

Main Panel

MANAGER® 435 SC

Reg. No./Nr L3538, Act No./Wet Nr. 36 of/van 1947
Botswana Reg. No./Nr W130568, Act No./Wet Nr.18 of/van 1999

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

A suspension concentrate fungicide for the control of fungal diseases as indicated on apples, beans (dry and green), groundnuts, citrus, onions, pears, potatoes, tomatoes and grapevines.

'n Suspensiekonsentraat swamdoder vir die beheer van swamsiektes soos aangedui op aartappels, bone (droë en groen), grondbone, tamaties, uie, appels, pere, wingerd en sitrus.

GROUP/GROEP	M3	FUNGICIDE / SWAMDODER
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Active ingredients:

Maneb (dithiocarbamate).....435 g/l.....
Zinc oxide4.7 g/l

Aktiewe bestanddele:

Maneb(dithiokarbamaat)
Sinkoksied

Net Volume



WARNING



Netto Volume

GHS Hazard Statements

May cause an allergic skin reaction.
Causes serious eye irritation.
Suspected of damaging the unborn child.
Very toxic to aquatic life with long lasting effects.

GHS Precautionary Statements

Do not breathe mist, vapours or spray.
Wash thoroughly after handling.

REGISTRATION HOLDER / REGISTRASIEHOUER

Nulandis® (A division of AECI Limited)/ Nulandis® ('n Afdeling van AECI Beperk)

Reg. No. / Nr. 1924/002590/06

P.O. Box / Posbus 14418

Witfield, 1467

Tel : (011) 823 8000

IN CASE OF POISONING PLEASE PHONE / IN GEVAL VAN VERGIFTIGING SKAKEL 0861 555777 / 0824468946

Manager® is a registered trademark of AECI® Limited)/AECI® Beperk



Batch No:

Lotnommer:

DATE OF MANUFACTURE:

VERVAARDIGINGSDATUM:

UN No. / VN Nr. 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Maneb)

Manager 435 SC GHS Approved

Pamphlet

MANAGER[®] 435 SC

Reg. No. L3538, Act No. 36 of 1947
Botswana Reg. No. W130568, Act No. 18 of 1999

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A suspension concentrate fungicide for the control of fungal diseases as indicated on apples, beans (dry and green), groundnuts, citrus, onions, pears, potatoes, tomatoes and grapevines.

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WARNINGS:

GHS Hazard Statements

May cause an allergic skin reaction.
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Suspected of damaging the unborn child.
Very toxic to aquatic life with long lasting effects.

**IF THE CROP TO BE TREATED IS INTENDED FOR EXPORT, CONSULT THE
RELEVANT EXPORTING ORGANISATION REGARDING WITHHOLDING PERIODS.
IN CASE OF CROPS GROWN FOR LOCAL CONSUMPTION ALLOW THE
FOLLOWING NUMBER OF DAYS BETWEEN THE LAST APPLICATION AND
HARVESTING OR FEEDING/GRAZING.**

APPLES AND PEARS.....14 DAYS
BEANS AND POTATOES.....3 DAYS
CITRUS.....14 DAYS
GRAPEVINES.....4 – 6 WEEKS
GROUNDNUTS (HAY).....21 DAYS
TOMATOES.....3 DAYS

Manager 435 SC GHS Approved

Withholding periods are based on good agricultural practice and when followed, local (SA) MRL's will be met if the recommended dosage is applied. For fruit destined for export, consult your export agent or supplier for the latest withholding periods relevant to your export market.

May be harmful if swallowed or inhaled.

Store in a cool place.

Store out of reach of children, uninformed persons and animals.

Store away from food and feeds.

Aerial Application: Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate adjacent areas or water.

Do not enter treated area until spray deposit has dried unless wearing protective clothing.

Although this remedy has been extensively tested under a large variety of conditions the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal climatic and storage conditions; quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the disease to 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

PRECAUTIONS:

GHS Precautionary Statements

Do not breathe mist, vapours or spray.

Wash thoroughly after handling.

Wear protective gloves, protective clothing, eye protection & face protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

Call a POISON CENTRE/doctor if you feel unwell.

Wash with soap and water after use or accidental skin contact.

In the case of contact with eyes flush for at least 15 minutes. If irritation persists, get medical attention.

