

Inperk 350 SC

Reg. No.: L 11498 Act /Wet No. 36 of/van 1947

A systemic suspension concentrate insecticide for the control of aphid, red scale, thrip, leaf miner and psylla on crops listed.

ACTIVE INGREDIENT

Imidacloprid (neonicotinoids) 350 g/l

IRAC INSECTICIDE GROUP CODE

4A



WARNING

HAZARD STATEMENTS: Harmful if swallowed | Very toxic to aquatic life with long-lasting effects.

PRECAUTIONARY STATEMENTS: Wash hands thoroughly after handling
Do not eat, drink or smoke when using this product | Avoid release into the environment.

Registration holder: Green Island Investments (Pty) Ltd.

Co. Reg. No.: 2013/043963/07

P.O. Box 1822, Heidelberg 1438, South Africa

Tel: 078 737 9236

24 HR EMERGENCY NUMBERS

Griffon Poison Information Centre: +27 82 446 8946

24 Hr Transport / Spill emergency no:

(Hazcall24) +27 86 044 4411 (Typhoon Plant Protection)

Distributed by: Typhoon Plant Protection (Pty) Ltd.

Co. Reg. No.: 1998/006156/07, C/O Farm Vlakfontein
Corner of the R23 Benoni Road & R550 Nigel Road
Brakpan District, Heidelberg 1438, Gauteng, South Africa
Tel: 078 737 9236

Net Volume:

ℓ

Expiry Date:

Batch No:

Date of Manufacture:

U.N. No. 3082

 **Typhoon**
PLANT PROTECTION

READ LABEL IN DETAIL BEFORE OPENING THE CONTAINER. FOR FULL PARTICULARS, SEE ENCLOSED LEAFLET.
KEEP OUT OF REACH OF CHILDREN AND ANIMALS.



WARNINGS:**Withholding periods:**

Allow the following number of days between the last application and harvest:	
Citrus	212 days
Sugarcane	163 days
Grapes	112 days
Potatoes	120 days
Wheat and Barley	28 days
Tomatoes	23 days

NOTE: The recommended withholding period between last application and harvest meets local residue requirements but may not meet export requirements. If the treated crop is intended for the export market, consult the relevant exporting body before application of the product with regard to pre-harvest interval requirements.

HAZARD STATEMENTS:

- Harmful if swallowed.
 - Very toxic to aquatic life with long lasting effects.
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- Handle with care.
 - Harmful when absorbed through the skin, swallowed or inhaled.
 - Toxic to fish and wildlife.
 - Store in a cool place away from food and feedstuffs.
 - Keep out of reach of children, uninformed persons and animals.
 - **Re-entry:** Do not enter a treated area within one day after treatment unless protective clothing is worn.
 - **In case of poisoning call a physician and make this label available to him/her.**
 - **Aerial Application:** Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water and adjacent areas. Refer to the SANS Code 10118, “Aerial Application of Agricultural Pesticides” for the codes applicable for aerial application of agricultural chemicals.

Although this remedy has been extensively tested under a large variety of conditions the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal soil, climatic and storage conditions, quality of dilution water; incompatibility with other substances not indicated on the label and the occurrence of resistance of the pest against the remedy concerned as well as by the method, time and accuracy of application. The registration holder, furthermore, does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or for lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS:

PRECAUTIONARY STATEMENTS:

- Wash hands thoroughly after handling.
 - **Do not** eat, drink or smoke when using this product.
 - Avoid release to the environment.
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- **Do not** inhale fumes.
 - Wash contaminated clothing daily.
 - Wash with soap and water after use or accidental skin contact.
 - **Do not** eat, drink or smoke whilst mixing, applying or before washing hands and face.
 - Clean applicator after use, dispose of wash water where it will not contaminate crops, grazing, rivers and dams.
 - Rinse empty container three times with a volume of water equal to at least one tenth of that of the container and add the rinsing to the contents of the tank before disposing of the container in the prescribed manner.
 - Destroy empty container by perforation and flattening and never re-use the empty container for any other purpose.
 - Prevent contamination of food, feedstuffs, drinking water and eating utensils.

Related ingredients:

Substance name (IUPAC)	CAS - No.	Concentration % By weight
Imidacloprid (Active Ingredient)	138261-41-3	35%
Alkylphenol polyethylene phosphate, sodium salts	9004-82-4	>10%
Mono Ethylene Glycol	8061-52-70	>5%

SYMPTOMS OF HUMAN POISONING:

Apathetic state, depressed muscular tone, respiratory disturbances and trembling and muscular cramps in severe cases of poisoning.

