

For full particulars see enclosed leaflet / Vir volledige inligting sien ingeslote voubiljet

Sporekill®

AGRICULTURAL DISINFECTANT / PLANT SANITISER
LANDBOUKUNDIGE ONTSMETTINGS-MIDDEL / PLANTSANITEERDER

Reg No: ACT29GNR 529/27555/070/210

ACTIVE INGREDIENT:

Didecyldimethylammonium chloride
(Patented product)

120 g/l

AKTIEWE BESTANDDEEL:

Didesieldimetielammonium chloried
(Gepatenteerde produk)

Registration Holder / Registrasiehouer

Batch No: SEE
Date of Manufacture: CONTAINER



Net Volume
SEE
CONTAINER l

ICA International Chemicals (Pty) Ltd
Reg. No. 2001/013319/07
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CAUTION
VERSIGTIG



SPOREKILL®

Reg. No: ACT29GNR529/27555/070/210
(Patented product)

AGRICULTURAL DISINFECTANT/ PLANT SANITISER

A contact active liquid agricultural disinfectant / plant sanitiser, active against pathogenic micro-organisms / bacteria.

ACTIVE INGREDIENT:

Didecyldimethylammonium Chloride 120 g/l
(Quaternary ammonium compound)

REGISTERED BY:

ICA International Chemicals (Pty) Ltd.

Reg. No.: 2001/013319/07

PO Box 2312 ♦ STELLENBOSCH ♦ 7601 ♦ South Africa

GENERAL INFORMATION

Export of Treated Produce:

The South African Disinfectant registration of Sporekill is according to the relevant local legislation. However, if any edible crop to be treated is intended for **export**, consult beforehand the relevant importer or exporter of the **destination** country for more information about the use of this product and maximum residue limits (MRL).

- ▶ **Sporekill** is stable, effective, not pH dependable and can therefore be used in fertigated irrigation water.
- ▶ **Sporekill** stays active as long as it is in solution.
- ▶ A **Sporekill** Test Kit is available to measure the active **Sporekill** in vegetable and fruit dipping tanks.
- ▶ **Sporekill** has wetting characteristics.

GENERAL INSTRUCTIONS

- ▶ **Sporekill** is not compatible with concentrated anionic compounds.
- ▶ **Sporekill** is **not** recommended to be used in irrigation water in circulating hydroponic systems **where no organic growing medium is present**.
- ▶ The disinfectant **Sporekill** can be applied as a plant sanitiser to reduce the overall pathogenic load on the foliage without leaving any residual activity. When **Sporekill** is used as a foliage spray to sanitise plant surfaces, apply at a rate of 500 – 1500 l spray mixture per hectare, depending on plant size. (Higher volumes per hectare are necessary for tree crops.) Ensure that both upper and lower leaf surfaces are treated. IMPORTANT: **Sporekill** should be incorporated into a normal fungicidal programme for adequate disease control.
- ▶ IMPORTANT: Although numerous phytotoxicity trials were done it is impossible to verify the sensitivity of all the different crop varieties to **Sporekill**. It is therefore recommended to first test known agrochemical sensitive varieties before use on big scale.
- ▶ **Sporekill** can be used in post-harvest dump tanks to assist in post-harvest decay management by killing pathogens in drenches and dump tanks as well as on fruit surfaces. IMPORTANT: **Sporekill** leaves no residual activity. For effective disease control registered fungicides must still be used. **Fruit and vegetables must not be left in dump tank during any disruption of production. This could result in serious burning of sensitive fruit.**
- ▶ **Do not use Sporekill in hot water** fungicide dipping tanks. This may result in serious burning of sensitive fruit.
- ▶ Shake before use.

WARNINGS

- ▶ Harmful by inhalation, DO NOT inhale spray.
- ▶ Harmful if swallowed, DO NOT drink the product.
- ▶ The undiluted product may cause serious skin irritation, prevent contact with skin.
- ▶ Risk of serious damage to eyes (corrosive to the eye), prevent contact with eyes.
- ▶ Toxic to fish and other aquatic organisms.
- ▶ Keep out of reach of children, uninformed persons and animals.
- ▶ Store in a cool, dry place away from food, feed and drinking water.

Re-entry interval: Do not enter treated area/field until spray deposit has settled down/dried unless wearing protective clothing and self-contained breathing apparatus.