Use only in well ventilated areas.

Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.

Clean applicator before using other remedies and dispose of wash water where it will not contaminate crops, grazing, rivers and dams.

Prevent contamination of food, feeds, drinking water and eating utensils.

Triple rinse the empty container: Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.

RELEVANT SUBSTANCES:

Substance name (IUPAC/EC)	CAS –No.	Concentration % by weight	Classification
	EC-No.		EC1272/2008
Ethylene glycol	107-21-1	1-10%	

Manager 435 SC GHS Approved

	203-473-3		Acute toxicity oral (Category 4) H302.
Maneb tech	12427-38-2	30-40%	Skin sensitization (Category 1) H317. Eye irritation (Category 2) H319. Acute toxicity inhalation (Category 4) H332. Reproductive toxicity (Category 2) H361d. Aquatic acute 1 H400. Aquatic chronic 1 H410. M=10
	235-654-8		

NOTE: The other ingredients not included above, do not cause or contribute towards the correct GHS classification of **MANAGER 435 SC** and are therefore, in terms of the South African Regulations for Hazardous Chemical Agents - 2021; Regulation 14(b), not listed.

FIRST AID:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation occurs.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

In case of ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.

MODE OF ACTION:

Maneb is a non-specific thiol reactant, that inhibit respiration.

RESISTANCE WARNING:

For resistance management, **MANAGER 435 SC** is a group code M3 fungicide. Any fungus population may contain individuals naturally resistant to **MANAGER 435 SC** and other group code M3 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **MANAGER 435 SC** or any other group code M3 fungicides.

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.
- 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:

MANAGER 435 SC is compatible with most fungicides and insecticides but should not be used with alkaline products such as Lime sulphur or Bordeaux Mixture.

MIXING INSTRUCTIONS:

Mix the recommended quantity with a little water to form a thick cream. Add to the bulk of the water and stir well.

HIGH VOLUME APPLICATION:

If the dosage per 100 l water recommended is followed, ensure that total coverage of plants but without run-off is achieved.

SPRAY INTERVALS:

Rain is the main reason for depletion of fungicide deposits on plant surfaces. Intervals between applications as indicated on this label only serve as a guideline and should be adjusted according to the prevalent climatic conditions. Heavy rainfall before the spray deposit has dried completely will remove most of the fungicide. The residual effect will then be much shorter. Once the fungicide spray deposit has dried, rainfall thereafter will have less effect. Generally, the closer the rainfall after the application the shorter the effect of the fungicide residue. Adjust your spraying intervals accordingly.

FUNGICIDAL DEPOSITS:

In tree crops where fruit need to be protected by non-systemic fungicides such as **MANAGER 435 SC**, the foliage acts as a very important reservoir for fungicide which is slowly released during precipitation and is redistributed to the fruit. It is therefore of great importance to cover both foliage and fruit in the crops where the target disease is on the fruit, e.g. black spot in citrus.

AERIAL APPLICATION: (POTATOES ONLY)

Aerial application may only be done by a registered aerial application operator using a correctly calibrated, registered 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 a conventional boom equipped with hollow cone spray nozzles, e.g. D10-45 that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product through drift.

The operator must use a setup that will produce a droplet spectrum with the lowest possible relative span.

All nozzles / 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 spray mixture per hectare 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 this product is applied aerially at a lower volume rate than recommended above.

A droplet coverage of 50 - 70 droplets per cm² must be recovered at the target.

A droplet spectrum with a VMD (Volume Median Diameter) of 250 microns is recommended. Ensure that the production of fine droplets (smaller than 150 microns) is restricted to a minimum.

The height of the spray boom should be maintained at 3-4 metres above the target. Do not spray when aircraft is in a climb, at the top or during a dive, or when banking.

Apply before the crop becomes too dense, thus preventing proper coverage of the plants.

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 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).

Do not spray if the wind speed exceeds 15 km/h.

- Stop spraying under turbulent, unstable and dry conditions during the heat of the day.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following:
 - reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
 - damage to other sensitive crops and/or non-target areas through drifting of the suspended

spray cloud away from the target field.

General:

Ensure that fields are accurately marked and that the aerial spray operator knows exactly which fields to spray.

