BUMPER® 250 EC

Reg. no. L6034 Act/Wet 36 of/van 1947
N-AR 0504

READ THE LABEL BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS

GROUP	3	FUNGICIDE

An emulsifiable concentrate systemic fungicide for the control of diseases as indicated in mangoes, oak trees, pecan nuts, barley, wheat, apricots, cherries, peaches, plums, golf courses and bowling greens.	'n Emulgeerbare konsentraat sistemiese swamdoder vir die beheer van siektes soos aangedui in akkerbome, koring, gars, appelkose, kersies, perskes, pruime, pekanneute, mango's, golfbane en rolbalbane.

DANGER

Hazard statements
Harmful if swallowed.
Fatal if inhaled.
May damage unborn child.
Very toxic to aquatic life with long lasting effects.

Precautionary statements
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid release to the environment.

ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

propiconazole (triazole) …….. 250 g/L ……. propikonasool (triasool)

NET VOLUME/NETTO VOLUME

…… L

REGISTRATION HOLDER/REGISTRASIEHOUER
ADAMA South Africa (Pty) Ltd;
Reg. no. 1992/001741/07
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IN CASE OF POISONING, CALL THE FOLLOWING NUMBERS:
Griffon Poison Information Centre:
+27 82 446 8946 or
Tygerberg Poison Information Centre:
+27 861 555 777
EMERGENCY NUMBER:
SPILL TECH: +27 86 100 6366 or +27 83 253 6618

UN no.: 3082

Batch number	.....	Lotnommer
Date of Manufacture	.....	Datum van Vervaardiging
Expiry date	……	Vervaldatum

GHS information

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WARNINGS

- Harmful if swallowed.
- Fatal if inhaled.
- May damage unborn child.
- Very toxic to aquatic life with long lasting effects.

Withholding periods (minimum number of days between last application and harvest or grazing):

Peaches ……..	10 days
Barley, wheat ……	40 days
Pecan nuts …….	90 days
Cherries ……..	14 days

- May irritate the eyes and skin.
- Toxic to wildlife.
- Store in a cool, well ventilated place.
- Store away from food and feed.
- **Re-entry**: Do not enter the treated area within one day after application, unless wearing protective clothing.
- **Aerial application**: Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate adjacent areas and water.

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 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

- If medical advice is needed, have product container or label at hand.
- Keep out of reach of children.
- Read label before use.
- Obtain, read and follow all safety instructions before reuse.

- If exposed or concerned get medical advice.
- Wash face, hands and any exposed skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Wear protective gloves/protective clothing/eye protection/face protection
- Avoid release to the environment.
- IF SWALLOWED: Rinse mouth. Get medical help.
- Collect spillage.
- Store locked up.
- Dispose of contents/ container to an approved waste disposal plant.

- Prevent contamination of food, feed, drinking water and eating utensils.
- Do not inhale spray mist.
- Avoid contact with skin and eyes.
- Wash contaminated clothing after use.
- Avoid spray drift onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean applicator after use.
- Dispose of wash water where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Rinse the empty container three times with a volume of clean water equal to a minimum of 10% of the container. Add the rinsings to the contents of the spray tank before destroying the container. Do not use the empty container for any other purpose.

RELEVANT SUBSTANCES

Chemical name	w/w %	CAS no.
Propiconazole	10 – 30%	60207-90-1
Calcium dodecylbenzenesulphonate	<10%	26264-06-2
2-Ethylhexanol	<10%	104-76-7

FIRST AID

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). First aider: Pay attention to self-protection.

Take the container label or product name with you when seeking medical attention.

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

Inhalation: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Ingestion: If conscious, rinse mouth thoroughly with water. Drink plenty of water. Never give anything by mouth to an unconscious or convulsing person. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomit, rinse mouth and administer more water. Get medical attention immediately if symptoms occur.

TOXICOLOGICAL INFORMATION

Antidotes

No specific antidote. Treat symptomatically.

