PHOSPHITE 400 SL
Reg. No. L 7468  Act/Wet No. 36 of/van 1947
N-AR 0996

A water-soluble systemic fungicide for the control of diseases in crops as indicated.

'n Wateroplosbare sistemiese swamdoder vir die beheer van siektes in gewasse soos aangedui.

ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL
potassium phosphite 560 g/l kaliumfosfiet
(phosphorous acid equivalent) 400 g/l (fosforigsuur ekwivalent)

FRAC FUNGICIDE GROUP CODE 33 FRAC SWAMDODER GROEPKODE

Registration holder / Registrasiehouer: Villa Crop Protection (Pty) Ltd.
PO Box / Posbus 10413, Aston Manor, 1630  Tel. (011) 396-2233
Website / Webblad: www.villacrop.co.za

UN Number: 3264
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Registration holder / Registrasiehouer:
VILLA CROP PROTECTION (PTY) LTD.
PO Box / Posbus 10413, ASTON MANOR, 1630, Tel. (011) 396 2233

CAUTION / VERSIGTIG

WARNINGS
Withholding periods:

<table>
<thead>
<tr>
<th></th>
<th>Minimum number of days between the last application and harvest:</th>
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</thead>
<tbody>
<tr>
<td>Grapes (Wine and Table)</td>
<td>28 days</td>
</tr>
<tr>
<td>Grapes (Table) when used in a tank mixture with Mancozeb When berries have reached pea-size</td>
<td>4 to 6 weeks</td>
</tr>
<tr>
<td>Pineapples</td>
<td>96 days</td>
</tr>
<tr>
<td>Potatoes</td>
<td>21 days</td>
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</tbody>
</table>

PHOSPHOROUS ACID FORMULATIONS ARE VIEWED AS FERTILIZERS, RATHER THAN FUNGICIDES IN MANY COUNTRIES OF THE WORLD AND THEREFORE NO MRL (MAXIMUM RESIDUE LEVEL) HAS BEEN DETERMINED OR ESTABLISHED. OTHER COUNTRIES MAY NOT USE PHOSPHOROUS ACID FORMULATIONS EITHER AS A FUNGICIDE OR FERTILIZER, AND THEREFORE EXPORTING PHOSHITE 400 SL TREATED FRUIT TO COUNTRIES WITHOUT ESTABLISHED MRL VALUES, MAY PRESENT PROBLEMS. PRODUCERS WHO WANT TO EXPORT FRUIT ARE THUS RECOMMENDED TO DISCUSS THIS MATTER WITH THEIR EXPORT AGENTS BEFORE USING PHOSHITE 400 SL.

- Handle with care.
- Harmful if swallowed.
- Cause irritation of eyes, air passages and skin.
- Product reacts with metals and generates hydrogen that may cause potential flammable and explosive mixtures.
- Store in a cool, well-ventilated and dry area. Keep away from metals and naked flames.
- Store away from food, feeds, seeds, fertilizers and other agricultural chemicals.
- 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.

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 disease to the remedy concerned, as well as by the method, time and accuracy of application. The registration holder further 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 event of any uncertainty.

PRECAUTIONS
- Avoid inhalation of the spray mist.
- Avoid contact with eyes and skin.
- Wear rubber gloves and a face shield when handling, mixing and applying the product.
- Wash with soap and water after use or accidental skin contact. Do not rub the skin. If irritation persists, seek medical attention.
- In case of eye contact, flush eyes thoroughly with copious amounts of clean cold water for at least 15 to 20 minutes, while keeping the eyelid(s) open. If irritation persists, seek medical attention.
- If the product has been ingested, do not induce vomiting. Let the person rinse his/her mouth thoroughly and drink plenty water or milk. Get medical attention immediately.
• Wash contaminated clothes daily after use.
• Do not eat, drink or smoke whilst applying, mixing or before washing hands and face or change of clothing.
• Prevent spray drift onto other crops, grazing, rivers, dams and areas not under treatment.
• Clean spraying equipment directly after use and dispose of wash water where it will not contaminate crops, 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 10% 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 in a safe way.
• **Never** re-use the empty container for any other purpose.
• Prevent contamination of food, feeds, drinking water and eating utensils.

