

# BRONIC 250 SC

South Africa Reg. No: L10797 Act No. 36 of 1947

**BRONIC 250 SC** is a suspension concentrate systemic, translaminar and contact fungicide for the preventive control of early blight (*Alternaria solani*) in potatoes, late blight (*Phytophthora infestans*) in tomatoes, grey leaf spot (*Cercospora zeae-maydis*), rust (*Puccinia sorghi*) and Northern corn leaf blight (*Exserohilum turcicum*) in maize, white blister (*Albugo candida*) in cruciferae (*brassicas*) and Rhizoctonia spp. in turf/lawns.

FRAC FUNGICIDE GROUP CODE: 11

**ACTIVE INGREDIENT:**

Azoxystrobin.....250g/ℓ

Product Information Tel No: 072 678 8226

In case of poisoning: 082 446 8946

[www.envirobiochem.co.za](http://www.envirobiochem.co.za)

Expiry Date:

Batch No:

Date of Manufacture:

**enviro**  
bio-chem

**Registration holder:**

Enviro Africom (Pty) Ltd

Co. Reg. No: 2013/194774/07

44 Kerk Street Lichtenburg 2740 North West, RSA  
Postnet Suite 4 Private Bag X12055 Lichtenburg 2740



CAUTION  
VERSIGTIG



## **WARNINGS:**

- **Withholding periods:** (Minimum number of days between last application and harvest).

Potatoes, maize, sweetcorn and tomatoes	7 days
Brassicas	14 days

**NOTE:** Compliance with these withholding periods will ensure that residues do not exceed local Maximum Residue Limits but the import tolerances of other countries might possibly be exceeded.

- Harmful if swallowed.
- Toxic to fish and harmful to other aquatic life.
- Avoid contact with skin or eyes since product may cause eye and skin irritation.
- Store away from food and feed.
- Keep out of reach of children, uninformed persons and animals.
- **Re-entry:** Do not enter treated area until spray deposit has dried unless wearing protective clothing.
- **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, since 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 a pest 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 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:**

- Do not eat, drink or smoke whilst handling this product.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Wear rubber gloves and a face shield when handling the concentrate. If you get it in your eyes, flush it out at once. If you get it on your skin, wash it off at once. If you spill it on your clothes, change and wash them.
- Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner.
- While spraying, avoid contact with the spray as much as possible. Avoid spray drift onto other crops, grazing, rivers or dams.
- Clean applicator thoroughly after use and dispose of wash water where it will not contaminate crops, grazing, rivers or dams.
- Destroy empty container and do not use for any other purpose.
- Change and wash your work clothes. Wash yourself.

## **RESISTANCE MANAGEMENT:**

For resistance management, **BRONIC 250 SC** is classified as a **group code 11** fungicide. Any fungus population may contain individuals naturally resistant to **BRONIC 250 SC** and other **group code 11** fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly and exclusively in programs. These resistant fungi may not be controlled by **BRONIC 250 SC** or any other **group code 11** 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 group codes.

- Refer to individual product labels when alternating products or when using tank mixtures with products in fungicide group codes, 7, 27, 28, 29, 30 and M.
- Integrate other control methods (chemical, cultural, biological) into disease control programs.

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

**General:**

- To prevent pathogen populations from becoming resistant to **BRONIC 250 SC**, it is essential that applications of **BRONIC 250 SC** be alternated with other registered fungicides from a different chemical class than azoxystrobin (strobilurin). This resistance management strategy should not include alternation with or tank mixes of fungicides to which resistance has already developed of fungicides with the same mode of action.
- **BRONIC 250 SC should always be applied preventatively** as described in the recommended table.
- Do not reduce the dosage rates below that recommended on the label.
- Never use any of the other strobilurin or strobilurin related chemicals in the same programme with **BRONIC 250 SC**.

