

Agri Star®

BIFENAZATE

GROUP

20D

ACARICIDE

**SPECIMEN
LABEL**

BIFENAMITE 2SC

ORNAMENTAL INSECTICIDE

ACTIVE INGREDIENT:

(% by weight)

bifenazate: hydrazine carboxylic acid, 2-(4-methoxy-[1,1'-biphenyl]-3-yl)1-methylethyl ester	22.6%
OTHER INGREDIENTS	<u>.77.4%</u>
TOTAL	100.0%

Contains 2 pounds active ingredient bifenazate per gallon.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See inside booklet for additional Precautionary Statements and Directions for Use.

**EPA Reg. No. 42750-320
EPA Est. No. 42750-MO-002**

AD112919



Manufactured For:
Albaugh, LLC
1525 NE 36th Street
Ankeny, IA 50021

FIRST AID

IF SWALLOWED

- Call 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 the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

HOT LINE NUMBER - Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For chemical emergency: spill, leak, fire, exposure or accident, call CHEMTREC: 1-800-424-9300.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and Other Handlers Must Wear:

1. Long-sleeved shirt and long pants;
2. Shoes plus socks.

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

USER SAFETY RECOMMENDATIONS

Users should:

1. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
2. Remove clothing/PPE immediately if pesticide gets inside. Then, wash thoroughly and change into clean clothing.
3. Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds, estuarine/marine invertebrates and fish. 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 wash waters or rinsate. This product is moderately toxic to bees and other pollinating insects exposed to direct treatment. or to residues in/on blooming crops or weeds. Protect pollinating insects by following label directions intended to minimize drift and to reduce pesticide risk to these organisms. Do not apply this product while bees are foraging the treatment area.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame. Do not mix or allow to come into contact with oxidizing agents. Hazardous chemical reaction may occur.

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 through any type of irrigation system.

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 (WPS), 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 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:

- Coveralls
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

USE INFORMATION

This product may be applied to foliage for knockdown and residual control of mites on ornamental plants (including ornamental bulb crops, bedding plants, foliage and flowering plants, perennials, shrubs and trees), tomatoes grown in greenhouses and all fruit trees that will not bear fruit for at least 12 months. The plants may be grown in the ground or in pots.

This product may be applied to the above listed plants around residences, public, commercial and industrial areas; interior and exterior landscaping; shadehouses, greenhouses and nurseries; conifer / Christmas tree plantations; recreational sites including golf courses, parks, athletic fields, and campgrounds; and rights -of- way and other easement uses. **NOTE:** *Only apply this product to tomatoes that are grown in greenhouses. Do not use on tomatoes grown outdoors.*

This product works most effectively on mites that are motile, but also has ovicidal activity against the *Tetranychus* spp. mites (i.e., Spider Mites) and is especially effective against grass mites, red mites and spider mites. Common mite species controlled by BIFENAMITE 2SC include:

Bamboo Spider Mite *Schizotetranychus celarius* (Banks)

Citrus Red Mite *Panonychus citri* (McGregor)

Clover Mite *Bryobia praetiosa* (Koch)

European Red Mite *Panonychus ulmi* (Koch)

Lewis Mite *Eotetranychus lewisi*

Pacific Mite *Tetranychus pacificus* (McGregor)

Southern Red Mite *Oligonychus ilcisi* (McGregor)

Spruce Spider Mite *Oligonychus ununguis* (Jacobi)

Strawberry Mite *Tetranychus turkestanii*

Two-Spotted Spider Mite *Tetranychus urticae* (Koch)

NOTE: This product is not effective in controlling rust mites, broad mites and flat mites.

Because this product is not a systemic insecticide, thorough coverage of both the upper and lower surfaces of the leaves, as well as any fruit present is required. When used as directed, this product is useful in resistance management and IPM programs due to its selective nature that minimizes impacts to beneficial insects.

SPRAY DRIFT

Ground Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use Fine or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

BOOM HEIGHT - Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

MIXING INSTRUCTIONS

To prepare this product for application:

- 1) Fill the tank with 1/2 the required amount of water;
- 2) Add the specified amount of BIFENAMITE 2SC;
- 3) Begin agitation to completely disperse the product; and,
- 4) Add the remaining water required for the tank mix and, if possible, maintain agitation while applying.

Because the stability of this product can be negatively impacted in a high temperature/high pH situation, maintain the spray mixture between pH 5.5 – 6.5.

Tank-Mixtures with BIFENAMITE 2SC

If broad-spectrum control is necessary, tank-mix this product with other insecticides. When tank-mixing with other products, make a limited trial to determine the compatibility of the tank mix partners prior to extensive use. Tank mixtures are only permitted in States where all of the pesticide products used as tank-mix partners are registered. It is the pesticide user's responsibility to ensure that all products used in the tank mix are registered for the intended use. Users must follow the most restrictive of all of the labeled use directions, precautionary language, and use limitations for the tank-mix partners.

