

# SPOREKILL®

Reg. No. L 7115 Act No. 36 of 1947

A soluble concentrate contact bactericide & fungicide for the:

- Control of Anthracnose in Avocado & Mango fruit, caused during the washing process, by controlling dumptank borne *Colletotrichum gloeosporioides*;
- Control of Bacterial soft rot and contamination of potato seed tubers, caused during washing or dip treatment process, by controlling water borne *Erwinia* spp.
- Control of Black Spot and Alternaria brown spot of citrus caused by *Guignardia citricarpa* and *Alternaria alternata* respectively, applied in a tank mix with reduced rates of Mancozeb or copper fungicides.
- Control of Green & Blue mould and Sour rot in citrus fruit, caused during the washing process, by controlling dumptank, pre-degreening drench or high pressure washing system borne *Penicillium digitatum*, *P. italicum* and *Geotrichum candidum* including Imazalil-resistant *Penicillium* populations.
- Control of post harvest decay in Apples and Pears caused by *Penicillium expansum*;
- Control of Powdery Mildew in Cucurbit crops grown in greenhouses and open field;
- Reduces infection of grapevine propagation material by decline and dieback pathogens such as *Phaeoconiella chlamydospora*, *Phaeoacremonium*, *Botryosphaeria* and *Phomopsis* spp.
- Control of Sour rot in Tomatoes, caused during the washing process, by controlling dumptank borne *Geotrichum* sp.
- Control of Downy mildew of Wine grapes caused by *Plasmopara viticola*, applied in a tank mix with reduced rates of Mancozeb or copper fungicides.

## ACTIVE INGREDIENT:

Didecyldimethylammonium chloride ....120 g/l  
(Quaternary ammonium compound)

Manufactured and registered by, ICA International Chemicals (Pty) Ltd, (Reg nr. 2001/013319/07), PO Box 2312, Stellenbosch, 7601

## CAUTION WARNINGS

- Withholding periods:** (Minimum number of days between last application and harvest.
- Cucurbit cropst:**.....2 days.
- Grapes (wine):** in tankmix with Mancozeb.....14 days.
- Grapes (wine) :** in tankmix with Copper fungicides.....21 days.
- Compliance with these withholding periods and the other applications will ensure that residues do not exceed local Maximum Residue Limits, but the import tolerances of other countries might possible be exceeded. If the crop to be treated is intended for export, consult the relevant importer or exporting body regarding the use of this product, Maximum Residue Limits and recommended withholding periods.
- Harmful if swallowed or inhaled.
- May cause serious damage to eyes and skin irritation.
- Toxic to fish and other aquatic organisms.
- Store in a cool, dry place away from food, feed and drinking water.
- Keep out of reach of children, animals and uninformed persons.
- Re-entry interval:** Do not enter treated field 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 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 of 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

- Do not eat, drink or smoke whilst handling this product.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Do not inhale spray mist or vapours or swallow the remedy.
- Prevent contact with eyes and skin, wear rubber gloves and face shield when handling the concentrate.
- If in contact with eyes, flush immediately with running water for 15 min and get medical attention.
- Wash with soap and water after use or skin contact.
- Remove contaminated clothing and wash.
- Avoid spray drift onto other crops, grazing, 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.
- Rinse empty container three times with a volume of water equal to 10% of container. Add the rinsings to the contents of the spray tank before destroying the container by perforation and deliver to authorised landfill or burying. Do not use container for other purposes.

## DIRECTIONS FOR USE

USE ONLY AS DIRECTED

### Compatibility:

**SPOREKILL®** compatibility with other agricultural chemicals can be influenced by factors such as dilution water quality and product formulations. It is therefore recommended to always first perform a physical compatibility test (jar test) prior to application. **SPOREKILL®** is generally incompatible with concentrated anionic agricultural chemicals.

General direction instructions:

- No wetters need to be added since **SPOREKILL®** have wetting characteristics.
- The stability and efficacy of **SPOREKILL®** is not pH dependable. If use with other chemicals follow their pH recommendations.
- During post-harvest wash of avocado, citrus, mango and tomato, fruit must not be left in dumptank for long periods. This may result in serious burning of sensitive fruit.
- Take note, **SPOREKILL®** controls post-harvest decay in avocado, citrus, mango and tomato fruit induced by infections taking place during the washing process. The use of registered fungicides to control post-harvest decay caused by orchard infections still need to be applied.
- Do not use **SPOREKILL®** in hot water dumptanks. This may result in serious burning of sensitive avocado, citrus, mango and tomato fruit.
- Under heavy agitation foam may develop. Use anti-foam product, Foam Fighter, if necessary.
- Shake concentrate before use.

Application rates:

