

BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY. KEEP OUT OF REACH OF CHILDREN AND ANIMALS. SHAKE THE BOTTLE WELL BEFORE USE



Insecticide

TIVOLI 240 SC

Reg. No. L 9385 Act No. 36 of 1947
N-AR 1928 / W 1301409

5: 16/11/2022 – Feb2023

A suspension concentrate, systemic insecticide for the control of insects on crops as listed.

ACTIVE INGREDIENT

spirotetramat (tetramic acid) 240 g/l

GROUP 23 INSECTICIDE

REFER TO DETAILS AS PRINTED ON CONTAINER / BAG



WARNING

Hazard Statements:

May cause an allergic skin reaction.
Causes serious eye irritation.
May cause respiratory irritation.
Suspected of damaging fertility or the unborn child.
Toxic to aquatic life with long lasting effects.

Precautionary Statements:

Avoid breathing mist, vapours and spray.
Wash hands thoroughly after handling. Do not touch eyes.
Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
Avoid release into the environment.

DIRECTIONS FOR USE ENCLOSED

Batch Number:
Date of Manufacture:



villa

UN Number: 3082

Registration holder: VILLA CROP PROTECTION (PTY) LTD.
Co. Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630
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)

TIVOLI 240 SC

Reg. No. L 9385 Act No. 36 of 1947

N-AR 1928 /W 1301409

IRAC INSECTICIDE GROUP CODE: 23

ACTIVE INGREDIENT:

spirotetramat (tetramic acid)240 g/l

Registration holder:

VILLA CROP PROTECTION (PTY) LTD.

Co. Reg. No. 1992/002474/07

PO Box 10413, ASTON MANOR, 1630, Tel. (011) 396 2233.

WARNINGS**Withholding periods:**

Minimum time between the last application and harvest:	
Avocados (when applied at 30 ml per 100 litres water)	14 days
Avocados (when applied at 50 ml per 100 litres water)	50 days
Citrus	60 days
Cucurbits	1 day
Maize	7 days
Maize (grazing)	14 days
Potatoes & Carrots	7 days
Peppers (including Paprika & Chillies) & Eggplant	1 day
Table and Wine Grapes	Do not apply after pea berry stage
Tomatoes	7 days
Tobacco	21 days

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, VILLA CROP PROTECTION (PTY) LTD. CANNOT ACCEPT RESPONSIBILITY FOR EXPORTED CROPS EXCEEDING THE IMPORT TOLERANCES OF OTHER COUNTRIES.

Hazard statements:

May cause an allergic skin reaction.
Causes serious eye irritation.
May cause respiratory irritation.
Suspected of damaging fertility or the unborn child.
Toxic to aquatic life with long lasting effects.

- Handle with care.
- Store in a cool, dry place away from food, feeds, fertilizers and other agricultural remedies.
- Keep out of reach of children, animals and uninformed persons.
- Re-entry: Do not enter treated area until spray deposit has dried unless wearing protective clothing.

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. The action and effect thereof may be effected by factors such as abnormal soil, climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label, 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:**

Obtain, read and follow all safety instructions before use.

Avoid breathing mist, vapours and spray.
Wash hands thoroughly after handling. Do not touch eyes.
Use only outdoors in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release into the environment.
Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
IF ON SKIN: Wash with plenty of water and non-abrasive soap.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned, get medical advice.
Get medical help if you feel unwell.
If skin irritation or rash occurs or if eye irritation persists: Get medical help.
Collect spillage.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container in accordance with local regulations.

- 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.
- Thoroughly clean spraying equipment directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams.
- **TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS:** 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 (3) times in succession with one quarter of the container volume fresh water and decant the rinsate 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.
- Destroy the container by perforation and flattening and dispose of it in a safe way.
- **Do not** re-use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

Relevant hazardous components	
Spirotetramat	240 g/l

FIRST AID TREATMENT

- 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:** Remove person from contaminated area to fresh air and assist breathing as needed. If breathing has stopped, perform artificial respiration and administer oxygen. Avoid mouth-to-mouth resuscitation. Treat symptomatically and supportively. Seek medical attention if irritation persists.
- **Skin:** Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. If irritation persists or sensitization is suspected, obtain medical attention.
- **Eyes:** Immediately flush eyes with clean water for at least 15 to 20 minutes. Lift eyelid (s) to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention if irritation persists.**
- **Ingestion: Seek medical attention immediately.** Do NOT induce vomiting unless instructed to do so by a poison control centre or doctor. If the person is alert, rinse mouth thoroughly with water. Do not give anything by mouth to an unconscious person.