**USE RESTRICTIONS**

• To ensure effective translocation of this systemic product, only use **PHOSPHITE 400 SL** on actively growing trees and vines when sufficient sap flow is taking place.
• Do not treat trees or vines under stress (e.g. heat, drought, waterlogged or heavy fruitset). Application under such conditions may cause damage to the trees/vines (e.g. scorching of leaves, gummosis).
• Do not apply to plants that are oxygen deprived within 6 days after heavy rains or when soil is waterlogged. The longer the saturation persists, the more the stress will increase. Only apply **PHOSPHITE 400 SL** when the matrix potential is between -18 and -50 kPa. Although this problem seems to be specific for citrus trees, it may also be the case with other crops. Thus, rather wait until harvesting is completed, before trees are to be treated with **PHOSPHITE 400 SL**.
• Do not treat plants if the leaves are wet due to rain or dew. Wait until the leaves are dry before commencing treatment.
• Do not apply **PHOSPHITE 400 SL** within a week before, or after, a copper application.
• Although **PHOSPHITE 400 SL** has been neutralized, it may still be corrosive to metal surfaces. It is recommended to use plastic or fiberglass containers when using the product as a trunk paint treatment.

**PINEAPPLES:**
• Do not apply this product during the 6 week period, preceding flower induction.

**GRAPES (Table and Wine):**
• The higher dosage rate can cause yellowing of young leaves.

**CITRUS:**
• **PHOSPHITE 400 SL** is generally suitable for use on non-bearing trees with green stems. However, some scion/rootstock combinations may exhibit sensitivity. It is therefore recommended that tolerance of trees be confirmed, before the orchard is treated as a whole.
• Easy peeler varieties (e.g. Mineola) exhibit a certain degree of sensitivity towards **PHOSPHITE 400 SL** treatments. Rather apply onto the rootstock areas of such sensitive varieties.
• Do not treat Easy peeler varieties which tend to set very heavy crops.
• The use of **PHOSPHITE 400 SL** to control *Phytophthora* root and Collar rot is more effective when applied preventatively, rather than curatively. It is therefore recommended to commence **PHOSPHITE 400 SL** treatments before the first visual signs of disease decline are observed, preferably before stage 4 (according to the scale of disease decline, 0 to 10 as indicated in Outspan Production Guidelines, Part 3), to ensure optimal efficiency.
• Do not apply **PHOSPHITE 400 SL** if waterlogging occurred shortly before harvest or during harvest. Treat only after harvest is completed.

**RESISTANCE WARNING**

**PHOSPHITE 400 SL** is a group code 33 fungicide. Any fungus population may contain individuals naturally resistant to **PHOSPHITE 400 SL** and other group code 33 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **PHOSPHITE 400 SL** or any other group code 33 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,
• for tank mixing or alternation with products in fungicide group code M, refer to applicable individual product labels,
• 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:
• The compatibility of PHOSPHITE 400 SL with other agricultural chemicals has not been confirmed. It is therefore recommended not to use PHOSPHITE 400 SL in tank mixtures or dipping solutions with other products.
• The use of PHOSPHITE 400 SL in tank mixtures with mineral oils, copper containing products, Dimethoate, products from the dchlorfol group, products with high potassium content, or highly alkaline products, is not recommended.
• Due to the fact that PHOSPHITE 400 SL is to be applied as a light cover spray on citrus, any product to be applied as a high volume spray must be considered as incompatible with PHOSPHITE 400 SL.
• A suitable wetting agent can be added if necessary. The wetting agent should be added last into the mixing tank, to avoid excessive foaming. Do not add a wetting agent, if PHOSPHITE 400 SL is being mixed with an agricultural chemical that already contains a wetting agent.
• If PHOSPHITE 400 SL is used in combination with any other agricultural chemical, all WARNINGS, PRECAUTIONS and DIRECTIONS FOR USE, as indicated on that label, must be followed.