**DIRECTIONS FOR USE:** Use only as directed.

**Compatibility:**

**BRONIC 250 SC** is compatible with carbendazim + flusilazole 375 SC and fludioxonil 230 SC.

**Mixing Instructions:**

Half fill the spray tank with clean water. Add the required amount of **BRONIC 250 SC** to the spray tank and top up with water to the required volume while agitating continuously. If **BRONIC 250 SC** needs to be used in tank mix combinations, first mix small quantities of the chemicals separately with water. Add these mixtures together while agitating and check for any signs of incompatibility e.g. flocculation, etc. In this instance, full cognisance must be taken of all warnings, precautions and directions for use on that label. Continue agitation throughout application and do not allow the tank mixture to stand still for any period of time.

**Application:**

Ensure that the applicator to be used is in a good working condition and correctly calibrated. Use the spray volumes as indicated to ensure good coverage.

**Aerial Application:**

**Precautions:** Aerial application of **BRONIC 250 SC** may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS 10118 (Aerial Application of Agricultural Remedies). It is important to 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:

**a) Application parameters:**

- **Volume:** A volume of 30 - 40ℓ water/ha is recommended in potatoes and maize. As **BRONIC 250 SC** has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy or be held responsible for any adverse effects if the product is applied aerially at a lower volume rate than recommended above.
- **Droplet coverage:** A droplet coverage of 25 - 35 droplets per cm<sup>2</sup> must be recovered at the target.
- **Droplet size:** A droplet spectrum with a VMD of 280 - 300 microns is recommended. Ensure that the production of fine droplets (less than 150 microns – high drift & evaporation potential) is restricted to a minimum.
- **Flying height:** The height of the spray boom should be maintained at 3 - 4 metres above the target. Do not spray when aircraft is in a climb, at the top or during a dive, or when banking.

**b) Equipment:**

Use suitable atomising equipment (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and coverage but which will ensure the minimum loss of product either through endodrift (within target field) or exodrift (outside target field). The operator must use a setup that will produce a droplet spectrum with the lowest possible relative span.

All nozzles / atomisers should be positioned within the inner 60% to 75% of the wingspan to prevent droplets from entering the wingtip vortices.

### c) Meteorological conditions:

The difference in temperature between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C. The addition of a suitable anti-evaporant is recommended if the VMD of the droplets is less than 200 - 250 microns.

Stop spraying if the wind speed exceeds 15km/h.

Aerial application of **BRONIC 250 SC** must not be done under turbulent, unstable conditions during the heat of the day when rising thermals and downdraughts occur. Also note that the application of this product under temperature inversion conditions (spraying in or above the inversion layer) may lead to the following:

- Reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage)
- Damage to other sensitive crops and or non-target areas through the movement of the suspended spray cloud away from the target field.

### Influence of rain on application:

Should it rain within two hours after application, the application must be repeated.

#### 1. **BRASSICAS:**

- **BRONIC 250 SC** can be used in a spray programme with chlorothalonil 500 SC and TalOnil 720 (L8935 Act No. 36 van 1947).
- Do not apply more than two applications of **BRONIC 250 SC** to Brassicas in the same season.
- Do not apply **BRONIC 250 SC** at the first or last application in the spray programme.
- Never use **BRONIC 250 SC** as a corrective treatment or after an unsuccessful application of any product.

CROP/DISEASE	DOSAGE	REMARKS
BRASSICAS  White blister ( <i>Albugo candida</i> )	500 - 750mℓ/ha	Apply as a full cover preventive spray. Apply two consecutive sprays 7 days apart when the weather favours the disease. Use the higher rate when disease pressure is high. Apply in 450 - 700ℓ water / ha depending on the growth stage of the plants. Do not apply more than two applications per growth cycle. Apply in a spray programme together with chlorothalonil 500 SC and TalOnil 720.

#### 2. **MAIZE:**

- Start application before 3% of the total leaf surface area shows disease symptoms OR when symptoms are present on the basal 3 - 5 leaves.
- Never use **BRONIC 250 SC** as a corrective or curative application or after an unsuccessful application of any product.
- With short season hybrids when the first spray was applied after pollination, it will probably be sufficient to control the disease (a second spray might not be necessary).
- **BRONIC 250 SC** can be used in a spray programme with difenoconazole 250 EC.
- Do not apply more than two applications of **BRONIC 250 SC** to maize in the same season.
- When multiple applications are necessary to control the disease, the last application for the season should be done with fungicides from a different chemical group other than Strobilurin i.e. triazoles namely difenoconazole 250 EC.

