



**DANGER**  
**ECOTOXIC**  
**KEEP OUT OF REACH OF CHILDREN**  
**READ LABEL BEFORE USE**

**HORTCARE®**

# **COPPER HYDROXIDE 300**



A protectant fungicide for the control of a range of fungal and bacterial diseases of fruit and vegetables.

**ACTIVE INGREDIENT:** Contains 300g/kg copper as copper hydroxide in the form of a water dispersible granule

GSCH130/BAG03



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HORTCARE® COPPER  
HYDROXIDE 300  
NET CONTENTS: 10 kg



# HORTCARE® COPPER HYDROXIDE 300



## HSNO CLASSIFICATION:

Acute oral toxicity Category 4, Serious eye damage Category 1, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) category 2, Hazardous to terrestrial vertebrates, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1.

## TOXICITY

**DANGER:** Causes serious eye damage.

**WARNING:** Harmful if swallowed. May cause an allergic skin reaction from prolonged contact. May cause lung damage from repeated oral exposure at high doses.

## ECOTOXICITY

**WARNING:** Very toxic to aquatic organisms with long-lasting effects. Harmful to terrestrial vertebrates. Do not apply directly into or onto water. Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area. Avoid contamination of any water supply with chemical or empty container.

**QUALIFIED HANDLER:** A suitably qualified handler is required when mixing, loading or applying.

**PERSONAL PROTECTION:** Use only outdoors or in well-ventilated area. Avoid breathing dust, mist or spray. When using wear a face mask or goggles, rubber gloves and overalls. Do not eat, drink or smoke while using. Wash hands and face before meals and after work. Wash protective clothing after use. Contaminated work clothing should not be allowed out of the workplace.

**STORAGE:** Store product in original container, tightly closed, in a cool, dry place. Keep out of reach of children, and away from foodstuffs. Storage must be in accordance with the current version of NZS 8409 Management of Agrichemicals. Stores containing more than 100L are subject to requirements for signage, secondary containment and emergency response plans.

Shelf life: When stored appropriately this product should show no significant degradation for two years from date of manufacture. Contact your supplier for further information about the use of any product that is older than this.

**SPILLS AND DISPOSAL:** When dealing with spills wear personal protective clothing and equipment as described in the PERSONAL PROTECTION section. Collect and store in properly labelled, sealed drums for safe disposal. If spray mixture is spilled absorb, with soil, sand or sawdust, and collect in drums as above. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

**PRODUCT DISPOSAL:** If possible dispose of by using according to the label, otherwise dispose of in an approved landfill or bury below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots.

**CONTAINER DISPOSAL:** Triple rinse and add rinseate to the spray tank. Take to an Agrecovery site, burn if circumstances, especially wind direction, permit or bury in a suitable land fill.

**SAFETY DATA SHEET:** A safety data sheet is available from Grosafe Chemicals Ltd.

**FIRST AID:** For advice call a doctor or the National Poisons Centre (0800 764 766). Have product label or container at hand. If swallowed, rinse mouth but do not induce vomiting. Get advice if you feel unwell. If on skin wash with plenty of soap and water. If skin irritation or rash occurs, get medical advice. If in eyes flush with plenty of water. Remove contact lenses if present after first few minutes and keep rinsing. Immediately get medical advice. If inhaled remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice if person feels unwell.

**EMERGENCY RESPONSE 0800 CHEMCALL (0800 243 622)**

**GENERAL INFORMATION:** Hortcare® Copper Hydroxide 300 is a dry- flowable formulation, easy to pour and measure and readily dispersed in water in the spray tank forming a stable suspension.

**MIXING INSTRUCTIONS:** Half fill the spray tank with water, slowly add the required amount of Hortcare® Copper Hydroxide 300 while the agitation system is operating. Other products should be added only after the Hortcare® Copper Hydroxide 300 has been dispersed. Check compatibility charts before mixing. If phytotoxicity is in question (on tender foliage or when using high dose rates) test on a small area before full scale application. For optimum effect the spray mix should have a pH between 7.0 and 9.0.

**WATER RATE:** As a guide: for dilute high volume sprays use 200 litres (air assisted sprayers) or 800 litres (hydraulic sprayers) per hectare on vegetable crops, 2,500 litres on mature kiwifruit and grape vines, 3,000 litres on citrus and up to 6,000 litres on avocados and tree fruits. For low volume concentrate spraying calculate the dose in order to apply the same rate of Hortcare® Copper Hydroxide 300 as with dilute sprays. Full coverage is essential.

**Resistance Management Strategy:** Bacterial pathogens such as Psa can develop resistance to pesticides including copper products. To prevent resistance and retain all possible control options, use a programme that includes a range of products with different modes of action and do not apply below label rates.

**It is an offence to use this product on animals**

**WITHHOLDING PERIOD:** 1 day

## DIRECTIONS FOR USE

The following information is based on data believed to be reliable. If in doubt check with local advisers, compatibility charts, industry associations. To avoid risk to crops test a small area first. Grosafe Chemicals make no warranty, and assume no liability in connection with any of this information.

