



FLINT® 500SC



5 l

Fungicide

A suspension concentrate fungicide with mesosternic properties for control of various diseases on crops as listed.



FLINT® 500SC



SEE ENCLOSED PAMPHLET FOR FULL PARTICULARS

Reg. No. L8866 (Act No. 36 of 1947)

A suspension concentrate fungicide with mesostemic properties for control of various diseases on crops listed.

SIEN INGESLOTE PAMFLET VIR VOLLEDIGE BESONDERHEDE

Reg. Nr. L8866 (Wet Nr. 36 van 1947)

'n Suspensie konsentraat swamdoder met mesostemiese eienskappe vir die beheer van die verskillende siektes op gewasse soos aangedui.

GROUP / GROEP 11 FUNGICIDE / SWAMDODER



WARNING

HAZARD STATEMENTS:

May cause harm to breast-fed children.

Very toxic to aquatic life with long lasting effects.

Contains Trifloxystrobin, 1,2-benzisothiazolin-3-one, reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.

PRECAUTIONARY STATEMENTS:

Do not breathe dust or mist.

Active ingredient:

Trifloxystrobin (strobilurin)..... 500 g/l

Aktiewe bestanddeel:

Trifloksistrobien (strobilurien)..... 500 g/l

REGISTERED BY / GEREĞISTREER DEUR: Bayer (Pty) Ltd / (Edms) Bpk

Reg. 1968/011192/07

P.O. Box/Posbus 143, Isando, 1600 South Africa/Suid-Afrika

TEL: (OFFICE HOURS) / (KANTOORURE) (011) 921 5911

IN CASE OF POISONING PLEASE PHONE / IN GEVAL VAN VERGIFTIGING SKAKEL ASSEBLIEF: 0861 555 777

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BATCH NUMBER / LOTNOMMER: See on pack

DATE OF MANUFACTURE / DATUM VERVAARDIG: Sien op houer

UN No. / VN Nr.: 3082

Bayer

RSA/0523/Flint 500SC 5L/

Back Booklet Code: ZA84926760F

WARNINGS:

HAZARD STATEMENTS:

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- **ALLOW THE FOLLOWING NUMBER OF DAYS BETWEEN LAST APPLICATION AND HARVEST OF THE CROPS INDICATED BELOW:**
CITRUS 76 DAYS

NOTE: The recommended withholding period between last application and harvest meets local residue requirements but may not meet export requirements.

If the treated crop is intended for the export market, consult the relevant exporting body regarding pre-harvest interval requirements of countries to which the produce will be exported.

- 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.
- **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 PATHOGEN 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:

PRECAUTIONARY STATEMENTS:

- Do not breathe dust or mist.
- Wash hands with soap and water after use.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke while mixing or applying the product and wash hands and face before doing so.
- Avoid drift of spray mist onto other crops, grazing, rivers, dams, boreholes and areas not under treatment.
- Clean applicator after use and dispose of wash water where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Prevent contamination of food, feed, drinking water, eating utensils.
- Rinse empty container three times with a volume water equal to at least one tenth of that of the container and add the rinsings to the contents of the spray tank before disposing of the container in the prescribed manner.
- Destroy empty container and never use for any other purpose.

USE RESTRICTIONS:

- Apply according to good agricultural practices: Integrated Pest Management (IPM) and anti-resistant management programmes.
- For effective disease control apply at least two consecutive applications of **Flint 500 SC** in a preventive spray programme with unrelated fungicides.
- A maximum of 3 strobilurin (QoI) fungicide applications per season per crop are recommended.
- There is no cross-resistance between strobilurins and fungicides of other chemical classes e.g. ergosterol biosynthesis inhibitors, anilinopyrimidines and phenylpyrroles.
- Do not apply products with the same biochemical mode of action (QoI inhibitor) e.g. azoxystrobin, kresoxim-methyl, trifloxystrobin, picoxystrobin, pyraclostrobin, metominostrobin, fluoxastrobin, famoxadone and fenamidone in the same crop spray programme.

RELEVANT SUBSTANCES:

Formulation components	CAS Numbers	Conc. (%)
Trifloxystrobin	141517-21-7	43,86
1,2-Benzisothiazol-3(2H)-one	2634-33-5	> 0,005 – < 0,05
reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)	55965-84-9	>= 0.00015 – < 0.0015

PRODUCT PROPERTIES:

Flint 500 SC is a suspension concentrate formulation with mesostemic properties for the control of economically important diseases. **Flint 500 SC** is a fungicide of the chemical class strobilurins and is a QoI inhibitor fungicide. The biochemical mode of action is respiration inhibition, obstructing electron transfer in the mitochondria of the cell and thus severely impairing fungal growth and development. On the plant surface its primary biological mode of action is the inhibition of spore germination and germ tube extension, thereby preventing infection from taking place. When used according to instructions **Flint 500 SC** will effectively control citrus black spot caused by *Guignardia citricarpa*.