CROP/DISEASE	DOSAGE	REMARKS
MAIZE AND SWEETCORN Grey leaf spot ( <i>Cercospora zeae-maydis</i> )	Ground and aerial application: 400ml BRONIC 250 SC /ha  Aerial Application: 300ml BRONIC 250 SC/ha followed by 300ml difenoconazole 250 EC/ha.	With medium to long-season hybrids or if the first application was applied within three weeks before pollination, a follow-up application with difenoconazole 250 EC must be applied 4 - 5 weeks later.
Grey leaf spot ( <i>Cercospora zeae-maydis</i> )	300ml BRONIC 250 SC followed by 300ml BRONIC 250 SC / ha followed by 300ml difenoconazole 250 EC/ha.	In certain cases where the initial application was applied at a very early stage, a third application might be necessary. In this case the first two applications are made with BRONIC 250 SC at intervals of 4 - 5 weeks. The last application must be done with difenoconazole 250 EC 4 - 5 weeks after the second application.
Rust ( <i>Puccinia sorghi</i> )	The above mentioned rates of BRONIC 250 SC will also control rust ( <i>Puccinia sorghi</i> ) if present. Refer to Resistant Management Strategy above.	
Northern corn leaf blight ( <i>Exserohilum turcicum</i> )	The above mentioned rates of BRONIC 250 SC will also control Northern corn leaf blight ( <i>Exserohilum turcicum</i> ) if present. Refer to Resistant Management Strategy above.	

#### SPRAY VOLUMES

Tractor application	300 - 400ℓ
High clearance tractor application	150 - 300ℓ water/ha
Aerial application	40ℓ water/ha
Knapsack sprayer application	60 - 70ℓ water/ha

#### SUGGESTED SPRAY PROGRAMME

Number of applications / season	Number of BRONIC 250 SC applications / season	BRONIC 250 SC rate: product/ha	Number of triazole applications / season	difenoconazole 250 EC rate: product/ha
1	1	400ml	0	N.V.T
2	1	300ml	1	Registered rate
3	2	300ml each	1	Registered rate

Consult the difenoconazole 250 EC label for full particulars.

### 3. POTATOES:

- Apply in a preventive spray programme and alternate with TalOnil 720 (L8935 Act No. 36 van 1947) every 7 days. Start application before the disease appears or when weather conditions favour the development of the disease. Ensure good coverage.
- Do not apply BRONIC 250 SC when the disease is already present. In this case, an appropriate systemic product should be applied.

Apply at least two applications with a systemic product (e.g. difenoconazole 250 EC or chlorothalonil 500 EC, then return to the preventive spray programme as suggested).

- The total number of **BRONIC 250 SC** applications per season, must not exceed 30% (normally three) of the total number of applications in the **BRONIC 250 SC / TalOnil 720** spray programme.

#### Suggested spray programme for the control of early and late blight:

- The first 2 - 3 applications must be made with TalOnil 720 followed by and **BRONIC 250 SC** application 7 days later in the early flowering stage. Maintain this 7 day alternating product spray programme with TalOnil 720 until a maximum of 3 **BRONIC 250 SC** applications (or equal to a third of the total fungicide applications) have been made. (Refer to Resistance Management Strategy above). Thereafter, continue with the TalOnil 720 applications throughout the rest of the growing season.
- Do not apply **BRONIC 250 SC** as the first or last application in the spray programme.
- Apply TalOnil 720 at the rates indicated on the TalOnil 720 label.
- The first 2 - 3 **BRONIC 250 SC** applications can be replaced by a chlorothalonil 500 SC application according to the label.

The suggested spray programme on potatoes will also control late blight (*Phytophthora infestans*).

