




# SOLSAN SC

**BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY**

<b>GEBRUIKSAANWYSINGS INGESLUIT</b> Lotnommer Datum van vervaardiging	<b>SOLSAN SC</b>	<b>FUNGICIDE</b> 
	<b>VERWYS NA BESONDERHEDE SOOS OP HOUER / SAK GEDRUK</b>	

Reg. No. L9590, Act/Wet No. 36 of/van 1947 1:10/07/2014

**A suspension concentrate, contact fungicide for the preventative control of diseases on crops as listed.**

**'n Suspensiekonsentraat, kontakswamdoder vir die voorkomende beheer van siektes op gewasse soos aangedui.**


<b>FRAC FUNGICIDE GROUP CODE</b>	<b>M5</b>	<b>FRAC SWAMDODER GROEPKODE</b>
----------------------------------	-----------	---------------------------------

<b>ACTIVE INGREDIENT / AKTIEWE BESTANDEEL</b>		
Chlorothalonil (phthalimide)	720 g/l	Chlorotalonil (phthalimied)


Registration Holder / Registrasiehouer  
**Meridian Agrochemical Company (Pty.) Ltd. / (Edms.) Bpk.**  
Reg. No. 2000/010819/07  
P.O. Box / Posbus 436, Modderfontein, 1645, South Africa / Suid-Afrika


<b>20l</b>
------------

UN Number: 3082



**CAUTION / VERSIGTIG**





## WARNINGS

### Withholding periods:

Allow the following number of days between the last application and harvest:

Green beans*, potatoes and tomatoes.....	3 days
Dry beans*.....	7 days
Bean hay.....	42 days

\*Only in combination with **OPTAN 50 SC** (L. 7878)

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

- May be harmful when inhaled or swallowed.
- May cause skin sensitivity.
- Irritating to eyes.
- Toxic to fish and very toxic to other aquatic organisms.
- Store in a cool (5 – 25 °C) and dry place (preferably not directly on a cement floor).
- Store away from food, feed, seed and other agricultural chemicals.
- Keep away from 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 apply over water bodies, and ensure that spray drift will not contaminate water or areas not under treatment.

**Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be effective under all conditions. The activity 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, 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 by 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

- Avoid contact with eyes, skin and inhalation of fumes and spray mist.
- Wear rubber gloves and face shield when preparing the spray mixture and during spraying.
- In case of direct contact with skin, wash with soap and water.
- In case of direct eye contact, rinse for at least 15 minutes with clean water. Remove contact lenses.
- Wash contaminated clothing daily.
- Do not eat, drink or smoke while preparing or applying the spray mix, or before washing face and hands.
- Prevent contamination of food, feed, drinking water as well as eating utensils.
- Avoid drift of spray mist onto other crops, grazing, rivers, dams and other areas not under treatment.
- Clean equipment before and after use. Dispose of wash water where it will not contaminate crops, pastures, rivers, dams or other water sources.
- Invert the empty container over the spray tank and allow it to drain for at least 30 seconds after the flow has slowed to a drip. Rinse the empty container three times with a volume of water, equal to a minimum of 10 % of that of the container. Add rinsings to the contents of the spray tank before destroying the container in the prescribed manner.
- Destroy the empty container and do not use it for any other purpose.  Change and wash your work clothes. Wash yourself.

## RESISTANCE MANAGEMENT

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

### To delay fungicide resistance:

- Avoid exclusive repeated use of fungicides from the same fungicide group code. Alternate, or tank mix with, registered products from different fungicide group codes.
- A spray programme of mixtures or alternations with remedies with a different mode of action may delay the build-up of a resistant strain.
- Integrate other control methods (chemical, cultural, biological) into disease control programmes.

Since the occurrence of resistance cannot be forecast, users are advised to keep treated crops under close observation. If treatment is not effective following the use of **SOLSAN 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 to the relevant disease. For specific information on resistance management, contact the registration holder of this product.

## MODE OF ACTION

**SOLSAN SC** is a non-systemic foliar fungicide with protective action. **SOLSAN SC** operates by means of conjugation with, and depletion of, thiols (particularly glutathione) from germinating fungal cells. This leads to the disruption of glycolysis and energy production.