RESISTANCE MANAGEMENT:

For resistance management, **Flint 500 SC** is a group code 11 (QoI) fungicide. Any fungus population may contain individuals naturally resistant to **Flint 500 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 **Flint 500 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 fungicide group codes.
- For tank mixing or alternation with products in fungicide group codes M1-M9 refer to applicable individual product labels.
- Integrate other control methods (chemical, cultural, biological) into disease control programs.

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

DIRECTIONS FOR USE: USE ONLY AS DIRECTED.

COMPATIBILITY:

The compatibility of **Flint 500 SC** with other products may be influenced by the formulation of the other products involved as well as the quality of the water. Since the formulation of other products may change without the knowledge of Bayer (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.

Citrus:

When applying a mixture of **Flint 500 SC**, **Mancozeb** and **light to medium narrow range mineral oil on citrus**, do not mix with additional crop protection chemicals. Refer to the **Mancozeb WP** and respective **light to medium narrow range mineral oil** labels for directions regarding their use.

MIXING INSTRUCTIONS:

Make sure that application equipment is clean and not contaminated. Flush the sprayer with clean water after application or at the end of the day by spraying the rinsate at a dilution rate of at least 1:10 (spray mixture:water) on the crop.

If **Flint 500 SC** is tank mixed with other products, it should be mixed first followed by the other products. If the other products are packed in water soluble bags, it should be mixed first followed by the **Flint 500 SC**.

Ensure thorough agitation of the mixture in the tank during mixing and spraying.

APPLICATION TECHNIQUES:

Ground application:

Flint 500 SC may be applied using conventional spray equipment. Calibrate the apparatus before application to ensure that the correct dosage is applied. The distribution of the spray volume must be uniform throughout the target area.

APPLICATION RATES:

Crop/Disease	Dosage / 100 ℓ water	Remarks
Citrus: Black spot (<i>Guignardia citricarpa</i>)		

NOTE:

In order to comply with resistance management strategies for QoI fungicides, it is **very** important to apply **Flint 500 SC** in a spray programme with **Mancozeb**. The correct timing of application is of critical importance to maintain a high level of control.

- Apply **Flint 500 SC** in a programme as recommended below, starting with **Mancozeb** soon after petal fall, followed by two **Flint 500 SC** applications. A further spray of at least one **Mancozeb** application must complete the programme.
- **Flint 500 SC** has limited curative abilities and **must always** be applied as a **preventive** treatment.
- Do not apply **Flint 500 SC** on old neglected citrus trees as the conditions in such trees favour the development of fungicide resistance.

Crop/Disease	Dosage / 100 ℓ water	Remarks
NOTE (cont.): • Ensure good coverage of the fruit with a medium to full cover spray, adjusting water volume according to tree size. • Refer to the respective Mancozeb WP and light to medium narrow range mineral oil labels for directions regarding their applications. • Do not apply Envidor 240 SC within 30 days before or after the application of Flint 500 SC. • Lemons: All "out-of-season" fruit must be removed from the trees before starting the spray programme as recommended below so that the main fruit set is targeted.		
	200g Mancozeb WP 10 mℓ Flint 500 SC + 150 g Mancozeb WP + 300 mℓ light to medium narrow range mineral oil 200 g Mancozeb WP	Apply soon after petal fall. Apply the <u>first</u> Flint 500 SC spray 21-24 days after the first Mancozeb application and the <u>second</u> Flint 500 SC spray 6 weeks later. Apply Mancozeb 6 weeks after the second Flint 500 SC application. Repeat the Mancozeb application after 21-24 days if conditions favour the development of late infections.

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WAARSKUWINGS:

GEVAARVERKLARINGS:

- Mag skade aan borsgevoede kinders veroorsaak.
- Baie giftig vir waterlewendes organismes met langdurige gevolge.
- Bevat Trifloxystrobin, 1,2-benzisothiazolin-3-one, reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1). Mag allergiese reaksie veroorsaak.

- **LAAT DIE VOLGENDE AANTAL DAE TOE TUSSEN LAASTE TOEDIENING EN OES VAN DIE VOLGENDE GEWASSE:**
SITRUS 76 DAE

LET WEL: Die aanbevole onthoudingsperiode tussen die laaste toediening en oes voldoen aan die lokale residu vereistes maar mag dalk nie voldoen aan die uitvoervereistes nie. Indien die gewas wat behandel moet word vir uitvoerdoeleindes bedoel is, moet die betrokke uitvoerorganisasie geraadpleeg word aangaande MRL vereistes en onthoudingsperiodes.

