

# VILLA IMIDOR 350 SC

# MATERIAL SAFETY DATA SHEET

## 1. PRODUCT & COMPANY IDENTIFICATION

**Product Name:** IMIDOR 350 SC  
 Insecticide  
**UN No.:** 2902  
**Supplier:** Villa Crop Protection (Pty) Ltd.  
 PO Box 10413  
 Aston Manor, 1630, South Africa  
**Telephone:** (011) 396 2233  
**Fax:** (011) 396 4666  
**Website:** [www.villacrop.co.za](http://www.villacrop.co.za)  
  
**Emergency telephone:** (011) 396 2233  
**24 Hr Emergency Numbers:**  
 Bateleur: 083 1233 911 or  
 (Client: Villa Crop Protection) 0860 333 911  
**In case of Poisoning:**  
 Western Cape Poisons Telephone Service 0861 555 777  
 Griffon Poison Information Centre: 082 446 8946  
 Tygerberg Hospital 021 931 6129

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Common name:** Imidacloprid  
**Chemical Name:** 1-(6-chloro-3-pyridylmethyl)-N-nitroimidazolidin-2-ylideneamine (IUPAC)  
**CAS No.:** 138261-41-3  
**Chemical Family:** neonicotinoid  
**Chemical Formula:** C<sub>9</sub>H<sub>10</sub>ClN<sub>5</sub>O<sub>2</sub>  
**Molecular weight:** 255.7  
**Use:** Systemic insecticide with translaminar activity and with contact and stomach action. Readily taken up by the plant and further distributed acropetally, with good root-systemic action.  
**Formulation:** Imidacloprid 350 g/l Soluble Concentrate

### Hazardous ingredients of toxicological concern:

Inert:	concern:	% present:
imidacloprid	slightly hazardous	30 %
propylene glycol	mild irritant	± 5 %
water	non	± 50 %
other inerts	non	± 15 %

**Symbol:** Xi, N  
**Indication of danger:** Irritant, Environmentally Hazardous Substance.

## 3. HAZARD IDENTIFICATION

**Toxicity Class:** WHO (a.i.) II; EPA (formulation) II  
**Likely routes of exposure:**  
**Skin:** Mild irritant. Due to inerts, the product is a mild irritant and may cause mild to severe irritation to the skin. Can cause dermatitis through defatting of tissue.  
**Eye:** Mild irritant. Product may be mildly irritating to eyes, but is unlikely to cause anything more than mild discomfort which should disappear once contact removed.  
**Inhalation:** Not harmful. No hazard in normal use. Product is unlikely to cause any discomfort or irritation. May cause irritation to nose and throat. Due to inerts, the product may aggravate existing chronic respiratory problems.  
**Swallowed:** Harmful when swallowed. Due to inerts, the product may aggravate existing kidney dysfunction that may require special treatment.

## 4. FIRST AID MEASURES AND PRECAUTIONS

In case of accidental poisoning: Apathetic state, depressed muscular tone, respiratory disturbances and trembling and muscular cramps in severe cases of poisoning.  
**Inhalation:** If vapours or mists have been inhaled, remove the source of contamination or move victim to fresh air. The patient should be kept under observation and obtain medical attention if irritation persists.  
**Skin contact:** 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.  
**Eye contact:** Immediately flush eyes with a stream of clean water for at least 15 minutes, holding the eyelid(s) open. Obtain medical attention if irritation persists.  
**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.  
**Advice on treatment:** There is no specific antidote available. Treat symptomatically. In cases of ingestion, call on doctor to advice on the need of gastric lavage.

## 5. FIRE FIGHTING MEASURES

**Flash point:** None – water based.  
**This material is not flammable.**  
**Hazardous products of combustion:** Fire may produce irritating or poisonous vapours (toxic compounds of carbon, nitrogen and chlorine), mists or other products of combustion.  
**Extinguishing agents:** Extinguish 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. Use as

## VILLA IMIDOR 350 SC

## MATERIAL SAFETY DATA SHEET

little water as possible. Use spray or fog. Solid stream may cause spreading. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

**Firefighting:** Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire.

Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind.

Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal.

Dyke fire control water for later disposal. Do not scatter the material. Avoid pollution of waterways.