## USE RESTRICTIONS

- Do not apply **SOLSAN SC** to any crop or situation not mentioned in this instruction leaflet.
- Only apply **SOLSAN SC** using an accurate and safe application technique.
- If **SOLSAN SC** is used in a tank mix with other recommended products, consideration should be given to the restrictions of those respective products.
- Do not apply this product in combination or tank mixture with any other product or agricultural remedy which is not specifically listed on this label. Meridian Agrochemical Company (Pty) Ltd accepts no responsibility for any negative effects experienced if the instructions on this label are not adhered to, unless a Meridian representative was consulted beforehand.

## DIRECTIONS FOR USE

**Use only as directed.**

## COMPATIBILITY

The compatibility of **SOLSAN SC** with other products depends on the formulations of the respective products as well as the quality of the spray water to be used. As formulations change from time to time it is recommended that a physical compatibility test be done prior to the tank mixture being made. Do not mix with other agrochemicals or fertilisers if **SOLSAN SC** is applied by means of a centre pivot irrigation system. **SOLSAN SC** is compatible with most agricultural remedies.

## MIXING INSTRUCTIONS

Half fill the spray tank with clean water. Shake the **SOLSAN SC** container thoroughly before use. Add the recommended amount of **SOLSAN SC** to the spray water in the tank while filling is continued. If **SOLSAN SC** is to be tank mixed with other products, add the products in the following order where applicable: Adjuvant / acidifier, wettable powder, suspension concentrate, emulsifiable concentrate. Thereafter, fill the spray tank with suitable water to the required level while constant agitation is maintained in order to ensure thorough mixing of the spray mixture before application commences. Maintain constant agitation while spraying. **Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank.** Spraying equipment must be thoroughly flushed out at the end of the spraying operation.

## APPLICATION METHODS

Apply as a full cover preventive spray for the control of the diseases mentioned. Ensure good coverage of the whole plant (the stems and both surfaces of the leaves) by using enough water and spraying equipment that is capable of maintaining high pressure. During wet or humid conditions when the disease pressure is more severe, applications must be made more frequently than during drier conditions, but do not exceed 21 day spray intervals. **SOLSAN SC** is rainfast 15 minutes after the spray deposit has dried. Rainfall of up to 60 mm after this period has lapsed should not have a detrimental effect on the efficacy of **SOLSAN SC** and should not need a re-application.

### AERIAL APPLICATION (POTATOES AND BEANS)

Aerial application may only be done by a registered aerial application operator using a registered and correctly calibrated aircraft according to the instructions of SANS Code 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 are met:

#### Equipment

- Use suitable atomising equipment (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and coverage of the target area and will ensure minimum loss of product through drift.
- The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- All nozzles and atomisers should be positioned within the inner 60 to 75% of the wingspan to prevent droplets from entering the wingtip vortices.

#### Application Parameters

- A minimum volume of 30 – 40 ℓ / ha is recommended. As this product 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 aurally at a lower volume rate than recommended above.
- A droplet coverage of 50 – 70 droplets per cm squared must be recovered at the target.
- A droplet spectrum with a VMD of 200-250 microns is recommended. Ensure that the production of fine droplets, with a VMD of less than 150 microns, is restricted to a minimum. The addition of a suitable anti-evaporant is recommended if the VMD of the droplets is less than 200-250 microns.
- The height of the spray boom should be maintained at 3 - 4m above the target.
- Do not spray when the aircraft is in a climb, at the top of a turn or during a dive or when banking.

#### Meteorological Conditions

- The difference between the wet and dry bulb readings as determined by a whirling hygrometer must not exceed 8 °C.
- Do not spray under turbulent, unstable conditions or during the heat of the day when rising thermals and downdraughts occur.
- Do not spray under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80% and above). As this may lead to:
  - a) Reduced efficacy due to inadequate coverage due to suspension and evaporation of small droplets in the air.
  - b) Damage to sensitive crops and non-target areas due to drifting of the suspended spray cloud away from the area under treatment.
- Do not spray when the wind speed exceeds 15 km per hour.

