# DIRECTIONS FOR USE ENCLOSED Date of Manufacture

# Insecticide



# THIATOX 250 WDG

Reg. No. L 9190 Act No. 36 of 1947

4: 10/6/2022 - Nov2023

A water dispersible granule insecticide for the control of pests as indicated.

#### **ACTIVE INGREDIENT**

thiamethoxam (chloro-nicotinyl) 250 g/kg

**GROUP** 

**INSECTICIDE** 



#### **Hazard Statements:**

Suspected of damaging fertility or the unborn child. Very toxic to aquatic life with long

lasting effects.

#### **Precautionary Statements:**

Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles. Avoid release into the environment.

Registration holder: UNIVERSAL CROP PROTECTION (PTY) LTD.

Co. Reg. No. 1983/008184/07 P.O. Box 801, Kempton Park, 1620 Tel. (011) 396 2233 Website: www.villacrop.co.za



24 HR EMERGENCY NUMBERS: Griffon Poison Centre: +27 82 446 8946 24 HR Transport / Spill Emergency no: (Hazcall24) +27 86 044 4411 (Client: Villa Crop Protection)

#### THIATOX 250 WDG

Reg. No. L 9190 Act No. 36 of 1947 IRAC INSECTICIDE GROUP CODE: 4A

**ACTIVE INGREDIENT:** 

Registration holder:

UNIVERSAL CROP PROTECTION (PTY) LTD.

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#### WARNINGS

#### Withholding periods:

Minimum time between the last application and harvest:		
Apples	119 days	
Capsicums (Chillie/Piquant) baby type Peppers	45 days	
Citrus	176 days	
Green peppers	41 days	
Macadamias	93 days	
Mangoes	130 days	
Tomatoes	28 days	
Wheat & Barley	28 days	

#### **IMPORTANT NOTES ON MRL'S:**

IN THE CASE OF CROPS INTENDED FOR EXPORT, CONFIRM WITHHOLDING PERIODS WITH THE RELEVANT EXPORT ORGANISATION. IF THIS PRODUCT IS USED ACCORDING TO THE RECOMMENDATIONS ON THIS LABEL, LOCAL MRL VALUES WILL NOT BE EXCEEDED. HOWEVER, UNIVERSAL CROP PROTECTION (PTY) LTD. CANNOT ACCEPT RESPONSIBILITY FOR EXPORTED FRUIT EXCEEDING THE IMPORT TOLERANCES OF OTHER COUNTRIES.

#### **Hazard statements:**

Suspected of damaging fertility or the unborn child.

Very toxic to aquatic life with long lasting effects.

- Handle with care.
- Toxic to Bees.
- Store under lock and key in a cool, dry place, away from food, feeds, seed and fertilizers.
- Keep out of reach of children, uninformed persons and animals.
- Re-entry: Do not enter treated area until spray deposit has dried unless wearing protective clothing.
- In case of poisoning, take the patient immediately to a doctor and make this label available to him/her.

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, compatibility with other substances not indicated on the label and the occurrence of resistance of the pests against the remedy concerned, as well as 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:**

Obtain, read and follow all safety instructions before use.

Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.

Avoid release into the environment.

IF exposed or concerned, get medical advice.

Collect spillage.

Store locked up.

THIATOX 250 WDG PAGE 2 OF 7

Dispose of contents/container to suitable landfill in accordance with local regulations.

- Wash with soap and water after use and after accidental skin contact.
- · Wash contaminated clothing after use.
- Do not eat, drink or smoke whilst mixing or applying the product or before washing hands and face and change of clothing.
- Prevent drift onto other crops, grazing, rivers, dams or areas not under treatment or to nearby water sources.
- Thoroughly clean spraying equipment directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams.
- Containers and packages must be completely emptied before being disposed of. Shake out thoroughly into the applicator and destroy the empty container thereafter in the described manner.
- Destroy the empty container by perforation and dispose of it in a safe manner.
- Never re-use the empty container for any other purpose.
- Prevent contamination of food, feed, drinking water and eating utensils.

