

CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

TITAN

ROT-NIL

FUNGICIDE

ACTIVE CONSTITUENTS: 375g/kg CYPRODINIL
250g/kg FLUDIOXONIL

GROUP **9 12** FUNGICIDE

For the control of various fungal diseases in capsicum, cut flowers, grapes, leafy vegetables, lettuce, nursery stock, onions, pyrethrum and strawberries.

APVMA Approval No.: 91516/132494

Pack Size: 1kg-20kg



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IN A TRANSPORT EMERGENCY
DIAL 000
POLICE OR FIRE BRIGADE

TRANSPORT AND HANDLING
NOT A DANGEROUS GOOD
ACCORDING TO THE AUSTRALIAN
DANGEROUS GOODS (ADG) CODE
FOR TRANSPORT BY ROAD AND RAIL

DIRECTIONS FOR USE

Restraints: DO NOT apply by aircraft.
DO NOT apply by equipment carried on the back of the user.
DO NOT apply more than 2 applications per season.

Spray Drift Restraints

Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift

DO NOT allow bystanders to come in contact with the spray cloud.

DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spraydrift. The buffer zones in the relevant buffer zone table/s below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.

DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one or two hours before sunset and persist until one to two hours after sunrise.

DO NOT apply by a boom sprayer unless the following requirements are met:

- Spray droplets not smaller than a MEDIUM spray droplet size category
- Minimum distances between the application site and downward sensitive areas (see 'Mandatory buffer zones' section of the following table are observed).

Application rate	Mandatory downwind buffer zones
	Natural aquatic areas
Up to 1kg/ha	30 metres

DO NOT apply by a vertical sprayer unless the following requirements are met:

- Spray is not directed above the target canopy.
- The outside of the sprayer is turned off when turning at the end of rows and when spraying the outer row on each side of the application site.

CROP/SITUATION	DISEASE	RATE	CRITICAL COMMENTS
Cut Flowers	Botrytis Rot	80g/100L or 800g/ha plus 0.02% non-ionic surfactant	Monitor environmental conditions to determine time of application. Apply before disease appears when conditions favour infection. Apply by low or high volume spray. Apply a maximum of 2 applications within an annual production cycle. For resistance management this product should form part of a disease management strategy. Crop Damage: This product has demonstrated toxicity under certain situations, application methods, application rates and weather conditions to nursery stocks, including Impatiens, New Guinea Impatiens, Geraniums, Ferns, Anemone, Begonia, Kalachoe, Saint Paulia and <i>Exacum affine</i> . This product may also leave undesirable spray residue on foliage and flowers. It is recommended that users treat a sample number of plants or a small area prior to whole crop treatment and monitor any phytotoxic effects that will compromise production goals. This action cannot guarantee crop safety as application, environmental and crop conditions may vary from test treatment to whole crop treatment.
Capsicum	Botrytis Rot (<i>Botrytis cinerea</i>), Sclerotinia Rot (<i>Sclerotinia minor</i> or <i>S. sclerotiorum</i>)	100g/100L OR 1kg/ha	Apply prior to or at onset of disease development. DO NOT apply more than 2 applications per crop per season with an interval of 7 to 14 days between applications. Use the shorter spray interval under high disease pressure or when continual wet, cloudy conditions favour disease development.
Grapes (except Grapes grown for dried fruit production)	Grey Mould (Bunch Rot) (<i>Botrytis cinerea</i>)	Dilute Spraying 80g/100L Concentrate Spraying 800g/ha	DO NOT apply more than 2 applications of TITAN Rot-Nil Fungicide per season. Applications can be made at 5% capfall, 80% capfall, pre-bunch closure or veraison. Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. DO NOT use at rates greater than 200g/100L of water. This use is subject to a CropLife fungicide resistance management strategy (see Resistance Management).
Leafy Vegetables (including Spinach, Silver Beet, Kale, Endive, Mustard, Cress, Chard, Rocket, Asian Leafy Greens and Chinese Cabbage)	Sclerotinia (<i>Sclerotinia minor</i> and <i>Sclerotinia sclerotiorum</i>)	800g to 1kg/ha	Apply TITAN Rot-Nil Fungicide prior to or at the onset of disease. Apply a second application 7 to 14 days later if conditions continue to remain favourable for disease development. Use a 7 day spray interval and high rate under high disease pressure or where conditions are conducive for disease development. DO NOT apply more than 2 applications of TITAN Rot-Nil Fungicide per crop.
Lettuce	Sclerotinia Rot (Lettuce Drop) (<i>Sclerotinia minor</i> and <i>Sclerotinia sclerotiorum</i>)	800g to 1kg/ha	Apply TITAN Rot-Nil Fungicide prior to or at the onset of disease. Best results are achieved using a preventative control program, with the first spray commencing soon after transplanting on a 7 to 14 day spray interval. Use a 7 day spray interval and high rate under high disease pressure or where conditions are conducive for disease development. DO NOT apply more than 2 applications of TITAN Rot-Nil Fungicide per crop.

