



Fungicide

POTENTIAL 500 EC

Reg. No. L 9161 Act No. 36 of 1947

5: 23/11/2023 – Dec2023

A systematic emulsifiable concentrate fungicide for the control of diseases on crops listed.

ACTIVE INGREDIENT

spiroxamine (spiroketalamine)

GROUP

5

FUNGICIDE

500 g/l



DANGER

Hazard Statements:

Harmful if swallowed.
Harmful in contact with skin.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Harmful if inhaled.
Suspected of damaging the unborn child.
May cause damage to eyes.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

IF SWALLOWED: Get medical help.
IF ON SKIN: Wash with plenty of water and non-abrasive soap.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help.
IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.



villa



UN Number: 3082

Registration holder: VILLA CROP PROTECTION (PTY) LTD.

Co. Reg. No. 1992/002474/07

65 Botes Road, Glen Marais, Kempton Park, 1619

Tel. (011) 396 2233

Website: www.villacrop.co.za

IN CASE OF POISONING / 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)

DIRECTIONS FOR USE ENCLOSED

Batch Number:

Date of Manufacture:

REFER TO DETAILS AS PRINTED ON CONTAINER / BAG

POTENTIAL 500 EC

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FUNGICIDE GROUP CODE: 5

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WARNINGS**Withholding periods:**

Minimum time between the last application and harvest or feeding:	
Barley	50 days*
Wine grapes	21 days
Table grapes	Do not apply after commencement of the flowering stage
Tomatoes	2 days
Wheat	56 days*

Do not graze treated crops.*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.

Hazard statements:

Harmful if swallowed.
Harmful in contact with skin.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Harmful if inhaled.
Suspected of damaging the unborn child.
May cause damage to eyes.
Very toxic to aquatic life with long lasting effects.

- Handle with care.
- Harmful if inhaled or in contact with skin.
- Store away from food, feeds, seed, fertilizers and other agricultural chemicals.
- Store in a cool, dry, well-ventilated area 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 within 1 day after treatment 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. 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 a 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.
Do not breathe, fume, mist, vapours and spray.
Wash hands and face thoroughly after handling. Do not touch eyes.
Do not eat, drink or smoke when using this product.
Use only outdoors or 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 SWALLOWED: Get medical help.
IF ON SKIN: Wash with plenty of water and non-abrasive soap.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help.
IF IN EYES: Immediately rinse 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.
Rinse mouth.
If skin irritation or rash occurs: Get medical help.
Take off contaminated clothing and wash it before reuse.
Collect spillage.
Store locked up.
Dispose of contents/container to suitable landfill in accordance with local regulations.

- In case of eye contact and eye irritation persists, seek medical advice.
- Wash contaminated clothes daily after use.
- 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 third of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner. 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 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.

Relevant hazardous component	
Spiroxamine	500 g/ℓ
Anionic / non-ionic blend	< 250 g/ℓ
Phenylmethanol	< 230 g/ℓ

SYMPTOMS OF HUMAN POISONING

No specific symptoms are known for this product but may include abdominal pain, diarrhoea and vomiting, causes serious eye damage, allergic skin reaction, skin irritation and irritation of mucous membranes.

FIRST AID TREATMENT

- **Skin contact:** If irritation occurs, remove contaminated clothing, shoes and leather goods (e.g., watchbands, belts). Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. If irritation persists, **obtain medical attention**.
- **Eye contact:** Immediately flush the contaminated eyes with gently flowing water for 20 minutes, holding the eyelid(s) open until no evidence of the chemical remains. If irritation persists, **obtain medical attention**.
- **Inhalation:** Remove source of contamination and move victim to fresh air. Keep affected person warm and at rest. Administer oxygen if breathing is difficult. If breathing has stopped, give artificial respiration. **Seek medical attention if irritation persists.**

- **Ingestion:** **Do not induce vomiting due to solvent.** If vomiting occurs spontaneously, keep person's head lower than hips to avoid aspiration. Rinse mouth with water. Do not give anything by mouth to an unconscious person. Immediately contact a physician or poison control centre for treatment advice.

NOTE TO PHYSICIAN

No specific antidote available. Treat symptomatically. Gastric lavage followed by activated charcoal (carbo medicalis) and sodium sulfate.

