

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

SHAKE THE BOTTLE WELL BEFORE USE.

Fungicide



SANTANA 480 SC

Reg. No. L 10049 Act/Wet No. 36 of/van 1947

3: 13/2/2019-Feb2019

A suspension concentrate, systemic action fungicide for the preventative control of diseases in crops as indicated.

'n Suspensie konsentraat, sistemiese aksie swamdoder vir die voorkomende beheer van siektes in gewasse soos aangedui.

ACTIVE INGREDIENTS / AKTIEWE BESTANDELE

prothioconazole (triazole) **480 g/l** protiokonasool (triasool)

FRAC FUNGICIDE GROUP CODE **3** FRAC SWAMDODER GROEPKODE



villa

Registration holder / Registrasiehouer:

Villa Crop Protection (Pty) Ltd.

Co. Reg. No. / Mpy. Reg. Nr. 1992/002474/07

PO Box / Posbus 10413, Aston Manor, 1630

Tel: 011 396 2233

Website / Webblad: www.villacrop.co.za

UN Number: 3082



**HARMFUL
SKADELIK**

Willow Set & Print 011 394-4486



GEBRUIKSAANWYSYNGS INGESLUIT

VERWYS NA BESONDERHEDE
GEDRUK OP HOUER/SAK

Date formulated:
Formuleringsdatum:

DIRECTIONS FOR USE ENCLOSED

REFER TO DETAILS PRINTED
ON CONTAINER/BAG

Batch number:
Lotnommer:

SANTANA 480 SC

Reg. No. L 10049 Act/Wet No. 36 of/van 1947

FRAC FUNGICIDE GROUP CODE / FRAC SWAMDODER GROEPKODE: 3

ACTIVE INGREDIENT / AKTIEWE BESTANDEDEEL:

prothioconazole (triazole) / protiokonasool (triasool) 480 g/l

Registration holder / Registrasiehouer:

VILLA CROP PROTECTION (PTY) LTD.

Co. Reg. No.: 1992/002474/07 Mpy. Reg. Nr.

PO Box / Posbus 10413

ASTON MANOR, 1630, Tel. (011) 396 2233

**HARMFUL****SKADELIK****WARNINGS****Withholding periods:**

| Minimum time between the last application and harvest or feeding: | |
|--|---------|
| Barley | 77 days |
| Wheat | 77 days |
| Wheat & Barley (Grazing) | 77 days |
| Maize (Grazing) | 28 days |
| Soybeans (Grazing) | 28 days |

NOTE

ABOVE-MENTIONED WITHHOLDING PERIODS REFER TO COMPLIANCE WITH LOCAL MAXIMUM RESIDUE LIMITS (MRL'S). HOWEVER, IT IS IMPORTANT TO NOTE THAT IMPORT TOLERANCES OF OTHER COUNTRIES MIGHT POSSIBLY BE EXCEEDED. IF THE TREATED CROP WILL BE EXPORTED, FIRST CONSULT THE RELEVANT IMPORTER OR EXPORTING BODY REGARDING THE USE OF THIS PRODUCT, MRL'S AND RECOMMENDED WITHHOLDING PERIODS.

- Handle with care.
- May be harmful if inhaled, absorbed through skin or swallowed.
- Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings.
- Very toxic to fish and other aquatic life with long lasting effects. Do not spray over or allow drift to contaminate adjacent areas of water.
- Store away from food, feeds, seed, fertilizers and other agricultural chemicals.
- Store in a cool, dry, well-ventilated place in the original container, tightly closed and secured.
- 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.

Aerial application:

Notify all inhabitants in the immediate vicinity of the lands to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water or adjacent areas.

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 climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the disease 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

- Avoid inhalation of the spray mist.
- Avoid contact of product with skin and eyes.
- Wear a face shield and rubber gloves when handling the concentrate and during mixing.
- Wash with soap and water after use or accidental skin contact.

