

**CAUTION**  
KEEP OUT OF REACH OF CHILDREN  
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

**SureFire**

**METAMORPH 500 SC\***

**FUNGICIDE**

ACTIVE CONSTITUENT: 500 g/L DIMETHOMORPH

**GROUP 40 FUNGICIDE**

For the control of various diseases of cucurbits, grapevines, head lettuce, onions, oilseed poppies and potatoes, when mixed with Mancozeb or Polyram\* DF Fungicide Spray, protectant fungicides, as per the Directions for Use table

**IMPORTANT: READ THIS BOOKLET BEFORE USE**

  
**PCT**  
HOLDINGS PTY LTD

APVMA Approval No: 88374/121140

\*SUREFIRE MetaMorph 500 SC is a registered trademark of PCT INTERNATIONAL PTY LTD  
(PCT Holdings Pty Ltd ABN 11 099 023 962)

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CUSTOMER SERVICE FREECALL 1800 630 877 EMERGENCY RESPONSE (ALL HOURS) FREECALL 1800 630 877

**DIRECTIONS FOR USE****RESTRAINTS**

For PROFESSIONAL use only.

DO NOT apply by aircraft.

DO NOT allow bystanders to come into contact with the spray cloud.

CROP	DISEASE	RATE	WHP	CRITICAL COMMENTS
Cucurbits	Downy Mildew ( <i>Pseudoperonospora cubensis</i> ) <b>Qld and NT only</b> Anthracnose ( <i>Colletotrichum</i> spp.), Gummy Stem Blight ( <i>Didymella bryoniae</i> ), Alternaria Leaf Spot ( <i>Alternaria</i> spp.), Septoria Spot (Pumpkin) ( <i>Septoria</i> spp.)	360 mL/ha + mancozeb (1.5 kg/ha of mancozeb 800 or 1.6 kg/ha of mancozeb 750 DF) or + Polyram* at 2.2 kg/ha	7 days	Maintain a regular protectant spray program. Apply Surefire MetaMorph when conditions favour disease development but before the disease is evident. Apply two consecutive sprays of Surefire MetaMorph, 7 - 10 days apart, then change to a fungicide from another chemical group. Use the shorter interval when conditions favouring infection are creating a high risk. Add a non-ionic surfactant at label rate. Ensure that good coverage is achieved, including the undersides of leaves. DO NOT apply more than 4 sprays of Surefire MetaMorph to each crop, as a precaution against development of disease resistance. <b>Note:</b> In some States, Polyram can only be used on cucumbers and not other cucurbits. (Refer to Polyram label for full details.)
Grapevines	Downy Mildew ( <i>Plasmopara viticola</i> )	<b>Dilute spraying</b> 36 mL/100 L + mancozeb (120 g/100 L of mancozeb 800 or 160 g/100 L of mancozeb 750 DF) or + Polyram at 150 - 200 g/100 L <b>Concentrate spraying</b> Refer to the Application section	4 weeks	DO NOT use in crops intended for drying. Also see 'CAUTION' section re export commodities. Apply at 7 - 14 day intervals when humid or wet conditions favour infection but before disease is evident. Use the shorter interval when conditions favouring infection are creating a high risk. Apply a maximum of 3 consecutive sprays before changing to another fungicide. Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. DO NOT use in equipment that requires rates greater than 180 mL/100 L (5X). DO NOT apply in volumes less than 250 L/ha. Add a non-ionic wetting agent. DO NOT apply more than 6 sprays of Surefire MetaMorph per season, as a precaution against development of disease resistance. DO NOT use a tank mix with Polyram on vines in ACT or NT. (Refer to Polyram label for full details.)

**PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET CROPS**

DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

**PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT**

Highly toxic to fish and other aquatic organisms. DO NOT contaminate ponds, dams, streams, waterways or drains with the chemical or used containers.

**STORAGE AND DISPOSAL**

Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight.

This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple or pressure rinse container for disposal. Add rinsings to spray tank. Dispose of the rinsate by adding it to the spray tank. DO NOT dispose of undiluted chemicals on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection or similar container management program site. The cap should not be replaced but may be taken separately. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

**SAFETY DIRECTIONS**

Harmful if swallowed. When using together with other products, consult their label safety directions. When opening the container and preparing and using the spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and washable hat and elbow length chemical resistant gloves. Wash hands after use. After each day's use wash gloves and contaminated clothing.  
May cause allergy.

**FIRST AID**

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26; New Zealand 0800 764 766.