Mode of action: POTENTIAL 500 EC is a systemic fungicide with protective, curative and eradicator activity, absorbed by leaf tissue, translocated acropetally in the xylem uniformly distributing within the whole leaf. It inhibits ergosterol biosynthesis, by inhibition of sterol- Δ^{14} -reductase and Δ^8 to Δ^7 -isomerase (SBI Class II).

RESISTANCE WARNING

POTENTIAL 500 EC is a group code 5 fungicide. Any fungus population may contain individuals naturally resistant to **POTENTIAL 500 EC** and other group code 5 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **POTENTIAL 500 EC** or any other group code 5 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.

DIRECTIONS FOR USE: Only use as directed.

Compatibility:

- **POTENTIAL 500 EC** can be used in tank mixtures with any one of the following: **Fenhexamid 500 SC, Delta-Thrin 25 EC, Judo 50 EC, Villa Unizeb 750 WDG, Villa Unizeb 800 WP, Multizeb 455 SC, Unizeb 480 SC, Taurus 500 SC, Copper Oxychloride WP, Capacity 500 EC, Fortune 500 SC, Santana 480 SC, Link, Direct and Villa 51.**
- Tank mixtures of **POTENTIAL 500 EC** with other products are not recommended.
- **Do not** apply **POTENTIAL 500 EC** and products not listed above within 1 week of each other.
- **Do not** apply **POTENTIAL 500 EC** in combination with surfactants, stickers or as a tank mixture with trace or macro element foliar feeds in grapes.
- 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 **POTENTIAL 500 EC**.

Mixing instructions:

- Fill the spray tank to half of the desired volume with clean water and ensure continuous agitation.
- Add the required quantity of **POTENTIAL 500 EC** to the mixing tank, while agitation is continued.
- Note the following formulation mixing sequence if other products will be tank mixed with **POTENTIAL 500 EC**: buffer/acidifier; powders or granules, suspension concentrate, emulsifiable formulations (EC/EW), 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.
- **Replace cap directly after use.**
- 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 2 hours after application.

Aerial application:

Aerial application of **POTENTIAL 500 EC** 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
Barley Powdery mildew (<i>Blumeria graminis</i> <i>hordei</i> / <i>Erysiphe</i> <i>graminis</i> Leaf Spot (<i>Rhynchosporium</i> <i>secalis</i>) Rust (<i>Puccinia hordei</i>) Net blotch (<i>Pyrenophora teres</i>)	250 to 300 ml /ha (13 to 15 ml / 10 l water) PLUS 150 ml /ha Santana 480 SC (7.5 ml / 10 l water) PLUS 0.05 % Link <u>Ground application:</u> 50 ml / 100 l water (5 ml / 10 l water) <u>Aerial application:</u> 100 ml / 100 l water (10 ml / 10 l water) (0.1 % Link)	The first product application must be applied STRICTLY PREVENTATIVELY before any symptoms are noticed. 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). <u>Ground application:</u> Apply in 200 to 300 litres of water per hectare or 2 litres of water per 100 m ² . <u>Aerial application:</u> Apply in 30 to 40 litres of water per hectare. Refer to “Aerial application Instructions” above. DO NOT APPLY MORE THAN 2 APPLICATIONS OF POTENTIAL 500 EC PER SEASON. Consult the Santana 480 SC label for USE RESTRICTIONS, WARNINGS (including RESISTANCE WARNINGS), PRECAUTIONS and DIRECTIONS FOR USE. Always add Link to all POTENTIAL 500 EC applications. DO NOT GRAZE CROPS TREATED WITH POTENTIAL 500 EC.