- In case of eye contact, immediately flush the eyes with clean, cold water for 15 minutes, holding the eyelid(s) open. If irritation persists, seek medical advice.
- Wash contaminated clothes daily after use.
- Do not eat, drink or smoke whilst applying or mixing, or before washing hands and face or change of clothing.
- Prevent spray drift onto other crops, grazing, rivers, dams or areas not under treatment.
- Clean the spraying equipment directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams.
- **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 that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.
- Destroy the empty container by perforation and flattening and dispose of it in a safe way.
- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

SYMPTOMS OF HUMAN POISONING

Prolonged or repeated exposure may cause eye damage, headaches and dizziness. Some individuals may develop an allergic response.

FIRST AID TREATMENT

- **Inhalation:** Remove the patient from the source of contamination to fresh air. If breathing has stopped, perform artificial respiration and administer oxygen. Avoid mouth-to-mouth resuscitation. Keep person warm and at rest. Treat symptomatically and supportively as and when required.
- **Skin contact:** Remove contaminated clothing and shoes immediately. Gently wipe off excess chemical. Wash skin gently and thoroughly with non-abrasive soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15 to 20 minutes). Seek medical advice if necessary.
- **Eye contact:** Flush eyes immediately with large amounts of gently flowing cold water or normal saline solution, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15 to 20 minutes). If irritation persists, get medical attention.
- **Ingestion:** **Have victim rinse mouth thoroughly with water.** Do not induce vomiting. Seek medical advice immediately. **If the person is alert and respiration is not depressed, give large quantity of water to drink. Never give anything by mouth to an unconscious person. Establish and maintain airway. Treat respiratory difficulty with artificial respiration and oxygen. Qualified medical personnel should perform administration of gastric lavage or oxygen.**

NOTE TO PHYSICIAN

There is no specific antidote available. Treat symptomatically and give supportive treatment.

RESISTANCE WARNING

SANTANA 480 SC is a group code 3 fungicide. Any fungus population may contain individuals naturally resistant to **SANTANA 480 SC** and other group code 3 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **SANTANA 480 SC** or any other group code 3 fungicide.

To delay fungicide resistance:

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

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

USE RESTRICTIONS

- **SANTANA 480 SC** is only recommended for use on maize and soybean intended for grazing.

DIRECTIONS FOR USE: Only use as directed.

Compatibility:

- **SANTANA 480 SC** is compatible with **Academy 250 SC, Mycoblock 250 SC (L 8591)** and **Link**.

- The compatibility of **SANTANA 480 SC** in tank mixtures with other products has not been confirmed and can be influenced by the formulations involved, as well as the water quality.
- A physical compatibility test of all products involved is recommended, before application, as formulations can be altered and water quality can vary from area to area.
- Always consult the labels of products to be tank mixed with **SANTANA 480 SC**.

Mixing instructions:

- **Shake the container well before use. Replace cap directly after use.**
- Fill the spray tank to half of the desired volume with clean water and ensure continuous agitation.
- Add the required quantity of **SANTANA 480 SC** to the mixing tank, while agitation is continued.
- Observe the following formulation mixing sequence if other products will be tank mixed with **SANTANA 480 SC**: buffer/acidifier; wettable powder or granules, suspension concentrate, emulsifiable concentrate, wetters. Pre-mix each product separately with a small volume of water before adding it to the spray tank. Thereafter, fill the tank to the required volume with clean water while maintaining agitation, to ensure thorough mixing of the spray mixture, before application commences.
- Ensure continuous agitation during mixing and application.
- The spray mixture must be sprayed immediately after mixing. Prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

Application:

- Calibration: It is important to ensure that all application equipment is in good working order and correctly calibrated to apply the required spray volumes and dosage rate. Ensure good coverage by using the spray volumes as indicated.
- Rain: Repeat the application if rain falls within two (2) hours after application.

