1/14



GROUP 10B INSECTICIDE

# **ZEAL™ WP Miticide**

Active Ingredient	By W
Etoxazole	729
Other Ingredients	289
Total	1009

\*2-(2,6-difluorophenyl)-4-[4-(1,1-dimethylethyl)-2-ethoxyphenyl]-4,5-dihydrooxazole

**KEEP OUT OF REACH OF CHILDREN** 

**CAUTION** 

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS

NET WEIGHT\_\_\_\_

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS

## CAUTION

Causes moderate eye irritation. Avoid contact with eyes, skin and clothing. Avoid breathing dust.

## **FIRST AID**

If in eyes:

Hold eye open and rinse slowly and gently with water for 15-20 minutes.

Remove contact lenses, if present, after the first 5 minutes, then continue

rinsing eye.

Call a poison control center or doctor for treatment advice.

If on skin or clothing:

Take off contaminated clothing.

· Rinse skin immediately with plenty of water for 15-20 minutes.

Call a poison control center or doctor for treatment advice.

If swallowed:

Call a poison control center or doctor immediately for treatment advice.

Have person sip a glass of water if able to swallow.

Do not induce vomiting unless told to do so by a poison control center or

doctor.

Do not give anything by mouth to an unconscious person.

If inhaled:

Move person to fresh air.

If person is not breathing, call 911 or an ambulance, then give artificial

respiration, preferably by mouth-to-mouth, if possible.

Call a poison control center or doctor for further treatment advice.

## **HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **1-800-892-0099** for emergency medical treatment information.

PERSONAL PROTECTIVE EQUIPMENT (PPE): Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride and shoes plus socks.

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

## **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.

#### **ENVIRONMENTAL HAZARDS:**

This pesticide is toxic to freshwater and marine/estuarine aquatic invertebrates, including oysters and shrimp. 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 apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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 the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

## 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 equipment (PPE), 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 12 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: long sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material and shoes plus socks.

#### DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label Including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

#### RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product, which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

#### LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. EXCEPT AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

#### LIMITATION OF LIABILITY

In no event shall Valent or Seller be liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

#### PROMPT NOTICE OF CLAIM

Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twentyone days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

If Buyer does not notify Valent of any claims in such period, it shall be barred from obtaining any remedy.

#### NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

## **TANK MIXES**

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor.

Read and follow the entire label of each product to be used in the tank mix with this product.

### CHEMIGATION

Do not apply this product through any type of irrigation or chemigation system.

#### RESISTANCE MANAGEMENT RECOMMENDATIONS

ZEAL WP is a Group 10B insecticide. Mite biotypes with acquired resistance to Group 10B may eventually dominate the mite population if Group 10B insecticides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by ZEAL WP or other Group 10B insecticides.

To delay insecticide resistance consider:

- Avoiding the consecutive use of ZEAL WP or other Group 10B insecticides that have a similar target site of action, on the same mite species.
- Using tank mixtures or premixes with insecticides from different target site of action Group
  as long as the involved products are all registered for the same use and have different
  sites of action.
- Basing insecticide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitoring treated mite populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for insecticide resistance management and/or IPM recommendations for specific site and resistant pest problems.

For further information or to report suspected resistance, you may contact Valent U.S.A. Corporation at the following toll-free number: 1-800-682-5368.

# WATER SOLUBLE PACKAGING [To Be included on WSP Formulation Only]

# MIXING INSTRUCTIONS

Water Soluble Packaging

This bag contains water soluble packets of ZEAL WP Miticide. Do not handle the packets with wet gloves or allow the packets to become wet prior to mixing. If all packets are not used, close and reseal outer container to protect remaining packet(s). Do not add any liquid fertilizers, micronutrients or adjuvants to the spray solution until after the water soluble packets and their contents have completely dissolved. Water soluble packet(s) should completely dissolve in approximately five minutes. Dissolution rate may be slowed by cold water, lack of agitation, or water containing high concentrations of boron or sulfur. High concentration of boron or sulfur may result in spray screen or nozzle clogging due to the incomplete dissolution of the water soluble packet material.