CROP/DISEASE	DOSAGE
<b>POTATOES</b>  Early blight ( <i>Alternaria solani</i> )	<b>Ground application:</b> 300mℓ <b>BRONIC 250 SC</b> /ha alternated with TalOnil 720 SC at 1 - 2ℓ/ha in at least 500ℓ water/ha
	<b>Aerial application:</b> 330mℓ <b>BRONIC 250 SC</b> /ha alternated with TalOnil 720 at 1 - 2ℓ / ha in 30 - 40ℓ water/ha.

#### 4. TOMATOES:

- **BRONIC 250 SC** is registered for use on tomatoes only in the Lowveld areas of Mpumalanga and Limpopo as well as in the Western Cape.
- Apply in a preventive spray programme and alternate with TalOnil 720 every 7 days. Start application before the disease appears or when weather conditions favour the development of the disease. Ensure good coverage.
- Do not apply **BRONIC 250 SC** when the disease is already present. In this case, an appropriate systemic product should be applied. Apply at least two applications with a systemic product (e.g. difenoconazole 250 EC or chlorothalonil 500 SC, then return to the preventive spray programme as suggested).
- The total number **BRONIC 250 SC** applications per season, must not exceed 30% (up to six) of the total number of applications in the **BRONIC 250 SC / TalOnil 720** spray programme.
- **BRONIC 250 SC** and TalOnil 720 should be applied in water volumes of a minimum of 300ℓ to a maximum of 1 000ℓ/ha on tomatoes from 10 to 130 cm high, respectively.

#### Suggested spray programme:

- The first 2 - 3 applications must be made with TalOnil 720 followed by a **BRONIC 250 SC** application 7 days later in the early flowering stage. The **BRONIC 250 SC** may be applied earlier if weather conditions favours infection. Maintain this 7 day alternating product spray programme with TalOnil 720 until a maximum of 6 **BRONIC 250 SC** applications (or equal to a third of the total fungicide applications) have been made. (Refer to Resistance Management Strategy above). Thereafter, continue with the TalOnil 720 applications throughout the rest of the growing season.
- Do not apply **BRONIC 250 SC** as the first or last application in the spray programme.
- Apply TalOnil 720 at the rates indicated on the TalOnil 720 label.
- The first 2 - 3 TalOnil 720 applications can be replaced by chlorothalonil 500 SC applications according to the label.

The suggested spray programme on tomatoes will also control early blight (*Alternaria solani*).

CROP/DISEASE	DOSAGE
<b>TOMATOES</b>  Late blight ( <i>Phytophthora infestans</i> )	<b>Ground application:</b> 80 - 120mℓ <b>BRONIC 250 SC</b> / 100ℓ water alternated with TalOnil 720 at 100 - 380mℓ/100ℓ water according to the disease pressure as specified on the TalOnil 720 label.

### 5. **TURF/LAWNS:**

- Apply in 1 000ℓ water/ha as a preventative treatment when weather conditions become favourable for development of the disease.
- Do not restrict application to infected areas only but also apply to non-infected surrounding areas.
- Do not apply **BRONIC 250 SC** with any type of irrigation system or any ULV water application system.
- Do not apply more than three applications of **BRONIC 250 SC** to turf/lawns in the same season.

CROP/DISEASE	DOSAGE	REMARKS
<b>TURF / LAWNS</b>  <i>Rhizoctonia</i> spp.	1 120mℓ/ha	Apply as a full cover preventive spray. Apply three consecutive sprays 14 days apart when the weather favours the disease. Apply in 1 000ℓ water/ha. Do not apply more than three applications per season. The addition of Booster OIL (L6148 Act No. 36 van 1947) at a dosage rate of 30 mℓ/10ℓ water is recommended to increase control of the disease.

- TalOnil 720 SC (L8935) is a registered trademark of Enviro Bio-Chem (Erintrade cc t/a RT Chemicals)
- Booster Oil (L6148) is a registered trademark of Enviro Bio-Chem (RT Chemicals)