Aerial application:

Aerial application of **SANTANA 480 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 to 40 litres 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: 30 to 40 droplets per cm² must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 280 to 300 micron is recommended. Limit the production of fine droplets less than 150 micron (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 the aircraft is diving, climbing or when banking.
- Use suitable atomizing 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 atomizers 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 per hour.
- 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:
 - a) reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage),
 - b) 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 RATES

| Crop / Disease | Dosage rate | Remarks |
|--|---|---|
| Wheat Brown rust (<i>Puccinia triticina</i>) Stem rust (<i>Puccinia graminis</i>) Speckled leaf and Glume blotch (<i>Septoria</i> spp.) Powdery mildew (<i>Blumeria graminis</i> <i>tritici</i>) | 150 ml / ha PLUS 400 ml / ha Academy 250 SC PLUS Link <u>Ground application:</u> 50 ml / 100 l water (0.05 %) <u>Aerial application:</u> 100 ml / 100 l water (0.1%) | Apply the first application between the 5 and 7 leaf stage . Apply a second application 3 to 4 weeks later if disease pressure is evident (normally at flag leaf stage before appearance of the head). The first product application must be applied STRICTLY PREVENTATIVE before any symptoms are noticed. <u>Ground application:</u> Apply in 200 to 300 litres water per hectare. <u>Aerial application:</u> Apply in 30 to 40 litres water per hectare. Refer to “ Aerial application Instructions ” above. Consult the Academy 250 SC label for USE RESTRICTIONS, WARNINGS (including RESISTANCE WARNINGS), PRECAUTIONS and DIRECTIONS FOR USE . NOTE Adequate disease control can be expected if SANTANA 480 SC is applied alone at 150 ml per hectare with the adjuvant Link if this application is part of a resistance management spray programme. It is not recommended to spray SANTANA 480 SC and Link without the addition of Academy 250 SC as the first application in a disease management programme when high disease pressure is expected or when climatic conditions are conducive to disease development. |

| Crop / Disease | Dosage rate | Remarks |
|--|--|---|
| <p><u>Barley</u></p> <p>Net blotch (<i>Pyrenophora teres</i>)</p> <p>Leaf spot (<i>Rhynchosporium secalis</i>)</p> <p>Leaf rust (<i>Puccinia hordei</i>)</p> <p>Powdery mildew (<i>Blumeria graminis</i>)</p> | <p>150 ml / ha</p> <p>PLUS</p> <p>400 ml / ha Academy 250 SC</p> <p>PLUS</p> <p>Link</p> <p><u>Ground application:</u> 50 ml / 100 l water (0.05 %)</p> <p><u>Aerial application:</u> 100 ml / 100 l water (0.1 %)</p> | <p>Apply the first application not later than the 7-leaf stage.</p> <p>Apply a second application 3 to 4 weeks later if disease pressure is evident (normally at flag leaf stage before appearance of the head).</p> <p>The first product application must be applied STRICTLY PREVENTATIVE before any symptoms are noticed.</p> <p><u>Ground application:</u> Apply in 200 to 400 litres water per hectare.</p> <p><u>Aerial application:</u> Apply in 30 to 40 litres water per hectare. Refer to “Aerial application Instructions” above”.</p> <p>Consult the Academy 250 SC label for USE RESTRICTIONS, WARNINGS (including RESISTANCE WARNINGS), PRECAUTIONS and DIRECTIONS FOR USE.</p> <p>NOTE Adequate disease control can be expected if SANTANA 480 SC is applied alone at 150 ml per hectare with the adjuvant Link if this application is part of a resistance management spray programme.</p> <p>It is not recommended to spray SANTANA 480 SC and Link without the addition of Academy 250 SC as the first application in a disease management programme when high disease pressure is expected or when climatic conditions are conducive to disease development.</p> |