CROP	DISEASE	DOSAGE PER 100ℓ WATER	REMARKS
<u>Apples en Pears</u> Post-harvest treatment	Post-harvest decay caused by <i>Penicillium expansum</i>	100 ml	Dip or drench fruit after harvest or regular atmosphere (R.A.) storage. Not for use after controlled atmosphere (C.A.) storage. For best results keep fruit wet for at least 10 min. Keep Sporekill concentration at recommended rate by using “Sporekill Test Kit”
<u>Avocado</u> Post-harvest treatment	Anthracnose, caused during washing process in dumptank by <i>Colletotrichum gloeosporioides</i>	100 - 150 ml	Dip fruit for 3-5 min. Use higher rate under conditions conducive to high disease pressure. Keep Sporekill concentration at recommended rate by using “Sporekill Test Kit”.
<u>Citrus</u> Post-harvest treatment	Green- & Blue mould and Sour rot, caused during washing process in dumptank, pre-degreening drench or high pressure washing system by <i>Penicillium digitatum</i> , <i>P. italicum</i> , <i>Geotrichum candidum</i> including Imazalil-resistant <i>Penicillium</i> populations.	100 - 150 ml	Dip fruit for 3-5 minutes as soon as possible after harvest. Use higher rate under conditions conducive to high disease pressure. Keep Sporekill concentration at recommended rate by using “Sporekill Test Kit”.
Orchard application (To reduce rates of copper compounds & mancozeb <sup>a</sup> applied to citrus orchards. <i>NB. Sporekill is not effective against Black &amp; Alternaria Spot when used on its own</i> )	Black spot caused by <i>Guignardia citricarpa</i>  &  Alternaria Brown Spot caused by <i>Alternaria alternata</i>	<b>Tankmix</b> 100 ml PLUS 100 g Mancozeb <sup>a</sup> <b>OR</b> 100 ml PLUS 100 g Copper oxychloride <sup>a</sup> <b>OR</b> 100 ml PLUS 100 g Copper hydroxide <sup>a</sup>  <i>[Do not use pH-buffers in tank mixtures containing copper fungicides]</i>	<b>Black spot</b> Apply preventatively, four full cover sprays at 25-30 days intervals. Apply first application before 15 October. Ensure thorough coverage of both foliage and fruit surfaces. <b>Alternaria Spot</b> Commence high volume cover sprays at first flush and repeat every 30 days until harvest. The number of applications (up to 7) is dependent on weather conditions during February – April. In wet conditions, additional applications are necessary to inhibit further infections.
<u>Cucurbit crops</u> Greenhouse & field produced (Only Western Cape for field produced cucurbits)	Powdery Mildew ( <i>Sphaerotheca fuliginea</i> & <i>Erysiphe cichoracearum</i> )	100 ml	Apply preventively at 7-12 days intervals. Under high disease pressure spray every 7 days and include a systemic fungicide into program. Ensure thorough coverage of both upper and lower leaf surfaces. Do not apply more than 4 times when fruit are present.
<u>Grapevines</u> Propagation material	Infection of grapevine propagation material by decline and dieback pathogens such as <i>Phaeoconiella chlamydospora</i> , <i>Phaeoacremonium</i> , <i>Botryosphaeria</i> and <i>Phomopsis</i> spp.	150 ml	<b>Rootstock and Scion cutting treatment</b> Immediately after cutting preparation and pre-cold storage, soak for 1 hour in Sporekill solution. After cold storage one day prior to grafting soak for 10 minutes. This treatment can also be done in cool-down water following hot water treatment. <b>Pre-Plant treatment</b> After callus, directly prior to planting dip for 5 seconds in Sporekill solution. <b>General sanitation</b> For disinfection of grafting equipment, tables, work surfaces, grafting sheds, callusing boxes, etc. First wash surfaces to remove dirt and then disinfect by keeping surfaces wet for 10 min for best results.
<u>Mango</u> Post-harvest treatment	Anthracnose, caused during washing process in dumptank by <i>Colletotrichum gloeosporioides</i>	100 - 150 ml	Dip fruit for 3-5 min. Use higher rate under conditions conducive to high disease pressure. Keep Sporekill concentration at recommended rate by using “Sporekill Test Kit”.
<u>Seed Potato tubers</u> Pre-plant treatment	Bacterial rot and contamination of tubers, caused during washing or dip treatment process, by controlling of water borne <i>Erwinia</i> spp.	150 ml	Dip tubers 3-5 minutes. Replace solution when water is too dirty. <b>Treat only whole potato tubers.</b> Keep Sporekill concentration at recommended rate by using “Sporekill Test Kit”.
<u>Tomato</u> Post-harvest treatment	Sour rot, caused during washing process in dumptank by <i>Geotrichum</i> sp.	150 ml	Dip fruit for 3min. Keep Sporekill concentration at recommended rate by using “Sporekill Test Kit”. Replace solution when water is to dirty.
<u>Wine Grapes</u> ( <i>NB. Sporekill is not effective against downy mildew when used on its own</i> )	Downy mildew caused by <i>Plasmopara viticola</i>	<b>Tankmix</b> 100 ml PLUS 100 g Mancozeb <sup>a</sup> <b>OR</b> 100 ml PLUS 250 g Copper oxychloride <sup>a</sup> <b>OR</b> 100 ml PLUS 250 ml Copper ammonium acetate <sup>a</sup>  <i>[Do not use pH-buffers in tank mixtures containing copper fungicides]</i>	<b>Pre-blossom</b> Apply first spray when young shoots have reached length of 10 cm. Repeat with 7 - 10 day intervals, depending upon weather conditions. Apply as a high volume application at 500 - 700L spray mixture/ha.  <b>Blossom to 80% Calyx fall</b> Apply only if the blossoming period is longer than 14 days. Apply as a high volume application at 750 - 1000L spray mixture per hectare.  <b>Post blossom</b> Apply two more applications at 7 - 14 day intervals, depending upon weather conditions. Apply as a high volume application at 1000 - 1500L spray mixture/ ha

<sup>a</sup>Only use those products together with **SPOREKILL®** that are registered for the particular claim.

Mancozeb 800 g/kg WP

Copper oxychloride 850 g/kg WP

Copper hydroxide 770 g/kg WP

Copper ammonium acetate 316 g/kg SL

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