy or asthma symptoms or breathing difficulties if inhaled.

Anticipated delayed effects: Causes damage to central

Most important symptoms / effects: None known.

Advice to physician: Treat symptomatically and supportively. No specific antidote known.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use carbon dioxide or dry chemical for small fires and water fog or foam for large fires.

Unsuitable Extinguishing Media: High volume water jet.

Specific hazards: Hazards or hazardous products arising from 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. Remain upwind of fire. 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. **Do not breathe in spray mist or vapours.** 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 as very toxic to aquatic organisms and causes long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into watercourses

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.

Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. **Seek medical attention.** If experiencing respiratory symptoms: **Get emergency medical help immediately.**

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 or rash occurs.**

ROSSI 200 SC

SAFETY DATA SHEET

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 or earth.

Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate 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. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: Harmful if swallowed. Avoid contact with skin and eyes. Do not inhale spray mist or vapours. Ensure adequate ventilation during handling and use. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers 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

No occupational exposure limits have been determined for the significant ingredients in this product.

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: Employees must wear chemically protective impervious gloves 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: Employees must wear appropriate protective impervious clothing, rubber boots, hat and equipment 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 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: Suspension liquid (White to off-white).

Odour: Slight odour.

Odour threshold: Not available.

pH (1% aqueous dilution): 4.0 to 8.0

Melting point: Not available.

Freezing Point: Not available.

Boiling Point: Not available.

Flash Point: Not available.

Flammability: Not flammable.

Upper / lower explosion limits:

Vapour Pressure (mm Hg): 2.8×10^{-9} mmHg at 25 °C (as A.I.)

Relative Vapour Density: Not available.

Density / Relative density: 1.06 g/ml @ 26 °C.

Solubility: Forms a suspension.

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 two 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.

ROSSI 200 SC

SAFETY DATA SHEET

Reactivity: None known.
Possibility of hazardous reactions: Unlikely to occur.
Conditions to avoid: Extreme heat or exposure to flames.
Incompatible materials: Strong oxidizers, strong bases, strong reducing agents.
Hazardous decomposition products: Alcohols. carbon monoxide and carbon dioxide may form under burning conditions or with incomplete combustion.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
Oral LD₅₀ (24h) > 480 mg/kg (rat)
Dermal LD₅₀ > 1800 mg/kg (rabbit)
Inhalation LC₅₀ (4h) > 2.0 mg/l (rat)
Skin Irritation / Corrosion: Not classified.
Eye Damage / Irritation: Not classified.
Skin Sensitization: May cause an allergic skin reaction.
Respiratory Sensitization: May cause an allergy or asthma symptoms or breathing difficulties if inhaled.
Reproductive cell mutagenicity: Not classified.
Carcinogenicity: Not classified.
Reproductive toxicity: Not classified.
Specific target organ toxicity – single exposure: Not classified.
Specific target organ toxicity – repeated exposure: Causes damage to central nervous system through prolonged or repeated exposure.
Aspiration hazard: Not classified.
Chronic Effects: Not available.
POTENTIAL ADVERSE EFFECTS:
Inhalation: Harmful if inhaled.
Ingestion: Harmful if swallowed.
Skin: Harmful in contact with skin.

12. ECOLOGICAL INFORMATION

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

ECOTOXICITY DATA:

Fipronil

Fish:

Acute LC₅₀ (96 h)

Bluegill sunfish	0.085 mg/l
Rainbow trout	0.248 mg/l
European carp	0.43 mg/l

Daphnia:

LC₅₀ (48 h) 0.19 mg/l

Algae:

EC₅₀ (96 h) *Scenedesmus* 0.068 mg/l

EC₅₀ (120 h) *Selenastrum* >0.16 mg/l

<i>capricornutum</i>	>0.17 mg/l
<i>Anabaena flos-aquae</i>	>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
Dietary LC ₅₀ (5 d)	Pigeons	>2000 mg/kg
	Bobwhite quail	49 mg/kg diet
	Mallard ducks	>5000 mg/kg diet

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.

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.

ROSSI 200 SC

SAFETY DATA SHEET

Container: Emptied containers retain product residues. Do not re-use the empty container for any other purpose. Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. 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: 3082
Road Transport ADR / ORD:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fipronil 200 g/l).
Maritime Transport IMDG / IMO:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fipronil 200 g/l).
Marine pollutant (Y/N): Yes
Air Transport IATA / ICAO:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fipronil 200 g/l).
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:
 OSHA 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 100, 200, 500 millilitres and 1, 5, 10 and 25 litres plastic containers, labelled according to South African regulations and guidelines.

Other hazard statements, abbreviations and explanations:

H228: Flammable solid.
H301: Toxic if swallowed.
H311: Toxic in contact with skin.
H315: Causes skin irritation.
H318: Causes serious eye damage.
H319: Causes serious eye irritation.
H331: Toxic if inhaled.
H413: May cause long lasting harmful effects to aquatic life.
IATA: International Air Transport Association.
IBC: International Bulk Chemical.
ICAO: International Civil Aviation Organization.
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organization.
LD₅₀ 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.