



# SOLSTAR

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

**GEBRUIKSAANWYSYNGS INGESLUIT**  
**VERWYS NA BESONDERHEDE**  
**SOOS OP HOUER / SAK GEDRUK**

Lotnummer  
Datum van vervaardiging

## SOLSTAR

HERBICIDE

Reg. No. L7968, Act/Wet No. 36 of/van 1947  
N – AR 1691

1: 05/09/2006

**An emulsifiable concentrate selective herbicide for the control of woody weeds as listed as well as for the control of volunteer potatoes in maize and wheat.**

**'n Emulgeerbare konsentraat selektiewe onkruidodder vir die beheer van onkruid soos gelys sowel as die beheer van opslagaartappels in mielies en koring.**

HRAC HERBICIDE GROUP CODE	O	HRAC ONKRUIDDODER GROEPKODE
ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL		
Fluroxypyr (pyridinecarboxylic acid) 200 g/ℓ		Fluroksipir (piridienkarboksiesuur)

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

5ℓ

UN Number: 1993

CAUTION / VERSIGTIG

**DIRECTIONS FOR USE ENCLOSED**  
 Batch Number  
 Date of manufacture

**REFER TO DETAILS AS PRINTED ON CONTAINER / BAG**

## WARNINGS

- Allow 30 days between last application and grazing of treated areas.
- Handle with care.
- Poisonous if swallowed.
- Concentrate may cause eye irritation.
- Store under lock and key in a cool place.
- **FLAMMABLE** – Do not store or open container near open flame.
- Store away from food, feed, fertilizer and other agricultural products.
- 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 effective under all conditions. The activity 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 weed 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 skin and eye contact by wearing protective clothing when mixing the product.
- Do not inhale fumes or spray mist.
- In case of accidental eye contact, flush with plenty of water and get medical attention if necessary.
- Wash with soap and water after use and accidental skin contact as well as contaminated clothing.
- Do not eat, drink or smoke while mixing or applying the product or before washing hands and face.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean applicator after use. Dispose of rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Prevent contamination of food, feeds, drinking water and eating utensils.
- Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed to a drip. Thereafter rinse the empty container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsate to the contents of the spray tank.
- Destroy the empty container and do not use for any other purpose.

## USE RESTRICTIONS

- Do not apply SOLSTAR to any situation not mentioned in this instruction leaflet.
- Only apply SOLSTAR using an accurate and safe application technique.
- Do not allow spray drift to contact susceptible broadleaf crops such as sunflower and potatoes.
- Avoid spraying directly onto foliage of *Pinus spp.*
- Do not spray directly into funnels of maize plants.
- It takes time for target plants to die completely. Some woody plants may take 4 + months to die completely. Active plant growth will stop almost immediately following correct application.
- Target plants must be actively growing irrespective of the method of application.
- Do not apply SOLSTAR to seed maize, sweetcorn or popcorn. Should there be any doubt as to the safety of the treatment to specific varieties, please consult your nearest representative.

## RESISTANCE WARNING

For resistance management, **SOLSTAR** is a group code O herbicide. Any weed population may contain individuals naturally resistant to **SOLSTAR** and other group code O herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **SOLSTAR** or any other group code O herbicide.

**To delay herbicide resistance:**

- Avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or tank mix with registered products from different herbicide group codes.
- Integrate other control methods (chemical, cultural, biological) into weed control programmes.

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

The presence of resistant weeds is difficult to detect prior to use and therefore neither the Registration Holder nor the Distributor can accept responsibility for any losses as a result of SOLSTAR not controlling resistant weeds. Do not apply SOLSTAR alone in situations where weed resistance has been confirmed. Sub-standard application of SOLSTAR or other pyridyloxy herbicides will lead to inferior weed control and may assist in development of herbicide resistance.

**DIRECTIONS FOR USE**

**Use only as directed.**

**MIXING INSTRUCTIONS**

Half-fill the spray tank with suitable water. If necessary, the pH of the spray water can be corrected to pH 5 – 7 with a suitable buffering agent. Then add the required amount of **SOLSTAR** to the water in the tank while agitating. Fill the spray tank to the desired volume with water. Just before the tank is full, add the mineral oil adjuvant according to the recommended rate on the respective product's label. Agitate well to ensure mixing prior to the application of the mixture. **Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight.** Spraying equipment must be thoroughly flushed out at the end of the spraying operation.

**COMPATIBILITY**

The compatibility of **SOLSTAR** 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.

