

A suspension concentrate fungicide for the control of diseases in crops indicated.

'n Suspensiekonsentraat swamdoder vir die beheer van siektes in gewasse soos aangedui.

Distributed by:

**Makhro Home And Garden (Pty) Ltd**

Reg. Nr. 2014 / 283523 / 07

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MAKHRO HOME AND GARDEN (PTY) LTD

# CHRONOS 450 SC

Reg. Nr. L7276 – Act / Wet 36 of / van 1947

N-AR 0868

FRAC FUNGICIDE GROUP CODE 3 FRAC SWAMDODER GROEPKODE

## ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL

Prochloraz zinc complex (imidazole)	530 g / l	Prochloraz sinkkompleks (imidasool)
Prochloraz equivalent	450 g / l	Prochloraz ekwivalent

Registration Holder: ADAMA SOUTH AFRICA (PTY) LTD  
Reg. No. 1992/001741/07. 21 Viben Street, Brackenfell 7560

Blue band



CAUTION  
VERSIGTIG



Blou band

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L7276 – Act 36 of 1947 / N-AR 0868  
FRAC FUNGICIDE GROUP CODE 3

Active Ingredient: Prochloraz zinc complex (imidazole) 530 g / ℓ  
Prochloraz equivalent 450 g / ℓ  
Registration Holder: ADAMA SA (PTY) LTD (1992/001741/07)



Office No: 021 981 4011  
21 Viben Street, Brackenfell  
**Technical advise: 082 562 5330**  
**Medical Emergency: 0861 555 777**

## WARNINGS:

- **Withholding period:** Allow 14 days between last application and harvest of mushrooms.
- Apricot, Peaches, Plums and Cherries: do not apply after blossom.
- Harmful if swallowed or absorbed through the skin.
- Causes eye irritation.
- Toxic to fish.
- Store in a cool, well ventilated place away from food and feed.
- Keep out of reach of children, uninformed persons and animals.

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:

- Do not eat, drink or smoke whilst mixing, applying or before washing hands and face.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Wear rubber gloves and a face shield when handling the product in its concentrated form.
- Do not inhale spray mist.
- Avoid contact with the skin and eyes.
- Wash with soap and water after use and/or accidental skin contact.
- Wash contaminated clothing.
- 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 of at least 10 % of that of the container. Add the rinsing to the spray tank before destroying the empty container.
- Avoid drift of spray onto neighboring crops, grazing, water sources and areas not under treatment.
- Clean applicator after use and dispose of wash and rinse water where it will not contaminate crops, grazing and water sources.
- Destroy empty container and NEVER use for any other purpose.

## RESISTANCE WARNING:

For resistance management, **CHRONOS 450 SC** is a group code 3 fungicide. Any fungus population may contain individuals naturally resistant to **CHRONOS 450 SC** 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 **CHRONOS 450 SC** 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.

## DIRECTIONS FOR USE:

Use only as indicated.

## MIXING INSTRUCTIONS:

Half fill the spray tank with clean water. Pre-mix the required quantity of **CHRONOS 450 SC** with a small volume of water. Agitate the water in the spray tank whilst adding the pre-mixed product. Fill the spray tank with water to the required level while maintaining agitation to ensure thorough mixing of the spray solution. Continue to maintain agitation while spraying. The prepared spray mixture should not be left in the spray tank for any length of time, e.g. overnight. Ensure that agitation takes place during application prior to the commencement of spraying after normal operation has stopped, e.g. after a lunch break.

## APPLICATION RATES:

CROP / DISEASE	DOSAGE	REMARKS
<b>APRICOTS, PLUMS AND PEACHES</b> Blossom blight ( <i>Monilinia laxa</i> )	3 ml / 10 ℓ	Apply as a high volume application at 1200 – 2000 ℓ spray mixture / ha. Commence application when 5 % of blossoms are in the balloon stage. Repeat every 6 – 7 days until after blossom.
<b>AVOCADOS</b> Post-harvest control of Anthracnose, Stem end rot and <i>Dothiorella</i> and	<b>Dip treatment:</b> 18 ml / 10 ℓ water + 0.02% HCl	Dip fruit for 30 seconds into the acidified fungicide suspension. Let the fruit dry off before storing.