RESISTANCE WARNING

TIVOLI 240 SC is a group code 23 insecticide. Any insect population may contain individuals naturally resistant to **TIVOLI 240 SC** and other group code 23 insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **TIVOLI 240 SC** or any other group code 23 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:

TIVOLI 240 EC contains **Spirotetramat**, which is a lipid biosynthesis inhibitor that acts by inhibiting the enzyme acetyl CoA carboxylase. It affects lipid biosynthesis mainly after ingestion but also on contact, affecting eggs and larvae, with additional effects on adult fecundity. The compound has translaminar activity and, after penetrating the leaves, it is de-esterified and transported within both the xylem and phloem of the plant (systemic insecticide). It is mostly used for the control of sucking insects, and due to its mobility in the plant, it is especially useful in controlling hidden pests and protects new shoots appearing after foliar application.

GENERAL INFORMATION

Effect on beneficial insects

<i>Harmless</i>	<i>Slightly harmful</i>	<i>Harmful</i>
<p><u>Citrus predatory insects:</u> <i>Chilocorus nigritus</i> <i>Coccidoxenoides peregrinus</i> <i>Trichogrammatoidea cryptophlebiae</i></p> <p><u>Bees</u></p>	<p><i>Aphytis lingnanensis</i></p>	<p><i>Euseius citri</i></p>

USE RESTRICTIONS

- **TIVOLI 240 SC** is only active against juvenile / nymph stages of the target pests, and causes sterilisation of adult females. Thus, adults may still be observed following some-time after application. Adult populations will decrease from approximately two weeks after application depending on the effect of environmental conditions on the lifecycle of target pests.
- It is not recommended to apply **TIVOLI 240 SC** in tank mixtures with fungicides, as this may result in sub-optimal control of the targeted insect pest(s). If unavoidable then use the higher dosage rate (as per below recommendations) in combination with the fungicide.

DIRECTIONS FOR USE: Use only as directed.

Compatibility:

- **TIVOLI 240 SC** is compatible with light to medium narrow range mineral oil and **Charge**. Refer to the respective product labels for **USE RESTRICTIONS** and **DIRECTIONS FOR USE**.

Mixing instructions:

- Half fill the spray tank with water and ensure agitation.
- Add the required volume of **TIVOLI 240 SC** into the spray tank.
- Fill up with water to the final volume while agitating.
- Keep mixture in suspension during application by means of agitation.
- Apply the prepared spray mixture as soon as possible. Ensure agitation during application.
- Prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

APPLICATION RATES**IMPORTANT: Refer to “USE RESTRICTIONS” and “DIRECTIONS FOR USE” above.**

Crop / Pest	Dosage Rate	Remarks
Avocados Stinkbugs (<i>Bathycoelia</i> spp.)	30 ml / 100 ℓ water (3 ml / 10 ℓ water) PLUS 5 ml / 100 ℓ water (0.5 ml / 10 ℓ water) Charge	Apply the first treatment as a medium cover spray (6 litre per meter tree height above skirt) from petal fall. Repeat every two (2) weeks. Do not exceed four (4) applications per season. If further control if needed, use insecticides with a different mode of action, such as Tempes 100 EC . Refer to the respective product labels for USE RESTRICTIONS, DIRECTIONS FOR USE, APPLICATION RATES, number of sprays allowed per season and the minimum time between the last application and harvest.
Heart-shaped scale (<i>Protospulvinaria pyriformis</i>)	50 ml / 100 ℓ water PLUS 5 ml Charge	Early preventive treatment: <u>Two treatments spray programme*:</u> Apply as a high volume, full cover spray (6 ℓ / m tree height above skirt) as soon as an infestation is present. Make sure that the underside of the leaves are well covered. Two (2) applications for each active ingredient at 14-day intervals as a spray programme. Start with Buprofezin 500 WDG during the flowering period, followed by Thixam 250 WDG and end with TIVOLI 240 SC . Refer to the respective product labels for USE RESTRICTIONS, DIRECTIONS FOR USE, APPLICATION RATES as well as the recommended minimum time between the last application and harvest.
NOTE		
<ul style="list-style-type: none"> *- The “Two treatments program” is recommended under conditions of extended or sequential periods of crawler movement, or during uneven flowering. Refer “RESISTANCE WARNING”. 		
Citrus Red Scale (<i>Aonidiella aurantii</i>) Lowveld Citrus Mite (<i>Eutetranychus orientalis</i>) Citrus Red Mite (<i>Panonychus citri</i>) Citrus Rust Mite (<i>Phyllocoptruta oleivora</i>)	10 to 20 ml / 100 ℓ water PLUS 300 ml light to medium narrow range mineral oil OR 10 to 20 ml / 100 ℓ water PLUS 300 ml light to medium narrow range mineral oil	Early preventive treatment: <u>Two treatments spray programme*:</u> Apply the 1 st treatment when first crawler movement is observed (normally at 80 to 100 % petal fall or shortly thereafter). Repeat four (4) weeks later. Apply as full cover sprays and ensure thorough coverage of all parts of the trees. OR <u>Single treatment:</u> Apply when first crawler movement is observed (normally at 80 to 100 % petal fall or shortly thereafter). Apply as full cover sprays and ensure thorough coverage of all parts of the trees. These programmes will control Mite species present at the time of application.