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 against the remedy concerned as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal for lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS

- ▶ Prevent inhalation where spray or mist is generated. In case of insufficient ventilation, wear suitable respiratory equipment. **IF INHALED:** If breathing is difficult, remove person to fresh air and keep at rest in a comfortable position. Persons with respiratory conditions must avoid areas while spraying is administered.
- ▶ Prevent skin contact when handling the **undiluted product**, wear rubber gloves. **IF ON SKIN:** Gently wash skin with plenty of water and soap.
- ▶ Prevent contact with eyes; wear chemical splash goggles or safety glasses. **IF IN** contact with eyes, rinse immediately with plenty of water for 15 minutes and seek medical advice.
- ▶ If swallowed, do not induce vomiting: Seek medical advice immediately and show the label or MSDS.
- ▶ Avoid spray drift onto rivers, dams or areas not under treatment.
- ▶ Clean applicator thoroughly after use and dispose of wash water where it will not contaminate crops, grazing, rivers or dams.
- ▶ **EMPTY CONTAINERS:** Invert empty container over mix or spray tank and allow draining for at least 30 seconds until flow has slowed to a drip. Triple rinse the empty container with clean water equal to a minimum of 30 % of the volume of the container. Add rinsing to the contents of the spray tank. Offer container for recycling or puncture and dispose of at authorised landfill. Do not use container for any other purpose.

DIRECTIONS FOR USE

USE ONLY AS DIRECTED

DISINFECTING or SANITISING OF:	DOSAGE PER 100 l WATER	REMARKS
DIPPING TANKS (cold water): Treat the water during post-harvest dipping as well as fruit and vegetable surfaces: Apple, Asparagus, Avocado, Broccoli, Brussels, Butternut, Cauliflower, Citrus, Guava, Leeks, Mango, Melon, Pear, Pepper, Persimmon, Potato, Pumpkin, Sweet corn, Sweet potato, Tomato.	100 – 150 ml	Dip for 2 – 5 minutes. When foaming under heavy agitation (e.g. hydrocoolers) occur, use a defoaming product e.g., Foam Fighter. Replace the Sporekill solution as soon as it gets too dirty. Keep Sporekill concentration at recommended rate by using " Sporekill Test Kit". Also refer to "General Instructions".
Cherries:	25 ml	Dip for a maximum of 4 minutes.
Macadamia nuts (in-shell):	300 ml	Dip and keep Sporekill concentration at recommended rate by using " Sporekill Test Kit".
Carrot:	50 ml	Spray application on packing line. (Maximum application time is 2 minutes.)
Post harvest dipping of Flower Bulbs for storage.	100 – 150 ml	Use as an initial knock-out action together with a fungicide for prolonged action.
Water in Greenhouse wet-walls	10 ml (continuous dosing)	<u>First time application</u> to disinfect wet-walls, give a shock treatment of 100 – 200 ml per 100 l water. Thereafter continue with dosage as recommended.
Growing medium (inert- or non-organic), equipment such as pruning shears, ploughs, hands, footbaths, etc	1000 ml	Make sure that all surfaces are exposed to the Sporekill solution.
Cold rooms and packing sheds. Greenhouses, seedtrays, other hard surfaces like picking bins, etc.	100 – 200 ml	Firstly remove all organic matter from surfaces. For best results, keep wet with Sporekill solution for at least 10 minutes.
Water in spray tanks:	10 ml	For optimum results to dramatically reduce bacterial, including coliforms e.g. <i>E. coli</i> , and fungal counts in the water, allow 20 minutes Sporekill exposure time.
Irrigation water for use in nurseries, greenhouses, misting systems, etc.	2 ml (continuous dosing)	Rinse irrigation pipes frequently when dosing for the first few times. The dirt/algae/organic matter will be discharged and may clog the drippers or spitters. Sporekill can be used in fertigated water. <u>Take note:</u> The cleaner the water to be treated, the better the results.
Water for post-harvest treatment of cut flowers in containers.	150 ml	The solution can be used 7 – 10 days if it is kept clean. Do not keep cut flowers in solution for longer than 72 hours.
Applied as an overhead foliar spray on the following crops:		Also refer to "General Instructions"
Asparagus, Beans (dry & green), Brassicas, Carrots, Cereals, Celery, Cucurbits, Leeks, Lettuce, Onion, Paprika, Peas, Peppers, Potatoes, Spinach, Strawberries, Tomatoes.	50 – 100 ml	First application after transplant of seedlings or 6 weeks after seeding. Apply at 10 day intervals. An application of 100 ml per 100 l water prior to harvest, will also disinfect foliage of human pathogenic organisms, e.g. <i>E. coli</i> .
Cut flowers: Carnation, Chrysanthemum, Gypsophila, Outdoor Roses.	50 – 100 ml	First application after transplant of seedlings. Apply at 7 - 10 day intervals.
Greenhouse grown Roses:	50 ml	Apply at 7 - 10 day intervals.
Wine Grapes:	50 – 100 ml	First application when young shoots have reached length of 10 cm. Apply at 14 days intervals.
Table Grapes:	50 ml	First application after full bloom. Apply at 14 days intervals.
Deciduous fruit:	50 ml	Can be applied from before bud stage through growing season with 14 day intervals.
Citrus, Macadamia, Subtropical fruit orchards.	100 ml	Can be applied during any growing stage at 14 day intervals. For citrus, to decrease the overall post harvest decay pathogen load, apply a full cover spray up to 7 days before harvest.
Post-harvest orchard hygiene of Deciduous fruit, Citrus, Macadamia, Subtropical fruit, Table and Wine grapes.	100 ml	Apply after harvest to decrease orchard pathogen population as well as shortly before leaf drop to decrease the overwintering pathogen population. Apply at high spray volumes to ensure thorough wetting of foliage and stems.
Aerial application on crops such as Beans, Cereals and Potatoes.		Apply 500 – 750 ml Sporekill in 25 – 50 l water per hectare.
Centre pivot application on crops such as Beans, Cereals and Potatoes.		Apply 2 l Sporekill in 10 000 – 20 000 l water per hectare.
Seedling & Nursery stock:	25 ml	First application after first true leaf expansion. Apply at 7 day intervals.

