



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505T)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

55431-16

Date of Issuance:

1/26/23

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Bifenthrin-Plus-C
Termiticide/Insecticide

Name and Address of Registrant (include ZIP Code):

Arizona Chemical Group, LLC
c/o Maryanne Kellogg
Pyxis Regulatory Consulting Inc.
4110 136th Street Ct NW
Gig Harbor, WA 98332

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Continues page 2

Signature of Approving Official:

Jacquelyn Herrick, Product Manager 03
Invertebrate and Vertebrate Branch 1, Registration Division
(7505P)

Date:

1/26/23

2. You are required to comply with the data requirements described in the generic data call-in (GDCI) identified below:
 - a. Bifenthrin GDCI-128825-902
 - b. Bifenthrin GDCI-128825-1159
 - c. Bifenthrin GDCI-097805-1100

You must comply with all of the data requirements within the established deadlines. If you have questions about the GDCI listed above, you may contact the Chemical Review Manager in the Pesticide Re-Evaluation Division: <http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1>

3. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, “EPA Reg. No. 55431-16.”
4. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The record for this product currently contains the following CSF(s):

- Basic CSF dated 8/4/2022
- Alternate CSF 1 dated 8/4/2022

If you have any questions, please contact Elizabeth Andrews at 202-566-2467 or at Andrews.Elizabeth@epa.gov.

Enclosure

[Note to reviewer: [Text] in brackets denotes optional text].

[Note to reviewer: {Text} in braces denotes where in the final label text will appear].

BIFENTHRIN	GROUP	3A	INSECTICIDE
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Bifenthrin-Plus-C Termiticide/Insecticide

[Mixes Easily with Water]

[Controls listed Insects and Mites on Trees, Shrubs, Flowering Plants*, Non-Bearing Fruit and Nut Trees, and Flowers*]

*Apply when pollinators are not present. [Footnote will be in close proximity to claim.]

[Controls Pests Indoors and Outdoors on Residential, Institutional, Public, Commercial, and Industrial Buildings, and Lawns, Ornamentals, Parks, Recreational Areas and Athletic Fields.]

[For Use in Interiorscapes: Hotels, Shopping Malls, and Office Buildings]

[For Use in Outdoor Plantscapes: Residential Dwellings, Parks, Institutional Buildings, Recreational Areas, Athletic Fields, and Home Lawns]

[Prevents and Controls Termites in and around Structures and Constructions]

[Prevents and Controls Ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever)]

[For the Control of Deer ticks (Ixodes sp.)]

For sale to, use, and storage only by individuals/firms licensed or registered by the state to apply general pest control products. When used as a Termiticide, Individuals/ Firms must be licensed by the State to apply termiticide products. States may have more restrictive requirements regarding qualifications of persons using this product. Consult the pest control regulatory agency of your State prior to use of this product. For both indoor and outdoor use.

Active Ingredient:	By Wt.
Bifenthrin*	7.9%
Other Ingredients:	92.1%
Total	100.0%

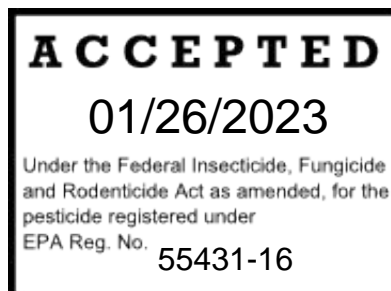
Contains 2/3 pound active ingredient per gallon.

*Cis isomers 97% minimum, trans isomers 3% maximum.

KEEP OUT OF REACH OF CHILDREN CAUTION

[See] [inside] [label] [booklet] [for] [additional] [Precautionary Statements][,] [and] [Directions for Use] [including] [Storage and Disposal] [instructions][.]