Symptoms of human poisoning

None known.

NOTICE TO THE USER: This agricultural remedy is to be used only according to the directions of this label. It is an offense under the Act to use this product inconsistent with the directions on the label.

MODE OF ACTION

3: Sterol biosynthesis in membranes: Demethylation inhibitor (DMI).

RESISTANCE WARNING

For the purpose of resistance management, **BUMPER® 250 EC** is classified as a group code 3 fungicide. Any fungus population may contain individuals naturally resistant to **BUMPER® 250 EC** and other group code 3 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **BUMPER® 250 EC** or any other group code 3 fungicide.

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 code X or Y, refer to applicable individual product labels.
- Integrate the control methods (chemical, cultural, biological) into fungicide control programmes.

For specific information on resistance management contact the registration holder of this product.

USE RESTRICTIONS

The uptake and activity of systemic compounds may be reduced when crops are under severe drought and/or fertility stress conditions. It is therefore not advisable to apply **BUMPER® 250 EC** during such periods. If in doubt, consult a representative of ADAMA South Africa (Pty) Ltd or a distributor.

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DIRECTIONS FOR USE

Use only as indicated.

Compatibility

BUMPER® 250 EC is compatible with most commonly used fungicides, insecticides and foliar feeds. However, the compatibility of **BUMPER® 250 EC** with other products may be influenced by the formulation of the relevant products as well as the quality of the dilution water. Since the formulation of other products may change without the knowledge of ADAMA South Africa (Pty) Ltd and the quality of water may vary from farm to farm, a physical compatibility test should always be carried out prior to application.

Mixing instructions

Add the required amount of **BUMPER® 250 EC** to the water in the spray tank. Stir continuously while mixing and during application. When a wettable powder or a mineral oil is sprayed as tank-mix with **BUMPER® 250 EC**, the wettable powder (creamed in advance) should be mixed first and well agitated after which the **BUMPER® 250 EC** is added and then the spray tank is filled to its final volume. Agitation of the mixture should be continuous during mixing and application. The spray mixture should be sprayed out immediately and not allowed to stand overnight.

APPLICATION

Ground application

BUMPER® 250 EC can be applied with conventional high-volume spray equipment. Calibrate the apparatus before application to ensure that the correct dosage is applied. The distribution of the spray solution must be uniform throughout the target area.

Aerial application (FOR CEREALS ONLY)

Aerial application of **BUMPER® 250 EC** 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 L/ha 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: 25–35 droplets/cm² must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 280–300 microns is recommended. Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
- Flying height: Maintain the height of the spray boom at 3–4 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 60–75% 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/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 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.
- It is important to obtain an assurance from the aerial spray operator that the above requirements will be met.

APPLICATION RATES

CROP AND TARGET	DOSAGE	REMARKS
Oak trees Powdery mildew (*Oidium quercinum*)	20 ml/100 L water 20 ml/100 L water	**Old established trees:** Apply a single high volume spray at full leaf set when leaves have fully developed (approximately mid-September). **Young actively growing trees:** Apply two high volume applications. Apply the first spray at full leaf set when leaves have fully developed (approximately mid-September) and the second spray eight weeks later.
Pecan nuts Scab (*Fusicladium effusum*)	50 ml/100 L water	Apply 1000–2000 L spray mixture/ha as indicated below: **Application** **stage and interval:** 1st When leaves unfold 2nd 10 days after 1st 3rd 21 days after 2nd 4th 28 days after 3rd 5th 28 days after 4th depending on conditions **Note:** The application of a suitable registered contact fungicide (in mixture or alone) with the