SPOREKILL®

Reg. No: ACT29GNR529/27555/070/210
(Gepatenteerde produk)

LANDBOUKUNDIGE ONTSMETTINGSMIDDEL / PLANT SANITEERDER

’n Kontak dodende vloeibare landboukundige ontsmettingsmiddel en plantsaniteerder aktief teen patogeniese mikro-organismes / bakterieë.

AKTIEWE BESTANDEEL:

Didesieldimetielammonium chloried 120 g/ℓ
(Kwaternêre ammoniumverbinding)

GEREGISTREER DEUR:

ICA International Chemicals (Pty) Ltd.

Reg. No: 2001/013319/07

Posbus 2312 ♦ STELLENBOSCH ♦ 7601 ♦ Suid-Afrika

ALGEMENE INLIGTING

Uitvoer van behandelde gewasse:

Die Suid-Afrikaanse Ontsmettingsmiddel registrasie van Sporekill is volgens betrokke plaaslike wetgewing. Indien enige eetbare gewas wat behandel word vir **uitvoer** bestem is, raadpleeg vooraf met die betrokke invoerder of uitvoerder van die land van **bestemming** vir meer inligting oor die gebruik van hierdie produk en maksimum residu limiete (MRL).

- ▶ **Sporekill** se stabiliteit en werking is nie pH afhanklik nie en kan in kunsmis verrykte besproeiingswater gebruik word.
- ▶ **Sporekill** bly aktief solank dit in oplossing is.
- ▶ ’n **Sporekill** Test Kit is beskikbaar om die aanbeveelde konsentrasie deurlopend in vrugte- en groente-dompeltenke te bepaal.
- ▶ **Sporekill** beskik oor benutting eienskappe.

ALGEMENE INSTRUKSIES

- ▶ Moenie **Sporekill** saam met gekonsentreerde anioniese produkte gebruik nie.
- ▶ **Sporekill** word **nie** aanbeveel vir gebruik in besproeiingswater van geslote hidroponiese stelsels (sirkulasie van voedingswater) waar **geen organiese groeimedium** vir gewasse **teenwoordig is nie**.
- ▶ Die ontsmettingsmiddel, **Sporekill** kan as plantsaniteerder gebruik word om die plantpatogeniese populasie op plantoppervlaktes te verlaag, sonder enige residuele nawerking. Gebruik **Sporekill** as oorhoofse bespuiting om plantoppervlaktes te saniteer. Dien 500 – 1500 ℓ *sputmengsel* per hektaar toe - afhange van die plantgrootte. (Hoër volumes per hektaar is nodig vir boomgewasse.) Verseker deeglike bedekking van beide blaaroppervlaktes. **BELANGRIK:** Sluit **Sporekill** in by normale swamdoder spuitprogram vir effektiewe siekte beheer.
- ▶ **BELANGRIK:** Ten spyte van verskeie fitotoksiese proewe wat gedoen is, is dit onmoontlik om alle kultivars se sensitiwiteit teenoor **Sporekill** te evalueer. Dit word aanbeveel om kultivars bekend vir sensitiwiteit teenoor landbouchemikalieë eers te toets voordat produk grootskaals gebruik word.
- ▶ Die gebruik van **Sporekill** in na-oesbederf dompeldaddens dra by tot effektiewe siekte beheer deurdat na-oesbederf patogene in dompeldaddens en op vrugoppervlaktes gedood word tydens behandeling. **BELANGRIK:** **Sporekill** het geen residuele nawerking nie. Vir effektiewe siekte beheer moet geregistreerde swamdoders nog steeds gebruik word. **Moenie vrugte tydens enige onderbreking in dompeldad laat nie, dit kan vrugbrand op sensitiewe vrugte veroorsaak.**
- ▶ **Sporekill** *moenie in warmwater* swamdoder baddens gebruik word *nie, dit kan vrugbrand op sensitiewe vrugte veroorsaak.*
- ▶ Skud voor gebruik.