Net Contents:



Manufactured For:
Arizona Chemical Group, LLC
P.O. Box 21482
Mesa, AZ 85277



EPA Reg. No.: 55431-xx
EPA Est. No.:

FIRST AID

If swallowed	<ul style="list-style-type: none">• 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 the poison control center or doctor.• Do not give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none">• 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.
If on skin or clothing	<ul style="list-style-type: none">• 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 in eyes	<ul style="list-style-type: none">• 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.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For information on this product, contact the National Pesticide Information Center, 1-800-858-7378, Monday-Friday, 7:30 AM-3:30 PM PST. You may also contact the National Poison Control Center, 1-800-222-1222, day or night, for emergency medical treatment information.

Note to Physician - This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

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

All pesticide handlers (mixers, loaders, and applicators) must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks, and
- Chemical-resistant gloves made of barrier laminate; butyl rubber \geq 14 mils; nitrile rubber \geq 14 mils; neoprene rubber \geq 14 mils; polyvinyl chloride (PVC) \geq 14 mils; viton \geq 14 mils.
- When working in a non-ventilated, confined space, all pesticide handlers must wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges; OR a NIOSH-approved full face respirator with OV cartridges; OR a gas mask with OV canisters; OR a powered air purifying respirator with OV cartridges
- When working in non-ventilated or overhead area, or when applying termiticide by rodding or sub-slab injection, all pesticide handlers must wear protective eyewear (goggles).

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops if bees are visiting the treatment area.

Physical and Chemical Hazards

Do not apply water-based dilutions of Bifenthrin-Plus-C Termiticide/Insecticide to electrical conduits, motor housings, junction boxes, switch boxes or other electrical equipment because of possible shock hazard.

DIRECTIONS FOR USE

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

RESTRICTIONS:

- Do not apply a broadcast application to interior surfaces of homes.
- Do not apply to pets, crops, or sources of electricity.
- Do not use on Firewood.
- Use only in well ventilated areas.
- Do not use on edible crops.
- For ornamental and recreational turf applications, do not apply when the wind speed is greater than 15 mph.
- During any application to overhead areas of structure, cover surface below with plastic sheeting or similar material except for soil surfaces in crawlspaces.
- Do not allow spray to contact food, foodstuffs, food-contacting surfaces or food utensils or water supplies.
- Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated by application of this product.
- Do not treat areas where food is exposed.
- During indoor surface applications, do not allow dripping or runoff to occur.
- Do not allow people or pets on treated surfaces until spray has dried.
- Let surfaces dry before allowing people to and pets to contact surface.
- Do not apply this product in patient rooms or in any rooms while occupied by the elderly or infirm.
- Do not apply to classrooms when in use.
- Do not apply when occupants are present in the immediate area in institutions such as libraries, sports facilities, etc.
- Bifenthrin-Plus-C Termiticide/Insecticide will not stain or damage any surface that water alone will not stain or damage.
- Aerial application is prohibited.
- Application in greenhouses and nurseries is prohibited.
- Application through any kind of irrigation system is prohibited.
- This product may not be used on sod farm turf, golf course turf, or on grass grown for seed.

- This product may not be applied as a broadcast application to interior surfaces of homes.
- For both indoor and outdoor use.
- For soil or foliar applications, do not apply by ground within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.
- Do not spray the product into fish pools, ponds, streams, or lakes. Do not apply directly to sewers or storm drains, or to any area like a drain or gutter where drainage to sewers, storm drains, water bodies or aquatic habitat can occur.
- Do not allow the product to enter any drain during or after application.
- Do not apply or irrigate to the point of runoff.
- Do not make applications during rain. Avoid making applications when rainfall is expected before the product has sufficient time to dry (minimum of 4 hours). Rainfall within 24 hours may cause unintended runoff of pesticide application.
- Spot treatments must not exceed two square feet in size (for example, 2 ft. by 1 ft. or 4 ft. by 0.5 ft.).
- Do not pour or dispose down-the-drain or sewer. Call your local solid waste agency for local disposal options.
- For crack and crevice treatments:
 - Treat surfaces to ensure thorough coverage but avoid runoff.
 - To treat insects harbored in voids and cracks-and-crevices, applications must be made in such a manner to limit dripping and avoid runoff onto untreated structural surfaces and plants.
- Do not apply directly to sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.
- Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack and crevice treatment.
- Do not allow to enter indoor or outdoor drains. *No permita la entrada a desagües internos o externos.*



