

UNIVERSAL IMIROD 350 SC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: IMIROD 350SC
Other identifier: Imidacloprid 350 SC
Recommended use: Insecticide
Restrictions on use: Agriculture

Supplier: Universal Crop Protection (Pty) Ltd.
Co. Reg. No.: 1983/008184/07
 PO Box 801,
 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:
 Envirosure. +27 31 205 4918
 (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 Tox. 4	H302
Eye	Eye irrit. 2/2A	H319
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:
 Causes serious eye irritation.
Label elements:



Signal word: Warning.
Hazard statements:

H302: Harmful if swallowed.
 H319: Causes serious eye irritation.
 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.
 P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
 P305/351/338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337/313: If eye irritation persists: Get medical advice.
 P391: Collect spillage.
 P501: Dispose of content/container in accordance with local regulations.
Special labelling of certain mixtures:
 None known.
Other hazards:
 None known.
Toxicity:
 Classification according to GHS: Category 4.
 Classification according to WHO: Category II.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

Composition:

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Imidacloprid	138261-41-3	35 %	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Rhodasurf 860 P	78330-20-8	< 1 %	Eye Dam. 1 (H318)
Soprophor 4D 384	119432-41-6	< 2 %	Eye irrit.2 (H319) Aquatic Chronic 3 (H412)
Supragil MNS/90	81065-51-2	< 2 %	Eye Dam. 1 (H318)

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. Immediately consult a doctor.
Inhalation: If vapours or mists have been inhaled, move victim to fresh air and remove source of contamination if

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safe to do so. The patient should be kept under observation. Obtain medical attention if irritation develops.

Skin: Remove contaminated clothing, shoes and leather goods. Wash skin gently and thoroughly with cold water and non-abrasive soap. Obtain medical attention if irritation persists.

Eyes: Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention.**

Ingestion: Do not induce vomiting. Do not give anything by mouth. Obtain medical attention immediately. If the person is alert, rinse mouth thoroughly with water.

Anticipated acute effects: Causes serious eye irritation.

Anticipated delayed effects: May intensify existing kidney dysfunction, may cause dermatitis through defatting of tissue.

Most important symptoms/effects: When large quantities are swallowed: Vomiting, diarrhea, abdominal pain, depressed muscular tone, muscle cramps & respiratory disturbances & trembling may occur.

Advice to physician: There is no specific antidote available. Treat symptomatically and supportively. In cases of ingestion, call on doctor to advise on the need of gastric lavage.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Extinguish fires with water spray, carbon dioxide, dry powder, or alcohol-resistant foam.

Unsuitable Extinguishing Media: Water jet.

Specific hazards: This product may emit toxic fumes when burned, including hydrogen chloride, hydrogen cyanide, carbon monoxide and nitrogen oxides.

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 bunker gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with eyes and skin. Do not breathe in spray or fumes. 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 may 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: Harmful if swallowed. 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 excessive heat. Avoid cross contamination with other pesticides and fertilisers.

Incompatible substances and mixtures: Refer to product label.

Packaging material: Plastic containers.

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8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration

Components	Exposure limits	Type of exposure limit	Source
Imidacloprid	n/a	0.7 mg/m ³	OES

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 OSHA PELs 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: Wear an organic cartridge respirator suitable for protection from mists/ vapours of pesticides if inhalation is likely to occur.

Hand Protection: Employee must wear appropriate chemically resistant gloves e.g. nitrile rubber gloves to prevent contact with this mixture.

Eye Protection: Wear a face shield when handling the concentrate and when applying the product. The use of safety goggles is recommended if a face shield is not used.

Skin and Body Protection: The use of protective (impervious) clothing e.g. coveralls is recommended to prevent skin contact with this mixture.

Emergency eyewash: Where there is any possibility that an employee's eyes may be exposed to this mixture; 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: White, homogenous liquid, Suspension concentrate.

Odour: Slight characteristic odour.

pH (1% aqueous dilution): 6 to 9

Melting point: Not available.

Freezing Point: Not available.

Boiling Point: Not available.

Flash Point: Not available.

Flammability: Not flammable.

Upper/lower explosion limits: Not available.

Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Density/Relative density: 1.082 g/l.

Solubility: Suspends 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: Product is stable at ambient temperature and pressure, under normal storage and handling conditions.

Reactivity: None known.

Possibility of Hazardous Reactions: None known.

Conditions to Avoid: Avoid extreme heat or exposure to flames.

Incompatible Materials: Avoid contact with strong oxidising agents.

Hazardous Decomposition Products: In a fire, the product may form toxic fumes of hydrogen chloride, hydrogen cyanide, carbon monoxide and nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Calculated according to GHS.

Oral LD₅₀ (24 h) rat > 1300 mg/kg.