#### General

- Ensure that fields are accurately marked and that the aerial spray operator knows exactly which fields to spray.
- **Obtain assurance from the aerial spray operator that the above specifications will be met. All spray applications must be made with suitable equipment that is in good working order and correctly calibrated to give the desired coverage for that particular method of application.**

## **CENTRE PIVOT APPLICATION** (Potatoes only).

### **General**

1. **SOLSAN SC** may be applied in potatoes using suitable centre pivot irrigation equipment.
2. Operate the system and the injection equipment using a positive displacement metering pump at normal pressure ensuring that manufacturer's recommendations are followed.
3. Do not operate the irrigation system without safety valves in order to prevent back siphoning and contamination of the water source.
4. The holding tank and the injector should be connected to the discharge side of the irrigation line.
5. **SOLSAN SC** can be injected during the normal irrigation cycle or may be used as a separate application thereafter or when irrigation is not necessary.
6. After the injection cycle is complete, shut off injector but continue to run the centre pivot until the **SOLSAN SC** has been flushed from the system.
7. Do not tank mix **SOLSAN SC** with any other agrochemical or fertiliser remedy.
8. Uniform water application by the centre pivot is essential to ensure that thorough coverage over the entire field is obtained by **SOLSAN SC**.

### **Warning**

"Up to Date" potatoes grown under centre pivot irrigation during January to April, especially in the Northern Province, are extremely susceptible to *Phytophthora infestans*. Under these conditions, **SOLSAN SC** at the full rate (2.75 l/ha) should be applied at a maximum of every 4 - 5 days.

### **Calibration for Centre Pivot application:**

Fill the injection equipment tank with water. Operate the centre pivot to calibrate the metering pump at the required setting for 1 circle and measure the time required to complete the circle, the amount of water injected during one complete circle and the area (ha) covered. Mix the recommended amount of **SOLSAN SC** for the area to be covered in the same amount of water used during calibration and inject continuously during a revolution of the centre pivot.

## RECOMMENDATIONS

CROP AND DISEASE	DOSAGE RATE	REMARKS
<b>Green beans and dry beans</b>  <i>(Uromyces appendiculatus)</i>	<b>Ground application</b>  360 ml <b>OPTAN 50 SC</b> + 350 ml <b>SOLSAN SC</b> / ha.	Apply the spray mixtures as a preventative spray programme of at least 2 applications at 10 – 14 day intervals. Start the applications at the first signs of brown rust, or when the weather conditions are favourable for the development of the disease. Apply only once if adverse climatic conditions prevail late in the growing season.  Consult the <b>OPTAN 50 SC</b> label.
	<b>Late ground application</b>  480 ml <b>OPTAN 50 SC</b> + 1.4 l <b>SOLSAN SC</b> / ha.	
	<b>Aerial application</b>  432 ml <b>OPTAN 50 SC</b> + 420 ml <b>SOLSAN SC</b> / ha.	
	<b>Late aerial application</b>  480 ml <b>OPTAN 50 SC</b> + 1.4 l <b>SOLSAN SC</b> / ha.	
<b>POTATOES</b>  <b>Early blight</b> <i>(Alternaria solani)</i>  <b>Late blight</b> <i>(Phytophthora infestans)</i>	0,7 – 1,0 l / ha	Commence with a preventive spray programme, normally when the plants come into flower or when conditions favour spread of the disease. Continue applications until aerial parts die back. <b>Ground Application - Tractor:</b> <b>Low infection:</b> Apply every 7 - 10 days as a full cover spray in at least 500 l water/ha. Use the lower rate under dry land conditions and repeat the application every 7 days. The higher rate may be used on a ten day schedule.  <b>High infection:</b> Apply every 5 - 7 days as a full cover spray in minimum 500 – 1 500 l water/ha depending on plant size and foliage density.  <b>Aerial Application:</b> <b>Low infection:</b> Apply as above in 30 l water/ha.  <b>High infection:</b> Apply as above in 30 l water/ha.  <b>Centre Pivot Application:</b> Start application 2 weeks post emergence. <b>Do not exceed</b> a 10 day spray interval. Continue application until the aerial parts die back. (See centre pivot application under “ <b>Directions for use</b> ”).
	2.0 l / ha	
	1.0 l / ha	
	2.0 l / ha	

**NOTE:**

For the control of Early and Late Blight: **SOLSAN SC** can also be applied in an alternating spray programme with **FORTRESS** (L. 9269) for the control of late blight and early blight in potatoes. Consult the **FORTRESS** label for full particulars.

For the control of Late blight: **SOLSAN SC** can also be applied in an alternating spray programme with **SOLSAN SC** or **VALEO 500 SC** alone:

Consult the relevant product labels for full particulars.