CROP	DISEASE	RATE g/100L	APPLICATION RATE, TIMING
Apples	Black Spot	110 (2.2kg/ha min)	Full cover spray. Apply between silver tip and green tip (max 1cm green tip).
Asparagus	Stemphylium leaf spot	250–375 (2.5kg/ha min)	Spray at first appearance of disease, after closing up. Repeat at 14 day intervals. Up to six sprays may be required.
Avocado	Anthracnose	70–90 (2.0kg/ha min)	Apply monthly from flowering to harvest. Use higher rate and shorten the interval when conditions favour the disease.
Beans	Bacterial blight	250–310 (1.4kg/ha min)	Apply at 7–14 day intervals when plants reach 15cm high.
Bushfruit, Canefruit	Cane Wilt, Cane Spot, Spur Blight, Leaf Spot	70–90 (0.65kg/ha min)	Apply from bud burst at 10–14 day intervals. Use the higher rate early season or in conditions that favour the disease.
Brassica crops: Broccoli, Brussel Sprouts, Cabbage, Cauliflower	Downy Mildew	70–90 (0.3kg/ha min)	Apply at 10–14 day intervals following emergence or after setting out transplants.
Celery	Septoria Leaf Spot	90 (0.44kg/ha min)	After setting out transplants apply at 5–7 day intervals, depending on disease severity. EnSpray 99® spray oil may be added at 1 litre per 100 litres of spray mix.
Citrus	Melanose Verrucosis	45–90 (0.44kg/ha min for mature trees)	Apply before and after blossom.
	Brown Rot	90–110 (1.75kg/ha min for mature trees)	Apply in autumn to the skirts of the trees to a height of 1 metre, to the drip line and 50cm beyond. Use higher rate if conditions favour disease.
Cucurbits	Angular Leaf Spot, Downy Mildew	70–130 (0.65kg/ha min)	Apply at 7 day intervals when plants begin to vine.
Feijoas	Leaf Spot	70–90 (1.0kg/ha min)	Repeat as necessary.
Grapes	Black Spot, Downy Mildew	65–130 (0.9kg/ha min)	Apply at 10–14 day intervals from bud break to harvest. Adjust rate or stop if injury is observed.
Kiwifruit	Leaf Spot, Phomopsis sp., Botryosphaeria	70–90 (1.3kg/ha min)	Apply after harvest before leaf fall, after pruning, and two sprays four weeks apart prior to bud burst.
	Psa-V Pseudomonas syringae pv. actinidiae [limited claim]	70–90	Apply after harvest but before leaf fall, after pruning, and two sprays four weeks apart prior to bud burst.
	Any adverse event resulting from the use of this product should be notified to Grosafe Chemicals Ltd	50–90	Use from bud-break to harvest, but do not apply during flowering. Apply full dilute water rate, appropriate for the canopy density to give complete coverage. While efficacy and safety are not yet fully proven, it is recommended that the lower rate be applied to young, soft growth moving to the high rate as leaves mature. Apply alone, post-flowering, as tank mixing with other chemicals may result in phytotoxicity.
Lettuce	Downy Mildew	70–110 (0.33kg/ha min)	Apply at 7–10 day intervals following emergence or after setting out transplants.
Onions	Downy Mildew Bacterial Blight	90 (1.0kg/ha min)	Apply at the first sign of infection and repeat every 10–14 days as required.
Passionfruit	Septoria Spot, Brown Rot, Grease Spot	45 (0.44kg/ha min)	Apply at 2–4 week intervals from November to March, alternating with maneb/mancozeb. For grease spot 2 week intervals may be required.
Peas	Downy Mildew Leaf Spot	70–90 (0.66kg/ha min)	Apply at 7–14 day intervals following emergence.
Pear (including Nashi)	Black Spot	110 (2.2kg/ha min)	Apply one spray between silver tip and green tip (max. 1cm green tip). Non-bearing trees: apply cover sprays at 14–21 day intervals until vegetative growth ceases. Post Harvest: apply 190g/100 litres at 21 days from harvest to leaf fall. Reduce interval in wet weather.
	Fire Blight (Erwinia amylovora)	25–45	Smooth skin varieties: do not apply between green tip and harvest or russetting may occur.
Pinus radiata	Pine Needle Blight (dothistroma pini)	2.5–4.4kg/ha (aerial/plantations)	Apply in 60–100 litres water in November or early December. Annual treatment may be required.
		1.25–3.1kg/ha (ground spray in nurseries)	Apply in 600–1,000 litre water/ha. with 1% Summer Oil. Begin in October and apply at 4 week intervals until planting out.
Potato	Early Blight Late Blight	130–200 (1.3kg/ha min)	Apply every 7 days when plant reaches 15cm high, until 14 days before harvest.
Strawberries	Leaf Spot	70–90 (0.65kg/ha min)	Begin spraying when plants are established and repeat at 7–10 day intervals through the season. Stop if signs of crop injury appear.
Stone Fruit	Leaf Curl, Shot Hole, Bladder plum	110 (2.2kg/ha min)	Apply when buds are swelling, within one week before buds open, with a second application of 115g/100 litres water 10–14 days later.
	Bacterial Blast	312 (6.25kg/ha min)	Apply at leaf fall and repeat every 4 weeks until bud movement, then treat as for Leaf Curl.
Tamarillo	Leaf Spot	70 (0.9kg/ha min)	Apply when infection is seen.
Tomato	Early Blight, Late Blight, Bacterial Speck, Bacterial Spot	70–130 (0.8–1.75kg/ha)	Apply at 7–10 day intervals depending on weather conditions. Increase volume as crop matures; ensure coverage of upper and lower leaf surfaces. Repeat spray after 13mm rain or irrigation.

Registered pursuant to the ACVM Act 1997 No. P 8704. See [www.foodsafety.govt.nz](http://www.foodsafety.govt.nz) for registration conditions

Approved pursuant to HSNO Act 1996, Approval code: HSR000739. See [www.epa.govt.nz](http://www.epa.govt.nz) for approval conditions

**WARRANTY:** This formulation is warranted to contain the specified active ingredient within accepted analytical tolerance when packed. The user bears the risk for damage resulting from factors beyond the manufacturer's control. The manufacturer declines all liability for damage resulting from improper storage or use of the product.

## Registered and distributed by:



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**Batch No:**

**Date of Manufacture:**

Hortcare® and EnSpray 99® are registered trade marks of Grosafe Chemicals Ltd.