Obtain an assurance from the aerial spray operator that the above requirements

APPLICATION TABLE:

CROP / DISEASE	DOSAGE / 100 ℓ WATER OR AS INDICATED	REMARKS
POTATOES Late blight (<i>Phytophthora infestans</i>) Early blight (<i>Alternaria solani</i>)	320 mℓ (0,64 – 3,2 ℓ per ha)	Apply high volume using 200 - 1 000 ℓ spray mixture per ha and ensure good coverage of entire plant above ground growth. Repeat application at intervals of 7 to 14 days and use the higher dosage and volume at shorter intervals under favourable disease conditions and especially after bloom when plants are more susceptible to early blight and a larger plant surface must be protected. Late blight only: Under conditions which are extremely favourable for late blight development, MANAGER 435 SC must be alternated with a systemic/eradicate fungicide containing Metalaxyl i.e. (Mancolax 700 WP Reg. No. L7382, Act No. 36 of 1947) , Cymoxanil or Oxadixyl. <u>Aerial Application:</u> Apply in not less than 30 ℓ water per ha.
TOMATOES Late blight (<i>Phytophthora infestans</i>), Early blight (<i>Alternaria solani</i>), Septoria leaf spot (<i>Septoria lycopersici</i>)	320 mℓ (0,64 – 6.4 ℓ per ha)	For the control of early and late blight and <i>Septoria</i> leaf spot, commence with application after plants are established and apply preventatively at intervals of 5 to 10 days depending on weather conditions which may favour the disease and decrease the fungicidal activity. Apply 200 to 2 000 ℓ spray mixture per hectare depending on plant size. For the control of early blight, thorough coverage of foliage is necessary. For low volume application, concentration of fungicide in the spray mixture should be increased proportionately. Do not use on tomato seedbeds.
GROUNDNUTS Early <i>Cercospora</i> leaf spot (<i>Cercospora arachidicola</i>), Late <i>Cercospora</i> leaf spot (<i>Cercospora personata</i>), Web blotch (<i>Phoma arachidicola</i>), Rust (<i>Puccinia arachidis</i>)	3 ℓ/ha	Commence with program when the first symptoms appear from middle to end of December and repeat application at intervals of 7 to 14 days depending on infection pressure and weather conditions which decrease the fungicidal activity. Apply in sufficient volume of water to obtain full coverage of all leaves. During early growth stages under dryland conditions, the spray may be directed over the rows.
BEANS (Dry and green) Rust (<i>Uromyces appendiculatus</i>)	320 mℓ (0.64 – 1.6 ℓ/ha)	Preventative treatment: Apply when the first symptoms appear and repeat at intervals of 7 to 14 days depending on conditions, which may favour the disease. Apply, depending on plant size, 200 to 500 ℓ spray mixture per ha and ensure thorough coverage of all leaves.

ONIONS Downy mildew (<i>Peronospora destructor</i>)	480 mℓ	Apply once or twice per week up to 1 000 ℓ spray mixture per ha when weather favours the disease. Make use of a suitable registered wetting agent and ensure thorough coverage of the leaves.
CITRUS Black spot (<i>Guignardia citricarpa</i>)	200 mℓ	Apply 4 to 5 sprays at intervals of 21 to 28 days. Apply the first spray at 100% petal drop. Intervals must be adjusted according to rainfall using shorter intervals when frequent rain has occurred since last application. Also use a tank mix with eradicative Benzimidazole fungicides to slow down development of resistance. Will also control rust mite. WARNING: When applying medium narrow range mineral oil in combination with MANAGER 435 SC , do not exceed an oil concentration of 0.5 %.
APPLES AND PEARS Scab (<i>Venturia inaequalis</i>) and <i>Septoria</i> Leaf spot	HV 150 mℓ (3.0 – 4,5 ℓ / ha)	May be applied as both pre and post-blossom sprays. Pre Blossoming: Apply 3 times, the first application when the trees have reached green tip stage and the last application prior to blossoming. Post Blossoming: Apply immediately after blossoming and repeat 4 – 6 times at intervals of 7 to 14 days. Note: The spray volume required per ha for HV or LV application at the specific growth stage should be determined according to the tree row volume method of Unrath (Deciduous Fruit Grower Nov. 1986). The dosage rate per hectare for HV/LV applications are then determined by the spray volume that has been calculated for HV applications.
GRAPEVINES Downy mildew (<i>Plasmopara viticola</i>)	Pre Blossoming 200 mℓ (1.0 – 1.5 ℓ / ha) Blossoming to 80 % Calyx fall 200 mℓ (1.5 – 2.0 ℓ / ha) Post Blossoming: 200 mℓ (2.0 – 3.0 ℓ / ha)	Apply the first spray when young shoots have reached a length of 10 cm. Further applications, depending on the weather conditions, should be applied at 7 to 10 day intervals. During this period a spray volume of not less than 500 – 750 ℓ (high dosage) spray mixture / ha should be applied. Application necessary only if the blossoming period exceeds 14 days. Apply 750 – 1 000 ℓ spray mixture / ha. Apply 2 more applications with 7 to 14 day intervals depending on weather conditions at a dosage rate of 1 000 – 1 500 ℓ spray mixture / ha.