Mixing instructions:
• Half fill the mixing tank with clean water.
• Shake the PHOSPHITE 400 SL container thoroughly just before use.
• Add the required volume of PHOSPHITE 400 SL to the mixing tank and ensure thorough agitation.
• In the case of Late blight control in potatoes, add PHOSPHITE 400 SL to the spray water first. Continue filling the spray tank while agitating the spray solution and then add the CHLORONIL PLUS 500 SC (L 7020).
• If any other product is to be mixed with PHOSPHITE 400 SL, the required volume of that product must be pre-mixed in 10 litres water in a separate container. When mixing with a wettable powder, premix the wettable powder with a small quantity of water to form a smooth cream, before adding to the mixing tank.
• Ensure thorough agitation and then add the product(s) in the following order (as applicable): wettable powder, suspension concentrate, water-soluble concentrate, emulsifiable concentrate. If a wetting agent is used, it should be added last into the mixing tank. Consult the other products’ labels for more details.
• If any other product is to be tank mixed with PHOSPHITE 400 SL, it must be added only after the PHOSPHITE 400 SL has completely dissolved in the water (refer to the other product’s label for directions).
• Fill the tank up to the desired volume, whilst agitating continuously.
• Ensure continuous agitation during application.
• Do not allow the spray mixture to stand over for a prolonged period of time in the mixing/spray tank, e.g. over night.
## APPLICATION RATES