<i>Colletotrichum</i> complex fruit rot		<b>NOTE:</b> Care must be taken that the concentration of the dip remains constant by topping up with an acidified suspension made up in a proportion of 18 ml acidified <b>CHRONOS 450 SC</b> per 10 ℓ water. Stir the suspension regularly.
<b>BANANA'S</b> Post-harvest control of collar rot	<b>Dip treatment:</b> 3 ml / 10 ℓ water	Cut bunches into hands and dip each individual hand for 5 seconds in the fungicide suspension.  <b>NOTE:</b> Care must be taken that the concentration of the dip remains constant by topping up regularly with a suspension made up in a proportion of 30 ml <b>CHRONOS 450 SC</b> per 100 ℓ water. Stir the suspension regularly.
<b>CITRUS</b> Post-harvest control of Green mould and Blue mould.	<b>Brush on treatment:</b> 330 ml / 100 ℓ water	Apply during the fruit brushing process before the application of wax. Use in combination with 2,4-D (sodium salt) and thiabendazole. Follow the directions as mentioned on these product labels.
<b>CULTIVATED MUSHROOMS</b> Dry bubble ( <i>Verticillium fungicola</i> )  Wet bubble ( <i>Mycogone perniciosa</i> )	<b>First application:</b> 3,4 ml / m <sup>2</sup> in 1,0 ℓ water  <b>Second application:</b> 1,4 ml / m <sup>2</sup> in 1,0 ℓ water	Drench with mixture 7 – 9 days after casing.  Drench with the mixture after the first break when the mushrooms have a second flush.
<b>LITCHIES</b> Post harvest decay ( <i>Alternaria</i> spp) and ( <i>Botryodiplodia</i> spp)	18 ml / 10 ℓ water	Dip fruit for 30 seconds into the fungicide suspension at room temperature. Let fruit dry off before storing.  <b>NOTE:</b> Care must be taken that the concentration of the dip remains constant by topping up with a suspension made up in a proportion of 180 ml <b>CHRONOS 450 SC</b> per 100 ℓ water. Stir the suspension regularly.  DO NOT EXCEED A DOSAGE RATE OF 180 ml <b>CHRONOS 450 SC</b> in 100 ℓ WATER.
<b>MANGOES</b> Post-harvest control of anthracnose and the suppression of soft brown rot	<b>Export market:</b> 18 ml / 10 ℓ water          <b>Local market:</b> 9 ml / 10 ℓ water	Dip fruit for 20 seconds into the fungicide suspension at room temperature.  NB: Fruit should be pre-dipped in hot water for 5 minutes. Water temperature should not exceed 50°C, especially during the early part of the season and especially with the cultivars Zill and Irwin. Phytotoxicity with hot water alone can be experienced during certain seasons.  Dip fruit for 2 minutes in a hot fungicide suspension. The water temperature should not exceed 50°C especially during the early part of the season and especially with the cultivars Zill and Irwin. Phytotoxicity with hot water alone can be experienced during certain seasons.
<b>PAPAYA</b> Post-harvest control of Anthracnose and suppression of stem-end rot	18 ml / 10 ℓ water	Dip fruit for 30 seconds into the fungicide suspensions at room temperature. Let fruit dry off before storing.  <b>NOTE:</b> Care must be taken that the concentration of the dip remains constant by topping up with a suspension made up in a proportion of 180 ml <b>CHRONOS 450 SC</b> per 100 ℓ water. Stir the suspension regularly.
<b>POTATOES SEED POTATOES ONLY</b> Black Dot ( <i>Anthracoise</i> ) ( <i>Colletotrichum coccoides</i> ) Silver scurf ( <i>Helminthosporium solani</i> )	33 ml / 100 kg seed	Apply as a low volume spray, preferably with a Spray miser in 2,0 – 3,0 ℓ water / 1000 kg seed.  Ensure that the total surface of the tubers is fully covered by the spray mixture. Potato seed that is going to be treated by <b>CHRONOS 450 SC</b> must be lifted as soon as it has reached physiological maturity and should be treated as soon as possible. The reason is that the possibility of an Anthracnose infection increases towards the end of the growing season and even more after senescence.  If seed was not treated directly after harvest it can be treated 14 days before planting. <b>CHRONOS 450 SC</b> will not protect tubers from Anthracnose if they are planted in infected soil. The progeny tubers will not be protected if the seed was originally treated with <b>CHRONOS 450 SC</b> . Seed to be treated should be free of soil and other particles as the presence thereof may result in inadequate coverage.  <b>IMPORTANT:</b> Only to be used on potatoes that will be used for seed.
<b>ROSES</b> Black spot ( <i>Diplocarpon rosae</i> )  Powdery mildew ( <i>Sphaerotheca pannosa</i> )	11 – 17 ml / 10 ℓ water	Preventative spray: Apply at 7 – 10 day intervals using the lower rate. Use the higher rate when disease pressure is high.  Corrective spray: Apply the higher rate twice, 5 days apart and thereafter at 7 day intervals until the symptoms disappear. If necessary a suitable wetter may be added.  Apply only as a preventative treatment and as a full cover spray. Repeat application every 7 days. Use the higher rate when weather conditions are conducive to disease development (namely hot and humid conditions).