**SAFETY DATA SHEET**

Additional information is listed on the Safety Data Sheet which is available from PCT Holdings Pty Ltd on request. Call Customer Service Toll Free on 1800 630 877 or visit our web site at <http://pctrural.com.au>

**CONDITIONS OF SALE**

PCT Holdings Pty Ltd warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with Directions for Use under normal conditions of use. No warranty of merchantability or fitness for a particular purpose, express or implied, extends to the of the product contrary to label instructions or under off-label permits not endorsed by PCT Holdings Pty Ltd or under abnormal conditions.

## COMPATIBILITY

Surefire MetaMorph should always be mixed with mancozeb or Polyram as directed. Due to the range of mancozeb formulations available, compatibility has not been tested on all products. Users are advised to test the tank mix on a small area of the crop to be treated, prior to use. Surefire MetaMorph can be tank-mixed with *Bacillus thuringiensis*, copper hydroxide, dithianon or Strike-Out® 500 EC. Avoid mixing with strongly alkaline or acidic materials.

## Fungicide Resistance Warning

GROUP	<b>40</b>	FUNGICIDE
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For fungicide resistance management Surefire MetaMorph 500 SC Fungicide is a Group 40 fungicide. Some naturally occurring individual fungi resistant to the product and other Group 40 fungicides may exist through normal genetic variability in any fungal population. The resistant individuals can eventually dominate the fungal population if these fungicides are used repeatedly. These resistant fungi will not be controlled by this product or other Group 40 fungicides, thus resulting in a reduction in efficacy and possible yield loss. Since the occurrence of resistant fungi is difficult to detect prior to use, PCT Holdings Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant fungi. For resistance management, this product should always be used in conjunction with mancozeb or Polyram. These mixtures combine the locally systemic, translaminar properties of MetaMorph with the protective properties of products such as Mancozeb and Polyram. It should always be used as part of a protective spray programme and applied before disease symptoms appear. To prevent or delay the development of strains of disease fungi resistant to dimethomorph, it is recommended that this product is used in spray programmes including fungicides with different modes of action. Refer to the CRITICAL COMMENTS section of this label. Consult a PCT Holdings Pty Ltd representative for further information if required.

## PRECAUTIONS

### Re-entry

DO NOT enter treated areas until the specified day after treatment, for the following re-entry activities in grapevines:

Re-entry activity	Re-entry interval (REI)		
	Grape (wine/juice)	Grape (table)	Grape (raisin)
Tying/training, leaf pulling or hand harvesting	8 days	2 days	2 days
Girdling/turning	-	14 days	-

For all other re-entry activities for grapevines and all other label crops, do not enter until the spray has dried. If prior entry is necessary, wear cotton overalls buttoned to the neck and wrist and chemical resistant gloves. Clothing must be laundered after each day's use.

CROP	DISEASE	RATE	WHP	CRITICAL COMMENTS
Lettuce (head varieties only)	Downy Mildew ( <i>Bremia lactucae</i> ), Anthracnose ( <i>Marssonina panattoniana</i> ), Septoria Leaf Spot ( <i>Septoria</i> spp.)	360 mL/ha + mancozeb (1.5 kg/ha of mancozeb 800 or 1.6 kg/ha of mancozeb 750 DF) or + Polyram at 2.2 kg/ha	14 days	Maintain a regular protectant spray program. Apply when conditions favour disease development but before the disease is evident. Apply two consecutive sprays of Surefire MetaMorph, 7 - 10 days apart, then change to a fungicide from another chemical group. Use the shorter interval when conditions favouring infection are creating a high risk. Apply in 250 - 500 L of water per hectare. Add a non-ionic surfactant at label rates. DO NOT apply more than 4 sprays of Surefire MetaMorph to each crop as a precaution against development of disease resistance.
Oilseed poppies	Downy Mildew ( <i>Peronospora arborescens</i> )	360 mL/ha + mancozeb (1.5 kg/ha of mancozeb 800)	6 weeks	Maintain a protective spray program at early run-up stage of crop growth. Apply Surefire MetaMorph when conditions favour disease development during the late run-up to hook stage. Re-apply 10 days later if required. Apply in 250 - 500 L water per hectare. Add a non-ionic surfactant at the label rate. DO NOT apply later than early flowering stage. DO NOT apply more than 2 sprays of Surefire MetaMorph to each crop, as a precaution against development of disease resistance.
Onions	Downy Mildew ( <i>Peronospora destructor</i> ), Leaf Blight <b>Qid and NT only</b> Purple Blotch ( <i>Alternaria porii</i> )	360 mL/ha + mancozeb (1.5 kg/ha of mancozeb 800 or 1.6 kg/ha of mancozeb 750 DF)	7 days	Maintain a regular protectant spray program. Apply when conditions favour disease development but before the disease is evident. Apply two consecutive sprays of Surefire MetaMorph, 7 - 14 days apart, then change to a fungicide from another chemical group. Use the shorter interval when conditions favouring infection are creating a high risk. Apply in 250 - 500 L of water per hectare. Add a non-ionic surfactant at the label rate. DO NOT apply more than 4 sprays of Surefire MetaMorph to each crop, as a precaution against development of disease resistance.