Crop / Pest	Dosage Rate	Remarks
<p>NOTE</p> <ul style="list-style-type: none"> *- The “Two treatments program” is recommended under conditions of extended or sequential periods of crawler movement, or during uneven flowering. Refer “RESISTANCE WARNING”. 		
<p>Citrus (continue) Mealybugs</p> <p>(<i>Suppression only</i>) Citrus mealybug (<i>Planococcus citri</i>)</p> <p>Long-tailed mealybug, (<i>Pseudococcus longispinus</i>)</p> <p>Oleander mealybug, (<i>Paracoccus burnerae</i>)</p>	<p>30 to 40 ml / 100 l water</p> <p>PLUS</p> <p>300 ml light to medium narrow range mineral oil</p>	<p>Monitor orchards and start with application after flowering at the onset of crawler movement.</p> <p>Repeat the application after four (4) weeks.</p> <p>Apply as full cover sprays to ensure that all parts of the trees are thoroughly covered.</p>
<p>Thrips Citrus thrips (<i>Scirtothrips aurantii</i>)</p>	<p>30 to 40 ml / 100 l water</p>	<p>Monitor orchards from flowering onwards for presence of Thrips. Apply after flowering.</p> <p>A single treatment may be sufficient under low infestation pressure.</p> <p>Under higher pressure, a second treatment can be applied two (2) weeks after the first, before calyx closure. Use the higher rate in case of high infestation pressure or to obtain longer residual control.</p>
<p>Woolly Whitefly (<i>Aleurothrixus floccosus</i>)</p>	<p>20 ml / 100 l water</p> <p>PLUS</p> <p>20 ml Charge</p>	<p><u>Single treatment per season ONLY:</u></p> <p>Apply as a medium cover spray when adults are active on leaves and/or nymphs are noticed on the underside of leaves.</p> <p>Ensure thorough wetting of the ventral leaf surfaces.</p>
<p>Maize Maize aphid (<i>Rhopalosiphum maidis</i>)</p>	<p>300 ml/ha</p> <p>OR</p> <p>3 ml / 100 m row</p> <p>PLUS</p> <p>50 ml / 100 l water Villa 51</p> <p>OR</p> <p>3 ml / 10 l water PLUS</p> <p>5 ml / 10 l water Villa 51</p>	<p>Apply a single application when infestation has reached local threshold levels.</p> <p>Do not apply prior to tassel emergence.</p> <p>Ensure thorough coverage of the entire plant, especially the underside of the leaves.</p>

Crop / Pest	Dosage Rate	Remarks
<p>Cucurbits (Including melons, squash, cucumbers, pumpkin)</p> <p>Cotton aphid (<i>Aphis gossypii</i>)</p> <p>Green peach aphid (<i>Myzus persicae</i>)</p>	<p>200 to 300 ml / ha PLUS 20 ml Charge</p> <p>OR</p> <p>20 to 30 ml / 100 l water PLUS 20 ml Charge</p> <p>OR</p> <p>2 to 3 ml / 10 l water PLUS 2 ml Charge</p>	<p>Screen the crop(s) and begin with treatments once the local thresholds levels are reached.</p> <p>Apply the higher dosage rate under severe pest pressure or where extended residual control is required, during periods of rapid crop growth or in the case of dense or large crops.</p> <p>Complete and even coverage of the target crop is essential.</p>
<p>Whitefly (<i>Bemisia tabaci</i> Biotype B)</p>	<p>300 to 400 ml / ha PLUS 20 ml Charge</p> <p>OR</p> <p>30 to 40 ml / 100 l water PLUS 20 ml Charge</p> <p>OR</p> <p>3 to 4 ml / 10 l water PLUS 2 ml Charge</p>	<p>The spray volume depends on the crop size. Continue to screen the crop(s) and apply follow-up treatments as required.</p> <p>Do not apply a TIVOLI 240 SC follow-up application within one (1) week after a TIVOLI 240 SC treatment.</p> <p>Do not apply more than three (3) applications of TIVOLI 240 SC per crop.</p>
<p>Potatoes & Carrots</p> <p>Aphids Including green peach aphid (<i>Myzus persicae</i>)</p> <p>Potato aphid (<i>Macrosiphum euphorbiae</i>)</p>	<p>30 ml / 100 l water PLUS 20 ml Charge</p> <p>OR</p> <p>3 ml / 10 l water PLUS 2 ml Charge</p>	<p>Apply 500 litres spray mixture per hectare, when the first Aphid colonies are established.</p> <p>Repeat at 10 to 14-day intervals, using the shorter spray intervals for higher infestation pressures.</p> <p>Apply a maximum of three (3) consecutive applications per growing season. If continued control is required, make use of registered insecticides with a different mode of action.</p>

