



The miracles of science™

# TANOS®

Reg. No. L6564 Act No. 36 of 1947

Reg. Nr. L6564 Wet Nr 36 van 1947

Organic preventive and curative fungicide (water dispersible granule) for the control of Late Blight (*Phytophthora infestans*) and Early Blight (*Alternaria solani*) on potatoes and tomatoes.

Organiese beskermende en kuratiewe swamdoder (water disperseerbare korrel) vir die beheer van Laatroes (*Phytophthora infestans*) en Vroeë roes (*Alternaria solani*) op aartappels en tamaties.

FUNGICIDE GROUP CODE X / 11 SWAMDODER GROEP KODE

**ACTIVE INGREDIENT**

Cymoxanil (ethyl urea) .....250 g/kg...  
Famoxadone (oxazolidinedione) .....250 g/kg...

**AKTIEWE BESTANDDEEL**

Simoksaniil (etielurea)  
Famoksadoon (oksasolidiendioon)

**Net Mass**

**3,5 kg**

**Netto Massa**

**REGISTERED BY /  
GEREGISTREER DEUR:**

DUPONT DE NEMOURS SOUTH AFRICA  
(PTY) LTD  
Co. Reg. No. 2009/014079/07  
P O BOX / POSBUS 3332  
HALFWAY HOUSE 1685  
Tel: (011) 218-8600

**24 HOUR/UUR EMERGENCY  
NUMBER/ NOODNOMMER:  
083 123 3911**

BATCH NUMBER  
DATE MANUFACTURED

[Empty boxes for Batch Number and Date Manufactured]

LOTNOMMER  
DATUM VERVAARDIG

**UN No. / VN Nr. 3077**

**CAUTION  
VERSIGTIG**

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# TANOS®

Reg. No. L6564 Act No. 36 of 1947

Contains cymoxanil and famoxadone

## **WARNINGS:**

ALLOW THE FOLLOWING WITHHOLDING PERIOD BETWEEN LAST APPLICATION AND HARVEST.

Potatoes - 7 days

Tomatoes - 3 days

- Handle with care.
- Harmful if inhaled or swallowed.
- Keep out of reach of children, uninformed persons and animals.
- Toxic to fish.
- Store away from food and feed. Store in original container, tightly closed, in a secure and well-ventilated room.
- Keep away from fire and sparks.
- Protect against humid air and water.
- Do not use on hydroponically grown crops or on any container-grown crops.
- **AERIAL APPLICATION** - Notify all inhabitants in the immediate vicinity of the area 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 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 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:**

- Avoid inhalation of dust or spray mist.
- Prevent spray drift onto crops not under treatment, grazing or adjacent water sources.
- Do not contaminate streams, rivers or dams.
- Avoid contact with skin, eyes and clothing.
- Wash with soap and water after use and accidental skin contact.
- Do not eat, drink or smoke whilst applying, mixing, before washing hands and face and change of clothing.
- Immediately after application, completely drain the spray equipment.
- Thoroughly rinse the sprayer and flush the hoses, boom and nozzles with clean water. Loosen and physically remove visible deposits. Remove and clean nozzles, screens and filters separately. Flush the entire system with clean water again.
- Do not clean spray equipment near a well, bore hole, fountain or any other water sources.
- Do not contaminate crops, grazing, rivers, or dams with wash water.
- Containers and packages must be completely emptied before being disposed of.
- Shake out thoroughly into the mixing or spray tank before destroying the empty container.
- Never re-use the container for any other purpose.
- Do not contaminate food, feed, drinking water and eating utensils.

- Do not contaminate crop, rivers and dams with wash water.

## **RESISTANCE WARNING**

**TANOS**<sup>®</sup> is a group code 11 / X fungicide. Any fungus population may contain individuals naturally resistant to **TANOS**<sup>®</sup> and other group code 11 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **TANOS**<sup>®</sup> or any other group code 11 fungicide.

**TANOS**<sup>®</sup> is a mixture of cymoxanil (group code X) and famoxadone (group code 11) fungicides having different modes of action. **TANOS**<sup>®</sup> can be alternated with other fungicides in group code X, providing that not more than 6 cymoxanil containing sprays are applied per crop per season. Both cymoxanil and famoxadone are active against Late Blight strains that are resistant to phenylamide fungicides

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 codes X or Y, 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.