**APPLICATION METHODS**

Ensure that the equipment is correctly calibrated and is checked regularly during application to ensure even and accurate application. Knapsack sprayers, tractor mounted boom sprayers or similar suitable applicators which are fitted with solid cone nozzles and can distribute the spray mixture evenly over the target may be used. A spray volume of 300-500 l/ha should be used to ensure thorough coverage of target plants. Use nozzles such TG1 or equivalent to ensure good coverage. **Constant agitation throughout the spray operation is essential.** Only clean water should be used. Do not, under any circumstances allow spray or drift to contact any part of desirable vegetation otherwise severe injury or destruction may result.

**Foliar application:**

- Apply to actively growing plants with full leaf cover.
- Do not spray whilst weeds are wet, dormant, under stress or covered in a layer of dust or silt or when damaged by frost.
- Rain on sprayed plants may result in reduced efficacy if occurring within 1 hour of application or before spray deposit has dried.
- Apply as full cover spray (to point of run-off) at approximately 2 bar pressure, using TG1, Delavan CE1 or equivalent nozzle. Always thoroughly wet all leaves and stems.

**Cut stump application:**

- Apply within 12 hours of cutting.
- **SOLSTAR** in diesel should not be applied to cut stump surfaces which are wet with dew or rain.
- Apply with solid cone nozzle at no more than 1 bar pressure.
- Apply to the cambium region of the cut surface as well as to the stem sides and exposed root surfaces.

**Basal bark application:**

- **SOLSTAR** in diesel should not be applied to stems which are wet with dew or rain.
- Apply by means of a paintbrush or low pressure course spray to the stem surfaces as well as exposed root surfaces. Apply sufficient quantity of mixture to thoroughly wet all surfaces, bearing in mind that old bark and rough surfaces may require more mixture to ensure adequate penetration. Apply from ground level up all sides of the stem to the height indicated for the particular species as indicated below. In the case of multi-stemmed plants, all stems must be treated individually. Trees with a bigger stem diameter as 100 mm will not be controlled completely.

**RECOMMENDATIONS****Foliar applications:**

SPECIES	DOSAGE RATE/100 ℓ WATER	REMARKS
Black wattle ( <i>Acacia mearnsii</i> )	125 ml + 500 ml mineral oil	Young plants up to 1.0 m high should be treated with a full cover spray in sufficient mixture to ensure thorough wetting of leaves and stems.
Blackwood ( <i>Acacia melanoxylon</i> )	125 ml + 500 ml mineral oil	Young plants up to 1.0 m high should be treated with a full cover spray in sufficient mixture to ensure thorough wetting of leaves and stems.
Bugweed ( <i>Solanum mauritianum</i> )	125 ml + 500 ml mineral oil	Apply a full cover spray to actively growing seedlings up to 1.0 m high and apply sufficient mixture to ensure thorough wetting of leaves and stems. Established plants should be slashed and the regrowth treated at approximately 50 cm height with sufficient mixture to ensure thorough wetting.
Satans bush ( <i>Solanum elaeagnifolium</i> )	250 ml + 500 ml mineral oil OR 500 ml/ha + 1 ℓ mineral oil  Follow on spot spray 125 ml + 500 ml mineral oil / 100 ℓ water	Apply to young actively growing plants in the spring or early summer seasons. Apply in at least 200 ℓ water / ha and make sure that all leaves and stems are thoroughly wetted to just before the point of run-off.  Since <i>Solanum elaeagnifolium</i> has a very deep root system, it may have re-growth from its root stocks. It is recommended that this is treated with a spot spray. Apply this re-spray to actively growing plants and make sure that all leaves and stems are thoroughly wetted to just before the point of run-off.

**Basal stem application:**

SPECIES	DOSAGE RATE/100 ℓ DIESEL	REMARKS
Bugweed ( <i>Solanum mauritianum</i> )	1.0 ℓ (1.0 % mixture)	Thoroughly wet stems up to 25 cm above the root collar as well as root crown and all other exposed roots. Only treat plants which are actively growing and which have a stem diameter of less than 10 cm.