[Pictogram must be legible (i.e. no smaller than 1.5 square centimeters or 0.25 square inches unless this size is greater than 10% of the size of the label)]

All outdoor spray applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

1. Application to pervious surfaces such as soil, lawn, turf, and other vegetation;
2. Perimeter band treatments of 7 feet wide or less from the base of a man-made structure to pervious surfaces (e.g., soil, mulch lawn);
3. Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure;
4. Applications around potential exterior pest entry points into man-made structures such as doorways and windows, when limited to a band not to exceed one inch;
5. Applications to vertical surfaces (such as the side of a man-made structure) directly above impervious surfaces (e.g., driveways sidewalks, etc.) up to 2 feet above ground level;
6. Make applications to vertical surfaces directly above pervious surfaces, such as soil, lawn, turf, mulch or other vegetation, only if the pervious surface does not drain into ditches, storm drains, gutters or surface waters.

Application equipment that delivers low volume treatments, such as Patriot Injector® or Actisol® applicators, may also be used to make crack and crevice, deep harborage, spot and general surface treatments of Bifenthrin-Plus-C Termiticide/Insecticide.

When treating adjacent to an existing structure, the applicator must check the area to be treated, and immediately adjacent areas of the structure, for visible and accessible cracks and holes to prevent any leaks or significant exposures to persons occupying the structure. People present or residing in the structure during application must be advised to remove their pets and themselves from the structure if they see any signs of leakage. After application, the applicator is required to check for leaks. All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy contaminated areas of the structure until the clean-up is completed.

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended only for aesthetic purposes or climatic modifications and being grown in interior plantscapes, ornamental gardens or parks, or lawns and grounds.

STORAGE AND DISPOSAL

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

Pesticide Storage: Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use replace lids and close tightly. Do not put concentrate or dilute material into food or drink container.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: If liquid, dike surrounding area or absorb with sand, cat litter, or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. Do not contaminate water, food, or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Do not pour or dispose down-the-drain or sewer. Call your local solid waste agency for local disposal options.

Container Handling: Plastic Container: Nonrefillable Container. Do not reuse or refill container. Offer for recycling or reconditioning if available, 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. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows:

Containers 5 gallons or less: 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 ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into 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. Once cleaned, offer for recycling if available.

Containers larger than 5 gallons: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip 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. Once cleaned, offer for recycling or reconditioning if appropriate.

Pressure rinse as follows (all sizes): Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use for disposal. Insert

pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable Container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC 1-800-424-9300.

[Use Directions for Tip-N-Measure Container

1. Remove the measuring chamber cap and induction seal. Replace the cap and securely tighten. Tip container until liquid fills measuring chamber.
2. Return container to level position. No adjustment is needed.
3. Remove measuring chamber cap and dispense into proper application equipment.

For multiple dose measuring, remove fill chamber cap and dispense according to markings on side of bottle.]

[Use Directions for Squeeze-N-Measure Container

1. Remove the measuring chamber cap and induction seal.
2. Replace cap loosely on measuring chamber to allow venting.
3. Squeeze container gently until liquid fills measuring chamber.
4. Remove measuring chamber cap and dispense into proper application equipment.
5. Replace cap onto measuring chamber and tighten.]

RESISTANCE MANAGEMENT

For resistance management, Bifenthrin-Plus-C Termiticide/Insecticide contains a Group 3A Insecticide. Any insect population may contain individuals naturally resistant Bifenthrin-Plus-C Termiticide/Insecticide and other Group 3A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same areas. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of Bifenthrin-Plus-C Termiticide/Insecticide or other Group 3A insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides 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 insecticide 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.
- 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.
- Consult your local extension specialist or certified crop advisors for any additional insecticide 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 your Arizona Chemical Group, LLC representative.