<b>TOMATOES</b>  <b>Early blight</b> <i>(Alternaria spp.)</i>  <b>Late blight</b> <i>(Phytophthora spp.)</i>	100 ml / 100 l water	<b>Ground Application:</b> Spray preventively.  <b>High volume application:</b> Approximately 1 000 l spray mixture/ha on mature plants.  <b>Low infection:</b> Apply every 10 - 14 days. Do not apply less than 1.0 l <b>SOLSAN SC</b> /ha on mature plants.
	190 ml / 100 l water	<b>High infection:</b> Apply every 7 - 10 days. Do not apply less than 2.0 l <b>SOLSAN SC</b> /ha on mature plants.  <b>Low volume application:</b> Approximately 500 l spray mixture / ha on mature plants.
	210 ml / 100 l water	<b>Low infection:</b> Apply every 10 - 14 days. Do not apply less than 1.0 l <b>SOLSAN SC</b> /ha on mature plants.
	380 ml / 100 l water	<b>High infection:</b> Apply every 7 - 10 days. Do not apply less than 2.0 l <b>SOLSAN SC</b> /ha on mature plants.

**NOTE:**

For the control of Late Blight **SOLSAN SC** can also be applied in an alternated spray programme with:

- **FORTRESS.**

Consult the relevant product labels for the full particulars.

**ACKNOWLEDGEMENT OF TRADEMARKS**

Fortress SC (L 9269)  
 Optan 50 SC (L 7878)  
 Valeo 500 SC (L 9086)

Meridian Agrochemical Company (Pty) Ltd  
 Meridian Agrochemical Company (Pty) Ltd  
 Meridian Agrochemical Company (Pty) Ltd

## WAARSKUWINGS

### Wagperiodes:

Laat die volgende aantal dae toe tussen die laaste toediening en oes:

Groenbone*, aartappels en tamaties.....	3 dae
Droëbone*.....	7 dae
Bone-hooi.....	42 dae

\*Slegs in kombinasie met **OPTAN 50 SC** (L. 7878)

**BELANGRIK:** Bogenoemde onthoudingsperiodes is gebaseer op plaaslike vereistes vir residuvlakke en mag verskil van ander lande waarheen behandelde produkte moontlik uitgevoer word.

- Mag skadelik wees indien ingeasem of ingesluk.
- Mag velirritasie veroorsaak.
- Veroorsaak oogirritasie.
- Giftig vir visse, en skadelik vir ander waterorganismes.
- Bêre in 'n koel (5 – 25 °C) en droë plek (verkieslik nie direk op 'n sement vloer nie).
- Bêre in 'n koel, droë plek weg van voedsel, voer, kunsmis, saad en ander landbouchemikaleë.
- Hou buite bereik van kinders, oningeligte persone en diere.
- **Herbetreding:** Moet nie behandelde gebiede betree alvorens die spuitneerslag droog is nie, tensy beskermende oorklere gedra word.
- **Lugtoediening:** Stel al die inwoners in die onmiddellike omgewing van die gebied wat bespuit gaan word in kennis en reik die nodige waarskuwings uit. Moet nie oor water of aangrensende gebiede spuit nie, of toelaat dat spuitstofwegdrywing hierdie aangrensende gebiede besoedel nie.

**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 grond-, 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 gebruiker om die 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.**

## VOORSORGMAATREËLS

- Vermy kontak met oë, vel en inaseming van dampe of spuitnewel.
- Dra beskermende oorklere en gesigskerm tydens vermenging en toediening.
- In die geval van direkte kontak met die vel, was dadelik met seep en water.
- In die geval van direkte oogkontak, spoel vir ten minste 15 minute uit met skoon water. Verwyder kontaklense.
- Was besoedelde klere daaglik.
- Moet nie eet, drink of rook tydens toediening of vermenging nie, of voordat gesig en hande gewas is nie.
- Vermy wegdrywing van spuitnewel na ander gewasse, weiding, riviere, damme en ander gebiede wat nie onder behandeling is nie.
- Maak die toerusting voor- en na gebruik skoon. Raak van waswater ontslae waar dit nie gewasse, weidings, riviere, damme of enige ander waterbronne sal besoedel nie.
- Keer die leë houer om in die spuitenk en dreineer vir minstens 30 sekondes nadat die vloei tot 'n drup verminder het. Spoel die leë houer **drie keer** uit met 'n volume water gelykstaande aan 'n minimum van 10% van die inhoud van die houer. Gooi die spoelwater by die inhoud van die spuitenk voordat die houer op die voorgeskrewe wyse vernietig word.
- Vernietig leë houers en moet dit vir geen ander doel gebruik nie.
- Vermy besoedeling van voedsel, voer, drinkwater en eetgerei.
- Ruil werksklere om en was dit. Was uself.



