



# Desperado®

Miticide/Insecticide/Fungicide



WILBUR-ELLIS®

## Aqueous Suspension Miticide/Insecticide/Fungicide (MIF)

### For Use on Nectarines, Peaches, Plums, Prunes, Pistachios, Almonds and other Tree Nuts and Stone Fruit

#### ACTIVE INGREDIENT:

Sulfur.....	49.50%
Pyridaben: [2-tert-butyl-5(4-tert-butylbenzylthio)- 4-chloropyridazin-3(2H)-one].....	4.03%
Other Ingredients.....	46.47%
	100.00%

Contains 5.54 lbs. sulfur per gallon  
Contains .45 lbs. pyridaben per gallon

EPA Reg. No. 81880-7-2935

EPA Est. No. 2935-CA-1

### KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If Inhaled	<ul style="list-style-type: none"> <li>•Move person to fresh air.</li> <li>•If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>•Call a poison control center or doctor for further treatment advice.</li> </ul>
If swallowed	<ul style="list-style-type: none"> <li>•Call a poison control center or doctor immediately for treatment advice.</li> <li>•Have person sip a glass of water if able to swallow.</li> <li>•Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>•Do not give anything to an unconscious person.</li> </ul>
If on skin or clothing	<ul style="list-style-type: none"> <li>•Take off contaminated clothing.</li> <li>•Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>•Call a poison control center or doctor for treatment advice.</li> </ul>
If in eyes	<ul style="list-style-type: none"> <li>•Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>•Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye.</li> <li>•Call a poison control center or doctor for treatment advice.</li> </ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. <b>FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT CALL 1-888-478-0798</b>	

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Harmful if inhaled. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

#### USER SAFETY RECOMMENDATIONS

##### Users Should:

•Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. •Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. •Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear: •Long-sleeved shirt and long pants. •Shoes plus socks. •Chemical-resistant gloves made of any waterproof material. •Goggles or face shield.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

#### ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. For Terrestrial uses: Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply when weather conditions favor drift from target area. Drift and runoff from treated areas may be hazardous to fish in adjacent sites. This product is highly toxic to bees. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. Application early in the morning or at dusk is suggested.

#### ENDANGERED SPECIES CONCERNS

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law.

#### DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons either directly or through drift. Only protected handlers may be in area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

All applicable directions, restrictions, precautions and Conditions of Sale and Warranty are to be followed. This labeling must be in the user's possession during application.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: • Coveralls; • Chemical-resistant gloves made of any waterproof material; • Shoes plus socks; • Goggles or face shield.

### GENERAL INFORMATION

This package contains **Desperado**, an aqueous suspension, miticide/insecticide/fungicide. **Desperado** is a selective contact miticide/insecticide/fungicide that controls pests in groves when used at recommended rates. (Refer to Table 1. **Desperado** Application Rate Table.) **Desperado** provides knockdown and residual control. A good performance evaluation can be made 10 days after treatment. For optimum results, **Desperado** should be applied as pest populations build and prior to reaching economic thresholds.

**Mite Resistance Management:** **Desperado** use should be alternated with other miticides as part of a mite management program to minimize resistance. Repeated use of the same miticide has been documented to result in the buildup of resistant strains of mites. To reduce the potential of obtaining a population of acaricide-resistant mites, the grower should alternate products of differing modes of action. Consult with your local or state extension personnel for advice on miticide use and selection.

**Cleaning Spray Equipment:** Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions and by triple rinsing the equipment before and after applying this product.

### APPLICATION INSTRUCTIONS

**Desperado** may be applied by ground equipment using either diluted or concentrated sprays. Apply recommended rates of **Desperado** as instructed by Crop-Specific Information Section. Spray the last 3 rows windward of surface water using nozzles on only one side with the spray directed away from surface water. Avoid spraying over the tops of trees by adjusting or turning off the top nozzles. Shut the nozzles off on the side away from the grove when spraying the outside row. Shut the nozzles off when turning at the ends of the rows and when passing tree gaps in rows.

**COVERAGE:** Apply **Desperado** in sufficient water to ensure thorough coverage of foliage and fruit. Thorough coverage is required for optimum control. To achieve adequate coverage, use proper spray pressure, nozzle type, nozzle spacing, volume per acre, and tractor speed. Consult spray nozzle and accessory guide for information pertaining to proper equipment calibration.

### GROUND APPLICATION

**WATER VOLUME:** Use 50-400 gallons of spray solution per broadcast acre for optimal performance.

### ADDITIVES

Silicone additives such as Sylgard® 309 are recommended for improved performance of **Desperado**. Additives should be considered for certain conditions such as obtaining better spray coverage, adhesion or penetration of product onto leaf or plant surfaces. Consult a local agricultural authority for more information concerning additives.

### GENERAL TANK MIXING INFORMATION

The phytotoxic potential of **Desperado** aqueous suspension miticide/insecticide/fungicide has been assessed on a wide variety of trees with no phytotoxicity observed. However, all varieties and cultivars have not been tested with possible tank mix combinations. Local conditions can also influence crop tolerance and may not match the conditions in existence at the time of original product testing. Therefore, before using **Desperado** test

the product on a sample of the crop to be treated to ensure that a phytotoxic response will not occur as a result of applications.

**COMPATIBILITY TEST FOR MIX COMPONENTS:** Before mixing components, always perform a compatibility jar test.

For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.

Add components in the sequence indicated in the **Mixing Order** section using 1 teaspoon for each pint of recommended label rate per acre.