Relevant hazardous components			
Thiamethoxam	25 %		

#### **FIRST AID TREATMENT**

- <u>In case poisoning is suspected:</u> 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.
- <u>Skin contact:</u> Remove contaminated clothing and shoes. Wash skin gently and thoroughly with cold water and non-abrasive soap. Obtain medical attention if irritation persists.
- <u>Eye contact:</u> FI Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after five (5) minutes and continue rinsing. Obtain medical attention if irritation persists.
- <u>Inhalation:</u> If vapours or mists have been inhaled, move victim to fresh air and remove source of contamination if safe to do so. The patient should be kept under observation. Obtain medical attention if irritation develops.
- <u>Ingestion:</u> **Do not induce vomiting unless told to do so by a poison control center.** Do not give anything by mouth. Obtain medical attention if the person feels unwell. If the person is alert, give water to sip.

#### **RESISTANCE WARNING**

**THIATOX 250 WDG** is a group code 4A insecticide. Any insect population may contain individuals naturally resistant to **THIATOX 250 WDG** 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 **THIATOX 250 WDG** or any other group code 4A insecticide.

To delay insecticide resistance:

- avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate or tank
  mix with products from different insecticide group codes,
- integrate other control methods (chemical, cultural, biological) into insect control programmes.

For specific information on resistance management contact the registration holder of this product.

#### Mode of action:

**THIATOX 250 WDG** contains **Thiamethoxam**. **Thiamethoxam** is an agonist of the nicotinic acetylcholine receptor belonging to IRAC mode of action group 4A and affects the synapses in the insect's central nervous system. It is an insecticide with contact, stomach and systemic activity, which is rapidly taken up by the plant and transported acropetally in the xylem.

#### **USE RESTRICTIONS**

<u>HONEYBEES</u>: Do not apply onto crops as a foliar spray when honeybees are present. Prevent drift onto surrounding crops/areas where Honeybees may visit flowering plants.

#### Apples:

- Only apply **THIATOX 250 WDG** as a soil drench treatment where a micro irrigation system is used.
- Only apply **THIATOX 250 WDG** to actively growing and healthy trees.
- Citrus:

THIATOX 250 WDG PAGE 3 OF 7

- Only apply THIATOX 250 WDG as a soil drench treatment where a micro irrigation system is used.
- Only apply THIATOX 250 WDG to vigorously growing, stress free and healthy trees with welldeveloped root systems.
- Soils with high clay content (above 25 %) may adversely affect the efficacy of THIATOX 250 WDG.
- Factors that limit optimal sap flow in the trees (such as drought, stress, bent branches, etc.) can reduce the efficacy of **THIATOX 250 WDG**.
- Sub-optimal control of red scale control may be obtained on a branch or side shoot in a tree, despite a **THIATOX 250 WDG** application.
- Do not apply **THIATOX 250 WDG** on lemons or limes.

#### Grapes:

- Only apply THIATOX 250 WDG as a drench application.
- **THIATOX 250 WDG** must **not** be applied through the irrigation system.
- THIATOX 250 WDG can be applied to dry land and irrigated grapes.
- Apply **THIATOX 250 WDG** within one month after harvest.
- Soils with high clay content (above 25 %) may adversely affect the efficacy of **THIATOX 250 WDG**.
- Factors that limit optimal sap flow in the trees (such as drought, stress, bent branches, virus infections, old plantings etc) can reduce the efficacy of **THIATOX 250 WDG**.

#### Mangoes:

- THIATOX 250 WDG may provide variable control of Mango scale on some fruit.
- Apply **THIATOX 250 WDG** to healthy, actively growing trees only.
- Only apply **THIATOX 250 WDG** as a soil drench application where micro or drip irrigation system is used. Do not apply under dry land conditions. Dysfunctional irrigation systems will reduce the effectiveness of a **THIATOX 250 WDG** treatment.

#### Tomatoes:

- Do not apply **THIATOX 250 WDG** soil drenches more than two (2) times per crop season.
- Alternate THIATOX 250 WDG applications with Whitefly remedies from a different chemical mode of action class for RESISTANCE MANAGEMENT.

