

# WARNING KEEP OUT OF REACH OF CHILDREN READ LABEL BEFORE USE



Contains 500 g/L metrafenone in the form of a suspension concentrate

# GROUP 50 FUNGICIDE

Systemic fungicide for the control of powdery mildew in grapes, pumpkin and winter squash

Contents: 1L

Registered to and distributed by: **BASF New Zealand Limited** NZBN 9429032151299 P.O. Box 407, Auckland 1140 Phone: 0800 932 273 <u>crop-solutions.basf.co.nz</u>

# Hazard Classification

6.7B, 9.1B

## WARNING

Suspected of causing cancer. Harmful to aquatic life with long lasting effects. **PRECAUTIONS** 

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

**STORAGE:** Store in original container, tightly closed, in a dry, cool, well-ventilated place away from food and animal feeds. Keep away from heat. Protect from direct sunlight. Protect from moisture. Stores containing more than 1000 litres of this product require emergency response plans and secondary containment systems and are subject to signage. Store locked up.

**TRANSPORT:** DO NOT carry this product on a passenger service vehicle.

**SPILLAGE:** Prevent further spillage and product from entering waterways. Wear overalls, gloves, footwear and goggles. Absorb spill with an inert material such as synthetic absorbent and place in a labelled, sealable container for disposal. Wash the spill area with water and detergent, then absorb the washings and place in the same labelled, sealable container. Dispose of the waste safely in suitable landfill.

**PERSONAL PROTECTION:** When mixing and preparing spray, wear coveralls buttoned to the neck and wrist, a washable hat, suitable chemical resistant gloves, and goggles or a face shield.

**GENERAL SAFETY AND HYGIENE MEASURES:** Avoid contact with skin, eyes and clothing. DO NOT eat, drink or smoke while using this product. Remove protective clothing and wash hands and exposed skin thoroughly with soap and water before meals and after work. Wash protective clothing immediately after use. Store work clothing separately.

**USE AND ENVIRONMENTAL PROTECTION:** Apply with well-maintained and accurately calibrated equipment. DO NOT spray directly into or onto, or allow drift over, surface water such as ponds, waterways or drains. Clean out application equipment thoroughly after use. DO NOT contaminate water when disposing of equipment wash waters or rinsate.

**NOTE:** Storage, application and record keeping must be as described in the current version of the New Zealand Standard for the Management of Agrichemicals NZS8409.

**DISPOSAL:** Container: Ensure container is completely empty. Triple rinse empty container and add residue to the spray tank and recycle through Agrecovery (0800 247 326, www.agrecovery.co.nz). Product: Dispose of this product only by using according to the label or at an approved landfill. DO NOT burn product. DO NOT contaminate surface water with chemical or empty container. DO NOT reuse the container for any other purpose.

### **FIRST AID**

If exposed or concerned get medical attention. IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. For advice, contact the National Poisons Centre 0800 POISONS (0800 764 766) or a doctor. IF ON SKIN: Remove contaminated clothing and wash skin with plenty of soap and water. Do NOT scrub skin. IF IN EYES: Wash out immediately with water.



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### CONDITIONS OF SUPPLY

Read conditions of supply before buying and using. If these conditions are unacceptable, return at once unopened. All goods supplied by BASF New Zealand Limited are of a high grade and conform to the chemical description of the label. However, to the extent permitted by law, neither BASF nor any of its Distributors accept any liability or responsibility whatsoever for any loss, damage or injury whether direct, indirect or consequential howsoever arising in connection with the supply of those goods including without limitation their storage, application, handling or use. BASF New Zealand Limited nor any of its Distributors, make no warranties of any kind, express or implied, with respect to fitness for purpose (including crop injury, ineffectiveness or any other unintended consequence), merchantable quality or any other matter with respect to these goods. When you are a consumer as defined in the Consumer Guarantees Act 1993 (the "Act") these conditions will be subject to the provisions of the Act. However, the Act will not apply to goods supplied to you for business purposes.

Registered pursuant to the ACVM Act 1997, No. P7973 See <u>www.foodsafety.govt.nz</u> for registration conditions Approved pursuant to the HSNO Act 1996, Code HSR100045 See <u>www.epa.govt.nz</u> for approval controls

Batch No: Date of Manufacture:

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# IIIIII BAR CODE IIIIII

#### **GENERAL INFORMATION**

Vivando is a novel fungicide providing protectant activity against powdery mildew. It affects development and growth processes of the powdery mildew pathogen, inhibiting spore germination, infection and subsequent mycelial growth. It also reduces sporulation by preventing normal development of conidiophores and conidia. Vivando is locally systemic and translaminar so provides some protection to new growth. Best results are obtained from protectant applications prior to the onset of infection. Thorough coverage of the crop is necessary for best results.

#### **RESISTANCE MANAGEMENT**

Vivando contains metrafenone, a fungicide from the benzophenone chemical family, with a mode of action different from that of other fungicides currently registered for use against grape powdery mildew **GROUP 50 FUNGICIDE**. Resistance to Vivando and other Group 50 fungicides could develop from excessive use. To minimise this risk use strictly in accordance with the label Directions for Use. Vivando should be used in a programme incorporating fungicides with different modes of action. Use no more than two Vivando applications, preferably in sequence, in any one season. Refer to the NZCPR web site < www.resistance.nzpps.org > for more detailed information.

#### DIRECTIONS FOR USE

Сгор	Disease	Rate	Remarks
Grapes	Powdery mildew	20 ml per 100 litres water to the point of runoff. [See Application]	Apply on a 10-21 day interval in a protectant programme alternating with fungicides with different modes of action e.g. triazoles. Use the shorter interval when heavy infection pressure occurs. Use no more than two Vivando applications, preferably in sequence, in any one season.
Pumpkin and winter squash	Powdery mildew	300 ml per hectare	Apply on a 14-21 day schedule in a protectant programme alternating with fungicides with different modes of action e.g. Colliss®, triazoles, sulphur (Kumulus® DF). Use the shorter interval when heavy infection pressure occurs. Use no more than two Vivando applications per season.

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

#### Withholding Periods

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

Pumpkin and winter squash: DO NOT apply later than 14 days before harvest.

Grapes: DO NOT harvest within 42 days of last application.

Leaf plucking in vineyards: DO NOT allow sheep to enter the orchard for 14 days after treatment.

Additionally, a 2-month slaughter withholding period must be observed after stock have been removed from the vineyard.

General grazing: DO NOT allow stock to graze within treated vineyards until after harvest (no slaughter withholding period applies).



#### Mixing

Fill the spray tank <sup>3</sup>/<sub>4</sub> full with clean water and start the agitation. To ensure thorough mixing of the product, invert the container several times before opening. Measure out the required amount of Vivando and add to the spray tank while the water is re-circulating. Complete filling the tank with water. Continue agitation until spraying is completed.

### Compatibility

Vivando is compatible with most commonly used fungicides and insecticides.

#### Adjuvants

No adjuvants are required.

#### Application

Grapes: Apply Vivando in sufficient water to provide adequate coverage of the target area, taking into account canopy volume and row spacing. For concentrate spraying adjust accordingly. Pumpkin and winter squash: Apply in sufficient water to obtain uniform coverage of the crop.

#### Rainfall

Vivando is rain fast once it is dried on the crop.

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