Dermal LD₅₀ (24 h) rat > 14300 mg/kg.

Inhalation LC₅₀ (4 h) rat > 15.7 mg/l.

Skin Irritation/Corrosion: May be harmful in contact with skin.

Eye Damage/Irritation: Causes serious eye irritation.

Skin Sensitization: Not available.

Respiratory Sensitization: May be harmful if inhaled.

Reproductive cell mutagenicity: Not available.

Carcinogenicity: Not available.

Reproductive toxicity: Not available.

Specific target organ toxicity – single exposure: Not available.

Specific target organ toxicity – repeated exposure: Not available.

Aspiration hazard: Not available

Chronic Effects: Not available.

POTENTIAL ADVERSE EFFECTS:

Inhalation: May be harmful if inhaled.

Skin contact: May cause dermatitis through defatting of tissues.

Eye contact: Causes serious eye irritation.

Ingestion: May intensify existing kidney dysfunction that may require special treatment, vomiting, diarrhea, abdominal pain, depressed muscular tone, muscle cramps & respiratory disturbances & trembling may occur.

12. ECOLOGICAL INFORMATION

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

ECOTOXICITY DATA: Based on Imidacloprid technical.

Fish:

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LC ₅₀ (96 h)	Golden orfe	237 mg/l.
LC ₅₀ (96 h)	Rainbow trout	211 mg/l.

Daphnia:

LC ₅₀ (48 h)	Daphnia	85 mg/l.
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Algae:

ErC ₅₀ (72 h)	<i>P. subcapitata</i>	>100 mg/l.
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Birds:

Acute oral LD ₅₀	Japanese quail	31 mg/kg.
	Bobwhite quail	152 mg/kg.
	Bobwhite quail	2225 mg/kg.
	Mallard ducks	>5000 mg/kg.
Dietary LC ₅₀ (5 d)	Bobwhite quail	2225 mg/kg.
	Mallard ducks	>5000 mg/kg.

Bees: Harmful to honeybees by direct contact, but no problems expected when exposure is avoided, that is, not sprayed into flowering crop or when used as a seed treatment.

Worms:

LC ₅₀	<i>E. foetida</i>	10.7 mg/kg dry soil.
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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 metabolized by loss of the nitro group, hydroxylation at the imidazolidine ring, hydrolysis to 6-chloronicotinic acid and formation of conjugates; all metabolites contained the 6-chloropyridinylmethylene moiety.

ENVIRONMENTAL EFFECTS:

Persistence and degradability: The half-life of imidacloprid in soil is 48 to 190 days, depending on the amount of ground cover (it breaks down faster in soils with plant ground cover than in fallow soils). Imidacloprid is degraded stepwise to the primary metabolite 6-chloronicotinic acid, which eventually breaks down into carbon dioxide. There is generally not a high risk of groundwater contamination if used as directed. The chemical is moderately soluble, and has moderate binding affinity to organic materials in soils.

The half-life in water is much greater than 31 days at pH 5, 7 and 9. Imidacloprid penetrates the plant, and moves from the stem to the tips of the plant. The most important steps were loss of the nitro group, hydroxylation at the imidazolidine ring, hydrolysis to 6-chloronicotinic acid and formation of conjugates.

Bio-accumulative Potential: Not determined.

Mobility in soil: Not determined.

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. The product

may be taken to a registered waste disposal site or incineration plant. Where possible, recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

Container: Emptied containers retain vapour and product residues. Do not re-use the empty container for any other purpose. Triple rinse empty containers by inverting the empty container over the spray or mixing tank and allow draining 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 one third of that of the container. Add the rinsing's to the contents of the spray tank before recycling or destroying the container in the prescribed manner. 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/IRD:	
Class:	9
Packaging group:	III
UN Proper Shipping Name:	Environmentally hazardous substance, liquid, N.O.S. (Imidacloprid 350g/l)
Maritime Transport IMDG/IMO:	
Class:	9
Packaging group:	III
UN Proper Shipping Name:	Environmentally hazardous substance, liquid, N.O.S. (Imidacloprid 350g/l)
Marine Pollutant (Y/N):	Yes
Air transport IATA/CAO:	
Class:	9
Packaging group:	III
UN Proper Shipping Name:	Environmentally hazardous substance, liquid, N.O.S. (Imidacloprid 350g/l)
Special/Environmental Precautions:	None known.
Transport in bulk (according to MARPOL 73/78, Annex II and the IBC code):	Not available.

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

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16. OTHER INFORMATION

Packaging: Packed in 50 ml, 100 ml, 250 ml, 500 ml, 1, 5, 10, 20 and 25 litres plastic containers, labelled according to South African regulations and guidelines.

Additional H-statement (s) (formulants)

H318: Causes serious eye damage.

H412: Harmful to aquatic life with long lasting effects.

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.