

# AVERT 200 EW

Act No. 36 of 1947  
SA Reg. No. L10773 / NAM Reg. No. N-AR 2111

An emulsion oil in water systemic fungicide for the control of diseases in crops as listed.

## ACTIVE INGREDIENT:

Penconazole (triazole) ..... 200 g/ℓ

## REGISTERED BY:

ICA International Chemicals (Pty) Ltd., Reg. No. 2001/013319/07  
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## WARNINGS

May be fatal if swallowed and enters airways  
Causes skin irritation  
May cause an allergic skin reaction  
Causes serious eye damage  
May cause respiratory irritation  
Suspected of damaging fertility or the unborn child  
Very toxic to aquatic life  
Toxic to aquatic life with long lasting effects

## WITHHOLDING PERIODS (Minimum number of days between last application and harvest):

- ▶ *Cucurbits* ..... 7 Days
- ▶ *Peas and Mange touts*..... 7 Days
- ▶ *Peas (green fodder)* ..... 14 Days
- ▶ *Peppers* ..... 7 Days
- ▶ *Pome fruit* ..... 14 Days
- ▶ *Stone fruit* ..... 14 Days
- ▶ *Table and Wine Grapes* ..... 14 Days
- ▶ *Tomatoes* ..... 0 Days

Compliance with these withholding periods and below application instructions will ensure that residues do not exceed local maximum residue limits (MRL) but may not meet the import requirements of other countries. If the crop to be treated is intended for export, consult the relevant importer or exporting body regarding the use of this product, MRL and recommended withholding periods. Although **AVERT 200 EW** is regarded as crop-safe on most of the important cultivars, this does not mean that a more sensitive cultivar might be available in future. **AVERT 200 EW** must be tested on fruit of new cultivars prior to general usage.

**RE-ENTRY INTERVAL:** Do not enter treated area for one day after application, 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 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, and the environment or harm to man/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

If medical advice is needed, have product container or label at hand.  
Obtain, read, and follow all safety instructions before use.  
Avoid breathing mist/vapours/spray.  
Wash hands and exposed skin thoroughly after handling. Do not touch eyes.  
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/protective clothing/eye and face protection.  
IF SWALLOWED: Get emergency medical help immediately. DO NOT induce vomiting.  
IF ON SKIN: Wash with plenty of clean water and non-abrasive soap.  
If skin irritation or rash occurs: Get medical help.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help if you feel unwell.  
IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical help.  
If exposed or concerned, get medical advice.  
For specific treatment, see first aid measures.  
Take off contaminated clothing and wash it before reuse.  
Collect spillage.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.

Dispose of contents and container in accordance with national regulations.

**TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS:** Invert empty container over the spray or mixing tank and drain for at least 30 seconds until the flow has slowed down to a drip. Triple rinse the empty container with clean water equal to a minimum of 30 % of the volume of the container. Add rinsing to the contents of 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.

**RELEVANT SUBSTANCES:**

Penconazole (Cas no: 66246-88-6) Acute Oral Toxicity Category 4, H302; Aquatic Acute Category 1, H400; Aquatic Chronic Category 1, H410; Reproductive Toxicity Category 2, H361(D) (20 % w/v).

Solvent naphtha (petroleum) (Cas no: 64742-94-5) Aspiration Hazard Category 1, H304 (10 – 30 % w/v).

N,N-Dimethyldecane-1-amide (Cas no: 14433-76-2) Skin Irritation Category 2, H315; Eye Irritation Category 2, H319; STOT SE Category 3, H335; Aquatic Chronic Category 3, H412 (< 10 % w/v).

N,N-Dimethyloctanamide (Cas no: 1118-92-9) Skin Irritation Category 2, H315; Eye Damage Category 1, H318 (< 10 % w/v).

Alcohol alkoxylate (Cas no: 131594-92-8) Skin Irritation Category 2, H315; Aquatic Acute Category 1, H400; Aquatic Chronic Category 2, H411 (< 10 % w/v).

Poly(oxy-1,2-ethanediyl) (Cas no: 70559-25-0) Aquatic Chronic Category 3, H412 (< 10 % w/v).

1,2-benzisothiazol-3-one (Cas no: 2634-33-5) Skin Sensitization Category 1, H317; Aquatic Acute Category 1, H400 (< 1 % w/v).