- 1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
- 2. While agitating, add the correct number of ZEAL WP water soluble packets and make sure that they have dissolved completely before proceeding. Agitation should create a rippling or rolling action on the water surface.
- 3. Fill spray tank to desired level with water. Agitation should continue until all spray solution has been applied.
- 4. Mix only the amount of spray solution that can be applied the day of mixing. ZEAL WP should be applied within 6 hours of mixing.
- 5. Refer to the chart below to determine the number of ZEAL WP water soluble packets required to treat a given number of acres at a specific rate.

Number of ZEAL WP Water Soluble Packets Required to Treat Specified Number of Acres				
Rate (oz./A) Number of Acres to be Treated Number of 2 oz. Packets R				
0.66	30	10		
1.0	20	10		
2.0 10		10		
3.0	4	6		

# COTTON

CROP	PEŠTS	PRODUCT RATES OZ./ACRE	SPECIAL INSTRUCTIONS
Cotton	Carmine Spider Mite Pacific Spider Mite Twospotted Spider Mite	0.66 – 1.0	Apply with air or ground equipment in adequate water for uniform coverage (3 to 10 gals./A by air or 10 to 50 gals./A by ground). Coverage is essential for good control. Use of higher water volume will assure better coverage.
			Best results are achieved when mite populations are low. ZEAL WP is predominately an ovicide/larvicide and should be used early in the life cycle of mites. ZEAL WP should be applied at the threshold for your area.
			The use of rates below 0.66 oz./A (0.03 lb. ai/A) is not recommended since it may result in poor control and contribute to resistance.
	<ul> <li>Do not apply within twenty-eight (28) days of harvest.</li> <li>Do not make more than one (1) ZEAL WP application per season.</li> <li>Do not apply more than 1.0 oz. of ZEAL WP per acre per season.</li> </ul>		

MANAGING RESISTANCE: Repeated use of the same class of miticides or miticides with similar modes of action can lead to the buildup of resistant mite strains. ZEAL WP should be used in alternation with other miticides possessing dissimilar modes of action and/or with other chemical classes of miticides. Follow local, state and federal Integrated Pest Management (IPM) and Resistance Management (RM) recommendations. Read and follow all product labels before applying any miticide.

# **GRAPE**

CROP	PESTS	PRODUCT RATE OZ./ACRE	SPECIAL INSTRUCTIONS
Grape	Pacific Spider Mite Twospotted Spider Mite	2.0 – 3.0	Apply by ground as a full coverage spray in 25 – 200 gals. of water per acre. Coverage is essential for good control. Use of higher water volume will assure better coverage.
			Best results are achieved when mite populations are low. ZEAL WP is predominately an ovicide/larvicide and should be used early in the life cycle of mites. ZEAL WP should be applied at threshold for your area.
			ZEAL WP will not control Rust Mites or Blister Mites. If these pests are a problem, use an alternative miticide registered for that use.
			The use of rates below 2.0 oz./A (0.09 lb. ai/A) is not recommended since it may result in poor control and contribute to resistance.
	<ul> <li>Do not apply within 14 days of harvest.</li> <li>Do not make more than 1 ZEAL WP application per season.</li> <li>Do not apply more than 3.0 oz. of ZEAL WP per acre per season.</li> </ul>		

MANAGING RESISTANCE: Repeated use of the same class of miticides or miticides with similar modes of action can lead to the buildup of resistant mite strains. ZEAL WP should be used in alternation with other miticides possessing dissimilar modes of action and/or with other chemical classes of miticides. Follow local, state and federal Integrated Pest Management (IPM) and Resistance Management (RM) recommendations. Read and follow all product labels before applying any miticide.