WAARSKUWINGS

- ▶ Skadelik indien ingeasem word, MOENIE spuitnewel inasem nie.
- ▶ Skadelik indien produk gesluk word, MOENIE die produk drink nie.
- ▶ Die **onverdunde produk** kan ernstige vel irritasie veroorsaak, voorkom kontak met vel.
- ▶ Risiko vir ernstige skade aan oë (korrosief vir die oog), voorkom kontak met oë.
- ▶ Giftig vir visse en ander waterorganismes.
- ▶ Hou buite bereik van kinders, oningeligte persone en diere.
- ▶ Berg in ’n koel, droë plek weg van voedsel, voer en drinkwater.

Herbetredingsinterval: Moet nie behandelde gebied binnegaan voordat die spuitnewel afgesak het en oppervlakte droog is nie tensy beskermende oorklere en gesigmasker gedra word.

VOORSORGMATREËLS

- ▶ Voorkom inaseming van sproei of missproei, dra ’n gesigmasker. **Indien inaseming plaasvind**, verwyder die persoon na vars lug en hou persoon rustig. Persone met long toestande moet areas vermy terwyl bespuitings toegedien word.
- ▶ Voorkom kontak met **onverdunde produk**, dra rubber handskoene. Indien in kontak met vel, was met water en seep.
- ▶ Voorkom kontak met oë, dra chemiese beskerming brille of gesigskerm. Indien in kontak met oë, spoel oog onmiddellik uit met lopende water vir 15 minute en kry onmiddellik mediese hulp.
- ▶ Indien produk gesluk word, moenie braking forseer nie, kry onmiddellik mediese hulp.
- ▶ Vermoed waai van spuitnewel na riviere of damme en areas wat nie onder behandeling is nie..
- ▶ Na gebruik, maak toediener deeglik skoon en gooi waswater waar dit nie gewasse, weiding, riviere of damme sal besoedel nie.
- ▶ LEË HOUERS: Sodra houer leeg is, keer om oor spuitenk of mengbak en dreineer vir minstens 30 sekondes totdat vloei tot gedrup verminder het. Spoel leë houer daarna driekeer uit met ’n volume water gelykstaande aan minstens 30 % van die houer. Gooi die spoelwater by die inhoud van die spuitenk voordat die houer vernietig word, deur gate daarin te maak. Bied houer aan vir hersirkulasie of neem na ’n amptelike vullis area. Moenie die houer vir enige ander doel gebruik nie.