| Crop / Disease | Dosage rate | Remarks |
|--|--|--|
| <p>Soybeans Soybean rust (<i>Phakopsora pachyrhizi</i>)</p> | <p>SANTANA 480 SC IS RECOMMENDED IN AN INTEGRATED DISEASE MANAGEMENT PROGRAMME. IN ORDER TO ACHIEVE CONSISTENT AND RELIABLE DISEASE CONTROL, PREVENTIVE FUNGICIDE APPLICATIONS ARE CRITICALLY IMPORTANT.</p> <hr/> <p>100 ml / ha PLUS 300 ml / ha Academy 250 SC PLUS Link <u>Ground application:</u> 50 ml / 100 l water (0.05 %) <u>Aerial application:</u> 100 ml / 100 l water (0.1 %)</p> <p>OR</p> <p>100 ml / ha PLUS 300 ml / ha Mycoblock 250 SC PLUS Link <u>Ground application:</u> 50 ml / 100 l water (0.05 %) <u>Aerial application:</u> 100 ml / 100 l water (0.1 %)</p> | <p>Apply the first application of the SANTANA 480 SC tank-mix at the onset of flowering before any disease symptoms are noticed.</p> <p>A second application of the SANTANA 480 SC tank-mix is recommended 3 to 4 weeks later. Under expected high disease pressure conditions, a 3-weekly spray interval is recommended.</p> <p><u>Ground application:</u> Apply as a full cover spray in 300 to 500 litres water per hectare. <u>Aerial application:</u> Apply in 30 to 40 litres water per hectare. Refer to “Aerial application Instructions” above”.</p> <p>Consult the Academy 250 SC and Mycoblock 250 SC labels for USE RESTRICTIONS, WARNINGS (including RESISTANCE WARNINGS), PRECAUTIONS and DIRECTIONS FOR USE.</p> |

| Crop / Disease | Dosage rate | Remarks |
|--|---|---|
| <p>Maize & Sweet Corn Grey leaf spot (<i>Cercospora zeae-maydis</i>)</p> <p>Northern leaf blight (<i>Exserohilum turcicum</i>)</p> <p>Rust (<i>Puccinia sorghi</i>)</p> | <p>SANTANA 480 SC IS RECOMMENDED IN AN INTEGRATED DISEASE MANAGEMENT PROGRAMME. IN ORDER TO ACHIEVE CONSISTENT AND RELIABLE DISEASE CONTROL, PREVENTIVE FUNGICIDE APPLICATIONS ARE CRITICALLY IMPORTANT.</p> | |
| | <p>140 ml / ha PLUS 400 ml / ha Academy 250 SC PLUS Link <u>Ground application:</u> 50 ml / 100 l water (0.05%) <u>Hand-held Spinning disc applicator and Aerial application:</u> 100 ml / 100 l water (0.1 %)</p> <p>OR</p> <p>140 ml / ha PLUS 400 ml / ha Mycoblock 250 SC PLUS Link <u>Ground application:</u> 50 ml / 100 l water (0.05 %) <u>Hand-held Spinning disc applicator and Aerial application:</u> 100 ml / 100 l water (0.1 %)</p> | <p>Apply the first application of the SANTANA 480 SC tank-mix at the 5 to 6 leaf stage before any disease symptoms are noticed. A second application of the SANTANA 480 SC tank-mix is recommended 3 weeks later. Under continued high disease pressure conditions, a third application with Sparta 375 SC is recommended, 3 to 4 weeks later.</p> <p>In certain areas/conditions, where low disease presence is expected, apply a single application of the SANTANA 480 SC tank-mix at the 5 to 6 leaf stage. If extended disease control is required, revert back to the above mentioned, follow-up application of the SANTANA 480 SC tank-mix.</p> <p><u>Ground application:</u> Apply as a full cover spray in 300 to 500 litres water per hectare. <u>Hand-held Spinning disk applicator:</u> Apply 50 to 70 litres water per hectare. <u>Aerial application:</u> Apply in 30 to 40 litres water per hectare. Refer to “Aerial application Instructions” above”</p> <p>Consult the Academy 250 SC and Mycoblock 250 SC labels for USE RESTRICTIONS, WARNINGS (including RESISTANCE WARNINGS), PRECAUTIONS and DIRECTIONS FOR USE.</p> |
| | <p><u>Row application:</u> 50 ml / 100 l water PLUS 135 ml / 100 l water Academy 250 SC PLUS Link 100 ml / 100 l water (0.1 %)</p> <p>OR</p> <p>50 ml / 100 l water PLUS 135 ml / 100 l water Mycoblock 250 SC PLUS Link 100 ml / 100 l water (0.1 %)</p> | <p><u>Row application:</u> For low density plantings e.g. in the Free State and Western parts of RSA:</p> <p>This dosage is based on an overall ground application of 300 litres water per hectare. Apply, using a tandem fitting with two solid- or hollow cone nozzles, mounted on the boom above each row. Use sufficient water (not less than 100 litres per hectare), to ensure total coverage of the plants.</p> <p>Consult the Academy 250 SC and Mycoblock 250 SC labels for USE RESTRICTIONS, WARNINGS (including RESISTANCE WARNINGS), PRECAUTIONS and DIRECTIONS FOR USE.</p> |