Do not use high volume water jet, due to contamination risk. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

**Personal protective equipment:** Fire may produce irritating or poisonous vapours (toxic compounds of carbon, nitrogen and chlorine), mists or other products of combustion. 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:** Avoid contact with skin and eyes. Do not breathe in spray or fumes. For personal protection see Section 8.

**Environmental precautions:** Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs. Considered as Marine Pollutant. **Occupational spill:** Do not touch spilled material; stop leak if you can do it without risk. Keep out unprotected persons and animals.

**For spills:** Soak up with absorptive material such as damp earth or sand or other suitable non-combustible absorbent material. Place the material into a clean, dry container and cover for subsequent disposal. In situations where product comes in contact with water, contain contaminated water for later disposal. Prevent material from spreading by damming in with absorptive material. Do not flush spilled material into drains. Keep spectators away and upwind.

To decontaminate spill area, tools and equipment, wash with a suitable solution (i.e. organic solvent, detergent bleach or caustic). Add the solution to the drums already collected. Label drums with its content and dispose it in accordance with local regulations.

Open burning or dumping of this material is prohibited. Do not get water inside containers.

### 7. HANDLING AND STORAGE REQUIREMENTS

**Handling:** Product may be mildly irritating to eyes and skin. Avoid contact with eyes and skin, and inhalation of spray and vapour. 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 pesticide 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:** Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in its original labelled container in isolated, dry, cool and well-ventilated area. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.

### 8. EXPOSURE CONTROL / PERSONAL PROTECTION

It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

**PERSONAL PROTECTIVE EQUIPMENT:** If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection.

**Respirator:** An approved respirator suitable for protection from mists of pesticides is adequate. Limitations of respirator use specified by the approved agency and the manufacturer must be observed.

**Clothing:** Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

**Gloves:** Employee must wear appropriate synthetic protective gloves to prevent contact with this substance.

**Eye protection:** The use of safety goggles is recommended.

**Emergency eye wash:** 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.

# VILLA IMIDOR 350 SC

# MATERIAL SAFETY DATA SHEET

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** White viscous liquid.  
**Flammability:** Not Flammable.  
**Flash point:** Not determined – water based product.  
**Explosion properties:** Not explosive.  
**Solubility:** Completely soluble in water.  
**Density:** 1.082 g/ml

## 10. STABILITY AND REACTIVITY

**Stability:** Chemically and thermally stable.  
**Storage stability:** Stable for a period of 2 years under normal warehouse conditions.  
**Conditions and Materials to Avoid:** Keep the product in a cool, dry place, at below 30 °C. Protect from sunlight, open flame and sources of heat. Avoid contact with strong oxidising agents.  
**Hazardous decomposition products:** Fire may produce harmful combustion products, such as carbon dioxide & oxides, and if combustion is incomplete, carbon monoxide and smoke.

## 11. TOXICOLOGICAL INFORMATION

**Acute oral LD<sub>50</sub> rats:**  
*Imidacloprid* Technical: 450 mg/kg  
 Formulation calculated: 450 mg/kg  
**Acute dermal LD<sub>50</sub> rats:**  
*Imidacloprid* Technical: > 5000 mg/kg  
 Formulation calculated: > 5000 mg/kg  
**Acute skin irritation:**  
*Imidacloprid* Technical: non-irritant  
 Formulation: mild irritant  
**Acute eye irritation:**  
*Imidacloprid* Technical: non-irritant  
 Formulation: mild irritant  
**Dermal sensitisation:** Not expected to be a skin sensitizer. Individuals may develop an allergic response.  
**Inhalation:** Not harmful. Inhalation of excessive amounts may cause respiratory irritation.  
 Technical: LC<sub>50</sub> (4hours) for rat: >5323 mg/m<sup>3</sup> dust  
**Mutagenicity:** Studies indicate that the product is not mutagenic.  
**Teratogenicity:** Studies indicate that the product is not teratogenic.  
**Carcinogenicity:** Imidacloprid is considered to be of minimal carcinogenic risk, and is thus categorized by EPA as a "Group E" carcinogen (evidence of no carcinogenicity for humans).