CROP	DISEASE	RATE	WHP	CRITICAL COMMENTS
Potatoes	Late Blight ( <i>Phytophthora infestans</i> ), Early Blight ( <i>Alternaria solani</i> )	360 mL/ha + mancozeb (1.5 kg/ha of mancozeb 800 or 1.6 kg/ha of mancozeb 750 DF) or + Polyram at 1.7 - 2.5 kg/ha	14 days	Maintain a regular protectant spray program. Apply on a protectant schedule at 7 - 10 day intervals when conditions favour disease development but before the disease is evident. Use the shorter spray interval when conditions for disease development are severe. Add a non-ionic surfactant at the label rate. Apply Surefire MetaMorph in 250 - 500 L of water per hectare. DO NOT apply more than 4 sprays of Surefire MetaMorph to each crop, as a precaution against development of disease resistance.

**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION**

**WITHHOLDING PERIODS:**

**CUCURBITS, ONIONS: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.**

**LETTUCE (HEAD VARIETIES ONLY), POTATOES: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.**

**GRAPEVINES: DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION.**

**OILSEED POPPIES: DO NOT HARVEST FOR 6 WEEKS AFTER APPLICATION**

#### **Export of Treated Produce**

##### ***Export of treated fruit or wine***

Maximum Residue Limits (MRLs) may be lower or not be established in export markets. Check with your Industry Association or PCT Holdings Pty Ltd prior to using this product on crops destined for export.

If you are growing fruit for export (either fresh or dried), see the comment under Export Harvest Interval.

Wine Grapes: Where this product will be used on grapes that will be used to produce wine destined for export markets, seek advice from the Australian Wine Research Institute or PCT Holdings Pty Ltd to ensure the wine will meet the requirements of the intended importing country.

#### **EXPORT HARVEST INTERVALS:**

Treated crop commodities destined for export may require extra time being allowed between application and harvest, to be accepted in some export markets. Before you use this product, you are advised to contact PCT Holdings Pty Ltd and/or your industry body about any potential trade issues and their management.

## **GENERAL INSTRUCTIONS**

### **MIXING**

Half fill the spray vat with water and commence agitation. Measure out the required quantity of Surefire MetaMorph and add to the spray tank with agitation running. Add the correct amount of mancozeb or Polyram as directed.

Add the remainder of the water with agitation running. Add wetting agent e.g. Activator Surfactant, Bond Adjuvant, Chemwet 1000 or Wetspray® 1000, if required, when spray tank is full. Ensure thorough mixing and constant agitation to keep the product in suspension.

### **APPLICATION**

Ensure thorough coverage of plants, especially the underside of leaves and young grape bunches.

DO NOT apply by aircraft.

### **APPLICATION TO GRAPEVINES**

#### ***Dilute spraying***

Use a sprayer designed to apply high volumes of water up to the point of runoff and matched to the crop being sprayed. Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to the point of run-off. Avoid excessive run-off. The required water volume may be determined by applying different test volumes using different settings on the sprayer, from industry guidelines or expert advice. Add the amount of product specified in the Directions for Use table for each 100 L of water. Spray to the point of run-off. The required dilute spray volume will change and the sprayer set up and operation may also need to be changed as the crop grows.

#### ***Concentrate spraying***

Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required to reach the point of run-off) and matched to the crop being sprayed. Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume. Determine an appropriate dilute spray volume (See Dilute Spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate. The mixing rate for concentrate spraying can then be calculated in the following way:

#### **EXAMPLE ONLY**

1. Dilute spray volume as determined above: For example 1500 L/ha
2. Your chosen concentrate spray volume: For example 500 L/ha
3. The concentration factor in this example is:  $3 \times$  (i.e.  $1500 \text{ L} \div 500 \text{ L} = 3$ )
4. If the dilute label rate is 36 mL/100 L, then the concentrate rate becomes  $3 \times 36$ , that is 108 mL/100 L of concentrate spray.

- The chosen spray volume, amount of product per 100 L of water, and the sprayer set up and operation may need to be changed as the crop grows.
- For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.
- For concentrate application, use a spray volume of at least 250 litres per hectare. For dilute application, apply to runoff.
- See Dilute spraying above.