CROP/SITUATION	DISEASE	RATE	CRITICAL COMMENTS
Lettuce – <i>continued</i>	Grey Mould (<i>Botrytis</i> Rot) (<i>Botrytis cinerea</i>)	800g to 1kg/ha	Apply TITAN Rot-Nil Fungicide prior to or at the onset of disease. Best results are achieved using a preventative control program, with the first spray commencing soon after transplanting on a 7 to 14 day spray interval. Use a 7 day spray interval and high rate under high disease pressure or where conditions are conducive for disease development. DO NOT apply more than 2 applications of TITAN Rot-Nil Fungicide per crop.
	Anthrachnose (<i>Microdochium panattonianum</i>)	1kg/ha in a spray volume of 250-500L water/ha	Apply prior to or at the onset of disease. DO NOT apply more than 2 applications per crop per season with an interval of 7 to 14 days between applications. Use the shorter spray interval under high disease pressure or when continual wet, cloudy conditions favour disease development. Apply using boom-spray or similar equipment to deliver medium spray quality. Ensure spray application provides good coverage of plant foliage. Add a non-ionic surfactant at recommended rates. Apply in rotation with fungicide chemicals from other mode of action groups as part of a Resistance Management Program.
Nursery stock (non-food) and Ornamentals (non-food) including seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses and fruit trees (non-bearing)	Anthrachnose (<i>Colletotrichum</i> spp.)	80g/100L OR 800g/ha	Apply via calibrated boom or handheld sprayer when conditions favour disease development, prior to or at the first symptoms. DO NOT apply more than 4 applications per crop at 10 to 14 day intervals. DO NOT apply more than 2 consecutive applications before applying at least the same number of sprays from a different mode of action group. Crop Damage: This product has demonstrated toxicity under certain situations, application methods, applications rates and weather conditions to nursery stocks including Impatiens, New Guinea Impatiens, Geraniums, Ferns, Anemone, Begonia, Kalanchoe, Saint Paulia and <i>Exacum affine</i> . This product may also leave undesirable spray residue on foliage and flowers. It is recommended that users treat a sample number of plants or a small area prior to whole crop treatment and monitor any phytotoxic effects that will compromise production goals. This action cannot guarantee crop safety as application, environmental and crop conditions may vary from test treatment to whole crop treatment
	Grey Mould, Rhizoctonia Rot (<i>Rhizoctonia</i> spp.), Sclerotinia Rot (<i>Sclerotinia</i> spp.)		
Onions	Neck Rot (<i>Botrytis alli</i>)	800g/ha to 1kg/ha plus a registered rate of non-ionic surfactant	Apply TITAN Rot-Nil Fungicide at key timings for Botrytis control prior to or at the onset of disease. Apply a second application 7 to 14 days after the initial application if conditions continue to remain favourable for disease development. Use a 7 day spray interval and high rate under high disease pressure or when continual wet, cloudy conditions favour disease development. Apply in sufficient water to ensure thorough and uniform coverage. Applications MUST be made with the addition of a non-ionic surfactant. DO NOT apply more than 2 applications of TITAN Rot-Nil Fungicide per crop per season. To avoid resistance, the product should be rotated with other approved fungicides from different chemical groups.
Alliums including Bulb Onions, Spring Onions, Shallots and Garlic	Black Mould (<i>Aspergillus niger</i>) Suppression only: Grey Mould (<i>Botrytis cinerea</i>)		
Pyrethrum (<i>Tanacetum cinerariifolium</i>) crops	Winter dieback complex (Ray Blight (<i>Phoma ligulicola</i>) and Tan Spot (<i>Microsphaeropsis tanacetii</i>))	1kg/ha	Apply in a total spray volume of 400L/ha. DO NOT apply more than 2 applications per crop per season with an interval of 7 to 14 days between applications.
Strawberries	Crown and Petiole Rots (<i>Colletotrichum gloeosporioides</i>)	80g/100L water	Apply TITAN Rot-Nil Fungicide prior to or at the onset of disease. Repeat applications at 7 to 14 day intervals. Use the shorter interval when conditions favour disease development (wet and cloudy conditions). The rate suggested is for high volume dilute spraying to the point of “run-off”. For concentrate spraying, adjust dilution rate accordingly. DO NOT exceed 800g/ha. Apply in sufficient water to ensure thorough and uniform coverage of foliage and plant crowns. DO NOT apply more than 3 applications of TITAN Rot-Nil Fungicide per crop.
	Grey Mould (<i>Botrytis cinerea</i>)		Commence a program of protectant fungicides during flowering (blossom) when conditions favour disease. Repeat applications of TITAN Rot-Nil Fungicide on a 7 to 10 day interval. Use the shorter interval when conditions favour disease development. The rate suggested is for high volume spraying to the point of “run-off”. For concentrate spraying, adjust dilution rate accordingly. Apply in sufficient water to ensure thorough and uniform coverage of foliage and fruit. Reduce background levels of disease by removing infected plant debris and rotten fruit. This use is subject to a CropLife fungicide resistance management strategy. DO NOT apply more than 3 applications of TITAN Rot-Nil Fungicide per crop (see Resistance Management).