**FIRST AID MEASURES**

**In case of accident or if you feel unwell seek medical advice immediately and show this LABEL where possible.**

- INHALATION:**
- Remove the victim from immediate source of exposure. Move victim to fresh air, if it can be done safely, and keep comfortable. If victim's breathing has stopped, perform artificial respiration.
  - DO NOT perform mouth-to-mouth resuscitation if victim ingested or inhaled the substance; wash face and mouth before giving artificial respiration. Administer oxygen if victim's breathing is difficult or irregular.
  - Get medical help if you feel unwell.
- SKIN:**
- Remove and isolate contaminated clothing, shoes, and leather goods immediately and take a shower.
  - Rinse affected areas IMMEDIATELY with non-abrasive soap or mild detergent and large amounts of running water.
  - Wash contaminated clothing before reuse. Get medical help if irritation develops and persists.
- EYES:**
- Rinse eyes IMMEDIATELY with clean running water for at least 15 minutes, while holding eyelids apart. Remove contact lenses after 5 minutes if present and easy to do. Continue rinsing while holding eyelids apart.
  - Seek medical help if irritation continues.
- INGESTION:**
- If swallowed, get emergency medical help immediately. DO NOT induce vomiting, unless instructed to do so by poison control center or doctor. Have person sip a glass of water if able to swallow.
  - Never give anything by mouth to an unconscious person. If vomiting does occur, keep on giving fluids.
- NOTE TO PHYSICIAN:**
- There is no specific antidote. All treatments should be based on observed signs and symptoms of distress in the patient.
- POTENTIAL HEALTH EFFECTS, ACUTE AND DELAYED**
- Effects of exposure (inhalation, ingestion, or skin contact) to substance may be delayed.

**RESISTANCE WARNING**

**For resistance management: AVERT 200 EW** is a FRAC group code (3) triazole fungicide. Any fungal population may contain individuals naturally resistant to **AVERT 200 EW** and other FRAC group code (3) fungicides. The resistant individuals can eventually dominate the fungal population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **AVERT 200 EW** or any other FRAC group code (3) fungicides.

**To delay fungicide resistance:**

- avoid exclusive repeated use of fungicides from the same fungicide group code. Alternate or tank mix with registered products from different fungicide group codes,
- for tank mixing or alternation with products in other fungicide group codes, refer to individual product labels,
- integrate other control methods (chemical, cultural, biological) into disease control programmes.

Where repeated applications are required, **AVERT 200 EW** should be applied in a spray programme with two (2) blocks of two (2) applications each. Use other registered fungicides from different chemical classes in the rest of the spray programme. Refer to each individual product label for application detail.

**MODE OF ACTION**

Penconazole (triazole) is systemic fungicide with protective, curative and eradicant action. Penconazole works by affecting the cell walls of fungi by suppressing spore germination and fungal growth.

**USE RESTRICTIONS**

Refer to **DIRECTIONS FOR USE** for any use restrictions.

**DIRECTIONS FOR USE – use only as directed**

**COMPATIBILITY:**

**AVERT 200 EW** is generally compatible with other agricultural chemicals, but compatibility can be influenced by factors such as dilution water quality and product formulations. It is therefore recommended to always first perform a physical compatibility test (jar test) prior to application.

**MIXING INSTRUCTIONS:**

Half fill the mixing tank with clean water. Shake the **AVERT 200 EW** container and add the required quantity of **AVERT 200 EW** to the spray tank while agitating to obtain a homogeneous emulsion.

When preparing a tank mixture while agitating the spray tank water, add the compatible products to ½ of the water in the following sequence: If mixing partners are packed in water-soluble bags, add the soluble bags first followed by wettable powders, water dispersible granules, suspension concentrates, emulsifying concentrates such as **AVERT 200 EW** and soluble concentrates last. Top up the mixing tank with the rest of the required quantity of clean water whilst agitating. Ensure mixing is complete and agitate constantly before and during application. The prepared spray mixture must be used immediately

and not be left in the spray tank for any length of time, e.g., overnight. Clean all equipment thoroughly after use and dispose of wastewater without polluting the environment.

