

KOCIDE®

2000

Reg. No. L 7805, Act No. 36 of 1947

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

GROUP	M01	FUNGICIDE
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A water dispersible granule contact fungicide and bactericide to control the diseases on the crops as listed.

Active Ingredient

Copper Hydroxide	538 g/kg
Copper Equivalent	350 g/kg

Net Mass	10 kg
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WARNING



Hazard statements	Precautionary statements
Harmful if swallowed or if inhaled. Causes serious eye irritation. Very toxic to aquatic life with long lasting effects	Avoid breathing spray. Do not eat, drink or smoke when using this product. Wear protective gloves/ 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. Call a POISON CENTER/doctor if you feel unwell. If eye irritation persists: Get medical advice/ attention. Collect spillage. Dispose of contents/ container to an approved waste disposal plant.



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WARNINGS

<p>Harmful if swallowed or inhaled. Causes serious eye irritation. Very toxic to aquatic life with long lasting effects</p>

- Store away from food and feedstuffs.
- Keep the concentrate dry.
- **Re-entry:** Do not enter the treated field until the spray deposit has dried unless wearing protective clothing.
- **Aerial Application:** Notify all inhabitants in the immediate vicinity of the area to be treated of your intention and issue the necessary warnings. Do not spray over the adjacent areas or water nor allow spray to drift there.

Withholding Period: Allow the following minimum number of days between the last application and harvest or feeding.

beans, cruciferae, tomatoes	3 days
avocados, citrus, coffee, lettuce, mangoes, nectarines, peaches, plums, potatoes, olives, onions.	14 days
wine grapes	21 days

Withholding periods are based on good agricultural practice and when followed, local (RSA) MRLs will be met. For fruit destined for export, consult your export agent or supplier for the latest withholding period relevant to your export market.

- **Do not apply on table grapes after berries have reached pea size (4-6 weeks prior to harvest).**

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 pest 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 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 registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS

<p>Avoid breathing spray. Do not eat, drink or smoke when using this product. Wear protective gloves/ 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. Call a POISON CENTER/doctor if you feel unwell. If eye irritation persists: Get medical advice/ attention. Collect spillage. Dispose of contents/ container to an approved waste disposal plant</p>

- Kocide® 2000 should not be applied in a spray solution with a pH of less than 6.5 as phytotoxicity may occur.
- Avoid spray drift onto adjacent crops, grazing, rivers, dams and areas not under treatment.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Clean applicator after use and dispose of wash water where it will not contaminate crops, grazing, rivers and dams.
- Triple rinse empty container by inverting the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down 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 rinsings to the content of the spray tank before destroying the container in the prescribed manner.
- Empty, rinsed containers should be taken for local recycling or waste disposal or incineration. Do not re-use empty containers for any other purpose.

RELEVANT SUBSTANCES

Name	CAS no	Concentration %	Classification
Copper dihydroxide	20427-59-2	50 - 70	Acute Tox. 2 Acute Tox. 4 Eye Dam. 1 Aquatic Acute 1 Aquatic Chronic 1
Tetrasodium pyrophosphate	7722-88-5	5 - 10	Eye Dam. 1 Acute Tox. 4
Sodium hydroxide	1310-73-2	< 2.5	Skin Corr. 1A Met. Corr. 1 Eye Dam. 1
2,4,7,9-Tetramethyldec-5-yne-4,7-diol	126-86-3	< 0.5	Eye Dam. 1 Skin Sens. 1B Aquatic Chronic 3

FIRST-AID MEASURES

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Get medical attention immediately

Skin contact: Wash off immediately with soap and plenty of water. If skin rash or an allergic skin reaction develops, get medical attention.

Eye contact: Do not rub eyes. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids wide apart. Get medical attention if irritation develops and persists.

Ingestion: Rinse mouth and drink plenty of water. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention immediately.