SPRAY DRIFT ADVISORIES

Handheld Technology Applications:

- Take precautions to minimize spray drift.

TERMITICIDE USES

Using this product in and around structures and building construction will prevent and control termite infestations.

To institute a barrier between the wood and the termites in the soil, the chemical dilution must be effectively dispersed in the soil. It is important to remove unnecessary materials that contain cellulose and wood from around foundation walls, crawl spaces (inside of structure), and porches, and fix damaged plumbing and construction grade in order to deny termite access to moisture.

To use this product effectively, it is important that the service technician be familiar with current termite control practices including trenching, rodding, sub-slab injection, low-pressure spray application, coarse fan spraying of soil surfaces, crack and crevice (void) injection, excavated soil treatment, and brush or spray applications to infested or susceptible wood. Using these techniques correctly is essential to prevent or control infestations by subterranean termite species of genera *Coptotermes*, *Heterotermes*, *Reticulitermes* and *Zootermopsis*. When determining what procedures to follow, the service technician should consider certain variables such as biology and behavior of the termite species, structure design, heating ventilation, and air conditioning (HVAC) systems, water table, soil type and compaction, grade conditions, and the location and type of domestic water supplies and utilities.

For information concerning the most up to date control practices in a given region or locale, consult the local resources for structural pest control, state cooperative extensions, and regulatory agencies.

SUBTERRANEAN TERMITE CONTROL

Important: The following precautions must be observed to avoid contamination of public and private water supplies:

- Use anti-backflow equipment or procedures to prevent siphonage of insecticide into water supplies.
- Do not contaminate cisterns, wells, or other water tanks by treating the soil beneath these structures.
- Do not treat soil that is water saturated or frozen.
- Do not treat soil where runoff may occur.

Consult state and local specifications for recommended treatment practices in your area. If local or state specifications do not exist, consult the Federal Housing Administration Specifications (H.U.D.) guidance documents.

Note: For the purpose of this label, crawl spaces are defined as being inside of the structure.

Critical Areas: Points at which the foundation is penetrated or abuts another structure are Critical Areas. These include utility entry points, cracks and expansion joints, bath traps and adjacent structures such as stairs, patios and slab additions.

Structures with Wells/Cisterns Inside Foundations

Structures that contain wells or cisterns within the foundation of a structure can only be treated using the following techniques:

1. Do not treat soil while it is beneath or within the foundation or along the exterior perimeter of a structure that contains a well or cistern. The treated backfill method must be used if soil is removed and treated outside/away from the foundation. The treated backfill technique is described as follows:
 - a) Trench and remove soil to be treated onto heavy plastic sheeting or similar material or into a wheelbarrow.
 - b) Treat the soil at the rate of 4 gallons of dilute emulsion per 10 linear feet per foot of depth of the trench, or 1 gallon per 1.0 cubic feet of soil. See **Mixing Directions** section of this label. Mix thoroughly into the soil taking care to contain the liquid and prevent runoff or spillage.
 - c) After the treated soil has absorbed the diluted emulsion, replace the soil into the trench.
2. Treat infested and/or damaged wood in place using an injection technique such as described in the **Control of Wood Infesting Insects** section of this label.

Structures with Adjacent Wells/ Cisterns and/or Other Water Bodies

Applicators must inspect all structures with nearby water sources such as wells, cisterns, surface ponds, streams, and other bodies of water and evaluate, at a minimum, the treatment recommendations listed below prior to making an application.

1. Prior to treatment, if feasible, expose the water pipe(s) coming from the well to the structure, if the pipe(s) enter the structure within 3 feet of grade.
2. Prior to treatment, applicators are advised to take precautions to limit the risk of applying the termiticide into subsurface drains that could empty into any bodies of water. These precautions include evaluating whether application of the termiticide to the top of the footer may result in contamination of the subsurface drain. Factors such as depth to the drain system and soil type and degree of compaction should be taken into account in determining the depth of the treatment.
3. When appropriate (i.e., on the water side of the structure), the treated backfill technique (described above) can also be used to minimize off-site movement of termiticide.