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION

WITHHOLDING PERIODS

HARVEST

Alliums (bulb onions, spring onion, shallots, and garlic), Capsicum, Lettuce, Leafy Vegetables, Onions: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION

Grapes: DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION

Strawberries: DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION

Cut Flowers, Nursery Stock (non-food), Ornamentals (seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, and non-bearing fruit trees), Pyrethrum: NOT REQUIRED WHEN USED AS DIRECTED

TRADE ADVICE: Export Wine – Where this product will be used on Grapes that will be used to produce wine destined for export markets, seek advice from the Australian Wine Research Institute to ensure the wine will meet the requirements of the intended importing country.

GENERAL INSTRUCTIONS

TITAN Rot-Nil Fungicide is a water dispersible granule prepack mixture of cyprodinil and fludioxonil. Cyprodinil is systemic compound that is taken up into the cuticle and waxy layers of leaves and fruit. From there it is distributed and penetrates into other parts of the plant. Fludioxonil is the residual component of the mixture and stays mainly on the leaf and fruit surfaces.

APPLICATION

Ground Application only: Ensure thorough coverage of foliage and fruit (or bunches) using equipment delivering a MEDIUM spray quality. Ensure that the correct amount of TITAN Rot-Nil Fungicide is applied per hectare irrespective of water application rate per hectare.

Dilute Spraying

Use a sprayer designed to apply high volumes of water up to the point of run-off and matched to the crop being sprayed. Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to the point of run-off. Avoid excessive runoff. The required water volume may be determined by applying different test volumes, using different settings on the sprayer, from industry guidelines or expert advice. Add the amount of product specified in the Directions for Use table for each 100L of water. Spray to the point of run-off. The required dilute spray volume will change and the sprayer set up and operation may also need to be changed, as the crop grows.

Concentrate Spraying

Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required to reach the point of run-off) and matched to the crop being sprayed. Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume. Determine an appropriate dilute spray volume (see Dilute Spraying) for the crop canopy. This is needed to calculate the concentrate mixing rate. The mixing rate for concentrate spraying can then be calculated in the following way:

Example only:

1. Dilute spray volume as determined above: For example 1000L/ha
2. Your chosen concentrate spray volume: For example 400L/ha
3. The concentration factor in this example is: $2.5 \times$ (ie $1000L \div 400L = 2.5$)
4. If the dilute label rate is 80g/100L, then the concentrate rate becomes 2.5×80 , that is 200g/100L of concentrate spray.

The chosen spray volume, amount of product per 100L of water, and the sprayer set up and operation may need to be changed as the crop grows. For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

MIXING

TITAN Rot-Nil Fungicide is a water dispersible granule (WG) fungicide that mixes readily with water. Partly fill the spray tank with water. Start the agitation and add the correct amount of product to the spray tank with the agitation system running. Continue agitation while topping up the spray tank with water. Add a non-ionic surfactant at registered rates (where required) at the completion of filling of the spray tank. Continue agitation while spraying.

Tank Mixing: When mixing TITAN Rot-Nil Fungicide and other water dispersible granule (WG) or wettable powder (WP) formulations, ensure they are added and mixed well prior to adding emulsifiable concentrate (EC) or suspension concentrate (SC) products. Wettable powder (WP) formulations should be pre-mixed separately and then added to the spray tank.

COMPATIBILITY

TITAN Rot-Nil Fungicide is compatible with Bugmaster* Flowable, Delfin* WG, Dithane*, Gusathion*, Kelthane*, Kocide*, Lorsban* 500 W, Polyram DF, RIDOMIL* GOLD PLUS, Sanmite*, SUPRACIDE*, THIOVIT* JET, and TOPAS*. Mixtures with more than one of the above are not recommended. As formulations of other manufacturer's products are beyond the control of TITAN AG, all mixtures should be tested prior to mixing commercial quantities. TITAN Rot-Nil Fungicide may not be compatible with BRAVO*.

