



### BENON 300 SC Reg. No. L 10708 Act No. 36 of 1947 FRAC FUNGICIDE GROUP CODE: 7 & M9

### ACTIVE INGREDIENTS

boscalid (carboxanilide)	100 g a.i. <i>lt</i>
dithianon (quinone)	200 g a.i. <i>lℓ</i>

Registration holder: VILLA CROP PROTECTION (PTY) LTD. Co. Reg. No. 1983/008184/07 65 Botes Road, Glen Marais. KEMPTON PARK, 1619 Tel. (011) 396 2233

### WARNINGS

### Withholding periods:

Minimum time between the last application and harvest or feeding:		
Apples (Do not apply after 75% petal fall)	28 days	
NOTE		

THE MAXIMUM RESIDUE (MRL'S) LEVELS WILL NOT BE EXCEEDED, PROVIDED APPLICATIONS ARE APPLIED AS HEREWITH PRESCRIBED. WHEN PRODUCTION IS DESTINED FOR THE EXPORT MARKET, THE EXPORT AGENCY OF CONCERN MUST BE CONTACTED, PRIOR TO THE USE OF BENON 300 SC IN A SPRAY PROGRAMME.

### **SAFETY INFORMATION**

### Hazard statements:

Harmful if swallowed.
Harmful if inhaled.
Toxic to aquatic life with long lasting effects.

Handle with care.

- Store away from food, feeds, seed, fertilizers and other agricultural chemicals.
- Store in a cool, dry, well-ventilated place in the original container, tightly closed and secured.
- Keep out of reach of children, uninformed persons and animals.
- <u>Re-entry</u>: Do not enter treated area within 1 day after treatment 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 diseases 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.

# Precautionary statements: Avoid breathing mists or spray. Wash hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. IF SWALLOWED: Get medical help. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help. Rinse mouth. Collect spillage. Dispose of content/container to suitable landfill in accordance with local regulations.

- Prevent spray drift onto other crops, grazing, rivers, dams or areas not under treatment.
- Clean the spraying equipment directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams.
- **TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining 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 a third of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.
- Prevent contamination of food, feeds, drinking water and eating utensils.

Relevant hazardous compor	nents
Boscalid	10%
Dithianon	20%
Monoethylene Glycol	< 10%

In case of poisoning, call the following number: +27 82 446 8946 (Griffon Poison Information Centre). In case of a chemical spill call the following 24 Hr Transport / Spill emergency number: +27 86 044 4411 (Hazcall24 / Client: Villa Crop Protection).

### FIRST AID TREATMENT:

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure. Consult a doctor if symptoms persists.

- Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.
- **Skin:** Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Obtain medical attention if irritation persists.
- **Eyes:** Flush eyes with clean water. Lift eyelids to facilitate irrigation. If present, remove contact lenses and continue rinsing. Seek medical attention if irritation persists.
- **Ingestion:** Seek medical attention or call a poison control centre for treatment advice. Do not induce vomiting unless instructed to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.
- Advice to physician: Treat symptomatically and supportively. No specific antidote known.

# **RESISTANCE WARNING**

**BENON 300 SC** is a group codes 7 and M9 fungicide. Any fungus population may contain individuals naturally resistant to **BENON 300 SC** and other group codes 7 and M9 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **BENON 300 SC** or any other group codes 7 and M9 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,
- integrate other control methods (chemical, cultural, biological) into disease control programmes.

For specific information on resistance management contact the registration holder of this product. Since the occurrence of resistance cannot be forecast, users are advised to keep treated plants under close observation. If treatment is not effective following the use of **BENON 300 SC** as recommended, a resistant strain may be present. If a resistant strain is positively identified, consideration should be given to prompt use of a fungicide with a different mode of action for which there is no record of resistance.

### MODE OF ACTION

**BENON 300 SC** contains two active ingredients, namely **boscalid** and **dithianon**. **Boscalid** is a systemic fungicide with protective and, in some cases, curative activity, translocated acropetally in the xylem, translaminar mobility. Inhibits spore germination and germ tube elongation and is also effective on all other stages of fungal development. **Boscalid** causes mitochondrial electron transport inhibition (MET II) by inhibition of succinate dehydrogenase (SDHI, complex II). **Dithianon** on the other hand is a contact fungicide with protective and, to some extent, curative activity. **Dithianon** chemically reacts, non-specifically, with thiols, inhibiting respiration.