GEBRUIKSAANWYSINGS

GEBRUIK SLEGS SOOS AANGEDUI

ONTSMETTING OF SANITERING VAN:	DOSIS PER 100 ℓ WATER	OPMERKINGS
DOMPELTENKE (koue water): Behandel water in dompeltenke tydens na-oes behandeling asook die volgende vrugte en groente-oppervlaktes: Aartappel, Appel, Aspersie, Avokado, Blomkool, Botterskorsie, Brokkoli, Brussels, Koejawel, Mango, Pampoen, Pere, Persimmon, Prei, Rolet korsie, Soetrissies, Sitrus, Soetpatat, Spanspek, Suikermielie en Tamatie.	100 – 150 mℓ	Doop vir 2 – 5 minute. Tydens hewige vermenging (bv. Verkoelingseenhede) vind skuimvorming plaas; gebruik anti-skuim produk bv, Foam Fighter om skuimvorming te verminder. Vervang Sporekill oplossing sodra dit te vuil is. Hou Sporekill konsentrasie soos aanbeveel deur gebruik te maak van “ Sporekill Test Kit”. Sien ook “Algemene Inligting”.
Kersies:	25 mℓ	Doop vir ’n maksimum van 4 minute.
Makadamia neutre (in dop):	300 mℓ	Doop en hou Sporekill konsentrasie soos aanbeveel deur gebruik te maak van “ Sporekill Test Kit”.
Wortels:	50 mℓ	Spuut toediening op paklyn. (Maksimum aanwending tyd is 2 minute.)
Na-oes doop van blombolle vir opberging.	100 – 150 mℓ	Gebruik as ’n “uitklop” aksie saam met ’n swamdoder vir verlengde nawerking.
Water in groeihuis “natmure”:	10 mℓ (konstante dosering)	Ontsmetting van natmure vir <u>eerste behandeling</u> : 100–200 mℓ per 100 ℓ water as skok-behandeling. Volg op met dosis soos aanbeveel.
Groeimedium (inert- of nie-organies), asook apparate bv. snoei-skêre, ploëë, hande, voetbaddens, ens.	1000 mℓ	Maak seker dat alle oppervlaktes blootgestel word aan die Sporekill oplossing.
Koelkamers, pakhuis, groeihuis, saailaai, en ander harde oppervlaktes soos plukkiste, ens.	100 – 200 mℓ	Verwyder eers alle organiese materiaal vanaf oppervlaktes. Hou dan nat met Sporekill oplossing vir ’n minimum van 10 minute vir beste resultate.
Water in spuitens:	10 mℓ	Vir optimale verlagings van totale bakterieë- en swamtellings in spuitwater, insluitende coliforms insluitende <i>E. coli</i> . Laat 20 minute blootstelling toe.
Besproeiingswater vir gebruik in kwekerie, groeihuis, misbesproeiing sisteme, ens.	2 mℓ (konstante dosering)	Spoel pype aanvanklik gereeld aangesien daar tydens dosering alge/organiese materiaal los kom wat verstopping kan veroorsaak in druppers en spitters. Sporekill kan in kunsmisverrykte water gebruik word. <u>Let wel:</u> Hoe skoner die water, hoe beter die resultate.
Water vir na-oesbehandeling van snyblomme in houters:	150 mℓ	Die oplossing kan gebruik word vir 7 – 10 dae indien dit skoon gehou word. Moenie sny blomme in oplossing hou vir langer as 72 uur nie.
Toediening as oorhoofse blaarbespuiting by die volgende gewasse:		Sien ook “Algemene Instruksies”
Aarbeie, Aartappel, Aspersie, Blaarslaai, Boon (droë en groen), Ertjies, Geelwortel, Grane, Koolgewasse, Pampoengewasse, Paprika, Prei, Rissie, Seldery, Spinasie, Tamatie en Ui.	50 – 100 mℓ	Begin toediening na uitplant van saailinge of 6 weke na saai. Dien toe met 10 dae intervalle. Ontsmet plantloof-oppervlaktes <u>voor oes</u> deur toediening van 100 mℓ per 100 ℓ water om mens-patogene, bv. <i>E. coli</i> te dood.
Sny blomme: Angelier, Krisant, Gypsophila en Tuin Rose.	50 – 100 mℓ	Begin toediening na uitplant van saailinge. Dien toe met 7 - 10 dae intervalle.
Groeihuis-verboude-Rose:	50 mℓ	Dien toe met 7 - 10 dae intervalle.
Wyndruive:	50 – 100 mℓ	Dien eerste bespuiting toe wanneer jong lote ’n lengte van 10 cm bereik het. Dien toe met 14 dae intervalle.
Tafeldruive:	50 mℓ	Eerste toediening na volblomstadium. Dien toe met 14 dae intervalle.
Sagtevrugte:	50 mℓ	Kan toegedien word vanaf voor bot-stadium reg deur groeiseisoen met 14 dae intervalle.
Makadamia, Subtropiese vrugte en Sitrus:boorde	100 mℓ	Kan toegedien word tydens enige groeistadium met 14 dae spuit intervalle. Vir dramatiese verlagings van na-oes bederf patogene op sitrus, dien voldekspuit toe tot op 7 dae voor oes.
Na-oes boord higiëne van Makadamia, Sagtevrugte, Sitrus, Subtropiese vrugte en Tafel-en Wyndruive.	100 mℓ	Dien toe na oes om patogeen populasie in boord te verminder asook kort voor blaawal om die oorwinterings patogenepopulasie te verminder. Dien toe teen hoë spuitvolume om te verseker dat blare en stamme goed benat word.
Lugbespuiting toediening op gewasse soos Aartappels. Boontjies en Grane		Dien 500 – 750 mℓ Sporekill in 25 – 50 ℓ water toe per hektaar.
Spilpunt toediening op gewasse soos Aartappels. Boontjies en Grane		Dien 2 ℓ Sporekill in 10 000 – 20 000 ℓ water toe, per hektaar.
Saailinge en Kwekerie materiaal:	25 mℓ	Eerste toediening na vorming van eerste ware blare. Dien toe met 7 dae intervalle.