FIRST AID TREATMENT:

- **Inhalation:** Remove patient from source of poisoning to a cool and well ventilated area and keep him quiet and reassured.
- **Skin contact:** Removed contaminated clothing and rinse contaminated body area thoroughly with plenty of soap and cold water. **Do not** rub skin.
- **Eye contact:** Flush contamination out of eyes with clean water for 15 minutes or longer.
- **Ingestion:** If swallowed induce vomiting by tickling the back part of the throat. Repeat until vomit fluid is clear and free from smell of poison. Administer artificial respiration or closed chest cardiac massage if necessary. **Do not** apply direct mouth to mouth respiration. **Never** give anything by mouth to an unconscious person.
- Immediately take the patient to the nearest physician.

NOTE TO PHYSICIAN:

Treat symptomatically. Check blood pressure and pulse rate frequently as bradycardia and hypotonia possible. Provide supportive measures for respiratory and cardiac action. Give artificial respiration if signs of paralysis appear. Additional measures involve the elimination of the substance from the body or acceleration of its excretion e.g. gastrolavage and saline laxatives.

RESISTANCE WARNING:

For resistance management **INPERK 350 SC** is a **group code 4A insecticide**. Any insect population may contain individuals naturally resistant to **INPERK 350 SC** and other **group code 4A insecticides**. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **INPERK 350 SC** or any other **group code 4A insecticides**.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticides from the same insecticide group code.
Alternate with products from different insecticide group codes.
 - **Do not** apply **INPERK 350 SC** or any product that belongs to the same chemical group more than once per year on citrus (bearing, non-bearing and nursery trees).
 - Integrate other control methods (chemical, cultural, biological) into insect control programs.
- For specific information on resistance management contact the registration holder of this product.

DIRECTIONS FOR USE: Use only as indicated.**Compatibility:**

- The compatibility of **INPERK 350 SC** with other agrochemicals is unknown.
- It is therefore recommended to do a compatibility test on a small scale before using **INPERK 350 SC** in a tank mixture with other agrochemicals.

Mixing Instructions:

- Pour the required quantity of **INPERK 350 SC** into the water while agitating.
- **Do not** allow the **INPERK 350 SC** mixture to stand any length of time before using.
- **Do not** use brackish water.

Aerial application:

Aerial application of **INPERK 350 SC** may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Pesticides). Ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met:

- **Volume:** A spray mixture volume of 30 litre per hectare is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
- **Droplet coverage:** 25 to 35 droplets per cm² must be recovered at the target area.
- **Droplet size:** A droplet spectrum with a VMD of 280 to 300 microns is recommended.
- Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
- **Flying height:** Maintain the height of the spray boom at 3 to 4 metres above the target.
- **Do not** spray when aircraft dives, is in a climb or when banking.
- Use suitable **atomising equipment** that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomisers within the inner 60 to 75 % of the wingspan to prevent droplets from entering the **wingtip vortices**.
- The difference in **temperature** between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C.
- Stop spraying if the **wind speed** exceeds 15 km/h.
- Stop spraying under **turbulent**, unstable and dry conditions during the heat of the day.
- Spraying under temperature **inversion conditions** (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following:
 - reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
 - damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- Ensure that the Aerial Spray Operator knows exactly which fields to spray.
- Obtain an assurance from the Aerial Spray Operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

APPLICATION DOSAGE RATES:

CROP AND PEST:	DOSAGE:	REMARKS:
CITRUS Bearing Trees not older than 15 years (excluding Kumquat) Aphid (<i>Toxoptera citricidus</i>), Red scale (<i>Aonidiella aurantii</i>) & Psylla (<i>Trioza erythraea</i>)	9 mℓ/tree	Soil drench: Apply during August/September. Dilute in 1 litre water and apply around the base of the trunk with a jug. Irrigate within 24 hours after application. When used on lemon trees apply only after removal of all fruit (including immature fruit). With lemons control can only be expected on the first fruit set after application.
Aphid (<i>Toxoptera citricidus</i>)	6 mℓ/tree	
Non-bearing Trees Aphid (<i>Toxoptera citricidus</i>)	6 mℓ/tree	Soil drench: Apply during August/September. Dilute in 1 litre water and apply around the base of the trunk with a jug. Irrigate within 24 hours after application.
Leaf miner (<i>Phyllocnistis citrella</i>)	8 mℓ/tree	
Nursery Trees Aphid (<i>Toxoptera citricidus</i>) & Leaf miner (<i>Phyllocnistis citrella</i>)	1,5 mℓ/seedling	Soil drench: Dilute in 200 mℓ water and apply 2 days after transplanting of the grafted root stock seedlings into plastic bags. Ensure that the INPERK 350 SC application does not take place prior to grafting.
Thrip (<i>Scirtothrips aurantii</i>)	3,0 mℓ/seedling	
NOTES: - Trees should be healthy, stress free and regularly irrigated before and after application. Do not apply the soil drench treatment through the irrigation system. Do not apply to trees immediately after pruning.		