# Additional information with regard to Resistance Management Strategy:

- In order to prevent development of resistance to **BENON 300 SC** by pathogen populations, it is important that **BENON 300 SC** be alternated with registered fungicides from different chemical classes. This management strategy to prevent resistance should, however, not include fungicide products to which resistance has already developed in the past, or fungicides using the same mode of action.
- Always apply **BENON 300 SC** preventively as instructed in the recommendations table.
- Adhere to the dosage rates recommended on the label, do not reduce any dosage rate.
- Do not apply more than three (3) applications of **BENON 300 SC** per growing season.

# USE RESTRICTIONS

- <u>Bees:</u> The use of **BENON 300 SC** should not present a hazard to bees under normal field application conditions.
- **Do not** apply **BENON 300 SC** within 14 days before, or following, an application of a mineral oil to the crop.
- Do not apply more than three (3) applications of BENON 300 SC per growing season.
- Do not apply BENON 300 SC after 75 % petal fall.

# DIRECTIONS FOR USE: Only use as directed.

Read the entire label before application. This agricultural remedy is to be used only in accordance with the instructions on the label. It is an offence under the Act to use this agricultural remedy for any purpose in a manner contrary with the directions on the label.

# Compatibility:

- The compatibility of **BENON 300 SC** in tank mixtures with other products has not been confirmed and can be influenced by the formulations involved, as well as the water quality.
- Do not mix with alkaline products or spray oils.
- A physical compatibility test of all products involved is recommended, before application, as formulations can be altered, and water quality can vary from area to area.
- Always consult the labels of products to be tank mixed with BENON 300 SC.

# Mixing instructions:

# Shake the container well before use. Replace cap directly after use.

- Fill the spray tank to half of the desired volume with clean water and ensure continuous agitation.
- Pre-mix the required volume of **BENON 300 SC** in 10 litres water and add this pre-mix to the mixing tank, while agitation is continued.
- Observe the following formulation mixing sequence if other products will be tank mixed with BENON 300 SC buffer/acidifier; wettable powder or granules, suspension concentrate, emulsifiable concentrate, wetters. Pre-mix each product separately with a small volume of water before adding it to the spray tank. Thereafter fill the tank to the required volume with clean water while maintaining agitation, to ensure thorough mixing of the spray mixture, before application commences.
- Ensure continuous agitation during mixing and application.
- The spray mixture must be sprayed immediately after mixing. Prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

# Application:

- <u>Calibration</u>: It is important to ensure that all application equipment is in good working order and correctly calibrated to apply the required spray volumes and dosage rate. Ensure good coverage by using the spray volumes as indicated.
- <u>Rain:</u> Repeat the application if rain falls within 2 hours after application.

# **APPLICATION RATES**

Crop / Disease	Dosage rate	Remarks
Crop / Disease Apples Scab (Venturia inaequalis) Powdery mildew (Podosphaera leucotricha)	Dosage rate 125 mℓ / 100 ℓ water	<ul> <li>Refer to "Resistance Management, Application instructions and Restrictions above". Apply preventively as part of a spray programme.</li> <li>Start with the applications at the green-tip stage and apply at weekly intervals until 75 % petal fall. During this period, alternate with fungicides with a different mode of action for both Apple scab and Powdery mildew control.</li> <li>Do not apply more than three (3) BENON 300 SC applications per growing season. Make applications between the green-tip stage and 75 % petal fall.</li> <li>After 75 % petal fall, revert to alternative effective fungicides as registered on apples. Apply every fortnight</li> </ul>
		during post-blossom period. If weather conditions favor disease development at this stage, revert back to 7-day intervals. Always ensure complete coverage. Continue up to mid-December. Thereafter treatments can be applied at monthly intervals. Last application not later than 28 days before harvest.

# NOTES REGARDING APPLICATION ON APPLES

# High volume application (HV):

• The water volume to be applied per hectare must be calculated according to the Tree Row Volume (TRV) formula of Unrath (*Deciduous Fruit Grower*, November 1986):

# HV *l* / ha = Tree height x Tree diameter x 937

# Row width

- a. This is the water volume required when the trees are in full leaf.
- b. Use the water volume required per hectare to calculate the amount of **BENON 300 SC** required per hectare.
- The following water requirements per hectare are recommended according to the different growth stages of the tree:

Growth stage	% Water volume per hectare with regard to high volume (HV calculated above)
From green tip to $\pm$ 30 % blossom	60 %
From $\pm$ full blossom to $\pm$ mid-November	80 %
From ± beginning December	100 %