# CHRONOS 450 SC

L7276 – Wet 36 van 1947 / N-AR 0868

FRAC SWAMDODER GROEPKODE 3

Aktiewe Bestanddeel: Prochloras sinkkompleks (imidasoel) 530 g / l  
Prochloras ekwivalent 450 g / l

Registrasiehouer: ADAMA SA (PTY) LTD (1992/001741/07)



Kantoor Nr: 021 981 4011  
Vibenstraat 21, Brackenfell  
**Tegniese advies: 082 562 5330**  
**Mediese nood: 0861 555 777**

## WAARSKUWINGS:

- **Onthoudingsperiodes:** Laat 'n minimum van 14 dae toe tussen laaste toediening en oes van sampioene.
- Skadelik indien ingesluk, ingeasem of deur die vel geabsorbeer word.
- Veroorzaak oogirritasie.
- Giftig vir visse.
- Berg in 'n koel, goed geventileerde plek weg van voedsel en voer.
- Hou buite bereik van kinders, oningeligte persone en diere.

Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie aangesien die werking en effek daarvan beïnvloed kan word deur faktore soos abnormale klimaats- en bergingstoestande; kwaliteit van verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui is nie en die voorkoms van weerstand van die siekte teen die betrokke middel, sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of vir nadelige effek op mens of dier of vir die gebrek aan prestasie van die betrokke middel as gevolg van die versium van die gebruik om tiketaanwysings na te kom of as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kon word nie. Raadpleeg die verskaffer in die geval van enige onsekerheid.

## VOORSORGMATREËLS:

- Moenie eet, drink of rook tydens vermenging en toediening of voordat hande en gesig gewas is nie.
- Voorkom besoedeling van voedsel, voer, drinkwater en eetgerei.
- Dra rubberhandskoene en 'n gesigskerm tydens hantering van die produk in die gekonsentreerde vorm.
- Moenie spuitnewel inasem nie.
- Vermyn kontak met die vel of oë.
- Was met seep en water na gebruik en/of toevallige velkontak.
- Was werksklere klere na die dag se spuitwerk.
- Keer die lê houer om oor die spuit- of mengtenk en dreineer vir ten minste 30 sekondes nadat die vloeitot 'n gedrup verminder het. Spoel die houer daarna driekier uit met 'n volume water gelykstaande aan 'n minimum van 10 % van die inhoud van die houer. Gooi die spoelwater in die mengtenk voor die lê houer vernietig word.
- Voorkom oorwaai van newel na ander gewasse, weiding, waterbronne en gebiede wat nie behandel word nie.
- Maak toedieningsapparaat skoon na gebruik en raak van was- en spoelwater ontslae op so 'n manier dat dit nie ander gewasse, weiding en waterbronne sal besoedel nie.
- Vernietig lê houer en moet dit NOOIT vir enige ander doel gebruik nie.

## WEERSTANDSWAARSKUWING:

**CHRONOS 450 SC** is 'n groepkode 3 swamdoder. Enige populasie van 'n spesifieke swam mag individue insluit wat 'n natuurlike weerstand teen **CHRONOS 450 SC** of enige ander groepkode 3 swamdoder het. Indien hierdie swamdoders herhaaldelik aangewend word, kan die weerstand-biedende individue uiteindelik die swampopulasie oorheers. Hierdie weerstandbiedende swamme sal waarskynlik nie deur **CHRONOS 450 SC** of enige ander groepkode 3 swamdoder beheer word nie.

