

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



Insecticide

PHOSDRIN® 500 SL

Reg. No. L 4995 Act No. 36 of 1947
N-AR 1088

3. 28/07/2022 – June 2023

A water-soluble concentrate systemic and contact insecticide with fumigant action for the control of the pests mentioned on the crops listed.

ACTIVE INGREDIENT

mevinphos (organophosphate) 500 g/l

GROUP 1B INSECTICIDE



Hazard Statements:

Fatal if swallowed, inhaled or in contact with skin.
Causes skin irritation.
Causes serious eye irritation.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
In case of inadequate ventilation wear respiratory protection.
Avoid release into the environment.

DANGER



UN Number: 3018

Registration holder: UNIVERSAL CROP PROTECTION (PTY) LTD.
Co. Reg. No. 1983/008184/07
PO Box 801, Kempton Park, 1620
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)

REFER TO DETAILS AS PRINTED ON CONTAINER / BAG

DIRECTIONS FOR USE ENCLOSED

Batch Number:

Date of Manufacture:

PHOSDRIN® 500 SL

Reg. No. L 4995 Act No. 36 of 1947

N-AR 1088

IRAC INSECTICIDE GROUP CODE: 1B

ACTIVE INGREDIENT:

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P.O. Box 801, KEMPTON PARK, 1620

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WARNINGS**Withholding periods:**

Allow the following minimum number of days between the last application and harvesting or grazing:	
Citrus	3 days
Beans, Cruciferae and Peas	4 days
Grapes	7 days
Wheat	7 days

IMPORTANT NOTES ON MRL'S:

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

Hazard statements:

Fatal if swallowed, inhaled or in contact with skin.
Causes skin irritation.
Causes serious eye irritation.
Very toxic to aquatic life with long lasting effects.

- Handle with extreme care.
- Keep out of reach of children, uninformed persons and animals.
- Toxic to bees, birds and wildlife.
- Store under lock and key in a cool, dry place, away from food, feed, fertilizers and drinking water.
- Re-entry: Do not enter treated field within 2 days after application unless wearing protective clothing.
- **In case of poisoning, take the patient immediately to a physician and make this label available to him/her.**

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 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 pests 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**Precautionary statements:**

Do not breathe fumes, mists, vapours, or spray.
Do not get in eyes, on skin, or on clothing.
Wash hands 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.
Avoid release into the environment.
Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
In case of inadequate ventilation wear respiratory protection.
IF SWALLOWED: Immediately call a POISON CENTER.
IF ON SKIN: Wash with plenty of water and non-abrasive soap. Get emergency medical help immediately.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get emergency medical help immediately.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Rinse mouth.
If eye irritation persists: Get medical help.
Take off immediately all contaminated clothing and wash before reuse.
Collect spillage.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of content/container to suitable landfill in accordance with local regulations.

- The operator should not be alone during application.
- Prevent drift onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean the applicator after use and dispose of wash water where it will not contaminate food, grazing, rivers, dams, boreholes, fountains, etc.
- **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 empty container by perforating and flattening and dispose of in a safe way.
- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feed, drinking water and eating utensils.

Relevant hazardous components	
Mevinphos	500 g/l
Rhodamne Dye	< 1 g/l
Hexalene glycol	< 400 g/l

SYMPTOMS OF HUMAN POISONING

MEVINPHOS (PHOSDRIN® 500 SL) IS A SEVERE CHOLINESTERASE INHIBITOR. A PHYSICIAN SHOULD BE CONTACTED IN ALL CASES OF EXPOSURE TO MEVINPHOS AND ITS FORMULATIONS. WEAR PROTECTIVE EQUIPMENT WHEN TREATING SOMEONE EXPOSED TO MEVINPHOS TO PREVENT EXPOSURE OF THE RESCUER. IT IS HIGHLY TOXIC. CONTACT WITH SKIN, INHALATION OF SPRAY, OR SWALLOWING MAY BE FATAL.