#### Wheat and Barley:

- Always prevent drift onto flowering crops (especially canola) or plants near the treated crop.

## • Lawns and Turf:

Always prevent drift onto nearby flowering plants.

#### **DIRECTIONS FOR USE:** Use only as directed.

## Compatibility:

- THIATOX 250 WDG is compatible with Link and Villa 51 (surfactants).
- The compatibility of **THIATOX 250 WDG** may be influenced by several factors. As factors influencing compatibility may vary, a physical compatibility test must always be performed before such tank mixture is sprayed. In case of uncertainty contact the supplier or the registration holder.
- When **THIATOX 250 WDG** is used in conjunction with any other agricultural remedy, adhere to all **WARNINGS**, **PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on that label.

### Mixing instructions:

- Half fill the spray tank with clean water.
- Prepare a slurry of the **THIATOX 250 WDG** to be added to the tank in a suitable container, ensuring that all the chemical has dispersed.
- Add the mixture to the water while stirring.
- Fill the spray tank with water to the required level, while maintaining agitation, to ensure thorough mixing.
- Maintain agitation during application.
- It is important to prepare spray mixtures that will be applied soon after mixing only.
- Prepared spray mixture must not be left in the spray tank for any length of time, e.g., overnight.
- Do not use brackish water.

#### **APPLICATION PROCEDURES & TECHNIQUES**

#### Ground application:

- Apply in 200 to 300 litres water per hectare with a correctly calibrated sprayer that is in good working condition, to ensure that the correct dosage is evenly distributed over the target area.
- Ensure complete coverage of plants. Plants with higher leaf surface area index will require higher spray volumes to obtain complete coverage.

THIATOX 250 WDG PAGE 4 OF 7

# **Drench application:**

- Ensure a clean soil surface, i.e., remove all weeds and plant debris under the tree. Prepare a well around the trunk.
- Apply around the entire base of the trunk. In the case of mangoes, apply at the drippers.
- Irrigate within 24 hours after application, to ensure that the product is drenched into the soil.
- Movement of the product into the soil will be promoted if the soil is slightly damp.
- Apply and incorporate **THIATOX 250 WDG** into the soil before application of any fertilizer.

# **APPLICATION RATES**

Crop / Pest	Dosage Rate	Remarks
Apples Woolly apple aphid (Eriosoma lanigerum)	3 g / tree	Refer to "USE RESTRICTIONS" and "APPLICATION TECHNIQUES" above. <u>Drench application</u> : Start with treatment during the last half of September. Mix in a jug with 1 litre of water and apply per one (1) tree.
Citrus Red scale (Aonidiella aurantii)	18 g / tree	<u>Drench application</u> : Start with treatment from mid-August to mid-September (trees are in the green bud to white bud stage). For optimal results, apply treatments 4 to 6 weeks prior to the first crawler movement.  Mix in a jug with 1 litre of water and apply per one (1) tree. Refer to "USE RESTRICTIONS" and "APPLICATION TECHNIQUES".
Grapes Table & Wine grapes Mealybug (Planococcus ficus)	1.2 g / plant in 0.5 to 1.0 ℓ water	Refer to "USE RESTRICTIONS" and "APPLICATION TECHNIQUES" above.  Drench as a single application around the base of each vine in 500 m/ water. Under dry land conditions and in sandy soils, the water volume can be increased to 1 litre mixture per vine.
Macadamias Stinkbug complex	9 g / tree followed by 6 g / tree	Mix with 1 litre of water and apply as a soil drench with a jug. Irrigate within one day after application.  Apply first treatment at the end of flowering. Follow up with a second application 90 days later. Optimal results are obtained when the product is applied directly under the dripper in orchards with a drip irrigation system. Divide the application volume in two (2) equal parts and apply one half under each dripper in orchards with two (2) drippers per tree. Micro irrigation systems - apply around the base of the trunks.  Do not apply more than two (2) soil drenches per crop cycle.