## **DIRECTIONS FOR USE:**

## **USE ONLY AS DIRECTED**

### **COMPATIBILITY**

**TANOS**<sup>®</sup> is compatible with Steward<sup>®</sup> (Reg. No. L 6322 Act No 36 of 1947), Curzate Pro<sup>®</sup> (Reg. No. L 5698 act No. 36 of 1947), Trimangol (Reg. No. L 5985 Act No. 36 of 1947), chlorothalonil SC, copper oxychloride and mancozeb, and with most products which have neutral or acidic reactions, when applied according to their manufacturer's instructions. Do not tank mix with products that have alkaline reaction. Tank mixtures that have not been evaluated for physical compatibility and crop safety must first be tested on a limited scale. Consult the manufacturer in case of uncertainty.

### **GENERAL**

- **TANOS**<sup>®</sup> consists of two unrelated highly active ingredients with unique modes of action namely: cymoxanil, a locally systemic fungicide with preventive and curative action and famoxadone, a preventive, residual fungicide active on spore formation and germination.
- **TANOS**<sup>®</sup> is most effective when applied preventively or at the early stages of infections, before symptoms are visible on the plants. Apply sufficient spray mixture per hectare to give a good spray coverage of the treated crops.
- **TANOS**<sup>®</sup> must not be applied to any crop suffering from stress as a result of drought, water logging, low temperature, insect attack, nutrient or lime deficiency or other factors reducing crop growth.

- Cymoxanil rapidly penetrates into plant tissue while the famoxadone is left on the surface wax layers of the cuticle. **TANOS<sup>®</sup>** is rainfast three hours after application. If rain occurs within three hours after treatment, the product performance may be affected and the application must be renewed.

**MIXING INSTRUCTIONS AND CLEANING OF SPRAY EQUIPMENT**

- Before using **TANOS<sup>®</sup>** make sure the spraying equipment is clean.
- The required amount of **TANOS<sup>®</sup>** can be accurately weighed, or volumetrically measured. A standard volumetric calibrated measuring cylinder or jug, filled to the 200 ml mark is approximately equal to 100 g **TANOS<sup>®</sup>**. Pour **TANOS<sup>®</sup>** in measuring jug or cylinder and shake gently once or twice in order to determine the volume of product. A variance of up to 10 % can result when **TANOS<sup>®</sup>** is measured by means of the volumetric method.
- Half fill the spray tank with water and start the agitator. Then add the required amount of **TANOS<sup>®</sup>** to the spray tank after pre-mixing in a small quantity of water. Continue agitation while topping up the tank with required volume of water and while spraying.

**AERIAL APPLICATION**

**TANOS<sup>®</sup>** can be applied aurally as part of a weekly preventive spray programme provided the spray mixture is evenly distributed over the target area. Keep the loss of spray material to a minimum during application. To achieve this it is essential that the following requirements are met:

- In all cases the narrowest possible swath width of correctly calibrated aircraft should be used.
- Use at least 40 l water/ha in potatoes.
- Use the correct nozzles to deliver spray droplets with a VMD of 280 micron and a minimum of 40–50 droplets/cm<sup>2</sup> must be recovered on the target area
- Maintain a flying height of 3 m above the target area at wind speeds of 0-8 km/h and 2 m at wind speeds of 8-15 km/h. Stop spraying if the wind speed exceed 15 km/h.
- Do not spray if the difference between the wet and dry bulb readings, as determined by a swinging hygrometer, is more than 8 °C.
- Do not spray under conditions of temperature inversion.
- Do not spray during the heat of the day.
- Do not spray plants which are excessively wet with dew or rain.
- Ensure that fields are accurately marked.
- Obtain assurance from the aerial spray operator that the above specifications will be met.