## 12. ECOLOGICAL INFORMATION

**Mobility, Degradability & Accumulation:** The half-life of **Imidacloprid** in soil is 48-190 days, depending on the amount of ground cover (it breaks down faster in soils with plant ground cover than in fallow soils). Organic material aging may also affect the breakdown rate of **Imidacloprid**. **Imidacloprid** is degraded stepwise to the primary metabolite 6-chloronicotinic acid, eventually breaking down to carbon dioxide. The chemical is moderately soluble, and has moderate binding affinity to organic materials in soils. However, there is a potential for the compound to move through sensitive soil types including porous, gravelly, or cobbly soils, depending on irrigation practices. The half-life in water is much greater than 31 days at pH 5, 7 and 9. There is generally not a high risk of groundwater contamination with **Imidacloprid** if used as directed.  
**Animals:** **Imidacloprid** is quickly and almost completely absorbed from the gastrointestinal tract, and eliminated via urine and faeces. The most important metabolic steps include the degradation to 6-chloronicotinic acid, a compound that acts on the nervous system. This compound may be conjugated with glycine and eliminated, or reduced to guanidine.  
**ECOTOXICOLOGY:**  
**Birds: Highly toxic to birds.**  

Oral LD <sub>50</sub> :	Japanese quail:	31 mg/kg
	Bobwhite quail:	152 mg/kg
LC <sub>50</sub> (diet):	Bobwhite quail:	2225 mg/kg
	Mallard ducks:	>5000 mg/kg

**HIGHLY TOXIC TO BIRDS.**  
**Fish: Non-toxic to fish.**  
 LC<sub>50</sub> (96 hours): Rainbow trout: 211 mg/l  
**Daphnia: Moderately toxic to Daphnia**  
 LC<sub>50</sub> (48 hours): *Daphnia magna*: 85 mg/l  
**VERY TOXIC TO AQUATIC INVERTEBRATES.**  
**Bees: Toxic to bees.**  
 Harmful to honeybees by direct contact, but no harm expected when not sprayed into flowering crop or when used as a seed treatment.  
**Algae:** E<sub>r</sub>C<sub>50</sub> (72 hrs):  
*Pseudokirchneriella subcapitata* >100 mg/l

## 13. DISPOSAL CONSIDERATION

**Pesticide disposal:** Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or reprocessed. Never pour untreated waste or surplus products 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.

## VILLA IMIDOR 350 SC

## MATERIAL SAFETY DATA SHEET

**Container disposal:** Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

**TRIPLE RINSE** empty containers in the following manner: Invert 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 a third of the volume of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.

Do not re-use the empty container for any other purpose but destroy it by perforation and flattening and bury in an approved dump site. Prevent contamination of food, feedstuffs, drinking water and eating utensils.

Comply with local legislation applying to waste disposal.

### 14. TRANSPORT INFORMATION

**UN NUMBER:** 2902

**Road Transport ADR/RID:**

Class: 6.1  
 Packaging group: III  
 Shipping name: Pesticide, Liquid, Toxic, N.O.S.  
 (Imidacloprid 350 g/l)

**Maritime Transport IMDG/IMO:**

Class: 6.1  
 Packaging group: III  
 Shipping name: Pesticide, Liquid, Toxic, N.O.S.  
 (Imidacloprid 350 g/l)

### 15. REGULATORY INFORMATION

**Symbol:** Xi, N  
**Indication of danger:** Irritant, Environmentally Hazardous substance.

**Risk phrase(s):**

**R 20/22** Harmful by inhalation and if swallowed.  
**R 21** Harmful in contact with skin.  
**R 36/37/38** Irritating to eyes, respiratory system and skin.  
**R 57** Toxic to bees.

**Safety phrases:**

**S 1/2** Keep locked up and out of reach children.  
**S 13** Keep away from food, drink and animal feeding stuffs.  
**S 23** Do not breathe vapour/spray.  
**S 24/25** Avoid contact with skin and eyes.  
**S 60** This material and its container must be disposed of as hazardous waste.  
**S 61** Avoid release to the environment. Refer to special instructions/safety data sheets.

**S 62** If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

### 16. OTHER INFORMATION

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

**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 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

**Compiled:** October 2006

**Reviewed:** April 2016