## Om weerstand teen swamdoders te vertrap:

- Vermyn die eksklusiewe herhaaldelike gebruik van swamdoders met dieselfde groepkode. Wissel af met, of gebruik tenkmengsels van produkte in verskillende swamdodergroepkodes.
- Raadpleeg toepaslike individuele produketikette wanneer daar afgewissel word, of tenkmengsels gemaak word, met produkte in swamdoder-groepkodes X of Y.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in swamdoderprogramme. Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk.

## GEBRUIKSAANWYSINGS:

Gebruik slegs soos aangedui.

## MENGINSTRUKSIES:

Maak die spuittenk halfvol met skoon water. Meng die benodigde hoeveelheid **CHRONOS 450 SC** vooraf met 'n klein volume water. Roer die water in die spuittenk tydens die byvoeging van die voorafvermengde produk. Vul die spuittenk met water tot by die verlangde vlak terwyl daar voortdurend geroeer word om deeglike vermenging te verseker. Handhaaf roering tydens bespuiting. Aangemaakte spuitmengsel moet nie in die spuittenk gelaat word vir 'n onbepaalde tyd nie, bv. oornag. Verseker dat die mengsel vir 'n paar minute geroeer word voordat voortgegaan word met bespuiting na 'n onderbreking van die spuitproses, bv. na etenstyd.

## TOEDIENINGSHOEVEELHEDE:

GEWAS / SIEKTE	DOSIS	OPMERKINGS
<b>APPELKOSE, PRUIME EN PERSKES</b> Bloeiselsversenging ( <i>Monilinia laxa</i> )	3 ml / 10 l	Dien toe as 'n hoëvolume bespuiting teen 1200 – 2000 l spuitmengsel / ha. Begin toediening wanner 5 % van die bloeïsele in die ballonstadium is. Herhaal elke 6 – 7 dae tot na blom.
<b>AVOKADOS</b> Na-oes beheer van Antraknose, Stingelendvrot en <i>Dothiorella</i> asook	<b>Doopbehandeling:</b> 18ml / 10 l water + 0.02% HCl	Doop vrugte vir 30 sekondes in die aangesuurde swamdodersuspensie. Laat die vrugte afdroog voordat dit geberg word.