Dead arm (<i>Phomopsis viticola</i>)	200 ml / ha (1.0 – 1.5 l / ha)	Apply the first application when the shoot lengths have reached a height of 0.5 to 1 cm. Apply 3 times with intervals of 7 to 10 days prior to blossoming. Use a minimum of 500 to 750 l spray mixture / ha (high volume).
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MANCOLAX 700 WP is the registered tradename of Nulandis® (A division of AECI Ltd.)

CROP / DISEASE	DOSAGE / 100 ℓ WATER OR AS INDICATED	REMARKS
POTATOES Late blight (<i>Phytophthora infestans</i>) Early blight (<i>Alternaria solani</i>)	320 mℓ (0,64 – 3,2 ℓ per ha)	Apply high volume in 200-1000 ℓ water per ha and ensure good coverage of entire plant above ground. Repeat application at intervals of 7 to 14 days and use the higher dosage and volume at shorter intervals under favourable disease conditions and especially after bloom when plants are more susceptible to early blight and a larger plant surface must be protected. Can also be aerially applied in not less than 30ℓ water per ha. Under conditions which are extremely favourable for late blight development, Manager must be alternated with a systematic/eradicator fungicide containing Metalaxyl (Mancolax) or Oxadixyl
TOMATOES Late blight (<i>Phytophthora infestans</i>), Early blight (<i>Alternaria solani</i>), Septoria leafspot (<i>Septoria lycopersici</i>)	320 mℓ	For the control of early and late blight and Septoria leafspot, commence with application after plants are established and apply preventively at intervals of 5 to 10 days depending on weather conditions which may favour the disease and decrease the fungicidal activity. Apply 200 to 2000 ℓ spray mixture per hectare depending on plant size. For the control of early blight, thorough coverage of foliage is necessary. For low volume application, concentration of fungicide in the spray mixture should be increased proportionately. Do not use on tomato seedbeds.
GROUNDNUTS Early Cercospora leafspot (<i>Cercospora arachidicola</i>), Late Cercospora leafspot (<i>Cercospora personata</i>), Web blotch (<i>Phoma arachidicola</i>), Rust (<i>Puccinia arachidis</i>)	3 ℓ/ha	Commence with program when first symptoms appear from middle to end of December and repeat application at intervals of 7 to 14 days depending on infection pressure and weather conditions which decrease the fungicidal activity. Apply in a sufficient volume of water to obtain full coverage of all leaves. During early growth stages under dryland conditions, the spray may be directed over the rows.
BEANS (Dry and green) Rust (<i>Uromyces appendiculatus</i>)	320 mℓ	Preventive treatment: Apply when first symptoms appear and repeat at intervals of 7 to 14 days depending on conditions, which may favour the disease. Apply, depending on plant size, 200 to 500 ℓ spray mixture per ha and ensure a thorough coverage of all leaves.
ONIONS Downy Mildew (<i>Peronospora destructor</i>)	480 mℓ	Apply once or twice per week up to 1000 ℓ spray mixture per ha when weather favours the disease. Make use of a suitable wetting agent and ensure thorough coverage of leaves.