# **POME FRUIT**

CROPS	PESTS	PRODUCT RATE OZ./ACRE	SPECIAL INSTRUCTIONS
Pome Fruit such as Apple Crabapple Loquat Pear Quince	European Red Mite McDaniel Spider Mite Pacific Spider Mite Twospotted Spider Mite	2.0 - 3.0	Apply by ground with airblast equipment in a minimum of 100 gals./A. Coverage is essential for good control. Use of higher water volume will assure better coverage.  Best results are achieved when mite populations are low. ZEAL WP is predominately an ovicide/larvicide and should be used early in the life cycle of mites. ZEAL WP should be applied at threshold for your area.  ZEAL WP will not control Rust Mites or Blister Mites. If these pests are a problem, use an alternative miticide registered for that use.  The use of rates below 2.0 oz./A (0.09 lb. ai/A) is not recommended since it may result in poor control and contribute to resistance.
	<ul> <li>Do not apply within twenty-eight (28) days of harvest.</li> <li>Do not make more than one (1) ZEAL WP application per season.</li> <li>Do not apply more than 3.0 oz. of ZEAL WP per acre per season.</li> </ul>		

MANAGING RESISTANCE: Repeated use of the same class of miticides or miticides with similar modes of action can lead to the buildup of resistant mite strains. ZEAL WP should be used in alternation with other miticides possessing dissimilar modes of action and/or with other chemical classes of miticides. Follow local, state, and federal Integrated Pest Management (IPM) and Resistance Management (RM) recommendations. Read and follow all product labels before applying any miticide.

# **STRAWBERRY**

CROP	PESTS	PRODUCT RATE OZ./ACRE	SPECIAL INSTRUCTIONS
Strawberry	Pacific Spider Mite Twospotted Spider Mite	2.0 – 3.0	Apply with ground equipment in a minimum of 100 gals./A. Coverage is essential for good control. Use of higher water volume will assure better coverage.  Best results are achieved when mite populations are low. ZEAL WP is predominately an ovicide/larvicide and should be used early in the life cycle of mites. ZEAL WP should be applied at threshold for your area.  ZEAL WP will not control Cyclamine Mite. Another miticide registered for this pest should be used if these mites are a problem.  The use of rates below 2.0 oz./A (0.09 lb. ai/A) is not
	Lygus Pacific Spider Mite Spittle Bug Tarnished Plant Bug Twospotted Spider Mite	2.0 – 3.0 + 10 2/3 fl. oz. DANITOL® 2.4 EC (0.2 lb. ai/A)	recommended since it may result in poor control and contribute to resistance.  Apply with ground equipment in adequate water for uniform coverage (100 to 300 gals./A).  Alternate with other non-pyrethroid insecticides if retreatment is needed in less than 30 days to comply with local IPM programs.  Comply with all applicable directions, restrictions and precautions on the registered label for DANITOL 2.4 EC Insecticide.
	Do not apply within one (1) day of harvest.  Do not make more than one (1) ZEAL WP application per season.  Do not apply more than 3.0 oz. of ZEAL WP per acre per season.		

MANAGING RESISTANCE: Repeated use of the same class of miticides or miticides with similar modes of action can lead to the buildup of resistant mite strains. ZEAL WP should be used in alternation with other miticides possessing dissimilar modes of action and/or with other chemical classes of miticides. Follow local, state, and federal Integrated Pest Management (IPM) and Resistance Management (RM) recommendations. Read and follow all product labels before applying any miticide.