FUNGICIDE RESISTANCE WARNING

TITAN Rot-Nil Fungicide is a combination of an anilinopyrimidine and a phenylpyrrole fungicide.

GROUP 9/12 FUNGICIDE

For fungicide resistance management, TITAN Rot-Nil Fungicide is both a Group 9 and a Group 12 fungicide. Some naturally occurring individual fungi resistant to TITAN Rot-Nil Fungicide and other Group 9 and Group 12 fungicides may exist through normal genetic variability in any fungal population. The resistant individuals can eventually dominate the fungal population if these fungicides are used repeatedly. These resistant fungi will not be controlled by this product or other Group 9 and Group 12 fungicides, thus resulting in a reduction in efficacy and possible yield loss. Since the occurrence of resistant fungi is difficult to detect prior to use TITAN AG Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant fungi.

RESISTANCE MANAGEMENT

In order to minimise the likelihood of the development of fungicide resistance, it is recommended that TITAN Rot-Nil Fungicide be used in a program incorporating all available forms of crop protection. TITAN Rot-Nil Fungicide should be applied as part of a protective spray program using fungicides from different mode of action group/s. Alternating or mixing fungicides with different modes of actions is a recognised disease resistance management strategy.

DO NOT wait until disease levels have built up before commencing applications as this reduces the effectiveness of control and increases the risk of resistance development. Disease control may be reduced if strains of pathogens less sensitive to TITAN Rot-Nil Fungicide develop.

TITAN Rot-Nil Fungicide should be applied as specified in the Directions for Use in association with the following CropLife Fungicide Resistance Management Strategies:

Grapes: If 3 or fewer Bunch Rot sprays are applied in a season, use only 1 spray containing a Group 9 fungicide. If 4 or more bunch rot sprays are applied in a season, use a maximum of 2 sprays containing a Group 9 fungicide.

Capsicum, Cucumbers and Strawberries: If 3 or fewer Botrytis fungicide sprays are applied per crop, use only 1 spray containing a Group 9 fungicide. If 4 to 6 sprays are applied per crop use a maximum of 2 sprays containing a Group 9 fungicide. If 7 or more sprays are applied per crop use a maximum of 3 sprays containing a Group 9 fungicide.

Note: In the absence of an established resistance management strategy for a particular crop/disease situation, it is recommended that:

- The use of fungicides from any given activity group (excluding Group M) be limited to a maximum of 1/3 of the total number of fungicide applications per crop.
- A maximum of 2 consecutive applications of TITAN Rot-Nil Fungicide are to be applied, including from one season/crop to the next.

PRECAUTION

Re-entry Period: DO NOT enter treated areas until the spray has dried unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

INTEGRATED PEST MANAGEMENT

This product can be used where integrated pest management is being practiced.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers. DO NOT apply if heavy rains are imminent. DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto adjacent areas, particularly wetlands, water bodies or watercourses.



STORAGE AND DISPOSAL

Store in the closed, original container in a cool, dry, well-ventilated area, out of direct sunlight. Single rinse containers before disposal. Add rinsings to spray tank.

Hermetically sealed bag: Single rinse liner before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on-site. Puncture and deliver empty packaging for appropriate disposal to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

HDPE container: Triple rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

SAFETY DIRECTIONS

Harmful if inhaled or swallowed. May irritate the nose and throat. Will irritate the eyes. Repeated exposure may cause allergic disorders. Avoid contact with eyes. DO NOT inhale dust or spray mist. When opening the container and preparing spray or dip, and using the prepared spray or dip wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow-length chemical resistant gloves and face shield or goggles. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves and contaminated clothing.

FIRST AID

If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766.

SAFETY DATA SHEET

Additional information is listed in the safety data sheet (SDS). A safety data sheet for TITAN Rot-Nil Fungicide is available from TITAN AG Pty Ltd on request. Call Customer Service on (02) 9999 6655 or visit titanag.com.au

CONDITIONS OF SALE: TITAN AG Pty Ltd shall not be liable for any loss injury damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on TITAN AG's skill or judgment in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of TITAN AG Pty Ltd has any authority to add to or alter these conditions.

Additional statements required by Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia: Harmful if inhaled. May cause an allergic skin reaction. Very toxic to aquatic life with long lasting effects. **Precautionary Statements:** Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves. **IF ON SKIN:** Wash with plenty of water. **IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see on this label). Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. Collect spillage. Dispose of contents/container in accordance with local/regional/national regulations.