<table>
<thead>
<tr>
<th>Crop / Disease</th>
<th>Dosage</th>
<th>Remarks</th>
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<tbody>
<tr>
<td><strong>Pineapples</strong></td>
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| Root and Collar rot (Phytophthora spp.) | 500 to 750 m³ / 100 l / water | **Dip treatment before planting:** Dip, by means of total immersion, all plant material for 10 minutes in solution. Ensure that all plant parts, especially the crown, are thoroughly wetted, to prevent rotting after planting.  
**Foliar application:** Apply at 1000 to 2000 litres spray solution per hectare when infection is expected, normally during autumn and spring. Apply a maximum of 5 applications per annum. Repeat applications at 2 to 3 month intervals.  
**IMPORTANT** Do not apply within the 6-week period of flower induction. PHOSPHITE 400 SL application during this period could result in poor induction efficiency. **Do not** apply PHOSPHITE 400 SL during the fruit maturation period. |
| | 500 to 1000 m³ / 100 l / water |         |
| **Citrus**      |        |         |
| Root and Collar rot (Phytophthora spp.) | Mix in a 50 : 50 ratio with water | **Trunk paint treatment:** Commence treatment just after the rainy season has started and repeat with 6 to 8 week intervals during the rainy season. The systemic translocation of PHOSPHITE 400 SL to the roots of citrus trees is enhanced if the application of the product is not performed when the trees are flushing. Under such conditions it is recommended to delay application until the new flush starts to harden off. Paint the whole trunk from ground level upwards for ± 35 cm. In case of graft incompatibility, only paint the scion and lower scaffold branches. Wetting, and therefore absorption, of PHOSPHITE 400 SL can be improved by the addition of a wetter.  
**Foliar application:** Commence treatment just after the rainy season has started and repeat with 6 to 8 week intervals. The systemic translocation of PHOSPHITE 400 SL to the roots of citrus trees is enhanced if the application of the product is not performed when the trees are flushing. It is recommended to delay application until the new flush starts to harden off. Apply as a light cover spray at 1800 to 2000 litres spray solution per hectare on medium to large trees. Too high spray volumes may result in unsatisfactory control, due to loss through run-off of the product and damage to fruit and leaves. In case of smaller trees, use proportionally less spray volumes and rather use a handgun. Leaves must be in a condition of high turgidity to prevent scorching. Apply early morning or late afternoon. It is recommended to stop application about 1 hour before an air temperature of 30 °C is reached. |
<p>| | 500 m³ / 100 l / water |         |</p>
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<tr>
<th>Crop / Disease</th>
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<tbody>
<tr>
<td>Potatoes</td>
<td></td>
<td>It is important to ensure effective disease control early in the season. <strong>PHOSPHITE 400 SL must be applied in combination with Chloronil Plus 500 SC.</strong> In areas of high risk, application should commence at 3 weeks post-emergence or earlier if conditions favour development of the disease. Early sprays, 2 to 3 weeks post-emergence, are best applied as directed sprays over the row. Repeat applications weekly under conditions of high disease pressure. If there is a possibility that Late blight can gain a foothold due to a break in the spray programme, or any other reason, the spray intervals must be reduced to 5 days. The ideal is that plants should be at least 95 % Blight free at all times. Apply as conventional high volume sprays and ensure complete coverage of the leaves and stems. Spray volumes of 500 to 600 litres per hectare are recommended at the first cover spray, which can increase to 1000 litres at development of full canopy. Due to over fertilization, canopies may be excessively dense and may therefore require even higher spray volumes. Lower spray volumes can be used provided the dosage rate of fungicides is maintained per hectare. It is recommended that the <strong>PHOSPHITE 400 SL</strong> dosage per hectare should be 2.0 to 2.5 litres at the first applications, increasing to 4.0 to 4.5 litres per hectare at development of full canopy. The <strong>Chloronil Plus 500 SC</strong> dosage per hectare must be 25 % of the <strong>PHOSPHITE 400 SL</strong> dosage. Note that with reduced application volumes factors such as droplet size, distribution and penetration become much more critical. Accurate calibration and spray equipment in good working order, determine the success of disease control to a large degree.</td>
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<tr>
<td>Late blight</td>
<td>400 ml / 100 l water <strong>PLUS</strong> 100 ml Chloronil Plus 500 SC / 100 l water</td>
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</tr>
<tr>
<td>Crop / Disease</td>
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| **Table and Wine grapes**  
Downy mildew (*Plasmopora viticola*) |  
**From 10 to 15 cm shoot length up to pea berry stage:**  
300 to 500 m\(^3\)  
PLUS  
120 g to 200 g Mancozeb (800 g / kg) / 100 l / water | **Foliar application:**  
Apply when shoots are 10 to 15 cm long. Repeat every 10 to 14 days depending on infection pressure. Under conditions that favour disease development, the spray intervals can be reduced to 7 days. Use the higher dosage rate for improved protection of the bunch. Spray until berries are pea-size. Continued application of the PHOSPHITE 400 SL/Mancozeb mixture may result in visible spray deposit on the berries.  
If, under conditions of abnormally high disease pressure, the foliage still needs protection after berries have reached pea-size. It is recommended to continue application of PHOSPHITE 400 SL on its own, at a rate of 300 m\(^3\) per 100 litres water, for as long as necessary.  
The berry stems are still susceptible to infection even though the berries are resistant to infection after reaching pea-size. Infection of the berry stems later during the season may result in shrivelled berries (individually or a section of the bunch).  
Apply as a normal high volume application, to ensure thorough coverage of the leaves as well as bunches. Refer to the spray volume guidelines for specific growth stages as compiled by the ARC-Infruitec-Nietvoorbij.  
Too high spray volumes are not recommended, as this may result in unsatisfactory control, due to loss through run-off of the product. Applying higher dosages than recommend may cause damage to the crop.  
A suitable wetter can be added to improve wetting of the plants. Tank mixtures with additional agrochemicals that already contain a wetter, can result in overwetting. It may be better to exclude a wetting agent under such conditions.  
Leaves must be in a condition of high turgidity to prevent scorching. Apply early morning or late afternoon. It is recommended to stop application about 1 hour before an air temperature of 30 °C is reached. |  

| From pea berry stage to harvest: |  
300 m\(^3\) / 100 l / water |  

CHLORONIL PLUS 500 SC is a registered product of / is ‘n geregistreerde produk van VILLA CROP PROTECTION (Pty) Ltd.