# **DANGER**KEEP OUT OF REACH OF CHILDREN



## **CAVALRY® FUNGICIDE**

GROUP M5 FUNGICIDE

For the control of fungal diseases in fruit, ornamentals, turf, vegetables and wheat

READ THE ATTACHED BOOKLET COMPLETELY BEFORE MIXING OR APPLYING

### **Active Ingredient:**

Contains 720 g/L CHLOROTHALONIL in the form of a suspension concentrate

ADAMA New Zealand Limited Level 1, 93 Bolt Road Tahunanui, Nelson 7011 PO Box 1799, Nelson 7040 New Zealand Telephone 03 543 8275 www.adama.com

**NET CONTENTS** 

1 L, 5 L, 10 L, 20 L, 200 L

#### REFER TO BOOKLET FOR FULL LABEL INSTRUCTIONS.











THIS PRODUCT IS RESTRICTED TO WORKPLACES ONLY.
THIS PRODUCT MUST BE UNDER THE PERSONAL CONTROL OF A CERTIFIED HANDLER.

THIS PRODUCT MUST BE TRACKED.

#### **PCBU RESPONSIBILITES**

A PCBU with management or control of work using this substance must ensure that every worker who uses, handles, manufactures, or stores this hazardous substance (including hazardous waste) is, before the worker is allowed to carry out or supervise work involving those substances, provided with adequate information, training and instruction. This includes the use of personal protective equipment to be used to minimise risks to the health and safety of workers when carrying out work using this substance.

#### **QUALIFICATIONS REQUIRED FOR APPLICATION OF CLASS 9 SUBSTANCES**

Anyone who mixes, loads, or applies this product, either by air or ground based methods, is required to be suitably qualified, or must receive guidance and, if required, assistance from a suitably qualified person. Refer to Schedule 10 of the Hazardous Substances (Hazardous Property Controls) notice 2017 for a list of suitable qualifications.

#### RECORD KEEPING

Where 3 kg or more of the substance is applied within 24 hours, in a place where the substance is likely to enter air or water and leave the application area, a PCBU with management or control of the substance must ensure that a written record is kept of each application of the substance. Refer to Part 4 Clause 48 of the Hazardous Substances (Hazardous Property Controls) notice 2017 for details of information that must be recorded.

#### **DANGER**

Fatal if inhaled.

Causes serious eye damage.

May cause an allergic skin reaction.

Suspected of causing cancer.

Causes damage to organs (kidneys) through prolonged or repeated oral exposure.

Very toxic to aquatic life with long lasting effects.

Hazardous to soil organisms.

Hazardous to terrestrial vertebrates.

#### HANDLING PRECAUTIONS

Keep out of reach of children.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not eat, drink or smoke while using.

Use only outdoors or in a well-ventilated area.

Do not breathe spray mist.

Wear personal protective equipment and use respiratory protection as in the personal protection section of this label

Wash exposed skin thoroughly after handing.

Contaminated work clothing should not be allowed out of the workplace.

#### **EQUIPMENT**

A PCBU with management or control of work using this substance must ensure that equipment used to handle this substance retains the substance, without leakage, at all of the temperatures and pressures at which the equipment is to be used; and dispenses or applies the substance, without leakage, at a rate and in a manner that the equipment is designed for. The PCBU must ensure that the equipment is accompanied by documentation that is readily available and readily understandable about the use and maintenance of the equipment.

#### **STORAGE**

Store locked up in the original, tightly closed container in a cool, dry, well-ventilated place, out of direct sunlight and away from stockfeed or foodstuffs.

Store in accordance with NZS 8409 Management of Agrichemicals. Secondary containment and emergency response plans are required where 100 L or more of this product are stored. Refer to the product SDS for further information.

#### TRANSPORT

Do not transport on passenger service vehicles.