CROP / DISEASE	DOSAGE / 100 ℓ WATER OR AS INDICATED	REMARKS
CITRUS Black spot (<i>Guignardia citricarpa</i>)	200 mℓ	Apply 4 to 5 sprays at intervals of 25 to 28 days. Apply the first spray at 100% petal drop. Intervals must be adjusted according to rainfall using shorter intervals when frequent rain has occurred since last spray. Also use a tank mix with eradicative Benzimidazole fungicides (e.g. Tops-Flo) to slow down development of resistance. Will also control rust mite. WARNING: When applying medium narrow range mineral oil in combination with Manager, do not exceed an oil concentration of 0.5 %.
APPLES AND PEARS Scab (<i>Venturia inaequalis</i>) and Septoria Leaf blight	HV 150 mℓ (3 – 4,5 ℓ / ha)	Can be sprayed pre and post blossoming. Pre Blossoming: Apply 3 times, the first application at green tip stage and the last application prior to blossoming. Post Blossoming: Apply immediately after blossoming and repeat 4 – 6 times at intervals of 7 – 14 days. Note: The spray volume required per ha for HV or LV application at the specific growth stage should be determined according to the tree row volume method of Unrath (Deciduous Fruit Grower Nov. 1986). The dosage rate per hectare for HV/LV applications are then determined by the spray volume that has been calculated for HV applications.
GRAPE VINES Downey Mildew (<i>Plasmopara viticola</i>)	Pre Blossoming 200 mℓ (1 – 1.5 ℓ / ha)	The first application should be applied at 10 cm shoot length. Further applications, depending on the weather conditions, should be applied at 7 – 10 day intervals. During this period a spray volume of not less than 500 – 750 ℓ (high dosage) spray mixture / ha should be applied.
	Blossoming to 80 % calyx fall 200 mℓ (1.5 – 2 ℓ / ha)	Application necessary only if the flowering period exceeds 14 days. Apply 750 – 1000 ℓ spray mixture / ha.
	Post Blossoming: 200 mℓ (2 – 3 ℓ / ha)	Apply 2 or more applications with 7-14 days intervals depending on weather conditions at a dosage of 1000 – 1500 ℓ spray mixture / ha.
Dead arm (<i>Phomopsis viticola</i>)	200 mℓ / ha (1 – 1.5 ℓ / ha)	Apply first application when the shoot lengths are 0.5 to 1cm. Apply 3 times with intervals of 7 – 10 days prior to blossoming. Apply a dosage of 500 – 700 ℓ spray mixture / ha (high volume).

MANAGER® SC

Reg. No. L3538 Act / Wet 36 / 1947

Botswana Reg. No. W130568, Act No. 18 of 1999

WAARSKUWINGS:

ONTHOUDINGSPERIODES - MINIMUM TYD WAT MOET VERSTRYK TUSSEN DIE LAASTE TOEDIENING EN OES OF VOER/BEWEIDING.

Tamaties.....	3
dae Grondbone.....	21 dae
(Hooi) Bone en Aartappels.....	
3 dae	
Sitrus.....	14 dae
Appels en Pere.....	14 dae
Wingerd.....	4 – 6
weke	

Kan oë, neus, keel en vel moontlik irriteer. Kan skadelik wees wanneer ingesluk of ingeasem word. Giftig vir vis. Bêre in 'n koel plek. Bêre weg van voedsel en voer. Hou buite bereik van kinders, oningeligte persone en diere.

Lugtoediening:

Stel alle inwoners in die onmiddellike gebied wat bespuit gaan word in kennis en reik die nodige waarskuwings uit. Moet nie oor omliggende gebiede of water spuit nie of toelaat dat spuitmis daarheen waai nie.

Moet nie behandelde gebied betree alvorens die spuitneerslag droog is nie, tensy beskermende oorklere gedra word.

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 'n gebrek aan prestasie van die betrokke middel as gevolg 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.