#### APPLICATION METHOD:

**Aerial Application:** Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the required warnings. Do not spray over or allow drift to contaminate water or adjacent areas. Aerial application of **AVERT 200 EW** 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 – 35 ℓ per hectare is recommended (also refer to application table). The product has not been evaluated at reduced volume rates and the registration holder cannot guarantee efficacy or held responsible for any adverse effects if the product is applied aerially at a lower rate than recommended above.
- ▶ **Droplet coverage:** 25 – 35 droplets / cm<sup>2</sup> must be recovered at the target area.
- ▶ **Droplet size:** A droplet spectrum with a VMD of 280 – 300 micron is recommended. Limit the production of fine droplets less than 150 micron (high drift & evaporation potential) to a minimum.
- ▶ **Flying height:** Maintain the height of the spray boom at 3 – 4 m above the target. Do not spray when aircraft is diving, climbing or when banking.
- ▶ Use suitable atomizing 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 atomizers within the inner 60 – 75 % of the wingspan to prevent droplets from entering the wingtip vortices.
- ▶ The differences 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/h.
- ▶ 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 evaporation of small droplets in the air (inadequate coverage),
  - b) damage to other sensitive crops and/or non-target 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.

#### CROP RECOMMENDATIONS:

In case of rain two hours after spraying or before the spray deposit has fully dried, re-apply the treatment.

APPLICATION TABLE		
CROP and DISEASE	DOSAGE per 100 ℓ water (or as indicated)	REMARKS
<b>CUCURBITS</b>  <b>Powdery mildew</b> <i>(Podosphaera fusca = syn. Podosphaera xanthii (previously Sphaerotheca fuliginea) and Golovinomyces cichoracearum (previously Erysiphe cichoracearum)</i>	22.5 mℓ <b>AVERT 200 EW</b>  <u>Ground application:</u> Apply in at least 500 ℓ water/ha	1. Apply <b>AVERT 200 EW</b> in a spray programme, commencing when the first signs of the disease are noticed. 2. Apply follow-up applications for as long as the conditions favour development of the disease at 14-day intervals. Do not exceed more than four (4) applications per season. 3. Alternate with a fungicide from a different FRAC group.
<b>PEAS AND MANGE TOUTS</b>  <b>Powdery mildew</b> <i>(Erysiphe pisi)</i>	110 mℓ/ha <b>AVERT 200 EW</b>  <u>Ground application:</u> Apply in at least 500 ℓ water/ha  <u>Aerial application:</u> Apply in 30 ℓ water/ha	1. Apply <b>AVERT 200 EW</b> in a preventative spray programme, commencing when disease is expected or when the first signs of the disease are noticed. 2. Apply follow-up applications for as long as the conditions favour development of the disease at 10 – 14 day intervals.  <b>Peas:</b> Do not exceed more than four (4) applications per season. <b>Mange Touts:</b> Do not exceed more than two (2) applications per season.
<b>PEPPERS</b>  <b>Powdery mildew</b> <i>(Leveillula taurica)</i>	45 mℓ <b>AVERT 200 EW</b> or 225 mℓ/ha <b>AVERT 200 EW</b>  <u>Ground application:</u> Apply in at least 500 ℓ water/ha	1. Apply <b>AVERT 200 EW</b> in a spray programme, commencing when the first signs of the disease are noticed. 2. Apply follow-up application at 14-day intervals. Do not exceed more than two (2) applications per season. 3. It is recommended to alternate with fungicides from different FRAC groups e.g. Azoxystrobin 250 SC every 7 days.
<b>POME FRUIT</b>  <b>APPLES</b> <b>Powdery mildew</b> <i>(Podosphaera leucotricha)</i>	6.25 mℓ <b>AVERT 200 EW</b>	1. Apply a ground application as a full cover spray or alternatively use the tree row volume ( <b>TRV</b> ) calculation below. 2. For powdery mildew control on apples, commence preventative spray programme applications at the pink stage, with 10 – 14 day spray intervals. Ensure complete coverage.

