


ARDENT[®] 50 SC

Reg. no. L7284 Act/Wet 36 of/van 1947
N-AR 0978

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

GROUP	11	FUNGICIDE
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A suspension concentrate contact and trans laminar fungicide for the control of diseases in apples, pears, grapes, barley, cucurbits and tomatoes as indicated.	'n Suspensiekonsentraat kontak- en translaminêre swamdoder vir die beheer van siektes in appels, pere, druie, gars, pampoen-gewasse en tamaties soos aangedui.
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 <p>DANGER</p>	<p>Hazard statements Suspected of causing cancer. Very toxic to aquatic life with long lasting effects.</p> <p>Precautionary statements Avoid release to the environment apart from the intended use. Wear protective gloves/face protection/protective clothing.</p>
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ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

Kresoxim-methyl (strobilurin)..... 500 g/L Kresoksiem-metiel (strobilurien)

NET VOLUME/NETTO VOLUME

..... L

REGISTRATION HOLDER/REGISTRASIEHOUER

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UN no.: 3082

EMERGENCY NUMBERS:

Griffon Poison Information Centre: +27 82 446 8946
Tygerberg Poison Information Centre: +27 861 555 777

Batch number
Date of Manufacture
Expiry date

Lotnommer
Datum van Vervaardiging
Vervaldatum

WARNINGS

- Suspected of causing cancer.
- Very toxic to aquatic life with long lasting effects.

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

Apples and pears	45 days
Table and wine grapes	14 days
Barley	50 days
Cucurbits	4 days
Tomatoes	14 days

- Handle with care.
- Harmful to animals.
- Store in a cool, dry place 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.

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, 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

- Obtain, read and follow all safety instructions before use.
- Keep out of reach of children.
- Do not eat, drink, or smoke when using this product.
- Wear protective gloves/face protection/protective clothing.
- Wash hands and face thoroughly after handling.
- If exposed or concerned, get medical advice.
- Avoid release to the environment apart from the intended use.

- Store locked up.
- Collect spillage.
- Dispose of contents and/or container to an approved waste disposal plant.

- When handling the concentrate, wear gloves and face shield.
- Do not inhale fumes or spray mist.
- Avoid prolonged contact with skin and eyes.
- Wash contaminated clothing daily.
- Wash with soap and water after use or accidental skin contact.
- Do not eat, drink or smoke while mixing, applying or before washing hands and face.
- Clean spray equipment after use and dispose of wash water where it will not contaminate crops, grazing, rivers or dams.
- 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.
- Destroy the empty container by perforation and never use for any other purpose.
- Avoid drift of spray mist to other crops, grazing, rivers, dams and areas not under treatment.
- Prevent contamination of food, feed, drinking water and eating utensils.

RELEVANT SUBSTANCES

Chemical name	w/w %	CAS no.
Kresoxim-methyl	30–60%	143390-89-0

FIRST AID

If exposed or concerned, get medical advice. If possible, show the label (directions for use) or this SDS.

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

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical help.

Skin contact: Wash with soapy water. Take off contaminated clothing and wash it before reuse.

Inhalation: Remove person to fresh air and keep comfortable for breathing.

Ingestion: Rinse mouth well with clean water.



TOXICOLOGICAL INFORMATION

Symptoms of human poisoning/ Most important delayed symptoms/effects after exposure

Inhalation: irritation, coughing may occur.

Eye contact: eye irritation may occur.

If skin irritation or rash occurs, or if eye irritation persists, or if a burning sensation in the upper airways persists, get medical help. Get medical help if you feel unwell. Treat symptomatically. Pre-existing conditions may be aggravated, such as eye, skin, or respiratory disorders.

Prolonged or repeated exposure may cause damage to organs such as the heart.

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.

RESISTANCE WARNING

For resistance management, **ARDENT® 50 SC** is a group code 11 fungicide. Any fungus population may contain individuals naturally resistant to **ARDENT® 50 SC** and other group code 11 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **ARDENT® 50 SC** or any other group code 11 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.

ARDENT® 50 SC should always be applied as a preventive treatment. Not less than two or more than three consecutive applications must be done in a block application in any crop per season. The first and the last treatments in a spray programme must never be done with ARDENT® 50 SC.

MODE OF ACTION

11: Respiration: C3 – complex III: cytochrome bc1 (ubiquinol oxidase) at Qo site (cyt b gene) – Quinone outside Inhibitors

DIRECTIONS FOR USE

Use only as indicated.

