

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



**ADAMA**

# **MERPAN<sup>®</sup> FUNGICIDE**

**GROUP M04 FUNGICIDE**

**For control of certain diseases of fruit, greenhouse crops, ornamentals, turf and vegetables and some soil borne diseases as shown under directions for use**

***READ THE ATTACHED BOOKLET COMPLETELY BEFORE MIXING OR APPLYING***

## **Active Ingredient:**

Contains 800 g/kg CAPTAN in the form of a water dispersible granule

|                               |                                                             |
|-------------------------------|-------------------------------------------------------------|
| UN No:                        | 3077                                                        |
| DG Class:                     | 9                                                           |
| Packing Group:                | III                                                         |
| Proper Shipping Name:         | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Captan) |
| Marine Pollutant:             | Yes                                                         |
| Batch number:                 | NET CONTENTS: 2 kg, 10 kg, 15 kg                            |
| Date of Manufacture:          |                                                             |
| <b>Barcode to be inserted</b> |                                                             |

**REFER TO BOOKLET FOR FULL LABEL INSTRUCTIONS.****DANGER**

**Causes serious eye damage.**

**May cause allergic skin reaction.**

**Suspected of causing cancer.**

**Very toxic to aquatic life.**

**HANDLING PRECAUTIONS**

Keep out of reach of children. Do not handle until all safety precautions have been read and understood.

Do not eat, drink or smoke while using. Avoid breathing dust. Avoid contact with eyes. Use personal protective equipment as specified in the section below. Contaminated work clothing should not be allowed out of the workplace. Avoid unintended release into the environment. Collect spillages.

**PCBU RESPONSIBILITIES**

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 ENVIRONMENTALLY HAZARDOUS 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.

**STORAGE**

Store locked up in the original, unopened container in a cool, dry 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 greater than 100 kg of this product are stored. Refer to the product SDS for further information.

**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 appropriate protective clothing including cotton overalls buttoned to the neck and wrist, eye protection, impervious, elbow-length gloves and boots. Wash hands, arms and face with soap and water before meals and after work. Wash protective clothing after use. 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. Sweep up material and place in waste containers. Dispose of the waste safely in an approved landfill.

**DISPOSAL**

Container Disposal – Ensure packaging is empty and burn in an appropriate incinerator if circumstances such as wind direction permit or 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.

**Do not burn product or container.**

**SAFETY DATA SHEET**

A safety data sheet for this product is available at [www.adama.com](http://www.adama.com).

## FIRST AID

**If medical advice is needed, have product container or label at hand.**

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

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

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. **IMMEDIATELY** call a POISON CENTRE or doctor.

## CONDITIONS OF SALE

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.



Registered to and distributed by:  
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See [www.foodsafety.govt.nz](http://www.foodsafety.govt.nz) for registration conditions

Approved pursuant to the HSNO Act 1996, Approval No. HSR000503  
See [www.epa.govt.nz](http://www.epa.govt.nz) for approval controls

Merpan 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

**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.**

**EPA CONTROLS**

- A person must not apply this substance directly into or onto water.