Crop / Disease	Dosage rate	Remarks														
<u>Mangoes</u> Powdery mildew (<i>Oidium mangiferae</i>)	60 ml / 100 l water	Apply first treatment at the first signs of infection (normally when 50 % of the flowers are open). Repeat at 10 to 14-day intervals up to 100 % petal drop. This is followed by a further 2 to 3 sprays depending on weather conditions and uniformity of the flowering period. Apply as a cover spray and ensure complete coverage of the flower panicles.														
	6 ml / 10 l water (Home garden)															
<u>Roses</u> Powdery mildew (<i>Sphaerotheca pannosa</i>)	90 ml / 100 l water	Only roses in tunnels and enclosed areas. Apply at the first signs of infection as a high-volume spray. Repeat at 7 to 10-day intervals, but do not exceed three (3) applications per season. Apply alternative registered fungicides for further control of powdery mildew. NOTE Some rose varieties may be sensitive to POTENTIAL 500 EC . Therefore, it is recommended to conduct a compatibility test on a few roses prior to a commercial / large scale application.														
	9 ml / 10 l water (Home garden)															
<u>Table grapes</u> Powdery mildew (<i>Oidium tuckeri</i>)	<u>High volume application:</u> 10 to 14-day programme: 60 ml / 100 l water (300 to 600 ml / ha)	Start spraying when shoots are \pm 2 to 5 cm long. Repeat at indicated intervals. Do not apply after flowering began. Do not apply more than three (3) POTENTIAL 500 EC treatments per season. Apply other non-related, registered fungicides to control Powdery mildew after flowering.														
	6 ml / 10 l water (Home garden)															
<u>Wine grapes</u> Powdery mildew (<i>Oidium tuckeri</i>)	<u>High volume application:</u> 10 to 14-day programme: 60 ml / 100 l water (180 to 900 ml / ha)	Start spraying when shoots are \pm 2 to 5 cm long. Repeat at indicated intervals. Refer to notes below.														
<u>NOTES - Application in grapes:</u>																
<ul style="list-style-type: none"> <u>High volume application:</u> Spray to point of runoff and ensure even coverage. Depending on leaf surface area at time of application, apply 300 to 1500 litres spray mixture per hectare as follows: <table border="1"> <thead> <tr> <th rowspan="2">Crop stage</th><th colspan="2">Water volume (l/ha)</th></tr> <tr> <th>Wine grapes</th><th>Table grapes</th></tr> </thead> <tbody> <tr> <td>Shoots 2 to 5 cm long, up until just before flowering</td><td>300 to 750</td><td>500 to 1000</td></tr> <tr> <td>Flowering to pea-size berries</td><td>750 to 1000</td><td>-</td></tr> <tr> <td>Pea-size berries up to harvest</td><td>1000 to 1500</td><td>-</td></tr> </tbody> </table> <u>Low volume application:</u> POTENTIAL 500 EC can be applied as a low volume application. Calculate the volume of product required per hectare from the corresponding high-volume application. However, the concentration of the spray mixture may not be 4 times stronger than that of a high-volume application concentration. Apply in at least 250 litres water per hectare and ensure even coverage. 			Crop stage	Water volume (l/ha)		Wine grapes	Table grapes	Shoots 2 to 5 cm long, up until just before flowering	300 to 750	500 to 1000	Flowering to pea-size berries	750 to 1000	-	Pea-size berries up to harvest	1000 to 1500	-
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Crop / Disease	Dosage rate	Remarks
Tomatoes Powdery mildew (<i>Oidiopsis sicula</i>)	100 ml / 100 l water (10 ml / 10 l water) PLUS 0.018% Villa 51 18 ml / 100 l water (1.8 ml / 10 l water)	Refer to “ RESISTANCE WARNING and DIRECTIONS FOR USE ” above. Apply preventively as part of a spray programme. Apply POTENTIAL 500 EC as part of a PROGRAM APPLICATION starting from two (2) weeks after transplanting, before the first infection of Powdery mildew is noticed. Repeat application at 7-day intervals and alternate with fungicides with a different mode of action. Apply a maximum of four (4) applications of POTENTIAL 500 EC per growing season. The last application must not be applied later than two (2) days before harvest. Ensure complete coverage of the total canopy. Always add Villa 51 to POTENTIAL 500 EC applications to enable adequate crop coverage.
Wheat Powdery mildew (<i>Blumeria graminis tritici</i> / <i>Erysiphe graminis</i>) Brown rust (<i>Puccinia triticina</i>) Speckled Leaf and Glume Blotch (<i>Septoria spp.</i>)	300 to 375 ml /ha (15 to 19 ml / 10 l water) PLUS 150 ml /ha Santana 480 SC (7.5 ml / 10 l water) PLUS 0.05 % Link <u>Ground application:</u> 50 ml / 100 l water (5 ml / 10 l water) <u>Aerial application:</u> 100 ml / 100 l water (10 ml / 10 l water) 0.1 % Link	The first product application must be applied STRICTLY PREVENTATIVELY before any symptoms are noticed. 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). <u>Ground application:</u> Apply in 200 to 300 litres of water per hectare or 2 litres of water per 100 m ² . <u>Aerial application:</u> Apply in 30 to 40 litres of water per hectare. Refer to “ Aerial application Instructions ” above. DO NOT APPLY MORE THAN TWO 2 APPLICATIONS OF POTENTIAL 500 EC PER SEASON. Consult the Santana 480 SC label for USE RESTRICTIONS, WARNINGS (including RESISTANCE WARNINGS), PRECAUTIONS and DIRECTIONS FOR USE . Always add Link to all POTENTIAL 500 EC applications. DO NOT GRAZE CROPS TREATED WITH POTENTIAL 500 EC.