Compatibility

ARDENT 50 SC is compatible with mancozeb and light narrow range mineral oils. It is advisable to always carry out a physical compatibility test prior to application when **ARDENT® 50 SC** is tank mixed with other fungicides or insecticides.

Mixing instructions

Half fill the spray tank with water. Add the required volume of **ARDENT® 50 SC** to the spray tank while agitating. Fill the spray tank with water while continuously agitating. When **ARDENT® 50 SC** is tank mixed with other products, these products should be added to the spray tank shortly prior to application.

APPLICATION RATES

CROP / TARGET	DOSIS	REMARKS
Apples and pears Scab <i>(Venturia spp.)</i>	6.5 ml/100 L water 10 ml/100 L water	<p>Preventive application:</p> <p>Commence application as early as possible from the green tip stage to 75% petal fall. Apply at least two consecutive applications, but not more than three at 7- to 10-day intervals. Use the shorter intervals for high infections or where climatic conditions are favorable for the development of the disease. Do not apply more than three ARDENT® 50 SC applications in a year.</p> <p>Apply as a high-volume application according to the tree row volume (TRV) as described by Unrath (Deciduous Fruit Grower, Nov. 1986)</p> <p>Curative application:</p> <p>Commence application within two days only after infection has taken place as an addition to a preventive programme with other registered products. Apply as a high-volume application.</p> <p>IMPORTANT: Do not apply ARDENT® 50 SC after end December to avoid the possibility of high residue levels.</p>
Apples Powdery mildew <i>(Podosphaera leucotricha)</i>	6.5 ml/100 L water	<p>Apply as a preventive application at the pink stage and repeat at 7-to 14-day intervals. Do not apply less than two or more than three consecutive applications per season. Applications for scab will also control powdery mildew.</p>



ADAMA

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CROP / TARGET	DOSIS	REMARKS
Barley (only to be used under the recommendation of SAB MALTING) Net Blotch (<i>Pyrenophora teres</i>)	300 ml ARDENT® 50 SC Plus 450 ml ORIOUS® 200 EW Or 360 ml ORIOUS® 250 EW	Apply preventative or at the very first sign of infection. Repeat the application 21–28 days later. A third application may be necessary 21 days later under very high-pressure conditions to protect the flag leaf. Apply in 200–400 L water/ha for ground application and in 30–40 L water/ha for aerial application. If diseases like Leaf spot (<i>Rhynchosporium secalis</i>), Leaf rust (<i>Puccinia hordei</i>) and Powdery mildew (<i>Erisiphe graminis</i>) is present at time of application, it will also be controlled by the combination of Ardent and Orius.
Cucurbits Powdery mildew (<i>Sphaerotheca fuliginea</i>)	200 ml/ha	Apply preventative or at the very sign of the first infection. Repeat after 14 days. Use at least 500 L water/ha and ensure good coverage of the target area: Do not apply more than 33% of the total number of sprays for powdery mildew with Ardent or any other Group II fungicide (Refer to Resistance Warning)
Grapes Table and wine grapes Powdery mildew (<i>Oidium tuckeri</i>)	15 ml/100 L water (0.05–0.23 L/ha)	Start application when shoots are about 25 mm long. As a high-volume application apply at 350–1500 L spray mixture/ha depending on the leaf surface area present. As a low volume application apply at least 250 L mixture/ha but increase the ARDENT® 50 SC concentration to the same level as for high volume application. At least 3 sulphur applications should be done in the normal spray programme. Repeat applications at 10–14-day intervals as a block of 2 but not more than 3 consecutive applications.
Tomatoes Powdery mildew (<i>Leveillula taurica</i>) and/or (<i>Oidium lycopersicum</i>)	20 ml/100 L water	Apply as a preventative or at the very first signs of the disease. Repeat every 7–10 days while weather conditions favor the development of the disease with a maximum of four applications per field per season. Alternate with other registered products with a different FRAC Group Coding. Ensure a thorough wetting of the target area and apply 500–1000 L spray mixture per ha.

High volume:

The water volume to be applied/ha must be calculated according to the TRV formula:

$$\text{L/ha} = \frac{\text{Tree height} \times \text{Tree diameter} \times 937}{\text{Row width}}$$

The TRV is calculated as the water volume needed when trees are in full leaf.

Water requirements/ha in other growth stages.

GROWTH STAGE	% HIGH VOLUME WATER REQUIREMENT/ha
From greentip to ± 30% blossom	60%
From ± full blossom to ± mid-November	80%
From ± start December	100%