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

**FRUIT CROPS**

| <b>CROP</b>                                        | <b>DISEASE</b>                                       | <b>RATE</b>           | <b>CRITICAL COMMENTS</b>                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------|------------------------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Apples, pears</b>                               | Black spot, bull's eye rot, Glomerella, sooty blotch | 75-125 g/100 L water  | Apply the high rate every 7 days from greentip through to petal fall. From petal fall to harvest use the low rate at 10-14 day intervals. Captan products may increase the risk of Russet on some varieties. Where this is of concern use alternative materials between full bloom and second cover. Where bull's eye rot, Glomerella, or sooty blotch are a problem use the high rate from January to harvest. Do not apply to Anjou Pears. |
|                                                    | European canker                                      | 125 g/100 L water     | Apply at 10-14 day intervals prior to and during harvest when weather conditions favour spread of disease. Observe PHI at all times.                                                                                                                                                                                                                                                                                                         |
| <b>Blueberries</b>                                 | Stem blight, leaf spot, Botrytis                     | 125 g/100 L water     | Spray just before flowering; at 10% flowers open; at petal fall; and every 10-14 days until harvest.                                                                                                                                                                                                                                                                                                                                         |
| <b>Boysenberries, loganberries, other brambles</b> | Canespot                                             |                       | Apply at petal fall and repeat every 10-14 days until harvest.                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Citrus</b>                                      | Brown rot                                            | 125-240 g/100 L water | As a skirt spray before winter rains. Thoroughly wet trees to a height of 1 m. Repeat 10 weeks later.                                                                                                                                                                                                                                                                                                                                        |
|                                                    |                                                      | 125 g/100 L water     | OR<br>Spray entire tree in autumn and repeat 4-6 weeks later. Do not use oil products within 14 days either side of MERPAN FUNGICIDE.                                                                                                                                                                                                                                                                                                        |
| <b>Red and black currants</b>                      | Leaf spot, Botrytis                                  | 125 g/100 L water     | Apply every 10-14 days from green tip until harvest.                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Gooseberries</b>                                | Leaf spot, Botrytis                                  | 125 g/100 L water     | Apply just before flowering, again at petal fall, pre-harvest and post-harvest. For Botrytis flower rot, application at 5-7 days intervals over flowering may be necessary, depending on the weather.                                                                                                                                                                                                                                        |
| <b>Grapes</b>                                      | Dead arm, Anthracnose, Botrytis                      |                       | Apply every 14 days, commencing when shoots are 5-8 cm long.                                                                                                                                                                                                                                                                                                                                                                                 |

| CROP                | DISEASE                          | RATE                         | CRITICAL COMMENTS                                                                                                                                                                   |
|---------------------|----------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Raspberries</b>  | Cane spot, sour blight, Botrytis |                              | <b>Main crop:</b> Apply every 10-14 days from greentip until harvest.<br><b>Autumn crop:</b> Apply every 10-14 days from November until harvest.<br>Thorough coverage is essential. |
| <b>Stonefruit</b>   | Brown rot, scab, shothole        |                              | Apply every 7 days from bud movement until bloom, then at 3-4 day intervals until petal fall, then fortnightly until 3 weeks before harvest. Apply weekly until harvest.            |
| <b>Strawberries</b> | Leaf spot, Botrytis              | 125 g/100 L water or 3 kg/ha | Apply as necessary for leaf spot. For Botrytis apply at 7 day intervals from the beginning of flowering and between picking if wet conditions prevail.                              |

### ORNAMENTALS - AMENITY TURF

| CROP                              | DISEASE                                                  | RATE                      | CRITICAL COMMENTS                                                  |
|-----------------------------------|----------------------------------------------------------|---------------------------|--------------------------------------------------------------------|
| <b>Lawns</b>                      | Brown patch, leaf spot, damping off                      | 6 kg/ha                   | As a soil drench using sufficient water for good soil penetration. |
| <b>Ornamentals</b>                | Rose black spot, carnation leaf spot, chrysanthemum spot | 125 g/100 L water         | As necessary.                                                      |
| <b>Soil and glasshouse drench</b> | Damping off                                              | 125 g/100 L water/100 sqm | Work into top 10 cm of soil before planting.                       |

### VEGETABLE CROPS

| CROP               | DISEASE                      | RATE        | CRITICAL COMMENTS                                                              |
|--------------------|------------------------------|-------------|--------------------------------------------------------------------------------|
| <b>Peas, beans</b> | Root rot, damping off        | 7-9 kg/ha   | Broadcast pre-planting and work into upper 10 cm of soil.                      |
| <b>Carrots</b>     | Ring spot, Cercospora blight | 3 kg/ha     | As necessary.                                                                  |
| <b>Cucurbits</b>   | Anthrachnose                 | 1.5-3 kg/ha | As necessary.                                                                  |
| <b>Lettuce</b>     | Leaf spot                    | 4.5 kg/ha   | Every 10-14 days from rosette stage. The addition of a sticker is recommended. |