AERIAL APPLICATION

Kocide 2000 can be applied aerially where indicated under "Directions For Use" provided the spray mixture is evenly distributed over the target area. Keep the loss of spray material to a minimum during application. To achieve this it is essential that the following requirements are met:

- In all cases the narrowest possible swath width of correctly calibrated aircraft should be used.
- Use at least 40 ℓ water per ha in all row crops.
- Use the correct nozzles to deliver spray droplets with a VMD Of 280 micron and a minimum of 40-50 droplets per cm² must be recovered on the target area.
- Maintain a flying height of 3 m above the target area at wind speeds of 0-8 km/h and 2 m at wind speeds of 8-15 km/h. Stop spraying if the wind speed exceeds 15 km/h.
- Do not spray if the difference between the wet and dry bulb readings, as determined by a swinging hygrometer, is more than 8 °C.
- Do not spray under conditions of temperature inversion.
- Do not spray during the heat of the day.
- Do not spray plants that are excessively wet with dew or rain.
- Ensure that fields are accurately marked.
- Obtain assurance from the aerial spray operator that the above specifications will be met.

DIRECTIONS FOR USE: Use only as directed.

MIXING INSTRUCTIONS

For the best results fill the spray or mixing tank a third to half capacity with clean water and start agitation. Pour the required amount of Kocide 2000 into the spray or mixing tank at an even, steady rate. Do not add the entire amount at once. Allow enough time for complete distribution of the product in the spray or mix tank. Finish filling spray or mix tank with clean water.

MIXING SEQUENCE

Tank mix compatible products in the sequence as recommended:

1. Foliar Feeds*.
2. Water Dispersible Granules (e.g. Kocide 2000)**.
3. Wettable Powders.
4. Suspension Concentrates.
5. Emulsifiable Concentrates.
6. Adjuvants.

COMPATIBILITY

If compatibility is in question, use the Compatibility Jar Test before mixing a whole tank.

* The addition of foliar feeds may result in a reduction of the pH of the spray mixture.

** Ensure that the pH of the spray mixture (suspension) is not below 6.5 after the addition of Kocide 2000, as phytotoxicity may occur.