VOORSORGMAATREËLS:

1. Moet nie dampe of sproeinewel inasem nie. Dra rubber handskoene en stewels en 'n gesigskerm wanneer spuitmengsel voorberei word.
2. Was besoedelde klere daaglik.
3. Was met seep en water na gebruik of toevallige kontak met die vel.
4. In die geval van kontak met oë, spoel uit vir ten minste 15 minute. As irritasie aanhou, verkry mediese behandeling.
5. Gebruik alleenlik in goed belugte gebiede.
6. Vermoedlik van sproeinewel na ander gewasse, weidings, riviere, damme en gebiede nie onder behandeling nie.
7. Maak spuitapparaat deeglik skoon voordat dit vir ander middels gebruik word en raak ontslae van die spoelwater waar dit nie gewasse, weidings, riviere en damme sal besoedel nie.
8. Spoel leë houer driekeer uit met 'n volume water gelykstaande aan 'n minimum van 10% van die houer. Gooi die spoelwater by die inhoud van die spuittenk. Vernietig leë houer en raak ontslae daarvan op 'n veilige manier. Moet nooit vir enige ander doel gebruik nie.
9. Vermoedlik van voedsel, voer, drinkwater en eetgerei.

RELEVANTE STOWWE:

Substance name (IUPAC/EC)	CAS –No.	Concentration % by weight	Classification
	EC-No.		EC1272/2008
Ethylene glycol	107-21-1	1-10%	Acute toxicity oral (Category 4) H302.
	203-473-3		
Maneb tech	12427-38-2	30-40%	Skin sensitization (Category 1) H317. Eye irritation (Category 2) H319. Acute toxicity inhalation (Category 4) H332. Reproductive toxicity (Category 2) H361d. Aquatic acute 1 H400. Aquatic chronic 1 H410. M=10
	235-654-8		

NOTA: Die ander bestanddele wat nie hierbo gelys is nie, veroorsaak of dra nie by tot die korrekte GHS klassifikasie van **MANAGER@SC** nie en is daarom, in terme van die Suid-Afrikaanse Regulasies vir “Hazardous Chemical Agents” 2021; Regulasie 14(b) nie gelys nie.

GEBRUIKSAANWYSINGS: Gebruik slegs soos aangedui.

1. Verenigbaarheid:

Verenigbaar met meeste swamdoders en insekdoders maar moet nie met alkaliese produkte soos kalkswawel of Bordeaux mengsel gebruik word nie.

2. Menginstruksies:

Meng die aanbevole hoeveelheid met 'n bietjie water om 'n dik room te vorm. Voeg by die res van die water in die spuittenk by en roer deeglik.

3. Hoë volume toediening:

Indien die dosis per 100 ℓ water aanbeveling gevolg word, moet plante heeltemal bedek word sonder afloop.

LUGTOEDIENING: SLEGS AARTAPPELS

U MANAGER VERTEENWOORDIGER MOET GERAADPLEEG WORD VOOR LUG-BESPUITING BEGIN WORD.

Lugtoediening van hierdie produk mag slegs deur 'n geregistreerde toediener toegedien word, wat 'n korrek gekalibreerde, geregistreerde vliegtuig het volgens die instruksies van SANS Kode 10118 (Lugtoediening van Landboumiddels). Dit is belangrik dat die spuitstof egalig oor die teikengebied versprei word en die verlies aan spuitmiddel tydens toediening tot 'n minimum beperk word. Ten einde hieraan te voldoen, moet die volgende vereistes nagekom word.

a) Toediening parameters:

- Volume: 'n Minimum spuitvolume van 30 – 35 ℓ / ha word aanbeveel. Omdat hierdie produk nie teen 'n verlaagde dosis ge-evalueer was nie, kan die registrasie houder nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige ongunstige toestande indien hierdie produk teen 'n laer dosis, as aanbeveel hierbo, per lug toegedien word.
- Druppelverspreiding: 'n Druppelverspreiding van 30 – 45 druppels / cm² moet op die teikengebied herwin word.

- Druppelgrootte: 'n Druppelspektrum met 'n VMD van 250 mikron word aanbeveel. Verseker dat die produksie van fyn druppels (minder as 150 mikron – hoë dryf en verdamping potensiaal) tot 'n minimum beperk word.
- Vlieghoogte: Die hoogte van die spuitstukke moet teen 'n hoogte van 3 – 4 meters bo die teiken area gehandhaaf word. Moenie spuit wanneer die vliegtuig besig is om te klim, tydens toppunt, gedurende 'n duik of tydens landing.

b) Toerusting:

Gebruik geskikte atomiseer toerusting (hidroliese spuitneuse of rotasie atomiseerders) wat geskikte druppelgrootte en bedekking sal produseer en terselfdetyd die minimum verlies van die spuitmiddel deur of “endodrift” (binne teiken gebied) of “exodrift” (buite teiken gebied) sal waarborg. Die spuitoperateur moet toerusting gebruik wat 'n druppelspektrum met die laagste moontlike relatiewe span sal produseer.