**CONTROL OF VOLUNTEER POTATOES**

CROP	DOSAGE l /ha	REMARKS
Maize and Wheat ( <i>Volunteer potatoes</i> )	0.75 – 1.0 l/ha	<p>Begin application as soon as most of the potatoes have emerged and have reached the 6 leaf stage. Use the lower dosage for potatoes that are in the 6-8 leaf stage and the higher dosage for potatoes from the 8leaf stage up to flowering. Ensure that all of the leaves and stems of the potatoes are thoroughly wetted.</p> <p>In the case of spraying volunteer potatoes in maize, the maize should be at least 0.5 m in height at the time of application. Do not apply <b>SOLSTAR</b> in the funnels of the maize plants or spray over the maize plants. Use a directed spray in order to ensure that no shading off of the spray mixture on the potatoes occurs. It takes around 12-15 days for the first symptoms of control to be noticed. Do not use any adjuvant based on mineral oil. Only potatoes that are present at application will be controlled. Any potatoes that germinate after application will not be controlled.</p> <p>Do not use <b>SOLSTAR</b> on sweet corn or pop corn. Wheat should preferably be in the 2leaf stage up until the stem elongation stage upon application.</p>

The registration holder is not responsible for weeds not listed.

## WAARSKUWINGS

- Laat 30 dae toe tussen laaste toediening en beweiding van behandelde gebiede.
- Hanteer versigtig.
- Giftig indien ingesluk.
- Konsentraat mag oogirritasie veroorsaak.
- Bêre agter slot-en-grendel in 'n koel plek.
- **VLAMBAAR** – bêre weg van oop vlamme en moenie houër naby oop vlamme oopmaak nie.
- Bêre weg van voedsel, voer, kunsmis en ander landbouprodukte.
- 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. Die werking en doeltreffendheid daarvan kan beïnvloed word deur faktore soos abnormale grond-, klimaats- en bergingstoestande, kwaliteit van die verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui word nie en die voorkoms van weerstand van die onkruid teen die betrokke middel sowel as die tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei en die omgewing of nadelige invloede op mens of dier of vir 'n gebrek aan prestasie van die betrokke middel as gevolg van versuim van die gebruiker 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

- Vermyn kontak met die vel en oë deur beskermende oorklere te dra wanneer die produk gemeng word.
- Moet nie dampe of spuitnewel inasem nie.
- Indien produk in aanraking met die oë kom, spoel met genoeg water en kry mediese aandag indien nodig.
- Was met seep en water na gebruik en toevallige vel kontak; so ook die besoedelde klere.
- Moet nie eet, drink of rook tydens vermenging of toediening van die produk of voordat die hande en gesig gewas is nie.
- Vermyn wegdrywing van spuitnewel na ander gewasse, weiveld, riviere, damme 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, drinkwater en eetgerei.
- Keer die leë houër om oor die spuit- of mengtenk en dreineer vir minstens 30 sekondes nadat die vloeï tot 'n gedrup verminder het. Spoel die leë houër daarna **drie keer** uit met 'n volume skoon water gelykstaande aan 'n minimum van 10% van die houër. Gooi die spoelwater by die inhoud van die spuittenk voordat die houër vernietig word.
- Vernietig die leë houër en moet dit vir geen ander doel gebruik nie.

## GEBRUIKSBEPERKINGS

- Moet nie **SOLSTAR** op enige gewas of situasie toedien wat nie op hierdie etiket verskyn nie.
- Dien **SOLSTAR** slegs met akkurate en veilige toedieningsmetodes toe.
- Moet nie toelaat dat die spuitnewel wegdryf na gevoelige plante soos sonneblom of aartappels nie.
- Moet nie direk oor die loof van *Pinus spp.* spuit nie.
- Moet nie direk in die kelk van mielieplante spuit nie.
- Dit neem 'n geruime tyd voor die teikenplante heeltemal dood is. By sommige houtagtige plante mag dit 4 + maande neem. Aktiewe groei van die teikenplant staak egter kort na toediening.
- Dit is van die uiterste belang dat die teikenplante aktief moet groei tydens toediening.
- Moet nie **SOLSTAR** in suikermielies of springmielies gebruik nie. As daar enige twyfel is rakende die veiligheid van die toediening op spesifieke variëteite, raadpleeg asseblief u naaste Gewasoplossings Spesialis.

## WEERSTANDSWAARSKUWING

Vir weerstandsbestuur is **SOLSTAR** 'n groepkode O onkruidodder. Enige populasie van 'n spesifieke onkruid mag individue insluit wat 'n natuurlike weerstand teen **SOLSTAR** of enige ander groepkode O onkruidodder het. Indien hierdie onkruidodder herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die onkruidpopulasie oorheers. Hierdie weerstandbiedende onkruid sal waarskynlik nie deur **SOLSTAR** of enige ander groepkode O onkruidodder beheer word nie.