CROP	DISEASE	APPLICATION RATE – g/100 ℓ water OR kg/ha	TIME OF APPLICATION
AVOCADO	Fruit Spot <i>Pseudocercospora purpurea</i>	225-275 g/100 ℓ water to a maximum of 12.0 kg/ha.	Apply 3 full cover sprays, the first application during middle/end November and repeat at 4 week intervals. Use the high dosage rate when disease pressure is high.
BEANS	Bacterial Blight / Halo Blight <i>Pseudomonas phaseolicola</i> Common Blight <i>Xanthomonas phaseoli</i>	150 g/100 ℓ water to a maximum of 1.9 kg/ha.	Apply at 7-14 day intervals depending on disease pressure. Spray immediately after heavy rains, hail or dust storms. GROUND APPLICATION: Depending on plant size use 500-1 500 ℓ spray mixture /ha. AERIAL APPLICATION: Apply 30-40 ℓ water /ha.
CITRUS	Black Spot <i>Guignardia citricarpa</i>	150 g/100 ℓ water to a maximum of 15.0 kg/ha.	NORMAL SEASON: Apply 3 high volume cover sprays at 30-35 day intervals starting before the end of October. WET SEASON: Apply 4 applications at 30-35 day intervals starting at 100 % petal drop. It is recommended to use Kocide 2000 in combination with a strobilurin fungicide programme.
	Alternaria Spot <i>Alternaria turkissafria</i>	150 g/100 ℓ water to a maximum of 15.0 kg/ha. OR 75 g + 100 g Mancozeb to a maximum of 8.0 kg/ha.	Apply as a high volume cover spray. Commence spraying at balloon stage and repeat at 4-6 week intervals (4-6 sprays). The number of applications is dependent on weather conditions during February-April. Under wet conditions additional applications are necessary to inhibit further infections. Apply at 14 day intervals.
COFFEE	Rust <i>Hemileia vastatrix</i>	250 g/100 ℓ water to a maximum of 3.5 kg/ha.	Apply as a full cover spray. Begin application in October / November and repeat 4-5 times with 4 week intervals.
CRUCIFERAE COLE CROPS	Bacterial Spot <i>Pseudomonas maculicola</i> Downy Mildew <i>Peronospora parasitica</i>	150 g/100 ℓ water to a maximum of 1.5 kg/ha.	Apply at 7-14 day intervals. Ensure good coverage.
GRAPES	Downy Mildew <i>Plasmopora viticola</i>	150 g/100 ℓ water to a maximum of 2.0 kg/ha.	Spray when shoots are approximately 10 cm long and repeat at 10-14 day intervals as long as is required.
LETTUCE	Leaf Spot <i>Pseudomonas cichorii</i> , <i>Septoria lactucae</i>	150 g/100 ℓ water to a maximum of 1.5 kg/ha	Start spraying 2 weeks after plants are established and repeat at 7-14 day intervals. Ensure good coverage.
MANGOES	Bacterial Spot <i>Pseudomonas mangiferae</i>	225 g/100 ℓ water to a maximum of 13.5 kg/ha.	Apply as a high volume cover spray at the beginning of fruit set and repeat at 14-28 day intervals.
NECTARINES PEACHES	Leaf Curl <i>Taphrina deformans</i> Bacterial Canker <i>Pseudomonas syringae</i> Bacteria Spot <i>Xanthomonas pruni</i> Gum Spot <i>Stigmina carpophila</i>	200 g/100 ℓ water to a maximum of 10.0 kg/ha.	Apply as a high volume application. Use 1 200-2 000 ℓ spray mixture /ha. Apply a single application at bud swell.
OLIVES	Anthraxnose <i>Colletotrichum fructigenum</i>	400 g/100 ℓ water	First application in autumn before fruit colouring begins. Repeat 2 to 3 times at monthly intervals.
	Leafspot <i>Cycloconium oleaginum</i>	400 g/100 ℓ water	Apply in spring just before new growth and again in autumn, before start of winter.
PLUMS	Bacterial Spot <i>Xanthomonas campestris</i> <i>pv. pruni</i>	150 g/100 ℓ water to a maximum of 5.0 kg/ha.	AT BUD SWELL STAGE: Apply as a high volume spray using 1 200-2 000 ℓ spray mixture /ha. PERIOD 90 % PETAL DROP TO 14-21 DAYS BEFORE HARVEST
		75 g + 200 g spray lime /100 ℓ water to a maximum of 10.0	MODERATELY INFECTED ORCHARDS: Apply as a high volume spray at 14 day intervals using 1 500-2 500 ℓ spray mixture /ha.
		150 g + 200 g spray lime /100 ℓ water to a maximum of 5.0 kg ha.	SEVERELY INFECTED ORCHARDS: Apply as a high volume spray at 14 day intervals using 1 500-2 500 ℓ spray mixture /ha.
		150 g + 200 g spray lime /100 ℓ water to a maximum of 5.0 kg ha.	75 % LEAFDROPP: Apply a single application using 1 500-2 500 spray mixture /ha.
POTATOES	Early Blight <i>Alternaria solani</i>	150 g/100 ℓ water to a maximum of 2.25 kg/ha.	NOTE: Do NOT apply to the cultivar RUBY NEL. Spreader stickers are NOT recommended. Spray before or just when the first disease symptoms are noticed. Repeat at 7-10 day intervals and after rain. GROUND APPLICATION: Depending on plant size use 500-1 500 ℓ spray mixture /ha. AERIAL APPLICATION: Apply 30-40 ℓ water /ha.
TOMATOES	Bacterial Speck <i>Pseudomonas tomato</i> Bacterial Spot <i>Xanthomonas vesicatoria</i> Early Blight <i>Alternaria solani</i>	150 g/100 ℓ water to a maximum of 3.0 kg/ha	Spray seedbeds weekly. Apply at first signs of disease in tomato fields. Repeat at 7-10 day intervals and after rain. Depending on plant size, use 500-2 000 ℓ spray mixture /ha. Where mistblowers are used, apply 2.0-3.0 kg Kocide 2000 in 500 ℓ water /ha.