Alle spuitneuse / atomiseerders moet binne die binne 60 – 75 % van die vliegtuig se vlerkspan geplaas wees sodat druppels nie in die maalstroom van die vlerkpunt beland nie. Gebruik slegs 'n konvensionele spuitbalk wat toegerus is met holkeelspuitpunte, bv, D10-45.

c) Weerkundige toestande:

Die verskil tussen die nat-en droëbollesing, soos met 'n swaaihigrometer bepaal, moet nie 8°C oorskry nie. Die byvoeging van 'n geskikte anti-verdampingsmiddel word aanbeveel indien die VMD van die druppelspektrum minder as 200 – 250 mikron is.

Staak toediening as die windsnelheid meer as 15km / h is.

Lugtoediening van hierdie produk moet nie tydens onstuimige, onstabiele toestande gedurende die hitte van die dag wanneer stygende temperature en valstome voorkom toegedien word nie.

Neem kennis dat lugtoediening van hierdie produk onder temperatuur inversie toestande (bespuiting tydens of bo die inversie laag) aanleiding kan gee tot die volgende:

- Verlaagde effektiwiteit as gevolg van die suspensie en verdamping van klein druppels in die lug (onvoldoende bedekking).
- Skade aan ander sensitiewe gewasse en / of nie teiken gebiede deur die beweging van die suspensie spuitdampe weg vanaf die teikengebied.

Verseker dat die Lugbespuitingsoperateur presies weet watter lande bespuit moet word.

- Dit is noodsaaklik om 'n versekering van die Lugbespuitingsoperateur te verkry data an al die bogenoemde vereistes voldoen sal word en dat data van belang in 'n logboek saamgevat is vir toekomstige verwysing.

GEWAS/SIEKTE	DOSIS / 100 ℓ WATER OF SOOS AANGEHOON	OPMERKINGS
AARTAPPELS Laatroes (<i>Phytophthora infestans</i>) Vroeëroes (<i>Alternaria solani</i>)	320 mℓ (0,64 – 3,2 ℓ per ha)	Dien hoër volume toe in 200-1000 ℓ water per ha en verseker 'n goeie bedekking van bogrondse groei. Herhaal die bespuiting met tussenposes van 7 tot 14 dae en gebruik die hoër dosis en die hoër volume water met korter intervale onder gunstige siekte toestande en veral gedurende die nablomstadium wanneer plante meer vatbaar is vir vroeë roes en 'n groter plantoppervlakte beskerm moet word. Kan ook uit die lug toegedien word in nie minder as 30ℓ water per ha nie. Onder toestande wat uiters gunstig is vir laatroes moet Manager afgewissel word met sistematiese / uitwissende swamdoders, bv. wat Metalaksil (Mancolax) of Oksadiksiel bevat.
TAMATIES Laatroes (<i>Phytophthora infestans</i>), Vroeëroes (<i>Alternaria solani</i>), Septoria-blaarvlek (<i>Septoria lycopersici</i>)	320 mℓ	Vir die beheer van vroeë- en laatroes en Septoria-blaarvlek begin met toediening nadat plante gevestig is en dien voorkomend toe met tussenposes van 5 tot 10 dae afhangende van die siektedruk en weerstoestande wat die siekte mag begunstig en die swamdoder residue verweer. Dien 200 to 2000 ℓ spuitmengsel per ha toe afhangende van plantegrootte. Vir die beheer van vroeëroes is goeie bedekking van die blare noodsaaklik. Vir lae volume bespuiting moet die swamdoderkonsentrasie in die spuitmengsel proporsioneel verhoog word. Moet nie op tamatiesaadbeddings gebruik nie
GRONDBOONTJIES Vroeë Cercospora blaarvlek (<i>Cercospora arachidicola</i>), Laat Cercospora blaarvlek (<i>Cercospora personata</i>), Spatseel-vlek (<i>Phoma arachidicola</i>), Bruinroes (<i>Puccinia arachidis</i>)	3 ℓ / ha	Begin program met eerste tekens van die siektes teen middel tot einde Desember en herhaal met tussenposes van 7 tot 14 dae afhangende van siektedruk en weerstoestande wat swamdoder residue mag verweer. Dien toe in 'n voldoende volume water om volle bedekking van die blare te verkry. In die vroeë groeistadia onder droëland toestande kan die spuitmengsel oor die rye gerig word.
BONE (Groen en droë) Bruinroes (<i>Uromyces appendiculatus</i>)	320 mℓ	Voorkomende behandeling: Dien toe met eerste simptome en herhaal met tussenposes van 7 tot 14 dae afhangende van toestande wat die siekte mag bevorder. Dien afhangende van plantgrootte 200 to 500 ℓ spuitmengsel per ha toe en verkry 'n goeie bedekking van al die blare.