SIGNS OF ACUTE OVEREXPOSURE: Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhoea, abdominal cramps, excessive sweating, salivation and tearing, constricted pupils, blurred vision, tightness in chest, weakness, muscle twitching and confusion; in extreme cases, unconsciousness, convulsions, severe respiratory depression and death may occur. In addition, exposure to the solvent may cause severe eye irritation.

FIRST AID TREATMENT

- **Inhalation:** Remove victim to fresh air. If breathing has ceased, clear the victim's airway and start mouth-to-mouth artificial respiration. If breathing is difficult, give oxygen. **Seek medical attention immediately.**
- **Skin contact:** Remove contaminated clothing, shoes and leather goods. Wash skin gently and thoroughly with cold water and non-abrasive soap. **Seek medical attention immediately.**
- **Eye contact:** Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention if irritation persists.**
- **Ingestion:** If the product has been swallowed, have the person to rinse mouth thoroughly with water. **Do not induce vomiting.** Do not give any saltwater or any other emetic. **Seek medical attention immediately or contact a poison centre.** Administer artificial respiration or closed chest cardiac massage if necessary. Do not apply mouth-to-mouth respiration. Never give anything by mouth to an unconscious person. **Take the patient immediately to the nearest physician.**

NOTE TO PHYSICIAN**THIS PRODUCT IS A HIGHLY TOXIC ORGANOPHOSPHATE (OP) INSECTICIDE.**

Do not wait for laboratory confirmation to treat patients with strong clinical evidence of poisoning.

Do not handle the patient without the following protective equipment in place: chemical resistant gloves and apron (preferably PVC). Remove contaminated clothing and do not reuse without thorough cleaning with detergent and hot water. Dispose of heavily contaminated clothing, including shoes, as a hazardous waste.

Establish airway and oxygenation. IV Atropine sulfate is the antidote of choice against parasympathetic nervous stimulation. If there are signs of parasympathetic stimulation, Atropine Sulfate should be injected at 10 minute intervals in doses of 1 to 2 milligrams until complete atropinization has occurred. Pralidoxime chloride (2-PAM chloride) may also be used as an effective antidote in addition to and while maintaining full atropinization. In adults, an initial dose of 1 gram of 2-PAM should be injected, preferably as an infusion, in 250 cc of saline over a 15 to 20 minute period. If this is not practical, 2-PAM may be administered slowly by intravenous injection as a 5 % solution in water over not less than 2 minutes. After about an hour, a second dose of 1 gram of 2-PAM will be indicated if muscle weakness has not been relieved. For infants and children, the dose of 2-PAM is 0.25 grams.

NOTE

Avoid morphine, aminophylline, phenothiazine, reserpine, furosemide and ethacrynic acid. Clear chest by postural drainage. Oxygen administration may be necessary. Observe patient continuously for 48 hours. Repeated exposure to cholinesterase inhibitors may without warning cause prolonged susceptibility to very small doses of any cholinesterase inhibitor.

RESISTANCE WARNING

PHOSDRIN® 500 SL is a group code 1B insecticide. Any insect population may contain individuals naturally resistant to **PHOSDRIN® 500 SL** and other group code 1B insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **PHOSDRIN® 500 SL** or any other group code 1B 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:

PHOSDRIN® 500 SL contains **mevinphos**, an organophosphate belonging to IRAC group 1B. It is a systemic insecticide and acaricide that is active through contact, ingestion and respiration, with short residual activity. The active inhibits the acetylcholinesterase through covalent reaction with the enzyme at the acetylcholine binding site, blocking hydrolysis of acetylcholine and resulting in hyperexcitation.