## WEERSTANDBESTUUR

Vir weerstandsbestuur, is **SOLSAN SC** 'n Groepkode M5 swamdoder. Enige swampopulasie mag individue insluit wat 'n natuurlike weerstand teen **SOLSAN SC** of enige ander Groepkode M5 swamdoder het. Indien hierdie swamdoders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die swampopulasie oorheers. Hierdie weerstandbiedende individue sal waarskynlik nie deur **SOLSAN SC** of enige ander Groepkode M5 swamdoder, beheer word nie.

### Om weerstand teen swamdoders te verhoog:

- Vermoë die eksklusiewe herhaaldelike gebruik van swamdoders met dieselfde groepkode. Wissel af met, of gebruik tenkmengsels van, geregistreerde produkte in verskillende swamdodergroepkodes.
- 'n Spuitprogram of tenkmengsels met middels met 'n ander metode van werking kan die opbou van weerstandbiedende populasies verhoog.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in siektebeheerprogramme.

Aangesien die voorkoms van weerstand nie voorspel kan word nie, word gebruikers aangeraai om behandelde gewasse noukeurig dop te hou. Indien die behandeling nie doeltreffend is nie, as gevolg van die gebruik van **SOLSAN SC** soos aanbeveel, mag 'n weerstandbiedende ras teenwoordig wees. Indien 'n weerstandbiedende ras positief geïdentifiseer word, moet oorweging daaraan geskenk word aan die onmiddellike gebruik van 'n swamdoder met 'n ander metode van werking, waarvoor daar geen rekord van weerstand teen die betrokke siektes is nie. Vir spesifieke inligting oor weerstandsbestuur, kontak die registrasiehouer van hierdie produk.

## METODE VAN WERKING

**SOLSAN SC** is 'n nie-sistemiese blaarswamdoder met beskermende werking. **SOLSAN SC** werk deur middel van konjugering met, en uitputting van, tiol (veral glutatione) van ontkiemende swamselle. Dit lei tot die ontgrigting van glikoliese en energieproduksie.

## GEBRUIKSBEPERKINGS

- Moet nie **SOLSAN SC** op enige gewas of situasie toedien wat nie op hierdie etiket verskyn nie.
- Moet nie hierdie produk in kombinasie of in tenkmengsels met enige ander produk of landboumiddel gebruik wat nie spesifiek op die etiket gelys nie. Meridian Agrochemical Company (Edms.) Bpk. aanvaar geen verantwoordelikheid vir enige negatiewe gevolge indien die instruksies op die etiket nie nagekom word nie, tensy 'n Meridian verteenwoordiger vooraf geraadpleeg is.
- Gebruik **SOLSAN SC** slegs met veilige en akkurate toedingsmetodes.
- As **SOLSAN SC** gebruik word in tenkmengsel met ander aanbevole produkte, moet oorweging geskenk word aan die beperkings van daardie spesifieke produkte.

## GEBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

## VERENIGBAARHEID

Die verenigbaarheid van **SOLSAN SC** met ander produkte hang af van die formulering van die betrokke produkte asook die kwaliteit van die spuitwater. Deurdat formulering van tyd tot tyd kan verander, word dit aanbeveel om 'n fisiese verenigbaarheidstoets te doen voordat die tenkmengsel gemaak word. Indien **SOLSAN SC** deur middel van 'n spulpuntbesproeiingstelsel toegedien word, moet **SOLSAN SC** nie met ander middels of kunsmis gemeng word nie. **SOLSAN SC** is verenigbaar met die meeste landboumiddels.

## MENGINSTRUKSIES

Maak die spuitenk halfvol met skoon water. Skud die **SOLSAN SC** houër goed voor gebruik. Voeg die benodigde hoeveelheid **SOLSAN SC** in die spuitwater van die tenk. Indien **SOLSAN SC** in die spuitenk met ander produkte gemeng word, voeg die betrokke produkte in die volgende volgorde, waar van toepassing, by: benatter/buffer, benatbare poeier, suspensiekonsentraat, emulgeerbare konsentraat. Hierna moet die tenk met water tot by die verlangde volume volgemaak word terwyl

aanhoudend geroer word om deeglike vermenging van die spuitmengsel te verseker voordat toediening begin. Handhaaf konstante roering tydens toediening. **Tenkmengsels moet dadelik uitgespuit word en mag nie in die tenk staan nie.** Spuittoerusting moet deeglik uitgespoel word na elke spuitoperasie.