Before these techniques are used close to cisterns, wells, or other bodies of water, seek advice from local, state or federal agencies for information on treatment practices that are acceptable in your area.

Application Rate:

Use a 0.06% dilution for subterranean termites. For other pests on the label use specific listed rates.

Mixing Directions: Mix the termiticide use dilution in the following manner:

1. Fill tank 1/4 to 1/3 full.
2. Start pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose.
3. Add appropriate amount of Bifenthrin-Plus-C Termiticide/Insecticide.
4. Add remaining amount of water.
5. Let pump run and allow recirculation through the hose for 2 to 3 minutes.

Bifenthrin-Plus-C Termiticide/Insecticide may also be combined into full tanks of water. If combined into full tanks of water, allow sufficient time for agitation and/or recirculation to ensure consistency of dilution. To prepare a 0.06% water dilution, ready to use, dilute 3 quarts of Bifenthrin-Plus-C Termiticide/Insecticide with 99.25 gallons of water.

Mixing:

Using the chart below, determine the volume of Bifenthrin-Plus-C Termiticide/Insecticide and water to produce the desired volume of finished dilution.

Amount of Bifenthrin-Plus-C Termiticide/Insecticide (Gallons except where noted)			
Emulsion Concentrate	Amount of Bifenthrin-Plus-C Termiticide/Insecticide	Amount of Water	Desired Gallons of Finished Emulsion
0.06%	1 oz.	127 oz.	1
	5 oz.	4.9	5
	10 oz.	9.9	10
	25 oz.	24.8	25
	1.5 qt.	49.6	50
	2.25 qt.	74.4	75
	3 qt.	99.25	100
	4.5 qt.	148.8	150
	6 qt.	198.5	200
0.12%*	2 oz.	126 oz.	1
	10 oz.	4.9	5
	19.5 oz.	9.8	10
	1.5 qt.	24.6	25
	3 qt.	49.2	50
	4.5 qt.	73.8	75
	6 qt.	98.5	100
	9 qt.	147.7	150
	3	197	200

*When treating for termites, use this rate only in conjunction with volume adjustments, foam applications or underground services applications.

Common units of measure:

1 pint = 2 cups = 16 fluid ounces (oz.)

1 quart = 2 pints = 4 cups = 32 fluid ounces (oz.)

Application Volume: To provide maximum control and protection against termite infestation apply the specified volume of the finished water emulsion and active ingredient as set forth in the directions for use section of this label. If soil will not accept the labeled application volume, the volume may be reduced provided there is a corresponding increase in concentration so that the amount of active ingredient applied to the soil remains the same.

Note: Large reductions of application volume reduce the ability to obtain a continuous barrier. Variance is allowed when volume and concentration are consistent with the label directed rates and a continuous barrier can still be achieved.

The volume of the 0.12% emulsion may be reduced by 1/2 the labeled volume where desirable for pre- and post-construction applications. When the volume is reduced, the hole spacing for subslab injection and soil rodding may also need to be adjusted to account for lower volume dispersal of the termiticide in the soil. Consult the following **Volume Adjustment Chart** for details.

VOLUME ADJUSTMENT CHART		
Rate (% emulsion)	0.06%	0.12%
Volume allowed		
Horizontal (gallons emulsion/10 ft ²)	1.0 gallons	0.5 gallons
Vertical (gallons emulsion/10 linear ft.)	4.0 gallons	2.0 gallons

After treatment: All holes in commonly occupied areas into which Bifenthrin-Plus-C Termiticide/Insecticide has been applied must be plugged. Plugs must be of a non-cellulose material or covered by an impervious, non-cellulose material.

Foam Applications

Bifenthrin-Plus-C Termiticide/Insecticide emulsion, from 0.06 to 0.12% may be converted to foam with 2 – 40 times expansion characteristics and used to control or prevent termite infestations.

Depending on the circumstances, foam applications may be used alone or in combination with liquid emulsion applications. Applications may be made behind veneers, piers, chimney bases, into rubble foundations, into block voids or structural voids, under slabs, stoops, porches, or to the soil in crawlspaces, and other similar voids.