#### SHELF LIFE

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

#### PERSONAL PROTECTION

When mixing or applying wear full protective clothing such as impervious, elbow-length gloves, waterproof hat, coat and trousers (worn outside rubber boots), eve protection and a full-face organic-vapor-removing respirator with a dust/mist pre-filter. Wash splashes of concentrate from skin immediately. Remove protective clothing and wash hands and face thoroughly with soap and water before meals and after work. Contaminated clothing should not be allowed out of the workplace.

#### **SPILLAGE**

Exclude all bystanders from the vicinity of the spill and prevent material from entering waterways. Wear appropriate protective clothing as in the personal protection section of this label to clean up spills. Absorb spills with an inert material (such as vermiculite, earth, sand or synthetic absorbent substance) and place in waste containers. Wash area with water and alkaline detergent. Then absorb any remaining liquid with further inert material. Dispose of the waste safely in an approved landfill or hazardous waste facility.

#### **DISPOSAL**

Container Disposal - Triple rinse empty container and add rinsate to spray tank. Submit clean empty container to an Agrecovery® depot for recycling. Alternatively, puncture and bury in a suitable landfill. Avoid contamination of any water supply with product or empty container.

Product Disposal - Dispose of this product only by using according to the label, or through the Agrecovery® Chemical Recovery service or other approved facility.

#### **FIRST AID**

For advice, or if you feel unwell or are exposed or concerned, immediately contact the National Poisons Centre 0800 POISON (0800 764766) or a doctor for advice.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs, get medical attention. Take off contaminated clothing and wash before reuse.

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IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. IMMEDIATELY contact the National Poisons Centre or a doctor.

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ADAMA New Zealand Limited will not accept any responsibility whatsoever and howsoever arising and whether for consequential loss or otherwise in connection with the supply of these goods other than the responsibility for the merchantable quality of the goods and such responsibilities mandatorily imposed by the Statutes applicable to the sale and supply of these goods. To the extent allowed by such Statutes the liability of ADAMA New Zealand Limited is limited to the replacement of the goods or (at the option of ADAMA New Zealand Limited) the refund of the price paid and is conditional upon a claim being made in writing and where possible sufficient part of the goods to enable proper examination being returned to ADAMA New Zealand Limited within thirty days of delivery.



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Cavalry is a registered trademark of an ADAMA group company.



#### **EMERGENCY RESPONSE**

(All hours)
Ring from anywhere in New Zealand
0800 734 607

In a Transport Emergency Phone 111 Police or Fire

Batch Number: Date of Manufacture: Bar code to be inserted

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#### **SAFETY DATA SHEET**

A Safety Data Sheet for this product is available from ADAMA New Zealand Limited on request. Call 03 543 8275.

#### PRODUCT INFORMATION

CAVALRY FUNGICIDE is a protectant fungicide that will provide effective control of fungal diseases on a wide range of vegetable, fruit, ornamental crops, turf and wheat. CALVALRY FUNGICIDE can be used effectively through high volume, low volume or aircraft spray equipment.

#### **DIRECTIONS FOR USE**

TAKE ALL REASONABLE STEPS TO ENSURE THAT THE SUBSTANCE DOES NOT CAUSE ANY SIGNIFICANT ADVERSE EFFECTS TO THE ENVIRONMENT BEYOND THE APPLICATION AREA.

Do not apply onto or into water.

It is an offence to use this product on animals.

By law, the following restrictions must be complied with:

As CAVALRY FUNGICIDE contains minute quantities of HCB, a compound that can be taken up by grazing stock to give unacceptable residues in meat and milk, the following restrictions on the use of the product must be observed:

- DO NOT graze treated crops.
- DO NOT feed any part of treated crop to stock.