#### **Om weerstand teen onkruidodders te vertraag:**

- Vermy die eksklusiewe herhaaldelike gebruik van onkruidodders met dieselfde groepkode. Wissel af met, of gebruik tenkmengsels van, produkte in verskillende onkruidoddergroepkodes.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in onkruidbeheerprogramme.

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

Die teenwoordigheid van weerstandbiedende onkruid is moeilik om vooraf vas te stel en daarom kan nie die Registrasiehouer of die Verspreider verantwoordelikheid aanvaar vir enige verliese as gevolg van **SOLSTAR** wat nie weerstandbiedende onkruid beheer nie. Moet nie **SOLSTAR** alleen in situasies waar weerstandbiedende onkruid bevestig is, toedien nie. Sub-standaard dosisse van **SOLSTAR** of ander piridieloksie-onkruidodders sal tot onvoldoende onkruidbeheer lei en mag bydra tot die ontwikkeling van onkruidodder weerstandbiedenheid.

### **GEBRUIKSAANWYSINGS**

**Gebruik slegs soos aangedui.**

### **MENGINSTRUKSIES**

Maak die spuittenk halfvol met geskikte water. Indien nodig, kan die pH van die spuitwater reggestel word na 5 – 7 met 'n geskikte buffer. Voeg dan die benodigde hoeveelheid **SOLSTAR** by terwyl water aanhoudend geroer word. Vul die spuittenk tot die verlangde volume met water. Net voordat die tenk vol is, voeg die minerale olie byvoegmiddel volgens die aanbevole dosis op die betrokke produkietiket by. Roer goed om vermenging te verseker, voordat die mengsel toegedien word. **Die tenkmengsel moet onmiddellik uitgespuit word en nie toegelaat word om oornag in die spuittenk te staan nie.** Die spuittoerusting moet aan die einde van toediening deeglik uitgewas word.

### **VERENIGBAARHEID**

Die verenigbaarheid van **SOLSTAR** met ander produkte hang van die formulering van die betrokke produkte af, asook van die kwaliteit van die spuitwater wat gebruik word. Deurdat formuleringe van tyd tot tyd kan verander, word dit aanbeveel om 'n fisiese verenigbaarheidstoets te doen, alvorens 'n tenkmengsel gemaak word.

### **TOEDIENINGSMETODES**

Maak seker dat die spuittoerusting korrek gekalibreer is en gereeld gedurende toediening nagegaan word om seker te maak dat die toediening egalig en akkuraat is. Rugsakspuite, trekker-gemonteerde balkspuite of geskikte toedieners wat toegerus is met soliede keëlspuitpunte en wat die spuitmengsel eweredig oor die teikenarea kan versprei, mag gebruik word. Gebruik 'n spuitvolume van 300 – 500 ℓ/ha om deeglike bedekking van teikenplante te verseker. Gebruik spuitpunte soos TG1 of ekwivalente spuitpunte om goeie bedekking te verseker. **Die mengsel moet aanhoudend en deeglik geroer word tydens toediening.** Gebruik net skoon water vir toediening. Moet onder geen omstandighede wegdrywing of kontak van spuitstof op gewenste plante toelaat nie, want ernstige skade mag veroorsaak word.

#### **Blaartoeiening:**

- Dien toe op aktief groeiende plante wat volle drag blare het.
- Moet nie toedien wanneer onkruid nat, dormant, onder stremming is of bedek is met 'n laag stof of slied of beskadig is deur ryp nie.
- Reën binne 'n uur of voordat spuitstof droog is, mag tot verminderde effektiwiteit aanleiding gee.
- Dien toe as 'n volle dekbespuiting (tot punt van afloop) teen ongeveer 2 bar druk, en maak gebruik van TG1, Delvan CE1 of ekwivalente spuitpunte. Verseker altyd deeglike bedekking van alle blare en stamme.

#### **Gekapte stomptoeiening:**

- Dien toe binne 12 uur na afkapping.
- **SOLSTAR** in diesel moet nie toegedien word op stompe indien die oppervlaktes nat is weens reën of dou nie.
- Dien toe met soliede keëlsputpunte teen nie meer as 1 bar druk nie.
- Dien toe aan die kambiumgedeelte van die gesnyde gedeelte asook op al die kante van die stam en blootgestelde worteloppervlaktes.