THIATOX 250 WDG PAGE 5 OF 7

Crop / Pest	Dosage Rate	Remarks
Mangoes Mealy bug (Planococcus citri, Pseudococcus longispinus, Nipaecoccus viridus)  Mango scale (Aulacaspis tubercularis)		Refer to "USE RESTRICTIONS" above. Control of the pests mentioned depends on effective translocation of the product within the tree. THIATOX 250 WDG efficiency is affected adversely by factors that inhibit translocation (e.g., old re-worked trees or trees under stress such as during drought or flooded conditions).  Mix with 1 litre water and apply with a jug as a soil drench.
Mango seed weevil (Sternochetus mangiferae)	6 g / tree	<ul> <li>Commence with application from the last week in July until middle August. Apply as follow depending on the irrigation system:</li> <li>Drip irrigation - apply the product directly under the dripper.</li> <li>In orchards with two (2) drippers per tree - divide the application volume in two (2) equal parts and apply one half under each dripper.</li> <li>Micro irrigation - apply product around the base of the stems.</li> </ul>
NOTE  Depending on conditions, variable control of Mango scale may be obtained. Refer to "USE RESTRICTIONS" above.		
Peppers (Capsicums) Aphids and Whiteflies	0.6 g / litre water	Apply 50 mℓ of the solution per plant at transplant or within a week. Repeat four (4) weeks later.
Tomatoes Whiteflies (Trialeurodes vaporariorum, Bemisia tabaci)	0.03 g / plant	Apply as a soil drench around the stem base in 50 m $\ell$ water per plant at transplant or shortly afterwards. Irrigate within 24 hours after application. In cases of high Whitefly pressure, repeat application 28 days later.
Wheat & Barley Aphids Wheat aphid (Schizaphis graminum)	300 g / ha	Apply when pest is noticed and repeat when necessary. Apply a maximum of three (3) applications, at 4-week intervals. Best results are obtained when the crop is growing
Oat aphid ( <i>Rhopalosiphum padi</i> )	PLUS Link	actively. <b>Do not</b> apply later than ear emergence stage (Zadoks
Brown wheat ear aphid (Sitobion avenae)	(50 mℓ / 100 ℓ water)	Growth Stage [GS] 50).  Aphids on plants under stress due to e.g., drought or
Russian wheat aphid ( <i>Diuraphis noxia</i> )		flooded conditions will not be controlled effectively.

THIATOX 250 WDG PAGE 6 OF 7

Crop / Pest	Dosage Rate	Remarks
Lawns and Turf Mole crickets	875 g / ha	First determine the size of the Mole crickets by drenching an area on the lawn with a dishwashing liquid solution (50 m/ dishwashing liquid per 10 litres water), where Mole cricket activity is evident. Mole crickets larger than 15 mm will <b>NOT BE</b> controlled effectively.
		Apply as an overall application in at least 250 litres water per hectare at the first signs of infestation. Irrigate within 24 hours after application. Do not mow the lawn until after irrigation or rainfall.  Repeat the treatment when necessary. For best results a preventative treatment can be applied at the end of October and repeated two (2) months later to prevent Mole cricket outbreaks.
White grubs	1200 g / ha (10000m²)	<u>IMPORTANT</u>
(Larvae of various Scarabaeidae beetle species)		Only first and second instar larvae will be controlled effectively.
		Apply as a preventative and curative treatment.
		<u>Preventative:</u> Treatments can be performed during November, January and March to obtain season long protection in areas where White grubs are known to be a pest.
		<u>Curative</u> : Look for White grub infestations from November until April. Apply as an overall application at the first signs of infestation. Irrigate within 24 hours after application. Do not mow the lawn until after irrigation or rainfall.
		Repeat when necessary.

The following product mentioned in this label may be replaced with an equivalent product listed below:

- LINK (L 8675) = DIRECT (L 8680).
- VILLA 51 (L 8050 / W 130454 / N-AR 1090) = WEN 51 (L 8315).

**DIRECT** is a registered product of **VILLA CROP PROTECTION (PTY) LTD.** 

LINK, VILLA 51 and WEN 51 are registered products of UNIVERSAL CROP PROTECTION (PTY) LTD.

THIATOX 250 WDG PAGE 7 OF 7