### SEED TREATMENT

| CROP               | RATE                           | CRITICAL COMMENTS                                                                                                                                                                                                                                                            |
|--------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Peas</b>        | 100 g/500 mL water/100 kg seed | Keep stock solution well agitated and do not allow to stand overnight. MERPAN FUNGICIDE does not contain a sticker. A suitable sticker should be added to the stock solution. Contact your local representative for further advice. Ensure treated seed is clearly labelled. |
| <b>Potato seed</b> | 125g/100 L water               | For control of seed rot and damping off use as a pre-planting dip within 6 hours of cutting                                                                                                                                                                                  |

**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 PERIODS**

|                                                                        |                                                                              |
|------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <b>Blueberries, currants, gooseberries, raspberries, strawberries:</b> | <b>Do not apply later than 1 day before harvest.</b>                         |
| <b>Cucurbits:</b>                                                      | <b>Do not apply later than 3 days before harvest.</b>                        |
| <b>Lettuce, stonefruit:</b>                                            | <b>Do not apply later than 7 days before harvest.</b>                        |
| <b>Boysenberries, loganberries, other brambles, carrots:</b>           | <b>Do not apply later than 14 days before harvest.</b>                       |
| <b>Apples and pears:</b>                                               | <b>Do not apply later than 3 days before harvest.</b>                        |
| <b>Grapes:</b>                                                         | <b>Do not apply later than 21 days before harvest.</b>                       |
| <b>Citrus:</b>                                                         | <b>Do not apply later than 28 days before harvest.</b>                       |
| <b>Export crops:</b>                                                   | <b>Consult your exporter for advice about any restrictions.</b>              |
| <b>Treated seed:</b>                                                   | <b>Do not use treated seed for human consumption, stock or poultry food.</b> |

## **MIXING**

Half fill the spray tank with water. Engage pump agitation. Add the required amount of MERPAN FUNGICIDE to the half-filled spray tank then complete tank filling, continuing to agitate the mixture during filling and use.

When tank mixing MERPAN FUNGICIDE with another product, ensure products are added in the following order with tank agitation running:

1. First add MERPAN FUNGICIDE to the half-filled tank.
2. Add any fungicides and insecticides to a  $\frac{3}{4}$  full tank with agitation running (add WGs, WPs followed by SCs and EWs).
3. If adding foliar fertilisers such as Calcium Chloride ( $\text{CaCl}_2$ ), or Calcium Nitrate ( $\text{Ca}(\text{NO}_3)_2$ ) or a surfactant, these must always be added last. Refer to the specific product labels for any preparation required before adding to the spray tank.
4. Do not leave mixed spray standing overnight.

## **COMPATIBILITY**

MERPAN FUNGICIDE is compatible with most commonly used pesticides. It should not be combined with Bordeaux mixture, lime sulphur, or oils. Its use with emulsifiable concentrates is not recommended. If used in combination with sulphur on Kidds Orange, Delicious and some sulphur-shy varieties, some leaf spotting and drop may occur.

Unless prior testing has been undertaken, the addition of stickers/rainfastners/extenders in the pre-harvest period for apples and pears is not recommended as these could alter the residue profile of this product.

## **APPLICATION**

The rates suggested are for high volume spraying to run-off. For concentrate spraying adjust dilution rate accordingly. Calibrate equipment to give the desired application rate and full coverage of foliage. Fine droplets are more effective than coarse droplets. Ensure undersides of leaves are treated. Keep agitated during use and agitate thoroughly after a stoppage before recommencing spraying.

## **RESISTANCE MANAGEMENT**

MERPAN FUNGICIDE contains the **GROUP M04** Phthalimide fungicide, captan. To minimise the risk of development of resistance do not use another product containing a fungicide in the same group in conjunction with MERPAN FUNGICIDE and use strictly in accordance with label directions.