These two restrictions do not apply if either of the following is first undertaken:

- CULTIVATE treated areas thoroughly (i.e. do not use direct drilling or other minimum tillage techniques) before sowing pasture or any animal feed crop, or
- SOIL TESTING in compliance with the 'Guideline for Management of Sheep Grazing in Vineyards or Orchards Contaminated with Hexachlorobenzene' of the vineyard/orchard area indicates HCB residues are let than 0.001mg/kg in the soil.

| CROP   | DISEASE  | RATE/100 L<br>WATER | RATE/HA | CRITICAL COMMENTS  |
|--|--|---------------------|---------|--|
| Asparagus  | Stemphyllium<br>leaf spot  | 210 mL              | 2.1 L   | Commence spraying at first appearance of disease after closing up and repeat at 14-28 day intervals to maintain disease control until ferns die off. Use the shorter spray interval when disease pressure is high. Ensure good plant coverage. |
| Beans,<br>butter,<br>green,<br>pole  | Rust   | 175-210 mL          | 1.4 L   | Apply at seedling emergence and continue at 10-21 day intervals.   |
| Beans<br>Broad   |  | 210-245 mL          | 2.1 L   | Apply at first appearance of foliar infection and repeat at 10-21 day intervals or as needed to maintain disease control.  |
| Berryfruit<br>boysenberries,<br>blackberries,<br>loganberries                | Dryberry,<br>*Botrytis   | 210-245 mL          | 2.1 L   | Apply as a full season cover spray at 14 day intervals from bud burst onwards. When infection is severe reduce the interval to 7-10 days. Autumn applications are necessary to protect primocanes from infection.                              |
| Blackcurrants  | Leaf spot  | 210 mL              | 2.1 L   | Apply from bud burst onwards at 10 to 14 day intervals.  |
| Brassicas cabbage cauliflower broccoli brussels sprouts                      | Downy mildew,<br>ring spot   | 175-210 mL          | 1.4 L   | Apply at seedling emergence and continue at 10-21 day intervals. Use the high rate for ring spot control.  |
| Celery   | Septoria leaf spot   | 210-245 mL          | 2.1 L   | Apply as a full season cover spray from immediately post-planting at 7-14 day intervals.   |
| Cucurbits<br>cucumbers,<br>melons,<br>squash                                 | Downy mildew,<br>powdery mildew  | 175-210 mL          | 1.4 L   | Apply at seedling emergence and continue at 10-21 day intervals.   |
| Lettuce  | Ring spot  | 210-245 mL          | 2.1 L   | Apply at seedling emergence and continue at 7-10 day intervals throughout the growing period. A regular protective program is necessary to prevent disease establishment.  |
| Ornamentals camellias, carnations, chrysanthemums, geraniums, statice, roses | Black spot,<br>*Botrytis,<br>downy mildew,<br>flower blight,<br>powdery mildew | 175-210 mL          | -       | Apply from the commencement of new growth at 10-21 day intervals. DO NOT spray when flower buds are showing petal colour as bloom damage may occur.  |
| Pipfruit<br>non-bearing<br>apples and pears                                  | Black spot   | 210-245 mL          | 2.1 L   | Apply as a full season cover spray at 14-21 day intervals. DO NOT apply to bearing trees as fruit russet may occur.  |
| Potatoes   | Early blight,<br>late blight   | 140 mL              | 1.1 L   | Apply at 7-14 day intervals or as needed to maintain disease control.  |