USE RATES AND APPLICATION INFORMATION

Apply as soon as mites appear. BIFENAMITE 2SC provides residual control for up to 28 days. Within the range of rates specified in the next paragraph, use the lower rate when mite pressure is low or for preventative applications; and use the higher rates when mite pressure is severe or for extended residual control.

Mix 4 - 8 fluid ounces of BIFENAMITE 2SC per 100 gallons of water (1/4 – 1/2 teaspoon per gallon of water).

Apply 1-4 quarts of the mixture per 100 square feet (100-400 gallons per acre) to the foliage using ground spray equipment (including air blast, compressed air, ground boom, hose-end and hydraulic sprayers).

The spray volume used is dependent on the size of the plants being treated, with larger plants requiring greater spray volumes.

Coverage of ornamentals with hard-to-wet foliage may be improved by using an adjuvant to the spray mixture. Silwet 77 or Sylgard 309 at a rate of 4 ounces per 100 gallons of water has been found to be effective. As with any tank mixture, test the compatibility and safety of any adjuvants in a small-scale trial prior to widespread use.

NOTE: Do NOT use adjuvants in tank mixtures that will be applied to greenhouse tomatoes.

USE RESTRICTIONS:

- Do NOT apply BIFENAMITE 2SC more than two times in a single crop year.
- Do NOT apply more than 32 fluid ounces of BIFENAMITE 2SC per acre in a single year.
- Do NOT apply to greenhouse tomatoes within 3 days of harvest (3-day PHI).
- Do NOT use adjuvants in tank mixtures that will be applied to greenhouse tomatoes.
- Do NOT apply BIFENAMITE 2SC by aerial application.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, BIFENAMITE 2SC contains a Group 20D acaricide. Any insect/mite population may contain individuals naturally resistant to BIFENAMITE 2SC and other Group 20D acaricides. The resistant individuals may dominate the insect/mite population if this group of acaricides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide/acaricide resistance, take the following steps:

- Rotate the use of BIFENAMITE 2SC or other Group 20D acaricides within a growing season, or among growing seasons, with different groups that control the same pests. Avoid application of more than 1.5 lbs./A and consecutive sprays of BIFENAMITE 2SC or other insecticides in the same group in a season.
- Use tank mixtures with insecticides/acaricides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
 - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
 - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
 - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
 - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.

- Adopt an integrated pest management program for acaricides use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Use biological control organisms appropriate for mite control in conjunction with this product. When used as directed, BIFENAMITE 2SC will not adversely affect populations of the beneficial/predacious mites and insects listed below. The following organisms may be used either in alternation or in conjunction with this product in order to potentially reduce the number of chemical applications:

PREDATORY MITES	BENEFICIAL INSECTS
<i>Amblyseius</i> spp. <i>Iphiseius degenerans</i> <i>Neoseiulus</i> spp. <i>Phytoseiulus persimilis</i> <i>Typhlodromus</i> spp. <i>Zetzellia</i> spp.	<i>Aphidius colemani</i> <i>Aphidoletes aphidomyza</i> <i>Chrysoperla carnea</i> (Common Green Lacewing) <i>Coccinella septempunctata</i> <i>Cotesia marginiventris</i> <i>Diglyphus isaea</i> <i>Eretmocerus eremicus</i> <i>Hippodamia convergens</i> <i>Orius insidiosus</i> (Insidious Pirate Bug) <i>Stethorus punctum</i>

- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Albaugh, LLC at 1-800-247-8013. www.albaughllc.com

PLANT TOLERANCE

It is not possible for the manufacturer or seller to determine safety for all varieties of ornamental plants, tank-mix combinations and/or sequential pesticide treatments. To determine safe use, conduct a small-scale test using the exact tank mix desired on the ornamental varieties present. The end user assumes responsibility for any and all risks or damage caused by application of this product in a manner inconsistent with its labeling.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a dry location.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING:

Nonrefillable Container (five gallons or less): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) 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 $\frac{1}{4}$ full with water and recap. Shake container 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. Then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of container in a sanitary landfill or by incineration.

Nonrefillable Container (greater than five gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of container in a sanitary landfill or by incineration.

Conditions of Sale and Limitation of Warranty and Liability

The Directions for Use of this 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 such factors as manner of use or application, weather or crop conditions, presence of other materials, resistant strains or other influencing factors in the use of the product, which are beyond the control of Albaugh, LLC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Albaugh, LLC and Seller harmless for any claims relating to such factors.

To the extent allowed by applicable laws, Albaugh, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Albaugh, LLC and Buyer and User assume the risk of any such use. TO THE EXTENT ALLOWABLE BY APPLICABLE LAW, ALBAUGH, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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