<i>Colletotrichum</i> kompleks vrugtevrot		<b>BELANGRIK:</b> Sorg moet gedra word dat die konsentrasie van die aangesuurde doopmengsel konstant bly deur die suspensie aan te vul met 'n aangesuurde mengsel van 180 ml <b>CHRONOS 450 SC</b> per 100 l water. Roer die suspensie in die doopbak gereed.
<b>PIESANGS</b> Na-oes beheer van kraagvrot	<b>Doopbehandeling:</b> 3 ml / 10 l water	Sny die trosse op in hande en doop elke individuele hand vir 5 sekondes in die swamdodersuspensie.  <b>BELANGRIK:</b> Sorg moet gedra word dat die konsentrasie van die swamdoder-suspensie konstant bly deur die doopbak aan te vul met 'n suspensie van 180 ml <b>CHRONOS 450 SC</b> per 100 l water. Roer die mengsel in die doopbak gereed.
<b>SITRUS</b> Na-oes beheer van Groen-skimmel en Blouskimmel	<b>Aanborselbehandeling:</b> 330 ml / 100 l water	Dien toe tydens die proses waar die vrugte geborsel word, voor die aanwending van vrugtewas. Gebruik saam met 2,4-D (natriumsout) en tiabendasoel. Volg die onderskeie produkte se etiket aanwysings na.
<b>GEKWEEKTE SAMPIOENE</b> Droëmol ( <i>Verticillium fungicola</i> )  Natmol ( <i>Mycogone perniciosa</i> )	<b>Eerste toediening:</b> 3,4 ml / m <sup>2</sup> in 1,0 l water  <b>Tweede toediening:</b> 1,4 ml / m <sup>2</sup> in 1,0 l water	Deurdrenk met mengsel 7 – 9 dae na aanwending van deklaag.  Deurdrenk met mengsel na die eerste breek as sampioene vir die tweede keer uitloopsels maak.
<b>LIETSJIES</b> Na-oes bederf ( <i>Alternaria spp</i> ) en ( <i>Botryodiplodia spp</i> )	18 ml / 10 l water	Doop vrugte vir 30 sekondes in die swamdodersuspensie by kamer temperatuur. Laat die vrugte afdroog voor geberg word.  <b>BELANGRIK:</b> Sorg moet gedra word dat die konsentrasie van die doopmengsel konstant bly deur die suspensie aan te vul met 'n mengsel van 180 ml CHRONOS 450 SC / 100 l water. Roer die mengsel in die doopbak gereed.  MOET NIE DIE TOEDIENINGS-HOEVEELHEID VAN 180 ml / 100 l WATER OORSKRY NIE.
<b>MANGO'S</b> Na-oes beheer van Antraknose en die onderdrukking van sagte bruinvrot.	<b>Uitvoer-mark:</b> 18 ml / 10 l water  <b>Plaaslike mark:</b> 9 ml / 10 l water	Doop vrugte vir 20 sekondes in die swamdoder suspensie by kamertemperatuur.  <b>NB:</b> Vrugte moet vooraf vir 5 minute gedoop word in warm water, waarvan die temperatuur nie 50°C moet oorskry nie. Fitotoksiteit kan gedurende sommige seisoene voorkom, veral op die kultivars Zill en Irwin. Vroeë seisoen vrugte is meer geneig tot skade en doopbehandeling met slegs warm water kan soms tot fitotoksiteit lei.  Doop vrugte vir 2 minute in warm swamdodersuspensie. Die watertemperatuur moet veral gedurende die vroeë deel van die seisoen nie 50°C oorskry nie, veral op die kultivars Zill en Irwin. Vroeë seisoen vrugte is meer geneig tot skade en doopbehandeling met slegs warm water kan soms tot fitotoksiteit lei.
<b>PAPAJA</b> Na-oes beheer van Antraknose en die onderdrukking van stingelendvrot	18 ml / 10 l water	Doop die vrugte vir 30 sekondes in die swamdodersuspensie by kamertemperatuur. Laat toe dat die vrugte afdroog voor berging.  <b>BELANGRIK:</b> Sorg moet gedra word dat die konsentrasie van die swamdoder-suspensie konstant bly deur die doopbak aan te vul met 'n suspensie van 180 ml <b>CHRONOS 450 SC</b> per 100 l water. Roer die mengsel in die doopbak gereed.
<b>AARTAPPELS SLEGS AARTAPPEL-MOERE</b> Antraknose ( <i>Colletotrichum coccodes</i> )  Silwerskurf ( <i>Helminthosporium solani</i> )	33 ml / 100 kg saad	Dien toe as 'n laevolume bespuiting, verkieslik met 'n Spraymiserapparaat, in 2,0 - 3,0 l water / 1000 kg saad.  Verseker dat die totale oppervlak van elke moer deeglik benat word. Aartappelmoere wat met <b>CHRONOS 450 SC</b> behandel gaan word moet net na fisiologiese ryphed uitgehaal word en so gou as moontlik daarna behandel word. Bogenoemde is belangrik aangesien die moontlikheid van 'n Antraknose infeksie teen die einde van die groeiseisoen begin vermeerder en selfs toeneem as fisiologiese ryphed bereik word.  Indien moere nie direk na oes behandel is nie, kan dit 14 dae voor plant behandel word. <b>CHRONOS 450 SC</b> beskerm nie behandelde moere wat in Antraknose-besmette grond geplant word nie. Nageslag knolle word nie deur die aanvanklike behandeling van moere beskerm nie. Moere wat behandel gaan word moet verkieslik vry wees van grond en ander deeltjies wat daaraan kleef, aangesien dit voldoende bedekking met <b>CHRONOS 450 SC</b> kan verhinder.
<b>ROSE</b> Swartvlek ( <i>Diplocarpon rosea</i> )  Poeieragtige skimmel ( <i>Sphaerotheca panossa</i> )	11 – 17 ml / 10 l water	Voorkomende toediening: Gebruik die laer dosis en herhaal toediening elke 7 – 10 dae. Dien die hoër dosis toe indien 'n hoë infeksiedruk voorkom. Korrektiewe toediening: Dien die hoër dosis twee keer, 5 dae uitmekaar toe en herhaal daarna elke 7 dae totdat simptome verdwyn. Indien nodig kan van 'n geskikte benatter bygevoeg word.  Dien slegs as 'n voorkomende volle dekbespuiting algeheel toe. Herhaal toediening elke 7 dae. Gebruik die hoër dosis as weerstoestande bevorderlik is vir die ontwikkeling van die siekte (warm, vogtige toestande)