Crop / Pest	Dosage Rate	Remarks
Tomatoes Whitefly (<i>Bemisia tabaci</i> Biotype B)	40 ml / 100 l water PLUS 20 ml Charge OR 4 ml / 10 l water PLUS 2 ml Charge	<u>Two treatment spray programme per season ONLY:</u> Commence application as soon as an infestation is noticed: adults detected on the young growth points' foliage and nymphs detected lower down on older leaves. Repeat 7 to 14 days later. Apply as a full cover spray. Thorough coverage of the foliage is important, the spray volume applied should consider plant size and canopy density.
Peppers (including Paprika & Chillies & Eggplant) Green peach aphid (<i>Myzus persicae</i>) Potato aphid (<i>Macrosiphum euphorbiae</i>)	20 ml / 100 l water PLUS 20 ml Charge	Commence application when infestation has reached local threshold levels. Apply a full cover spray of 500 litres spray mixture per hectare. Higher recommended rates should be used in cases of severe pest pressure, when crops are undergoing rapid growth or are very dense, or if longer residual control is required. Should infestation persist, an additional application can be made after 10 days.
Whitefly (<i>Bemisia tabaci</i> Biotype B) Western Flower Thrips (<i>Frankliniella occidentalis</i>)	30 to 40 ml / 100 l water PLUS 20 ml Charge	Do not apply more than two (2) consecutive applications of TIVOLI 240 SC per season. If further control is required, make use of insecticides with a different mode of action. TIVOLI 240 SC controls the juvenile stage of Western flower thrips, however the effectiveness against adults is limited. Thus, total Thrip counts will decline over time and not necessarily direct after application.
Wine and Table Grapes Mealybug (<i>Planococcus</i> spp.)	10 to 20 ml / 100 l water OR 1 to 2 ml / 10 l water	Apply two (2) high volume mist blower applications using 650 to 1500 litres spray mixture per hectare. Apply the first treatment within the following growth stage: when the inflorescences are clearly visible until fully developed (BBCH 53 – 57). Apply a follow-up treatment approximately six (6) weeks later at pea-berry stage (BBCH 75).
Tobacco Whiteflies (<i>Bemisia tabaci</i> Biotype B)	40 ml / 100 l water PLUS 20 ml Charge	Apply as a full cover spray, before whitefly populations build up to damaging levels. Thorough coverage of the foliage is essential. A follow-up application can be made 7 to 14 days later. Do not exceed two (2) applications of TIVOLI 240 SC per season. Please note that the claim on tobacco was added to the label of TIVOLI 240 SC as part of an EMERGENCY REGISTRATION and is thus still under evaluation with regards to efficacy, selectivity and residue breakdown. This claim is however based on preliminary data and made to the best of the registration holder's knowledge and should pose minimal risk if applied according to label recommendations.

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

- **BUPROFEZIN 500 WDG** (L 8254) = **BERETTA WDG** (L 8253),
- **CHARGE** (L 9100 / W 130953 / N-AR 2241) = **TECHNIWET SUPER** (L9239),
- **THIAXAM 250 WDG** (L 9191 / **W 130696**) = **THIATOX 250 WDG** (L 9190) and
- **TEMPES 100 EC** (L 9946) = **RAMBA 100 EC** (L 9899) (**Bifenthrin**) and
- **VILLA 51** (L 8050 / W 130454 / N-AR 1090) = **WEN 51** (L 8315).

VILLA 51, WEN 51 BUPROFEZIN 500 WDG and **THIAXAM 250 WDG** are registered products of
UNIVERSAL CROP PROTECTION (PTY) LTD.

BERETTA 500 WDG, CHARGE, TECHNIWET SUPER and **THIATOX 250 WDG** are registered products of
VILLA CROP PROTECTION (PTY) LTD.