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

- **DELTA-THRIN 25 EC** (L 7426 / N-AR 0992 / W1301406) = **DELTA-THRIN 25EC** (L 7263 / W 130451),
- **JUDO 50 EC** (L 7785 / N-AR 1104 / W 1301413) = **LAMBDA 50 EC** (L 7787 / W 130687) = **LAMBDA-CYTHRIN 50 EC** (L 8343),
- **VILLA UNIZEB 750 WDG** (L 8812) = **NEWZEB 750 WDG** (L 8811) = **COZEB 750 WDG** (L 8964),
- **VILLA UNIZEB 800 WP** (L 8056 / N-AR 1091) = **COZEB 800 WP** (L 7098) = **NEWZEB 800 WP** (L 8167),

- **MULTIZEB 455 SC** (L 9174) = **NEWZEB 455 SC** (L 9175),
- **UNIZEB 480 SC** (L 9179) = **NEWZEB 480 SC** (L 9178),
- **TAURUS 500 SC** (L 8499 / N-AR 1137) = **IPRODIONE 500 SC** (L 8459),
- **COPPER OXYCHLORIDE WP** (L 6231/ N-AR 1879 / W 130952) = **COPPER OXYCHLORIDE WP** (L 5809),
- **CAPACITY 500 SC** (L 9206 / N-AR 1781 / W1301412) = **RIPPLE 500 EC** (L 9208) (**Bromopropylate**) and
- **FORTUNE 500 SC** (L 9918) = **FIGURE 500 SC** (L 9920) (**Folpet**).
- **SANTANA 480 SC** (L 10049) = **PROJETRON 480 SC** (L 10050) = **PROLEY 480 SC** (L 10094) (**Prothioconazole**),
- **VILLA 51** (L 8050 / W 130454 / N-AR 1090) = **WEN 51** (L 8315) and
- **LINK** (L 8675) = **DIRECT** (L 8680) = **SOLWET** (L 8679).

DELTA-THRIN 25 EC, JUDO 50 EC, VILLA UNIZEB 800 WP, UNIZEB 750 WDG, MULTIZEB 455 SC, UNIZEB 480 SC, TAURUS 500 SC, COPPER OXYCHLORIDE WP, CAPACITY 500 SC, FORTUNE 500 SC, SANTANA 480 SC, LINK, DIRECT, WEN 51 and VILLA 51 are registered products of **VILLA CROP PROTECTION (PTY) LTD.**

LAMBDA-CYTHRIN 50 EC, NEWZEB 800 WP and COZEB 750 WDG and PROLEY 480 SC are registered products of **CROPASURE (PTY) LTD.**

DELTA-THRIN 25 EC, LAMBDA 50EC, NEWZEB 750 WDG, COZEB 800 WP, NEWZEB 455 SC, NEWZEB 480 SC, IPRODIONE 500 SC, COPPER OXYCHLORIDE WP, RIPPLE 500 EC, FIGURE 500 SC and PROJETRON 480 SC are registered products of **UNIVERSAL CROP PROTECTION (PTY) LTD.**

SOLWET is a registered product of **SPECTRUM RESEARCH SERVICES.**