| Crop / Disease | Dosage rate | Remarks |
|---|--------------------------------------|--|
| Lawns and Turf | | |
| Dollar spot (<i>Sclerotinia</i> spp.) | 1.0 ℓ / ha (350 ml / 100 ℓ water) | Preventive treatment: Commence with applications when conditions are conducive for development of the diseases. Apply in at least 300 litres water per hectare or 10 litres spray mixture per 100 m ² at 7 to 10 day intervals. |
| Fading out (<i>Helminthosporium</i> spp.) | | |
| Brown patch (<i>Rhizoctonia</i> spp.) | 1.0 ℓ / ha (520 ml / 100 ℓ water) | Curative treatment: Apply in at least 300 litres water per hectare or 10 litres spray mixture per 100 m ² , twice within 7 days after appearance of the disease. Thereafter return to the preventive programme as above. |

Consult the **Academy 250 SC, Mycoblock 250 SC, Epox 125 SC, Sparta 375 SC** and **Link** labels for **USE RESTRICTIONS, WARNINGS (including RESISTANCE WARNINGS), PRECAUTIONS** and **DIRECTIONS FOR USE**.

The following products mentioned in this label can be replaced with the following equivalent products:

- **EPOX 125 SC** (L 8147) = **EPOXICONAZOLE 125 SC** (L 8148),
- **PROJETRON 480 SC** (L 10050) = **SANTANA 480 SC** (L 10049) (**Prothioconazole**),
- **ACADEMY 250 SC** (L 10034) = **FACULTY 250 SC** (L 10032) (**Picoxystrobin**),
- **SPARTA 375 SC** (L 8403 / N-AR 1340) = **FLUSILAZIM 375 SC** (L 8400 / W 130493) = **FLUSICARB 375 SC** (L 9409) (**Flusilazole + Carbendazim**) and
- **LINK** (L 8675) = **DIRECT** (L 8680) = **SOLWET** (L 8679).

EPOX 125 SC, SANTANA 480S SC, ACADEMY 250 SC, SPARTA 375 SC, LINK and **DIRECT** are registered products of / is geregistreerde produkte van **VILLA CROP PROTECTION (PTY) LTD.**

EPOXICONAZOLE 125 SC, FACULTY 250 SC, MYCOBLOCK and/en **FLUSILAZIM 375 SC** are registered products of / is geregistreerde produkte van **UNIVERSAL CROP PROTECTION (PTY) LTD.**

SOLWET is a registered product of / is 'n geregistreerde produk van **SPECTRUM RESEARCH SERVICES.**

FLUSICARB 375 SC is a registered product of / is 'n geregistreerde produk van **CROPASURE (PTY) LTD.**