Always cap the jar and invert 10 cycles between component additions. When the components have all been added to the jar, let the solution stand for 15 minutes. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, do not mix the ingredients in the same tank.

### MIXING ORDER

- 1) **WATER:** Begin by agitating a thoroughly clean sprayer tank three-quarters (3/4) full of clean water.
- 2) **AGITATION:** Maintain constant agitation throughout mixing and application.
- 3) **WATER-DISPERSIBLE PRODUCTS (such as DESPERADO):** Pour required material into water. Wait until the product is evenly mixed in the spray tank before continuing.
- 4) **WATER-SOLUBLE PRODUCTS**
- 5) **EMULSIFIABLE CONCENTRATES** (except crop oil concentrates).
- 6) **WATER SOLUBLE ADDITIVES** (such as nutrients).
- 7) **REMAINING QUANTITY OF WATER:** Maintain constant agitation during application.

### RESTRICTIONS AND LIMITATIONS

- Maximum Seasonal Use Rate: Do not apply more than a total of 2.2 gallons of **Desperado** (1.0 pound Pyridaben a.i.) per acre, per season.
- Do not make more than 2 applications of **Desperado** per year.
- Allow a minimum of 30 or 90 days between sequential applications of **Desperado** as specified in the Crop Specific Information section.
- Preharvest Interval (PHI): Do not apply within 7 days of harvest.
- Do not make applications of **Desperado** within 30 days before or after a spray oil application.
- Do not tank mix **Desperado** with a crop oil concentrate.
- **Restricted Entry Interval (REI) 24 hours.**
- Do not apply **Desperado** by air.
- Do not apply through any type of irrigation equipment.
- Do not use less than 50 gallons of water per acre.
- DRIFT: Do not apply **Desperado** when weather conditions favor drift to surface water. Do not apply within 110 feet upwind of surface water or when wind speed is above 8 m.p.h. Do not apply during a temperature inversion.
- Applications of **Desperado** during periods when shade temperatures exceed or are likely to exceed 90°F may cause injury to foliage and fruit.

TABLE 1. DESPERADO APPLICATION RATE TABLE

Pests Controlled	Rate Per Acre Per Application
Black Margined Aphid Broad Mite European Red Mite Grape Leafhopper (nymphs) McDaniel Spider Mite Pacific Spider Mite Peach Silver Mite Southern Red Mite Two Spotted Spider Mite Variegated Leafhopper Willamette Spider Mite Yellow Pecan Aphid	1 to 1.1 Gallon

**TABLE 1. DESPERADO APPLICATION RATE TABLE continued..**

Pests Suppressed	Rate per Acre
Powdery Mildew Rust Scab Silverleaf Whitefly	1 to 1.1 Gallon

**CROP-SPECIFIC INFORMATION**

**Tree Nuts Group and Pistachios**

Apply **Desperado** in 50-400 gallons of water per acre. Use higher water volumes to ensure adequate concentration in full size trees with dense foliage.

**Specifically for Almonds-** Applications may be made after petal fall through summer. For best control, pest populations must be building with primarily immature stages present at the time of application. Allow a minimum of 30 days between applications.

See Table 1 for application rates for specific pests.

**TABLE 2. CROP-SPECIFIC RESTRICTIONS AND LIMITATIONS**

Crop	Minimum Time Application to Harvest (PHI)	Maximum Rate per Acre per Application	Maximum Rate per Acre per Season	Aircraft Application
Apricots <sup>1</sup> Cherries <sup>1</sup>	300 Days	1.1 Gals.	2.2 Gals.	NO
Nectarines Peaches Plums Prunes	7 Days	1.1 Gals.	2.2 Gals.	NO
<b>Tree Nuts Group:</b> Almond Beech Black Walnut Brazil Butternut Cashew Chestnut Chinquapin English Walnut Filbert Hickory Macadamia Pecan Pistachio	7 Days	1.1 Gals.	2.2 Gals.	NO

<sup>1</sup>Do not apply **Desperado** to apricots and cherries in California.

Conditions of Sale and Limitation of Warranty and Liability:

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using the product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

**ALL STATEMENTS MADE HEREIN ARE SUBJECT TO APPLICABLE LAW, AND TO THE EXTENT THERE IS ANY INCONSISTENCY OR CONTENTION, APPLICABLE LAW SHALL GOVERN.**

The Directions for Use of the product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of many different factors including, without limitation, manner of use or application, weather, combination with other products, or crop conditions. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Manufacturer and Seller harmless from any claims relating to such factors.

**Seller warrants that this product conforms to the chemical description on the label. EXCEPT FOR THIS WARRANTY, THE PRODUCT IS FURNISHED "AS-IS," AND NEITHER SELLER NOR MANUFACTURER MAKES ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE SELECTION, PURCHASE OR USE OF THIS PRODUCT; SELLER AND MANUFACTURER SPECIFICALLY DISCLAIM ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE BEYOND WHAT IS STATED ON THE LABEL. Buyer and User accept all risks arising from any use of this product, including without limitation, uses contrary to label instructions, or under conditions not reasonably foreseeable to (or beyond the control of) Seller or Manufacturer.**

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ESL-112709

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store in original container only and keep sealed. Store in closed storage areas. Use caution when moving, opening, closing or pouring. Store in cool place.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. After cleaning, if recycling is not available, puncture and dispose of in a sanitary landfill or by incineration or if allowed by State and local authorities by burning. If burned stay out of smoke.

**FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC®: (800) 424-9300**

**For other product information, contact Wilbur-Ellis Company or see Material Safety Data Sheet.**

**Net Contents:**

Manufactured in U.S.A. by:

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