CROP AND TARGET	DOSAGE	REMARKS
		last two to three applications (i.e. the 3rd, 4th and 5th) will be beneficial for the control of fruit scab.
Mangoes Powdery mildew (*Oidium mangiferae*)	20 ml/100 L water	Apply every 10–14 days starting at the first signs of the disease, usually at 50% flowering and continue until 100% petal drop.
Apricots, cherries, peaches and plums Blossom blight (*Monilinia laxa*)	20 ml/100 L water	Commence application when 5% of blossoms have reached the full balloon stage and repeat at 7-day intervals until after blossoming.
Peaches and cherries Powdery mildew (*Sphaerotheca pannosa*)	20 ml/100 L water	Apply in a spray programme using sufficient spray mixture to obtain complete coverage. Apply at 14-day intervals when the disease is expected (or at very first signs of disease) and continue throughout the season as long as conditions remain favourable for the disease. **Note: Cherries:** Do not make more than 5 applications of propiconazole per season.
Wheat Eyespot (*Pseudocercosporella herpotrichoides*)	400 ml/ha ground application 500 ml/ha aerial application	Apply during the elongation stages up to the formation of the 2nd node (GS 9-14*). Do not apply after GS 14* for eyespot control.
Speckled leaf blotch (*Septoria tritici*) Glume blotch (*Septoria nodorum*) Powdery mildew (*Erysiphe graminis*)	500 ml/ha ground and aerial application	Use the 3rd leaf as indicator. Apply before more than 5 % of the surface of this leaf is infected. Optimum time for application is GS 16–20*.
Leaf rust (*Puccinia recondita*) Yellow rust (*Puccinia striiformis*)	400 ml/ha ground and aerial application	Apply at first signs of disease. **Note:** Where a second application is justified a dosage rate of 400 ml/ha is recommended for ground and aerial application.
Karnal bunt (*Neovossia indica* syn. *Tilletia indica)*	500 ml/ha ground application 600 ml/ha in 45 L water aerial application	Apply at 25% main ear appearance. Ensure that all plant parts are thoroughly covered. Follow-up with a second application 10 days later. Combine fungicide treatment with other disease management practices that will reduce the risk of infection. Uneven ear emergence and/or flowering may influence the success of fungicide treatment.

CROP AND TARGET	DOSAGE	REMARKS
Barley Leaf spot (*Rhynchosporium secalis*) Leaf blotch (*Pyrenophora teres*) Leaf rust (*Puccinia hordei*) Powdery mildew (*Erysiphe graminis*)	400 ml/ha ground application 500 ml/ha aerial application 500 ml/ha ground and aerial application	Leaf spot is best controlled by an application made between the 7th and flag leaf stages (GS 12-18*). Earlier applications may, however, be necessary if the disease develops earlier. Other diseases are generally well controlled by applications made for the control of leaf spot. For all diseases, treatments should be applied before the disease gains momentum. Where two applications are justified (e.g. where leaf blotch develops after the first application or where *Rhynchosporium* disease pressure is high) it will be beneficial to make a second application 18 to 21 days later. **Note:** Where a second application is justified a dosage rate of 400 ml/ha is recommended for ground and aerial application.
Golf courses and bowling green Dollar spot (*Sclerotinia*)	10 ml/100 m² at 7- to 14-day spray intervals 24 ml/100 m² at 14 to 28 day spray intervals	Apply as a preventive application if conditions are favourable for the development of disease. Use the lower rate only in tank mix with another unrelated registered fungicide. When using the higher rate, not more than three subsequent sprays should be applied before alternating with a registered fungicide with a different mode of action. **Only for use by members of the "Golf Course Managers and Green Keepers Association."**
Brown patch (*Rhizoctonia*)	40–80 ml/100 m² at 10-21 day spray intervals	Apply as a preventive application in spring or early summer. If the disease is already present at application, **BUMPER® 250 EC** should be mixed with a non-related registered fungicide. The higher dosage rate should be used if wet conditions with high humidity and high temperatures occur. Use the shorter spray intervals under these conditions. **Only for use by the members of the "Golf Course Managers and Green Keepers Association."**

* Growth stage (GS) according to the Department of Agronomy and Pastures, Faculty of Agricultural Science, University of Stellenbosch.