

Manjifiek SL

Reg. No.: L 9474 Act/Wet No. 36 of/van 1947



A water soluble concentrate systemic fungicide for the control of late blight in potatoes and tomatoes, downy mildew in grapes and *Phytophthora* fruit brown rot in citrus.

ACTIVE INGREDIENT

Ammonium phosphate 386 g/l
(phosphorous acid equivalent) 300 g/l

FRAC FUNGICIDE GROUP CODE: 33



WARNING

HAZARD STATEMENTS: Causes serious eye irritation | Harmful if swallowed | May cause respiratory irritation | Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS: Obtain special instructions before use | Do not handle until all safety precautions have been read and understood | Wash hands thoroughly after handling
Do not eat, drink or smoke when using this product.

Registration holder: Green Island Investments (Pty) Ltd.

Co. Reg. No.: 2013/043963/07

P.O. Box 1822, Heidelberg 1438, South Africa

Tel: 078 737 9236

24 HR EMERGENCY NUMBERS

Griffon Poison Information Centre: +27 82 446 8946

24 Hr Transport / Spill emergency no:

(Hazcall24) +27 86 044 4411 (Typhoon Plant Protection)

Distributed by: Typhoon Plant Protection (Pty) Ltd.

Co. Reg. No.: 1998/006156/07, C/O Farm Vlakfontein

Corner of the R23 Benoni Road & R550, Nigel Road

Brakpan District, Heidelberg 1438, Gauteng, South Africa

Tel: 078 737 9236

Net Volume:

ℓ

Expiry Date:

Batch No:

Date of Manufacture:

U.N. No. 1805

 **Typhoon**
PLANT PROTECTION

READ LABEL IN DETAIL BEFORE OPENING THE CONTAINER. FOR FULL PARTICULARS, SEE ENCLOSED LEAFLET.
KEEP OUT OF REACH OF CHILDREN AND ANIMALS.



WARNINGS:**Withholding periods:**

The minimum number of days between last application and harvest:	
Potatoes	6 days
Grapes	28 days
Tomatoes	3 days

IMPORTANT: The recommended withholding period between last application and harvest meets local residue requirements, but may not meet export requirements.

WARNINGS:**HAZARD STATEMENTS:**

- Causes serious eye irritation.
- Harmful if swallowed.
- May cause respiratory irritation.
- Toxic to aquatic life with long lasting effects.

- Handle with care.
- Harmful when swallowed.
- Irritating to eyes, skin and respiratory tract.
- Slightly toxic to aquatic organisms.
- **MANJIFIEK SL** must only be applied to actively growing plants.
- Plants to be treated should not suffer from any stress such as drought, heat or waterlogging, as this could lead to a phytotoxic response such as leaf scorch.
- **MANJIFIEK SL** may still be corrosive to metal, despite neutralization.
- Store in a dry, cool place away from food and feed.
- Keep out of reach of children, uninformed persons and animals.
- **Re-entry: Do not** enter treated field until spray deposit has dried, unless wearing protective clothing.

Although this remedy has been extensively tested under a wide 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; incompatibility 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 furthermore does not accept responsibility for damage to crops, vegetation, the environment, or harm to man and animal, or for lack of performance of the remedy concerned due to failure of the user to follow the label instructions, or 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 special instructions before use.
 - **Do not** handle until all safety precautions have been read and understood.
 - Wash hands thoroughly after handling.
 - **Do not** eat, drink or smoke when using this product.
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- **Do not** inhale spray mist
 - Wear rubber gloves and face shield during handling, mixing and application.
 - **Do not** eat, drink or smoke during application or before washing hands and face
 - Wash with soap and cold water after application or skin contamination
 - Wash contaminated clothing after application
 - Prevent drift of spray mist onto other crops, grazing, rivers, dams, and areas not under treatment
 - Clean spray equipment and mixing containers after use and dispose of wash water where it will not contaminate crops, grazing, rivers or dams
 - When using **MANJIFIEK SL** rinse empty container three times with a volume water equal to at least one tenth of the volume of the container and add the rinsing to the rest of the spray water. Ensure that the recommended dosage is maintained
 - **Do not** use empty container for any other purpose
 - Prevent contamination of food, feed, drinking water and eating utensils.

RELATED INGREDIENTS:

Substance/Mixture: Mixture Ingredients:

Substance name (IUPAC)	CAS No.	Concentration % By weight
Ammonium phosphite (Active Ingredient)	13446-12-3	30%
Phosphorous Acid	64742-94-5	30%

SYMPTOMS OF HUMAN POISONING:

May irritate the eyes and skin.

FIRST AID TREATMENT:

Remove from source of exposure. Wash affected area.

Eye and skin contact: Flush eyes with water for 15 minutes after eye contact.

Wash with soap and water after skin contact.

Should irritation of skin or eyes persist, consult a physician.

Inhalation: Remove to fresh air. Assist breathing if necessary. Get medical attention.

Ingestion: Wash out mouth. Give a spoon of activated charcoal in a glass of water. Get medical attention.

Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN:

Treat symptomatically.

RESISTANCE WARNING:

For resistance management, **MANJIFIEK SL** is a **code 33 fungicide**. Any fungus population may contain individuals naturally resistant to **MANJIFIEK 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 **MANJIFIEK SL** or any other **group code 33 fungicide**.

To delay fungicides resistance:

- Avoid the exclusive repeated use of the same fungicides group code. Alternate with or use in tank mixture with products with different fungicide group codes.
- For tank mixing or alteration with products in fungicide group code M, refer to the applicable individual product labels.
- Integrate the control method (chemical, cultural, biological) into disease control programmes.