GEWAS/SIEKTE	DOSIS / 100 ℓ WATER OF SOOS AANGETOON	OPMERKINGS
UIE Donsige skimmel (<i>Peronospora destructor</i>)	480 ml	Dien een- of tweemaal per week toe tot soveel as 1000 ℓ spuitmengsel per ha solank weerstoestande die siekte begunstig. Maak gebruik van 'n geskikte benattingsmiddel en sorg dat die blare deeglik bedek word.
SITRUS Swartvlek (<i>Guignardia citricarpa</i>)	200 ml	Dien 4 tot 5 bespuitings toe met tussenposes van 25 tot 28 dae. Dien die eerste bespuiting toe by 100% blomblaarval. Tussenposes moet aangepas word volgens reënval deur met korter tussenposes te spuit as herhaalde reën na vorige bespuiting voorkom. Gebruik ook as 'n tenkmengsel met uitwissende Bensimidazool swamdoder (bv. Tops-Flo Reg. Nr. L5103) om die ontwikkeling van weestand te vertraag. Sal ook roesmyt beheer. WAARSKUWING: Wanneer 'n medium bestek mineraal olie in kombinasie met Manager gebruik word, moet 'n olie konsentrasie van 0.5 % nie oorskry word nie.
APPELS EN PERE Skurfsiekte (<i>Venturia inaequalis</i>) en Septoria blaarvlek	HV 150 ml (3 – 4.5 ℓ / ha)	Kan as voor- en nablombespuitings toegedien word. Voorblom: Dien 3 maal toe, met die eerste bespuiting wanneer die bome die groenpunt stadium bereik en die laaste bespuiting net voor blom. Na blom: Spuit onmiddelik na blom en herhaal 4-6 keer met tussenposes van 7 – 14 dae. Nota: Die spuitvolume benodig per hektaar vir HV of LV toediening op 'n spesifieke groeistadium behoort akkuraat volgens die boomryvolume metode van Unrath (Sagte Vrugte Boer Nov. 1986) bepaal te word. Die dosis / ha vir HV/LV word dan bepaal volgens die spuitvolume/ha wat vir HV toediening bereken is.
WINGERD Donsige skimmel (<i>Plasmopara viticola</i>)	Voorblomtyd: 200 ml (1 – 1.5 ℓ/ha) Blomtyd tot 80 % kappiesval: 200 ml (1.5 – 2 ℓ / ha) Nablomtyd: 200 ml (2 – 3 ℓ / ha)	Dien die eerste bespuiting toe wanneer die jong lote 'n lengte van 10 cm bereik het. Verdere bespuitings, afhangede van weerstoestande, moet met tussenposes van 7 – 10 dae toegedien word. Gedurende hierdie periode moet 500 – 750ℓ (hoë volume) spuitmengsel / ha gebruik word. Toedienings alleen nodig as die blomperiode langer as 14 dae is. Dien 750 – 1000 ℓ spuitmengsel / ha toe.
Streepvleksiekte (<i>Phomopsis viticola</i>)	200 ml /ha (1 – 1.5 ℓ / ha)	Dien die eerste bespuiting toe wanneer lote 'n lengte van 0,5 tot 1 cm bereik het. Dien 3 maal toe met tussenposes van 7 – 10 dae voor blomtyd. Gebruik 500 – 700 ℓ spuitmengsel/ha (hoë volume).