CROP AND DISEASE	AMOUNT / ha	DETAILS OF SPRAY PROGRAMME
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<p><b>TOMATOES</b> Late blight (<i>Phytophthora infestans</i>)</p> <p><b>AND</b></p> <p>Early blight (<i>Alternaria solani</i>)</p>	<p>500 g TANOS®</p> <p><b>PLUS</b></p> <p>2 kg Mancozeb OR 1,5 l chlorothalonil OR 2,5 l Trimangol OR 2,5 kg copper oxychloride</p> <p><b>PLUS</b></p> <p>500 ml/ha BP Crop Oil (Reg. No L6802 Act No. 36 of 1947) OR 50 ml/100 l Agral 90 (Reg. No. L5279 Act No 36 of 1947)</p>	<p>Follow a preventive late and early blight programme at all times. Use TANOS® at any stage of crop development when environmental conditions become favourable for late blight infection (cool, overcast weather with rain or irrigation). <b>See IMPORTANT below table.</b></p> <p>Apply as a full cover spray and depending on plant size in 500–1500 l water/ha. Apply TANOS® at spray intervals of 7–10 days, as part of a programme. Use the shorter interval when conditions are highly favourable for Early Blight or Late Blight development. Two to three back to back applications of TANOS® are recommended as part of a spray programme against late blight. Weekly alternation of TANOS® tank mixture with the maximum registered dosage rate of a contact fungicide (mancozeb, chlorothalonil, Trimangol® or copper oxychloride) can be used under moderate disease pressure as part of a spray programme against early blight. Do not apply more than 5 TANOS® applications per season, or apply more than 3 back to back TANOS® applications. Alternate with other registered fungicides throughout the season.</p> <p>The application of TANOS® plus copper oxychloride tank mixture will result in improved control of bacterial speck caused by <i>Xanthomonas campestris</i>. <b>The addition of BP Crop Oil @ 500 ml/ha or Agral 90 @ 50 ml/100 l spray mixture is recommended in tank mixture with TANOS® under all conditions.</b></p>
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CROP AND DISEASE	AMOUNT / ha	DETAILS OF SPRAY PROGRAMME
<p><b>POTATOES</b> Late blight (<i>Phytophthora infestans</i>)</p> <p><b>AND</b></p> <p>Early blight (<i>Alternaria solani</i>)</p>	<p><b>GROUND APPLICATION:</b> 500 g TANOS®</p> <p><b>PLUS</b></p> <p>2 kg mancozeb OR 1,5 l chlorothalonil SC OR 2,5 l Trimangol</p> <p><b>PLUS</b></p> <p>500 ml BP Crop Oil (Reg. No L6802) OR 50 ml/100 l Agral 90 (Reg. No L 5279)</p> <p><b>AERIAL APPLICATION:</b> 600 g TANOS®</p> <p><b>PLUS</b></p> <p>2 kg mancozeb OR 1,5 l chlorothalonil SC OR 2,5 l Trimangol</p> <p><b>PLUS</b></p> <p>500 ml BP Crop Oil (Reg. No L6802 Act No. 36 of 1947)</p>	<p>Follow a preventive late and early blight programme at all times. Use TANOS® at any stage of crop development whenever environmental conditions become favourable for late blight infection (cool, overcast weather with rain or irrigation). <b>See IMPORTANT below table.</b></p> <p>Apply as a full cover spray and depending on plant size in 500–1500 l water/ha. Apply TANOS® at spray intervals of 7–10 days, as part of a programme. Use the shorter interval when conditions are highly favourable for Early Blight or Late Blight development. Two to three back to back applications of TANOS® are recommended as part of a spray programme against late blight. Weekly alternation of the TANOS® tank mixture with the maximum registered dosage rate of a contact fungicide (mancozeb, chlorothalonil or Trimango®) can be used under moderate disease pressure as part of a spray programme against early blight.</p> <p><b><u>Apply as above when tractor application is not possible and adhere to the following additional conditions:</u></b></p> <p>Aerial application of TANOS® against late and early blight <b>is only recommended</b> when used in a <b>weekly preventive programme before infection occurs.</b> Applications should commence shortly post emergence of the crop. Minimum spray volume for TANOS® tank mixture is 40 l/ha. <b>Aerial application results in weaker crop coverage, which may result in decreased disease control (late and early blight) in comparison to tractor applications.</b></p> <p><b>General:</b> Do not apply more than 5 TANOS® applications per season, or apply more than 3 back to back TANOS® applications. Alternate with other registered fungicides throughout the season.</p> <p><b>The addition of BP Crop Oil @ 500 ml/ha or Agral 90 @ 50 ml/100 l spray mixture is recommended in tank mixture with TANOS® in potatoes under all conditions.</b></p>

**IMPORTANT**

**TANOS<sup>®</sup> has a curative action of up to 2 days against late blight. This means that TANOS<sup>®</sup> can control the fungus inside the plant up to two days after infection has occurred, BUT before late blight symptoms become visible. Late blight symptoms on leaves develop 2-3 days post infection. As late blight symptoms only become prevalent on stems after 10-14 days, curative action on stem blight can not be expected under all conditions. Do not use TANOS<sup>®</sup> for eradicated late blight control, when symptoms and especially stem lesions are visible within the plant canopy.**

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<sup>®</sup>Trimangol<sup>®</sup> (L 5985) is a registered product of Saadchem-Uniek Pty Ltd