Fungicide



PHOSPHITE 400 SL

Reg. No. L 7468 Act No. 36 of 1947 N-AR 0996 / W1301399 5: 30/08/2022- Feb2024

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

ACTIVE INGREDIENT

potassium phosphite (Phosphorous acid equivalent)

560 g/ℓ 400 g/ℓ GROUP

33

FUNGICIDE



DANGER

Hazard Statements:

Causes severe skin burns and eye damage.

May cause respiratory irritation.

Precautionary Statements:

Do not breathe mist, vapours and spray Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.



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)

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WARNINGS

Withholding periods:

Trumoraning portodor			
Minimum number of days between last application and harvest:			
Grapes (Wine and Table)	28 days		
Grapes (Table) when used in a tank mixture with Mancozeb	4 to 6 weeks		
	When berries has reached pea-size		
Pineapples	96 days		
Potatoes	21 days		

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 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.

Hazard statements:

Causes severe skin burns and eye damage		
May cause respiratory irritation		

- Handle with care.
- Product reacts with metals and generates hydrogen that may cause potential flammable and explosive mixtures.
- Store in cool, well ventilated and dry area. Keep away from metals and open flames.
- Store away from food, feed, 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.

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PRECAUTIONS

Precautionary statements:

Do not breathe mists, vapours or spray

Wash hands and face thoroughly after handling.

Use only outdoors or in a well-ventilated area.

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

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes. Get emergency medical help immediately.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get emergency medical help immediately.

Wash contaminated clothing before use.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container in accordance with local regulations.

- Do not eat, drink or smoke whilst applying, mixing or before washing hands and face or changing clothing.
- Prevent spray drift onto other crops, grazing, rivers, dams or areas not under treatment.
- 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 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 empty container by perforation and flattening.
- Never re-use for any other purpose.
- Prevent contamination of food, feed, drinking water and eating utensils.

Relevant hazardous components			
Phosphorous acid flake	41 g/ℓ		
Potassium carbonate	< 50 g/ℓ		
Potassium hydroxide flake	< 50 g/ℓ		

FIRST AID TREATMENT

- Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs. Remove person to fresh air and keep comfortable for breathing.
- **Skin:** Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. **Get emergency medical help immediately.**
- Eyes: Flush eyes with clean water for at least 15 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Get emergency medical help immediately.
- **Ingestion:** Seek medical attention or call a poison control centre for treatment advice. Do not induce vomiting unless instructed to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.

RESISTANCE WARNING

PHOSHITE 400 SL is a group code 33 fungicide. Any fungus population may contain individuals naturally resistant to **PHOSHITE 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 **PHOSHITE 400 SL** or any other group code 33 fungicide.

To delay fungicide resistance:

 avoid exclusive repeated use of fungicide from the same fungicide group code. Alternate or tank mix with products form different fungicide group codes,

PHOSPHITE 400 SL

- for tank mixing or alternation with products in fungicide group code M, refer to applicable individual product labels,
- integrate the control methods (chemical, cultural, biological) into disease control programmes.

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

MODE OF ACTION

Creates an immune response within the host plant and also has direct antifungal activity.

USE RESTRICTIONS

- To ensure effective translocation of this systemic product, only use **PHOSPHITE 400 SL** on actively growing plants when sufficient sap flow is taking place.
- Do not treat trees or vines under stress (heat, drought, waterlogged or heavy fruitset). Application under such conditions may cause damage to the crops (eg 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 weeks period preceding flower induction.

TABLE AND WINE GRAPES:

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 – 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 the trees only post-harvest.

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 diclorfol group, products with a 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.

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• 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 the 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 another 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 spray tank, e.g. over night.

APPLICATION RATES

Crop / Disease	Dosage	Remarks
Pineapples Root and collar rot (Phytophthora spp.)	500 to 750 mℓ / 100 ℓ water 500 to 1000 mℓ / 100 ℓ water	Dip treatment during 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 months intervals. IMPORTANT: Do not apply within 6-week period of flower induction. PHOSPHITE 400 SL application in this period could result in poor induction efficiency. Do not apply PHOSPHITE 400 SL during the fruit maturation period.

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Crop / Disease	Dosage	Remarks
Citrus Root and collar rot (Phytophthora spp.)	Mix in a 50:50 ratio with water	Trunk paint treatment: Commence treatment when 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 done when 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 braches. Wetting and therefore absorption, of PHOSPHITE 400 SL can be improved by the addition of a wetter.
	500 mℓ / 100 ℓ water	Foliar application: Commence treatment when 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 done when trees are flushing. Under such conditions 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 fruits 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.
Potatoes Late blight (Phytophthora infestans)	400 m/ / 100 ℓ water PLUS 100 mℓ Chloronil Plus 500 SC / 100 ℓ water	It is important tot ensure effective disease control early in the season. PHOSPHITE 400 SL must be applied in combination with Chloronil Plus 500 SC. 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 PHOSPHITE 400 SL dosage per hectare should be 2.0 to 2.5 litres at first applications, increasing to 4.0 to 4.5 litres per hectare at development of full canopy. The Chloronil Plus 500 SC dosage per hectare must be 25 % of the PHOSPHITE 400 SL dosage. Note that with reduced application volumes factors such as droplet size, distribution and penetration become mush more critical. Accurate calibration and spray equipment in good working order, determine the success of disease control to a large degree.

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Crop / Disease	Dosage	Remarks
Table and Wine grapes Downy mildew (Plasmopora viticola)	From 10 to 15 cm shoot length up to pea berry stage: 300 to 500 ml 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 mℓ 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 shriveled berries (individually or a section of the bunch).
	From pea berry stage to harvest: 300 m/ / 100 / water	Apply as 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 mixture with additional agrochemicals that already contains 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.

Chloronil Plus 500 SC (L 7020) is a registered product of VILLA CROP PROTECTION (PTY) LTD.

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