## TOEDIENINGSMETODES

Dien toe as 'n voldek-, voorkomende bespuiting vir die beheer van siektes soos aangedui. Verseker goeie bedekking van die hele plant (stamme en beide blaaroppervlaktes) deur genoegsame watervolumes te gebruik met spuittoerusting wat hoë druk kan handhaaf. Gedurende nat of bedompige toestande wanneer siektedruk hoog is, moet toedienings meer gereeld gedoen word as wat daar onder droër toestande gemaak word, maar moenie 21 dae tussenposes oorskry nie. **SOLSAN SC** is reënvas binne 15 minute nadat die spuitneerslag droog geword het. Reënval van tot 60 mm na hierdie periode behoort geen nadelige invloed op die effektiwiteit van **SOLSAN SC** te hê nie en hoef die toediening nie herhaal te word nie.

## LUGTOEDIENING (AARTAPPELS EN BONE)

Lugtoediening mag slegs gedoen word deur 'n geregistreerde lugtoedieningsoperateur wat gebruik maak van 'n korrek gekalibreerde vliegtuig in oorleg met die instruksies soos vervat in die SANS kode 10118 (Aerial Application of Agricultural Pesticides). Dit is belangrik om te verseker dat die spuitmengsel eweredig oor die teikenarea versprei word en dat die verlies van spuitmateriaal tydens die toedieningsproses tot 'n minimum beperk word. Dit is dus van kardinale belang om aan die volgende kriteria te voldoen:

### Toerusting

- Gebruik gepaste atomiseringstoerusting (hidroliese of roterende spuitkoppe) wat die verlangde druppelgrootte en bedekking oor die teikengebied sal verseker, maar die minimum verlies d.m.v. wegdrywing van die spuitmengsel sal verseker.
- Die operateur moet 'n spuitstelsel gebruik wat 'n druppelspektrum met die kleinste moontlike relatiewe span sal produseer.
- Alle spuitkoppe en atomiseerders moet geposisioneer word in die binneste 60 – 70 % van die vlerkspan om sodoende te verhoed dat die druppels binne-in die vlerkpuntvorteks in beweeg.

### Toedieningsvereistes

- 'n Minimum volume van 30 – 40 l mengsel per hektaar word aanbeveel. Aangesien die produk nog nie getoets is teen 'n verlaagde volume nie, kan die registrasiehouer nie die effektiwiteit waarborg of verantwoordelik gehou word vir enige nadelige effek indien die produk teen 'n laer volume, tydens lugtoediening gespuit word nie.
- 'n Druppelbedekking van 50 – 70 druppels per vierkante sentimeter moet by die teikenarea herwin word.
- 'n Druppelspektrum met 'n VMD van 200 – 250 mikrons word aanbeveel. Verseker dat die produksie van fyn druppelgroottes, met 'n VMD van minder as 150 mikrons tot 'n minimum beperk word. Die byvoeging van 'n geskikte teen-verdampingsmiddel word aanbeveel as die VMD van die druppels minder as 200 – 250 mikrons is.
- Die hoogte van die spuitbalk moet gehandhaaf word tussen 3 en 4 meter bokant die teikengebied.
- Moet nie spuit wanneer die vliegtuig aan die bopunt van 'n draai is of tydens 'n duik of terwyl dit uitklim of draai nie.

### Meteorologiese toestande

- Die verskil tussen die nat- en droëbollesing, soos deur 'n swaai-higrometer bepaal, moet nie 8°C oorskry nie.
- Moenie tydens turbulente en onstabiele weerstoestande spuit nie, of gedurende die hitte van die dag, wanneer stygende en dalende konveksie-windbeweging plaasvind nie.
- Moenie toedien onder temperatuurinversie-toestande (deur bokant of binne-in die inversielaag te spuit), en/of hoë humiditeitstoestande (relatiewe humiditeit 80% of hoër) nie, want dit kan lei tot:
  - a) Vermindering in effektiwiteit vanweë suspensie en verdamping van die klein druppels in die lug (wat kan lei tot onvoldoende bedekking).