- Bewaar weg van voedsel en voer.
- Hou buite bereik van kinders, oningeligte persone en diere.
- **HERBETREDING:** Moet nie behandelde gebied betree alvorens die spuitneerslag droog is nie, tensy beskermende oorklere gedra word.
- **ALHOEWEL HIERDIE MIDDEL OMVATTEND ONDER 'N GROOT VERSEKIDENHEID 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 'N GEBREK AAN PRESTASIE VAN DIE BETROKKE MIDDEL AS GEVOLG VAN DIE VERSUIM VAN DIE GEBUIKER OM ETIKETAANWYSINGS 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:

VOORSORGSVERKLARINGS:

- Moet nie poeier/stuifsel inasem nie.
- Was hande met seep en water na gebruik.
- Was besoedelde kiere na gebruik.
- Moet nie eet, drink of rook tydens vermenging of toediening van die produk of alvorens die hande en gesig gewas is nie.
- Voorkom wegdrywing van spuitnewel na ander gewasse, weiveld, riviere, damme, boorgate en plekke wat nie behandel moet word nie.
- Maak toedieningsapparaat skoon na gebruik. Uitspoelwater moet nie gewasse, weiveld, riviere, damme en boorgate besoedel nie.
- Voorkom die besoedeling van voedsel, voer, drink water en eetgerei.
- Spoel leë houer drie keer uit met 'n volume water gelyk aan ten minste een tiende van die houer en voeg die uitspoelwater by die inhoud van die spuittenk voordat van die houer op die voorgeskrewe metode ontslae gemaak word.
- Vernietig leë houer en moet dit vir geen ander doel weer gebruik nie.

GEBRUIKSBEPERKINGS:

Dien toe volgens goeie landboupraktyke in Geïntegreerde Plaaigbeheer (GPB) en anti-weerstandsbestuurprogramme.

- Vir effektiewe siektebeheer dien ten minste twee agtereenvolgende **Flint 500 SC** bespuitings toe in 'n voorkomende spuitprogram met ander onverwante swamdoders.
- 'n Maksimum van 3 strobilurien (Qol) swamdodertoedienings per gewas per seisoen word aanbeveel.
- Geen kruisweerstand bestaan tussen die strobilurien en ander chemiese klasse bv. ergosterolinhibeerders, anilienopirimidien en fenilpirrole nie.
- Moet nie produkte met dieselfde biochemiese aksiemeganisme (Qol inhiberende) bv. asoksistrobien, kresoksietiel, trifloksistrobien, pikoksistrobien, piraklostrobien, metaminostrobien, fluoksastrobien, famoksadoon en fenamidoon in dieselfde gewasspuitprogram toedien nie.

RELEVANTE STOWWE:

Formulation components	CAS Numbers	Conc. (%)
Trifloxystrobin	141517-21-7	43,86
1,2-Benzisothiazol-3(2H)-one	2634-33-5	> 0,005 – < 0,05
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PRODUKEIENSKAPPE:

Flint 500 SC is 'n suspensie konsentraat formulase met mesostemiese eienskappe, wat ekonomies belangrike siektes beheer. **Flint 500 SC** is 'n swamdoder van die chemiese klas strobilurien en is 'n Qol inhiberende swamdoder. Die biochemiese aksiemeganisme is die inhibisie van respirasie, deur voorkoming van elektron vervoer in die mitokondriale selle wat lei tot ernstige inperking van swamgroei en ontwikkeling. Op die plantoppervlak is die primêre aksiemeganisme die inhibisie van spoorontkieming en kiembuisontwikkeling, wat die voorkoms van infeksie bekamp. Indien gebruik word volgens voorskrif sal **Flint 500 SC** doeltreffende beheer verskaf van sitrus swartvlek veroorsaak deur *Guignardia citricarpa*.

WEERSTANDSBESTUUR:

Flint 500 SC is 'n groepkode 11 (Qol) swamdoder. Enige populasie van 'n spesifieke swam mag individue insluit wat 'n natuurlike weerstand teen **Flint 500 SC** of enige ander groepkode 11 swamdoder het. Indien hierdie swamdoders herhaaldelik aangewend word kan die weerstandbiedende individue uiteindelik die swampopulasie oorheers. Hierdie weerstandbiedende swamme sal waarskynlik nie deur **Flint 500 SC** of enige ander groepkode 11 swamdoder beheer word nie.

Om weerstand teen swamdoders te vertraag:

- Verminder die eksklusiewe herhaaldelike gebruik van swamdoders in dieselfde swamdoder groepkode. Wissel af met, of gebruik tenkmengsels van produkte in verskillende swamdoder groepcodes.
- Sien toepaslike individuele produkietikette wanneer daar afgewissel word, of tenkmengsels gebruik word, met produkte in swamdodergroepcodes M1 - M9.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in siekte beheer programme.

Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk.

GEBRUIKSAANWYSINGS: GEBRUIK SLEGS SOOS AANGEDUI.

VERENIGBAARHEID:

Die verenigbaarheid van **Flint 500 SC** met ander produkte kan beïnvloed word deur die formulasie van die produkte betrokke asook deur die kwaliteit van die water. Aangesien die formulasie van ander produkte kan verander sonder die medewete van Bayer (Edms) Bpk., en die kwaliteit van die water ook van plaas tot plaas kan varieër, moet 'n fisiese verenigbaarheidstoets altyd uitgevoer word voordat gespuit word.

Sitrus:

Wanneer **Flint 500 SC** toegedien word op **sitrus** in 'n mengsel met **Mankoseb** en **ligte tot medium nou-spektrum minerale olie** moet geen ander plaagbeskermingsmiddels bygevoeg word nie. Verwys na die **Mankoseb** en onderskeie **ligte tot medium nou-spektrum minerale olie** etikette vir aanwysings rakende die toediening van hierdie middels.

MENGINSTRUKSIES:

Maak seker dat spuitapparaat nie gekontamineer met ander middels is nie. Spoel die spuitapparaat uit met skoon water aan die einde van die dag se toediening met ten minste 'n verdunning van 1:10 (spuitemngsel:water) op die gewas.

Indien **Flint 500 SC** in tenkmengsel met ander produkte gebruik word, moet **Flint 500 SC** eerste gemeng word en daarna die ander produkte. Indien ander produkte in wateroplosbare sakkies verpak is, moet dit eerste gemeng word en daarna die **Flint 500 SC**.

Die spuitemngsel moet tydens vermenging en toediening voortdurend in roering gehou word.

TOEDIENINGSTEGNIEKE:

Grondtoediening:

Flint 500 SC kan met konvensionele spuitapparaat toegedien word. Kalibreer die spuitapparaat voor toediening om te verseker dat die regte dosis gelewêr word. Die verspreiding van die spuitvolume moet egalig oor die teikengebied wees.

TOEDIENINGSHOEVEELHEDE:

Gewas/Siekte	Dosis / 100 ℓ water	Opmerkings
Sitrus: Swartvlek (<i>Guignardia citricarpa</i>)		

NOTA:

Om te voldoen aan die weerstandsbestuur strategie vir QoI swamdoders is dit **baie** belangrik om **Flint 500 SC** in 'n spuitprogram met **Mankoseb** te gebruik. Die korrekte tydsberekening van toedienings is van kritiese belang om 'n hoë vlak van beheer te verseker.

- Dien **Flint 500 SC** toe in 'n program soos aanbeveel hieronder, beginnende met **Mankoseb** kort na blomblaarval, gevolg deur twee **Flint 500 SC** toedienings. Ten minste een verdere bespuiting met **Mankoseb** moet die program voltooi.
- **Flint 500 SC** het beperkte kuratiewe eienskappe en **moet altyd voorkomend** toegedien word.
- Moet nie **Flint 500 SC** op ou verwaarloosde sitrusbome toedien nie aangesien die toestande in sulke bome die ontwikkeling van swamdoder weerstand bevorder.

Gewas/Siekte	Dosis / 100 ℓ water	Opmerkings
NOTA (vervolg.): • Verseker goeie bedekking van die vrugte met 'n medium tot volle dekbepuiting, pas die water volume aan volgens die grootte van die bome. • Verwys na die onderskeie Mankoseb WP en ligte tot medium nou-spektrum minerale olie etikette vir aanwysings rakende die toediening van hierdie middels. • Moet nie Envidor 240 SC binne 30 dae voor of na die toediening van Flint 500 SC toedien nie. • Suurlemoene: Alle "buite-seisoen" vrugte moet uit die bome verwyder word alvorens die spuitprogram soos hieronder aanbeveel in aanvang neem sodat die hoof vrugset geteiken word.		
	200g Mankoseb WP 10 ml Flint 500 SC + 150 g Mankoseb WP + 300 ml ligte tot medium nou-spektrum minerale olie 200 g Mankoseb WP	Dien toe kort na blomblaarval. Dien die <u>eerste</u> Flint 500 SC bespuiting 21-24 dae na die eerste Mankoseb bespuiting toe en die <u>tweede</u> Flint 500 SC bespuiting 6 weke later. Dien Mankoseb 6 weke na die tweede Flint 500 SC bespuiting toe. Herhaal die Mankoseb toediening 21-24 dae later indien gunstige toestande vir laat infeksies voorkom.

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