CROP AND PEST:	DOSAGE:	REMARKS:
POTATOES Aphid (<i>Myzus persicae</i>)	4,5 mℓ/100 m row length	Spray the INPERK 350 SC mixture in the planting furrow from ridge tip to ridge tip before planting of the tubers. Use a 8006 or 8008 flat fan nozzle and apply in 3 to 4 liters water per 100 metre furrow length. The application may also be made after planting but before emergence over the row. Irrigate immediately afterwards with $\pm$ 15 mm water. INPERK 350 SC may also be used in a tank mixture with Fenamiphos 400 EC or Pencycuron 250 SC or with both for the simultaneous control of aphids, <i>Rhizoctonia</i> and nematodes.
	3,0 mℓ/100 m row length	When INPERK 350 SC is mixed with Fenamiphos 400 EC , the INPERK 350 SC dosage can be reduced to 3,0 mℓ per 100 metres row length. Warning: when the above-mentioned mixtures are applied, the application should be in such a manner that the tubers are not covered by the spray mixture containing INPERK 350 SC . Apply in the open furrow before planting of the tubers.
TOMATOES Whitefly nymph (<i>Trialeurodes vaporariorum</i>) For use on tomatoes in enclosed areas only, e.g. glass houses, tunnels, etc.	0,05 mℓ/plant	Soil drench: Apply as a soil drench, 1 day after transplanting. Mix 10 mℓ INPERK 350 SC with 20 litres water and apply 100 mℓ of this mixture to the soil around the base of the stem of each plant. Irrigate within 24 hours after application. Repeat application 28 days later.
SUGAR CANE (Plant Cane) Suppression of Thrips (<i>Fulmekiola serrata</i>)	1ℓ/ha	Warnings: Do not leave INPERK 350 SC exposed to sunlight. Do not apply more than once per season. Furrow application at planting. Single application only (September to November). Apply to the furrow in 200 – 300 ℓ water/ha, using a flat fan nozzle.

CROP AND PEST:	DOSAGE:	REMARKS:
TABLE AND WINE GRAPES Mealybugs (<i>Planococcus ficus</i>)	1.5 mL/vine in 500 mL per vine	Apply as a soil drench at budburst around the base of the stem. Follow up immediately afterwards with another 2 litres of clean water per vine. Prevent run-off by making a small basin. Irrigate within 24 hours after the treatment. OR Apply within 30 days after harvest and before leaf drop as a soil drench around the base of the stem in 500 mL water per vine. Immediately afterwards follow-up with a further 2L of clean water per vine. A small basin should be formed to prevent run-off. Irrigate within 24 hours after application.
NOTES: • The following are mandatory for the application of INPERK 350 SC in grapevines: • Precede the application of INPERK 350 SC as a soil drench with a winter/dormancy treatment for Mealybugs. • Do not apply INPERK 350 SC under dryland conditions. Vines must be healthy, free of stress and regularly irrigated after application. • Do not apply INPERK 350 SC through irrigation systems. • Ensure that the soil is moist at time of application. Remove leaves, weeds and other organic material that would restrict leaching of the mixture into the soil. • Regularly monitor treated vines during the growing season according to protocol guidelines. If necessary, apply Dichlorvos 1000 EC as a corrective treatment. • It is important to ensure control of Ants in order to enable natural predators and parasites to contribute towards the control of Mealybugs.		
WHEAT AND BARLEY Wheat aphid (<i>Schizaphis graminum</i>) Oat aphid (<i>Rhopalosiphum padi</i>) Brown wheat ear aphid (<i>Sitobion avenae</i>) Russian wheat aphid (<i>Diuraphis noxia</i>) False chinch bugs	200 mL / ha	Apply when pest is noticed. Best results are obtained when the crop is growing actively. Aphids on plants under stress (e.g. drought or flooded conditions) will not be controlled effectively.