For specific information on resistance management, contact the registration holder of **MANJIFIEK SL**.

NOTE:

- Similar to most other systemic fungicides, **MANJIFIEK SL** is also subject to the selection of less susceptible pathogen individuals and the subsequent proliferation of a less sensitive population. It is therefore highly advisable to alternate **MANJIFIEK SL** with other non-related fungicides.
- Managing late blight resistance: It is imperative in a late blight chemical control programme to rotate especially the specific-site inhibitor fungicide as they are at risk to select less sensitive members of the late blight pathogen population. The use of maneb + zinc oxide as multi-site fungicide tank mixed with **MANJIFIEK SL** will reduce the risk of resistance development but should nevertheless be alternated with other mixtures in which the systemic specific-site fungicide component is chemically non-related to **MANJIFIEK SL**.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED.

Compatibility:

- The compatibility of **MANJIFIEK SL** with other materials in terms of plant safety, physical and chemical compatibility and biological efficacy still has to be confirmed.
- MANJIFIEK SL** is however compatible with maneb + zinc oxide and wetting agent.

Mixing instructions:

- Fill the tank to half capacity with clean water and while agitating add **MANJIFIEK SL**.
- Shake the maneb + zinc oxide well before decanting the product and adding it to the tank while filling and agitating.
- Remove maneb + zinc oxide from measuring container by rinsing in the spray tank.
- Never mix product concentrates without prior dilution.
- **Astrand** wetter is added last to the tank.

Application:

- **MANJIFIEK SL** is applied as a high volume spray to obtain full cover.
- **Do not** apply aerially as concentrated spray mixture may result in leaf scorch.
- Avoid application when the plants are under **stress** as result of **drought, heat** or **waterlogging** as it may result in inefficient control and phytotoxic effects.
- **Do not** apply within 21 days of any copper application.

Systemic translocation:

- **MANJIFIEK SL** is systemic and is translocated downwards (basipetal) from leaves to lower stems and tubers.
- This property is advantageous for the control of late blight on lower stems and tubers.
- The product also has acropetal mobility (translocation towards growing points).

Preventive and Curative:

- **MANJIFIEK SL** is curative when applied after infection, before symptoms have appeared, but has a very short residual activity on potatoes.
- In combination with maneb + zinc oxide broad spectrum fungicide, the residual activity is however extended to 7 to 14 days depending on the rainfall shortly after application.
- The follow-up **MANJIFIEK SL** spray in the programme will control the successful infections which escaped the residual protection.

APPLICATION RATES:

CROP / DISEASE:	DOSAGE RATE:	REMARKS:
POTATOES Late blight (<i>Phytophthora infestans</i>)	6,7 ℓ MANJIFIEK SL plus 2 ℓ maneb + zinc oxide /ha	Apply the tank mixture in sufficient water as high volume spray to ensure complete coverage of foliage and stems. Apply at intervals of 7 to 14 days depending on weather conditions. Apply as a block application consisting of two sprays, 5 days apart under high disease pressure with further applications at normal intervals. Hard and frequent rain showers shortly after application will remove more fungicide deposit (especially the non-systemic Trimangol ® component in the tank mixture) from foliage and stems than soft infrequent precipitation further away from last spray. Ensure good cover of also the lower foliage and stems especially after flowering when canopy tends to be dense.
TOMATOES Late blight (<i>Phytophthora infestans</i>)	6,0 ℓ MANJIFIEK SL plus 2 ℓ maneb + zinc oxide /750 ℓ per ha	Apply the tank mixture in sufficient water as high volume spray to ensure complete coverage of foliage and stems. Apply at intervals of every 7 to 10 days depending on climatic conditions and rainfall. Shorten interval when heavy rainfall has occurred shortly after previous spray. Ensure complete cover during spray operation as maneb + zinc oxide component is not systemic. Under heavy disease pressure apply twice at short interval of not more than 5 days where after another unrelated fungicide with a different FRAC code should be used.

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APPLICATION RATES: (Continued)

CROP / DISEASE:	DOSAGE RATE:	REMARKS:
GRAPES Downy mildew <i>(Plasmopara viticola)</i>	400 mℓ MANJIFIEK SL plus 120 mℓ maneb + zinc oxide /100 ℓ water	Apply 1000 to 1500 litre spray mixture per hectare as a foliar spray. Repeat at intervals of 7 to 14 days depending on climatic conditions and rainfall. Apply the first spray when shoots are 10 to 15 cm in length and continued until berries reach pea size. Under conditions of rain showers shortly after application and favouring disease development, use the shorter intervals. Ensure good coverage of leaves and bunches. Sprays should be applied when plants are at high turgidity during early mornings and late afternoons to avoid possible leaf scorch. As a general guide spraying should be discontinued one hour before temperature is expected to reach 30°C. For downy mildew control after pea berry stage, use other registered fungicides.
CITRUS (Oranges & Lemons) <i>Phytophthora</i> Brown Rot of fruit:	666 mℓ MANJIFIEK SL /100 ℓ water	Apply 2500 litre spray mixture per hectare for 4 meter tall trees and applying approximately 2,0 ℓ per tree. Apply as a light cover spray to the lower 1,5 metre canopy. Apply at intervals of 7 to 14 days prior to harvest. Adjust spray volume for other tree sizes.

Use a contact fungicide like **Chlorthalonil 720 SC**.