**Stamtoediening:**

- **SOLSTAR** in diesel moet nie toegedien word op stamme wat nat is van dou of reën nie.
- Dien toe deur middel van 'n verfkwas of growwe laedrukbespuiting op die stamoppervlaktes sowel as blootgestelde worteloppervlaktes. Dien genoeg mengsel toe om alle oppervlaktes deeglik te benat, hou in gedagte dat ou bas en oneweredige oppervlaktes meer mengsel mag benodig om voldoende penetrasie te verseker. Dien toe van die grondvlak opwaarts, en op alle kante van die stam tot op die hoogte aangedui vir die spesifieke spesie soos in die tabel onder genoem. In geval van meerstammige plante, moet alle stamme individueel behandel word. Bome met 'n groter stamdeursnee as 100 mm sal nie heeltemal beheer word nie.

**AANBEVELINGS**

**Blaartoediening:**

SPESES	DOSIS/100 ℓ WATER	OPMERKINGS
Swartwattel ( <i>Acacia mearnsii</i> )	125 ml + 500 ml minerale olie	Jong plante tot en met 1.0 m hoog moet behandel word met genoeg mengsel om deeglike bedekking van blare en stingels te verseker.
Swarthout ( <i>Acacia melanoxylon</i> )	125 ml + 500 ml minerale olie	Jong plante tot en met 1.0 m hoog moet behandel word met genoeg mengsel om deeglike bedekking van blare en stingels te verseker.
Luisboom ( <i>Solanum mauritianum</i> )	125 ml + 500 ml minerale olie	Dien 'n volle dekbespuiting toe op aktief groeiende saailinge tot en met 1.0 m hoog en dien genoeg mengsel toe om deeglike bedekking van blare en stingels te verseker. Gevestigde plante moet teruggesny word en die hergroei moet behandel word op omtrent 50 cm hoogte met genoeg spuitmengsel om deeglike bedekking te verseker.
Satansbos ( <i>Solanum elaeagnifolium</i> )	250 ml + 500 ml minerale olie OF 500 ml/ha + 1 ℓ minerale olie  Opvolg kolbespuiting 125 ml + 500 ml minerale olie	Dien toe op jong aktief groeiende plante in die lente of vroeë somer seisoene. Dien toe in ten minste 200 ℓ water/ha en maak seker dat al die blare en stingsels deeglik tot net voor die punt van afloop benat word.  Deurdats <i>Solanum elaeagnifolium</i> 'n baie diep wortelstelsel het, kan dit wees dat hergroei vanaf die wortelstokke mag voorkom. Dit word aanbeveel om dit met 'n kolbespuiting te behandel. Pas hierdie opvolgbespuiting toe op aktief groeiende plante en maak seker dat al die blare en stamme deeglik benat word tot net voor die punt van afloop.

**Stambehandeling:**

SPESES	DOSIS/100 ℓ DIESEL	OPMERKINGS
Luisboom ( <i>Solanum mauritianum</i> )	1.0 ℓ (1.0 % mengsel)	Benat stamme deeglik tot 25 cm bokant die wortelkraag, so wel as die wortelkroon en ander blootgestelde wortels. Behandel slegs aktief groeiende plante waarvan die stamdeursnit nie meer as 100 mm is nie.



GEWAS	DOSIS ℓ/ha	OPMERKINGS
Mielies en koring (opslagaartappels)	0.75 – 1.0 ℓ/ha	<p>Begin toediening sodra die meeste van die aartappels opgekom het en die 6blaarstadium bereik het. Gebruik die laer dosis vir aartappels wat in die 6-8 blaarstadium is en die hoër dosis vir aartappels vanaf die 8-blaarstadium tot blom. Maak seker dat al die blare en stingels van die aartappels deeglik benat word. In die geval van die bespuiting van opslagaartappels in mielies, moet die mielies ten minste 0.5 m in hoogte tydens toediening wees. Moet nie <b>SOLSTAR</b> in die kelk van die mielieplante of direk oor die mielieplante spuit nie. Gebruik 'n gerigte bespuiting ten einde te verseker dat daar geen afskerming van die spuitmengsel op die aartappels plaasvind nie. Dit neem ongeveer 12-15 dae om die eerste simptome van beheer waar te neem. Moenie enige bevorderingsmiddel met 'n minerale olie basis gebruik nie. Slegs aartappels wat teenwoordig is tydens toediening sal beheer word. Enige aartappels wat na toediening opkom sal nie beheer word nie.</p> <p>Moet nie <b>SOLSTAR</b> op suikermielies of springmielies gebruik nie. Koring moet verkieslik in die 2-blaarstadium tot stamverlengingstadium tydens toediening wees.</p>

Die registrasiehouer neem geen verantwoordelikheid vir die beheer van onkruide wat nie gelys is nie.