DIRECTIONS FOR USE: Use only as directed.**Compatibility:**

- **PHOSDRIN® 500 SL** is compatible with acidifying agents commonly used.
- **PHOSDRIN® 500 SL** is more stable at a pH of around 5; the efficacy of **PHOSDRIN® 500 SL** can therefore be harmed by a high pH value of the water. It is recommended to use a buffering agent for example **AQUABUFF** (L 5451 / W 130060) or **COMMODOBUFF** (L 5390 / N-AR 1107), to adjust the pH to the level of pH 5.
- Where an acidifying agent is used to lower the pH of the water, the agent must be mixed with the water before the **PHOSDRIN® 500 SL** is added. Similarly, very hard water (more than 500 ppm solutes) can harm the efficacy of **PHOSDRIN® 500 SL**.

Mixing instructions:

- Half fill the spray tank with clean water.
- Measure the required quantity of **PHOSDRIN® 500 SL** and premix this with at least 10 litres water.
- Add this mixture to the water in the spray tank while agitating the mixture.
- Fill the spray tank with water while maintaining agitation to ensure thorough mixing of the spray mixture before spraying commences.
- Maintain agitation during the duration of the spraying operation.
- Prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

General directions:

Use at all times correctly calibrated and suitable equipment in good working conditions, to ensure wetting of all parts of the plant thoroughly.

Aerial application:

Aerial application of **PHOSDRIN® 500 SL** 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 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: 25 to 35 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 aircraft dives, is in a climb or when banking.
- Use suitable atomising 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 atomisers 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 / Pest	Dosage Rate	Remarks
Beans Aphids	22.5 ml / 100 l water	Commence spraying when infestation is considered to be causing damage. Repeat when necessary. Ground application: Apply as a high volume full cover spray. Do not use more than 210 ml PHOSDRIN® 500 SL per hectare.
	210 ml / ha	Aerial application: Apply in 30 litres water per hectare.
Citrus African bollworm	30 ml / 100 l water	Apply a light cover spray as soon as an infestation occurs. Will also control Aphids.
Aphids (also in orchards under biological control)	6 ml / 100 l water	Apply a light cover spray when necessary. Ensure application is performed in time to prevent the formation of honeydew. May also be used in orchards under biological control.
Psylla	6 ml / 100 l water	Apply a low volume cover spray using 5 to 10 litres spray mixture per tree when necessary. Apply a second application 14 to 16 days later to control nymphs that have hatched since the first application.
Cruciferae Aphids and Diamond-back moth and Greater cabbage moth larvae	22.5 ml / 100 l water	Commence spraying when infestation occurs. Repeat weekly if necessary. Apply as a high volume full cover spray. Do not use more than 210 ml PHOSDRIN® 500 SL per hectare.
Grapes (Table and Wine) Mealybug	37.5 to 45 ml / 100 l water	Commence application when pest occurs (usually at the base of shoots) during December. Ensure thorough application of spray mixture to main stem and shoots. Use at least 5 litres spray mixture per large vine. Repeat the application at 2 to 3 week intervals if necessary. Do not apply within one week after any dusting powder was applied. Do not use in conjunction with wettable Sulphur , wetting and/or sticking agents. Dosage depends on severity of infestation. Do not use more than 1.5 to 2.7 litres PHOSDRIN® 500 SL per hectare.
Peas Aphids	22.5 ml / 100 l water	Commence spraying when infestation is considered to be causing damage. Repeat weekly if necessary. Ground application: Apply as a full cover spray. Do not use more than 210 ml PHOSDRIN® 500 SL per hectare.
	210 ml / ha	Aerial application: Apply in 30 litres water per hectare.
Wheat Aphids (brown and green)	120 ml to 240 ml / ha	Apply when pest is on the increase and few predators are present. Wheat should be actively growing to ensure good results. Ground application: Use in sufficient water, to ensure adequate coverage. Under stress conditions it is necessary to use 240 ml PHOSDRIN® 500 SL per hectare.
	120 ml to 240 ml / ha	Aerial application: As for ground application. Apply in 30 litres water per hectare.

PHOSDRIN® 500 SL is a registered trademark of **AMVAC, USA**.

COMMODOBUFF and **AQUABUFF** are registered products of **UNIVERSAL CROP PROTECTION (PTY) LTD.**