| CROP  | DISEASE   | RATE/100 L<br>WATER   | RATE/HA   | CRITICAL COMMENTS  |
|---|---|-----------------------|-----------|--|
| Stonefruit<br>apricots,<br>cherries,<br>nectarines  | Leaf Curl   | 160-210 mL            | -         | Apply pre bud swell. Where disease levels are high repeat application from pink to shuck fall at 7-14 day intervals.   |
| Stonefruit<br>peaches,<br>plums   | Brown rot, rust,<br>blossom blight                              |                       |           | Apply from pink to shuck fall at 7-14 day intervals.   |
| Strawberries  | Alternaria leaf<br>spot,<br>*Botrytis                           | 210-245 mL            | 2.1 L     | Apply as a full season cover spray at 14 day intervals form bud burst onwards. When infection is severe reduce the interval to 7-10 days.  |
| Tomatoes<br>outdoor   | Early blight,<br>late blight,<br>*Botrytis                      | 210-245 mL            | 2.1 L     | Apply at planting out and continue at 10-14 day intervals until harvest.   |
| Turf, cotula  | Dollar spot,<br>brown patch,<br>leaf<br>spotting/melting<br>out | 70-140 mL/100<br>sqm  | -         | Spray in sufficient water to thoroughly wet foliage (7.5-10 L per 100 sqm). Use the low rate for preventative applications and the high rate as a curative application. Under conditions of high pressure repeat at 10-14 day intervals. As the surface of diseased turf may be hard to wet, especially where thatch is present, add a wetting agent to ensure adequate penetration and control of residual infection resources. MUST NOT be used on areas to be grazed. |
|   | Anthracnose,<br>fusarium patch,<br>red thread                   | 105-210 mL/100<br>sqm | -         |  |
| Wheat DO NOT use if stock are likely to graze the stubble. DO NOT remove the straw from treated fields. | Asochyta spp,<br>Didymella,<br>Glume blotch,<br>sooty moulds    | -                     | 0.7-1.4 L | Apply at flag leaf emergence and again up until ear fully emerged if cool, wet conditions prevail. Use the higher rate where disease risk levels are high. Tank-mix CAVALRY FUNGICIDE with other cereal fungicides for control of other diseases.  |

<sup>\*</sup>Botrytis: CAVALRY FUNGICIDE applied as a full season cover spray will prevent Botrytis. However, during periods of high risk (wet, humid weather) use a specific Botrytis fungicide.

It is an offence for users of this product to cause residues exceeding the relevant MRL in the Food Notice: Maximum Residues Levels for Agricultural Compounds.

#### WITHHOLDING PERIOD

Beans (Broad, butter, Green, Pole) 7 days Berryfruit (Boysenberries, Blackberries, Loganberries): 7 days **Blackcurrants:** 7 days Brassicas (Cabbage, Cauliflower, Broccoli, Brussels Sprouts): 7 days 7 days Cucurbits (Cucumbers, Melons, Squash): 1 day Lettuce: 10 days Potatoes: 7 days **Tomatoes (Outdoors):** 7 days Strawberries: 1 day

Stonefruit (Apricots, Cherries, Nectarines, Peaches, Plums): Do not use after shuckfall

Wheat: 56 days

#### **MIXING**

If the container has been standing for some time, roll the drum from side to side several times to ensure a uniform mixture is drawn off. Add the required amount of CAVALRY FUNGICIDE to the partly filled spray tank and top up with water. Keep mechanical agitator or bypass running while filling during spraying, and before recommencing spraying after a stoppage.

#### **APPLICATION**

Suggested spray volume: It is important that good spray coverage of the crop is achieved and for high volume spraying use a minimum of 800 L of water/ha, increasing as necessary to ensure complete foliar cover at all stages of crop development. The rates suggested are for high volume spraying to run-off. For concentrate spraying adjust dilution rates accordingly.

#### **COMPATIBILITY**

May be tank mixed with most commonly used fungicides and insecticides. Unless prior experience has shown the combination to be physically compatible and non-injurious to the crop, DO NOT combine with emulsifiable formulations, including oils, in the spray tank. DO NOT use with lime sulphur or Bordeaux mixture. CAVALRY FUNGICIDE is compatible with streptomycin: when using add CAVALRY FUNGICIDE to the spray tank, top up then add streptomycin containing product.

#### **WETTING AGENTS**

The addition of a wetting agent is neither required, nor recommended except where suggested in the Directions for Use table.

#### RESISTANCE MANAGEMENT:

CAVALRY FUNGICIDE contains the GROUP M5 chloronitrile fungicide, chlorothalonil. Do not use another product containing a fungicide in the same group in conjunction with CAVALRY FUNGICIDE. While there is no recorded resistance to this product, resistance could develop from repeated use over time, and it is recommended CAVALRY FUNGICIDE be used as part of a crop protection programme that includes products from other chemical groups.

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