<p><b>APPLES</b> <b>Scab</b> (<i>Venturia inaequalis</i>)</p> <p><b>PEARS</b> <b>Scab</b> (<i>Venturia pirina</i>)</p>	<p>12.5 mℓ <b>AVERT 200 EW</b></p> <p><b>PLUS</b></p> <p><b>Unrelated broad spectrum fungicides<sup>a</sup> at the registered rate such as mancozeb or captan.</b></p>	<ol style="list-style-type: none"> <li>1. Apply a ground application as a full cover spray or alternatively use the tree row volume (<b>TRV</b>) calculation below.</li> <li>2. Begin the preventative scab control programme at green tip and apply in a 7-day spray programme up to the end of blossoming.</li> <li>3. During the post-blossom stage, apply in a spray programme with 14-day intervals.</li> <li>4. When a dependable disease prediction system is available, additional curative applications can be made within 4 days of onset of an infection period.</li> <li>5. Four (4) applications of <b>AVERT 200 EW</b> can be applied per season (in two blocks, with two applications each).</li> <li>6. It is recommended to change to a preventative contact fungicide spray programme during December.</li> </ol>
<p><b>Water volume (ℓ) per hectare required for full cover spray using tree row volume (TRV) calculation:</b></p> <ul style="list-style-type: none"> <li>• <b>TRV (Green tip to +/- 30 % blossom)</b> ℓ water/ha = [(Tree Height X Tree Diameter X 937)/Row Width] X 60 %</li> <li>• <b>TRV (Full blossom to +/- middle November)</b> ℓ water/ha = [(Tree Height X Tree Diameter X 937)/Row Width] X 80 %</li> <li>• <b>TRV (Full leaf)</b> ℓ water/ha = (Tree Height X Tree Diameter X 937)/Row Width</li> </ul> <p>Use the water volume per hectare to calculate the required amount of <b>AVERT 200 EW</b> required per hectare. It is important that the correct amount of <b>AVERT 200 EW</b> per hectare is applied.</p> <p><b>Low Volume Application:</b> When a low volume spray is used, use the same amount of <b>AVERT 200 EW</b> per hectare as calculated for the full cover spray.</p>		
<p><b>STONE FRUIT</b></p> <p><b>Powdery mildew</b> (<i>Sphaerotheca pannosa</i> = syn. <i>Oidium leucoconium</i>)</p>	<p>12.5 mℓ <b>AVERT 200 EW</b></p>	<ol style="list-style-type: none"> <li>1. Apply <b>AVERT 200 EW</b> as a full cover spray in a spray programme, commencing when disease is expected or when the first signs of the disease are noticed.</li> <li>2. Apply in blocks of two (2) consecutive applications, 10 – 14 day days apart. The second block can be applied 4 weeks after the first block, adhering to the 14 days PHI. Fungicides with different mode of actions must be used between the two block applications.</li> <li>3. Apply in sufficient volume of water, to ensure thorough and complete coverage.</li> <li>4. DO NOT exceed more than four (4) applications per season.</li> </ol>
<p><b>TABLE AND WINE GRAPES</b></p> <p><b>Powdery mildew</b> (<i>Oidium tuckeri</i>)</p>	<p>15 mℓ <b>AVERT 200 EW</b> 10 – 14 day intervals</p> <p>Or</p> <p>22.5 mℓ <b>AVERT 200 EW</b> 18 – 21 day intervals</p>	<p><b>Apply as a Full Cover Spray:</b></p> <ol style="list-style-type: none"> <li>1. Start spray programme when the first shoots are 100 – 250 mm long, and use the higher rate when intervals exceed 14 days between treatments.</li> <li>2. Four (4) applications of <b>AVERT 200 EW</b> can be applied per season in a spray programme.</li> <li>3. It is recommended to supplement the spray programme with a sulphur<sup>a</sup> application, as registered, 2 – 3 times during the season.</li> </ol> <p><b>Water Volume Required for Full Cover Spray:</b> <b>TABLE GRAPES:</b> Increase spray volume from 500 ℓ/ha at first application (shoots 100 – 250 mm long) progressively to 1200 ℓ/ha. <b>WINE GRAPES:</b> Increase spray volume from 250 ℓ/ha at first application (shoots 100 – 250 mm long) progressively to 1000 ℓ/ha at pea berry stage. Use this rate for the rest of the season.</p>
<p><b>TOMATOES</b></p> <p><b>Powdery mildew</b> (<i>Leveillula taurica</i>)</p>	<p>45 mℓ <b>AVERT 200 EW</b></p>	<ol style="list-style-type: none"> <li>1. Apply <b>AVERT 200 EW</b> as a high-volume application in a preventative spray programme, commencing when disease is expected or when the first signs of the disease are noticed.</li> <li>2. Apply follow-up applications for as long as conditions favour development of the disease at 7 – 10 day intervals. Do not exceed more than four (4) applications.</li> <li>3. Apply in sufficient volume of water, to ensure thorough and complete coverage.</li> </ol> <p><b>Please note:</b> Fruit must be completely dry at harvest.</p>

<sup>a</sup> Only use registered products as registered in spray programmes.