- b) Skade aan sensitiewe gewasse en/of nie-teikenareas deur wegdrywing van die spuitwolk weg van die teikenarea.
- Moenie spuit indien die windspoed 15 km per uur oorskry nie.

#### Algemeen

- Verseker dat die lande akkuraat gemerk is en dat die lugbespuitingsoperateur presies weet watter lande om te spuit.
- **Verkry 'n versekering van die lugoperateur dat aan al die bogenoemde vereistes voldoen sal word. Alle toedienings moet met geskikte apparaat gemaak word wat in 'n goeie werkende toestand is en korrek gekalibreer is om die gewenste bedekking vir die spesifieke metode van toediening te verseker.**

#### SPILPUNTOEDIENING (Slegs Aartappels).

##### Algemeen

1. **SOLSAN SC** mag op aartappels toegedien word deur gebruik te maak van 'n geskikte spilpuntbesproeiingstelsel.
2. Bestuur die inspuitingsapparaat en die spilpunt deur gebruik te maak van 'n positiewe verplasing-meterpomp by normale druk, en verseker dat die vervaardiger se aanbevelings vir albei toerusting nagekom word.
3. Moenie die besproeiingsapparaat sonder veiligheidskleppe gebruik nie. Dit verhoed die terugvloei en die besoedeling van die waterbron.
4. Skakel die mengtenk en inspuitingsapparaat by die uitlaatkant van die besproeiingslyn in.
5. **SOLSAN SC** kan gedurende die normale besproeiingsiklus ingespuut word, of as 'n afsonderlike toediening wanneer besproeiing nie nodig is nie.
6. Na voltooiing van die besproeiingsiklus, maak die inspuitingsapparaat toe, maar laat die spilpunt loop totdat al die **SOLSAN SC** deurgespoel het.
7. Moenie **SOLSAN SC** saam met enige ander landboumiddel of kunsmis in 'n tenkmengsel meng nie.
8. Egalige watertoediening deur die spilpuntapparaat is noodsaaklik om volle bedekking van die gewas met **SOLSAN SC** te verseker.

##### Waarskuwing

“Up to Date” aartappels wat onder spilpuntbesproeiing gedurende Januarie tot April verbou word, veral in Limpopo, is baie gevoelig vir *Phytophthora infestans*. Onder hierdie toestande, moet **SOLSAN SC** teen die volle dosis (2,75 l /ha) elke 4 – 5 dae toegedien word.

##### Kalibrasie vir spilpuntoediening:

Maak die inspuitingstenk vol water om die inspuitingsapparaat op die verlangde metertempo vir 1 siklus te kalibreer. Die spilpunt moet deur 1 siklus loop en die tyd om een siklus te voltooi, die hoeveelheid water ingespuut en die aantal hektare (ha) wat bedek is, moet gemeet word. Meng die aanbevole hoeveelheid **SOLSAN SC** benodig om die oppervlakte te bedek met dieselfde hoeveelheid water wat gedurende die kalibrasie ingespuut was en dien deurlopend toe vir een revolusie van die spilpunt.

