RONSEK 600 FS blue

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **Ronsek 600 FS** Blue
Other identifier: **Imidacloprid 600 FS**
Recommended use: Insecticide/Seed treatment
Restrictions on use: Agriculture

Supplier: **Villa Crop Protection (Pty) Ltd**
Co. Reg. No.: 1992/002474/07
PO Box 10413
Kempton Park, 1620, 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
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: Harmful if swallowed

Label elements:

Signal word: Warning

Hazard statements:
H302: Harmful if swallowed.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.
Precautionary statements:
P264: Wash hands and face thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release into the environment.
P301+P317: IF SWALLOWED: Get medical help.
P330: Rinse mouth.
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.

Composition:

Chemical name	CAS	Conc (m/v %)	Classification EC 1272/2008
Imidacloprid	138261-41-3	50%	Acute Toxicity 4 (H301) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Emulsifier PS 54	99734-09-5	<5%	Aquatic Chronic 3 (H412)
Preventol D2	14548-60-8	<0.5%	Acute Toxicity 4 (H302) Acute Toxicity 4 (H312) Skin Irritation 2 (H315) Eye Damage 1 (H318)
Preventol D7	10377-60-3	<0.5%	Oxidizing Solid 3 (H272)

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 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. 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.
Anticipated delayed effects: None known.
Most important symptoms / effects: None known.
Advice to physician: Treat symptomatically and supportively. Check blood pressure and pulse rate frequently as brachycardia and hypotonia are possible. Provide supportive measures for respiratory and cardiac action. Give artificial respiration if signs of paralysis appear.

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. Use a water jet only to cool heated containers.
Specific hazards: Fire may produce harmful combustion products, such as hydrogen chloride, hydrogen cyanide, carbon dioxide & oxides and if combustion is incomplete, carbon monoxide and smoke may occur.
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 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 as very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into watercourses should be reported immediately to the police and the Department of Water / Environmental Affairs.
Methods and Materials for Containment: Contain spilt 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. Void contact with eyes. 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: Fluorinated plastic containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration:

Components	Exposure limits	Type of exposure limit	Source
Glycerine	Total dust: 10 mg/m^3 Respirable fraction: 5 mg/m^3	8-hour TWA	*"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: Employees must wear appropriate protective clothing, boots, hat and equipment to prevent repeated or prolonged skin contact with this product.

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: Blue viscous liquid.
Odour: Typical odour.
Odour threshold: Not available.
pH: 6 - 10
Melting point: Not available.
Freezing Point: Not available.
Boiling Point: Not available.
Flash Point: Not determined – water based product.
Flammability: Not Flammable.
Upper / lower explosion limits: Not available.
Vapour Pressure (mm Hg): Not available.
Relative Vapour Density: Not available.
Density / Relative density: 1.238 g/ml @ 20°C.
Solubility: Completely soluble in water.
n-octanol / water partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: 815 cPs @ 20°C.

10. STABILITY AND REACTIVITY

Chemical stability: The product is stable for 18 months 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: Extreme heat or exposure to flames.

Incompatible materials: Avoid contact with strong oxidising agents.
Hazardous decomposition products: Fire may produce harmful combustion products, such as hydrogen chloride, hydrogen cyanide, carbon dioxide & oxides, and if combustion is incomplete, carbon monoxide and smoke may occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
Based on calculated data: GHS
Oral LD_{50} (24h) >900 mg/kg (rat).
Dermal LD_{50} >5000 mg/kg (rat/rabbit).
Inhalation LC_{50} (4h) >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: Not classified.
Reproductive toxicity: Not classified.
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 harmful. No hazard in normal use.
Skin contact: Not classified.
Ingestion: Harmful if swallowed.
Other information: None known.

12. ECOLOGICAL INFORMATION

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

ECOTOXICITY DATA:
Imidacloprid

Fish:		
LC_{50} (96 h)	Golden orfe	237 mg/ℓ
	Rainbow trout	211 mg/ℓ
	Sheepshead minnows	161 mg/ℓ
Daphnia:		
LC_{50} (48 h)		85 mg/ℓ
Algae:		
ErC_{50} (72 h)	*Pseudokirchneriella subcapitata*	>100 mg/ℓ
Birds:		
Acute oral LD_{50}	Japanese quail	31 mg/kg
Bobwhite quail		152 mg/kg
Dietary LC_{50} (5 d)	Bobwhite quail	2225 mg/kg
	Mallard ducks	>5000mg/kg
Bees:		
LD_{50} contact		0.081 µg/bee
LD_{50} oral		0.0037 µg/bee
Worms:		
LC_{50}	*Eisenia fetida*	10.7 mg/kg soil

ENVIRONMENTAL EFFECTS
Based on information for the active ingredient
Plants: Metabolism was investigated on rice (after soil treatment), maize (seed treatment), potatoes (granule or spray application), aubergines (granules) and tomatoes (spray treatment). In all cases, imidacloprid is metabolised by loss of the nitro group, hydroxylation at the imidazolidine ring.
Persistence and degradability: Environmental DT_{50} 4 hours. Besides sunlight, the microbial activity of a water/sediment system is an important factor for the degradation of imidacloprid.
Bio-accumulative potential: Log K_{ow} 0.57. Quickly and almost completely absorbed from the gastrointestinal tract and quickly eliminated from rats following oral administration. Imidacloprid is also quickly and largely eliminated from hens and goats.
Mobility in soil: Imidacloprid shows a medium adsorption to soil. Column leaching tests (with prior ageing) with a.i. and various formulations showed that imidacloprid and soil metabolites are to be classified as immobile; leaching into deeper soil layers is not to be expected if imidacloprid is used as recommended.
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. 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 reinstate 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. (**Imidacloprid** 600 g/ℓ)
Maritime Transport IMDG / IMO:
Class: 9
Packaging group: III
UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (**Imidacloprid** 600 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. (**Imidacloprid** 600 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:
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 1, 5, 10, 20, 50 and 200 litres fluorinated plastic containers / bottles / drums labelled according to South African regulations and guidelines.

Other hazard statements, abbreviations and explanations:
H272: May intensify fire; oxidizer.
H312: Harmful in contact with skin.
H315: Causes skin irritation.
H318: Causes serious eye damage.
H412: Harmful to aquatic life with long-lasting effects.
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.
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