# **NON-BEARING FRUIT TREES**

CROP	PESTS	PRODUCT RATES OZ./ACRE	SPECIAL INSTRUCTIONS
Non-Bearing Fruit Trees	European Red Mite McDaniel Spider Mite Pacific Spider Mite Twospotted Spider Mite	2.0 – 3.0	Apply by ground with airblast equipment as a full coverage spray.  Best results are achieved when mite populations are low. ZEAL WP is predominately an ovicide/larvicide. ZEAL WP should be applied at or prior to threshold for your area.  The use of rates below 2.0 oz./A (0.09 lb. ai/A) is not recommended since it may result in poor control and contribute to resistance.
	Do not harvest fruit or nu Do not make more than a Do not apply more than 3	one (1) ZEAL WP applicat	

MANAGING RESISTANCE: Repeated use of the same class of miticides or miticides with similar modes of action can lead to the buildup of resistant mite strains. ZEAL WP should be used in alternation with other miticides possessing dissimilar modes of action and/or with other chemical classes of miticides. Follow local, state and federal Integrated Pest Management (IPM) and Resistance Management (RM) recommendations. Read and follow all product labels before applying any miticide.

## **CHRISTMAS TREES**

CROP	PESTS	PRODUCT RATES OZ./ACRE	SPECIAL INSTRUCTIONS
Christmas Trees	McDaniel Spider Mite Pacific Spider Mite Spruce Spider Mite Twospotted Spider Mite	2.0 – 3.0	Apply by ground as full coverage spray or by air in a minimum of 10 gals./A. Coverage is critical for effective control.  Best results are achieved when mite populations are low. ZEAL WP is predominately an ovicide/larvicide. ZEAL WP should be applied at or prior to threshold for your area.  The use of rates below 2.0 oz./A (0.09 lb. ai/A) is not recommended since it may result in poor control and contribute to resistance.
	<ul> <li>Do not make more than one (1) ZEAL WP application per season.</li> <li>Do not apply more than 3.0 oz. ZEAL WP per acre per season.</li> </ul>		

MANAGING RESISTANCE: Repeated use of the same class of miticides or miticides with similar modes of action can lead to the buildup of resistant mite strains. ZEAL WP should be used in alternation with other miticides possessing dissimilar modes of action and/or with other chemical classes of miticides. Follow local, state, and federal Integrated Pest Management (IPM) and Resistance Management (RM) recommendations. Read and follow all product labels before applying any miticide.

# **TREE NUTS**

CROPS	PESTS	PRODUCT RATES OZ./ACRE	SPECIAL INSTRUCTIONS
Tree Nuts such as Almond Beech Nut Brazil Nut Butternut Cashew Chestnut Chinquapin Filbert (Hazelnut) Hickory Nut Macadamia Nut Pecan Pistachio Walnut	European Red Mite Pacific Spider Mites Twospotted Spider Mites	2.0 – 3.0	Apply by ground with airblast equipment as a full coverage spray.  Best results are achieved when mite populations are low. ZEAL WP is predominately an ovicide/larvicide. ZEAL WP should be applied at or prior to threshold for your area.  The use of rates below 2.0 oz./A (0.09 lb. ai/A) is not recommended since it may result in poor control and contribute to resistance.
Black English	<ul> <li>Do not apply within 28 days of harvest.</li> <li>Do not make more than 1 ZEAL WP application per season.</li> <li>Do not apply more than 3.0 oz. ZEAL WP per acre per season.</li> </ul>		

MANAGING RESISTANCE: Repeated use of the same class of miticides or miticides with similar modes of action can lead to the buildup of resistant mite strains. ZEAL WP should be used in alternation with other miticide materials possessing dissimilar modes of action and/or with other chemical classes of miticides. Follow local, state, and federal Integrated Pest Management (IPM) and Resistance Management (RM) recommendations. Read and follow all product labels before applying any miticide.

## STORAGE AND DISPOSAL

#### **PROHIBITIONS**

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited.

### **PESTICIDE STORAGE**

Keep pesticide in original container.

Do not put concentrate or dilute into food or drink containers.

Store in cool, dry place.

Do not store diluted spray.

For help with any spill, leak, fire or exposure involving this material, call day or night (800) 892-0099.

#### 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**

Triple rinse (or equivalent). Do not reuse container. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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