## AANBEVELINGS

GEWAS EN SIEKTE	DOSIS	OPMERKINGS
<b>Groenbone en droëbone</b>  <b>Boontjieroes</b> <i>(Uromyces appendiculatus)</i>	<b>Grondtoediening</b>  360 mℓ <b>OPTAN 50 SC</b> + 350 mℓ <b>SOLSAN SC</b> / ha.	Dien die spuitmengsel toe as 'n voorkomende spuitprogram of ten minste 2 bespuitings met 10 – 14 dae intervalle. Begin die toedienings met die eerste tekens van bruinroes of wanneer die weerstoestande gunstig is vir die ontwikkeling van die siekte. Dien slegs een keer toe indien nadelige omgewingstoestande laat in die seisoen voorkom.  Raadpleeg die <b>OPTAN 50 SC</b> etiket.
	<b>Laat grondtoediening</b>  480 mℓ <b>OPTAN 50 SC</b> + 1.4 ℓ <b>SOLSAN SC</b> / ha.	
	<b>Lugtoediening</b>  432 mℓ <b>OPTAN 50 SC</b> + 420 mℓ <b>SOLSAN SC</b> / ha.	
	<b>Laat lugtoediening</b>  480 mℓ <b>OPTAN 50 SC</b> + 1.4 ℓ <b>SOLSAN SC</b> / ha.	
<b>AARTAPPELS</b>  <b>Vroeë roes</b> <i>(Alternaria solani)</i>  <b>Laatroes</b> <i>(Phytophthora infestans)</i>	0.7 – 1.0 ℓ / ha	Begin met 'n voorkomende spuitprogram, gewoonlik wanneer die plante begin blom of wanneer toestande gunstig is vir siekte - ontwikkeling. Herhaal bespuitings totdat bogrondse dele afgesterf het. <b>Grondtoediening – Trekker:</b> <b>Lae infeksie:</b> Dien toe elke 7 – 10 dae as 'n voldekbespuiting in ten minste 500 ℓ water/ha. Gebruik die laer dosis onder droëlandtoestande en herhaal elke 7 dae. Die hoër dosis mag gebruik word in 'n 10 dae skedule.
	2.0 ℓ / ha	<b>Hoë infeksie:</b> Dien elke 5 – 7 dae toe as 'n voldekbsepuiting in ten minste 500 – 1 500 ℓ water/ha afhangend van plantgrootte en blaardigtheid.
	1.0 ℓ / ha	<b>Lugtoediening:</b> <b>Lae infeksie:</b> Dien toe soos hierbo genoem in 30 ℓ water/ha.
	2.0 ℓ / ha	<b>Hoë infeksie:</b> Dien toe soos hierbo genoem in 30 ℓ water/ha.  <b>Spilpuntoediening:</b> Begin toediening 2 weke na-opkoms. <b>Moenie</b> 'n 10 dae spuit tussenpose <b>oorskry nie</b> . Herhaal bespuiting totdat bogrondse plantdele afgesterf het. (Sien spilpunt toediening onder “ <b>GEBRUIKSAANWYSINGS</b> ”).

**NOTA:**

Vir die beheer van Vroeë roes en Laatroes: **SOLSAN SC** kan ook in 'n afwisselende program bespuit word met **FORTRESS** (L. 9269) vir die beheer van Laatroes en Vroeë roes in aartappels. Raadpleeg die **FORTRESS** etiket vir volle besonderhede.

Vir die beheer van Laatroes: **SOLSAN SC** kan ook toegedien word in 'n afwisselende spuitprogram met **SOLSAN SC** of slegs **VALEO 500 SC**:

Raadpleeg die betrokke produk etikette vir volle besonderhede.

<b>TAMATIES</b>  <b>Vroeë roes</b> <i>(Alternaria spp.)</i>  <b>Laatroes</b> <i>(Phytophthora spp.)</i>	100 ml / 100 l water	<b>Grondtoediening:</b> Spuit voorkomend.  <b>Hoë volume toediening:</b> Ongeveer 1 000 l spuitmengsel/ha op volwasse plante.  <b>Lae infeksie:</b> Dien elke 10 – 14 dae toe. Moenie minder as 1.0 l <b>SOLSAN SC</b> /ha op volwasse plante toedien nie.
	190 ml / 100 l water	<b>Hoë infeksie:</b> Dien elke 7 – 10 dae toe. Moenie minder as 2.0 l <b>SOLSAN SC</b> /ha op volwasse plante toedien nie.  <b>Lae volume toediening:</b> Ongeveer 500 l spuitmengsel/ha op volwasse plante.
	210 ml / 100 l water	<b>Lae infeksie:</b> Dien elke 10 – 14 dae toe. Moenie minder as 1.0 l <b>SOLSAN SC</b> /ha op volwasse plante toedien nie.
	380 ml / 100 l water	<b>Hoë infeksie:</b> Dien elke 7 – 10 dae toe. Moenie minder as 2.0 l <b>SOLSAN SC</b> /ha op volwasse plante toedien nie.

**NOTA:**

Vir die beheer van Laatroes kan **SOLSAN SC** ook toegedien word in 'n afwisselende program met:

- **FORTRESS.**

Raadpleeg die betrokke produk etiket vir volle besonderhede.

**ERKENNING VAN HANDELSMERKE**

Fortress SC (L 9269)  
 Optan 50 SC (L 7878)  
 Valeo 500 SC (L 9086)

Meridian Agrochemical Company (Edms.) Bpk.  
 Meridian Agrochemical Company (Edms.) Bpk.  
 Meridian Agrochemical Company (Edms.) Bpk.