Foam and liquid application must be consistent with volume and active ingredient instructions in order to ensure proper application has been made. The volume and amount of active ingredient are essential to an effective treatment. At least 75% of the labeled liquid emulsion volume of product must be applied, with the remaining percent delivered to appropriate areas using foam application. Refer to label and use recommendations of the foam manufacturer and the foaming equipment manufacturer.

Foam applications are generally a good supplement to liquid treatments in difficult areas but may be used alone in difficult spots.

Application Under Slabs or to Soil in Crawlspaces to Prevent or Control Termites

When making applications, Bifenthrin-Plus-C Termiticide/Insecticide foam can be used alone or in combination with liquid emulsion. Whether applied as an emulsion, foam, or some of both, the equivalent of at least 4 gallons of 0.06% emulsion (4 ounces of Bifenthrin-Plus-C Termiticide/Insecticide concentrate) per 10 linear feet must be applied for vertical barrier, or at least 1 gallon of 0.06% emulsion (1 ounce of Bifenthrin-Plus-C Termiticide/Insecticide concentrate) per 10 square feet must be applied for a horizontal barrier. For a foam only application, apply Bifenthrin-Plus-C Termiticide/Insecticide concentrate in sufficient concentration and volume to equal 4 ounces of concentrate per 10 linear feet or 1 ounce of concentrate per 10 square feet. For example, 2 gallons of 0.12% emulsion converted to foam and used to cover 10 linear feet is the equivalent of 4 gallons of 0.06% emulsion per 10 linear feet.

Sand Barrier Installation and Treatment

As long as termites have access to soil that has not been treated and can avoid soil that has been treated with Bifenthrin-Plus-C Termiticide/Insecticide, they can build mud tubes over surfaces that have been treated. Fill cracks and spaces with play box or builder's sand and then treated in the same manner as soil. Follow the rates listed in the Bifenthrin-Plus-C Termiticide/Insecticide label.

Retreatment for subterranean termites can only be performed if there is clear evidence of reinfestation or disruption of the barrier due to construction, excavation, or landscaping and/or evidence of the breakdown of the termiticide barrier in the soil. These vulnerable or reinfested areas may be retreated in accordance with application techniques described in this product's labeling. The timing and type of these retreatments will vary depending on factors such as termite pressure, soil types, soil conditions and other factors which may reduce the effectiveness of the barrier.

Annual retreatment of the structure is prohibited unless there is clear evidence that reinfestation or barrier disruption has occurred.

Application in Conjunction with Termite Baits

As part of an IPM (integrated pest management) program for termite control, Bifenthrin-Plus-C Termiticide/Insecticide may be applied to areas of the structure with known or suspected infestations such as plumbing, utility entry sites, bath traps, expansion joints, and foundation cracks at a rate of 0.06% as a spot treatment or complete barrier treatment. Applications may be made as described in the **Post Construction Subterranean Termite Treatment** section of this label.

Pre-Construction Subterranean Termite Treatment

Use Precautions:

- The treatment site must be covered prior to a rain event in order to prevent run-off of the pesticide into non-target areas.
- The applicator must either cover the soil him/herself or provide written notification of the above requirement to the contractor on site and to the person commissioning the application (if different than the contractor). If notice is provided to the contractor or person commissioning the application, then they are responsible under FIFRA to ensure that: 1) if the concrete slab cannot be poured over the treated soil within 24 hours of application the treated soil is covered with a waterproof covering (such as polyethylene sheeting), and 2) the treated soil is covered if precipitation is predicted to occur before the concrete slab is scheduled to be poured.

Use Restrictions:

- Do not treat soil that is water-saturated or frozen.
- Do not treat when raining.
- Do not allow treatment to runoff from the target area.
- Do not apply with 10 feet of storm drains. Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or ponds; estuaries; and commercial fish farm ponds).
- Do not make on-grade applications when sustained wind speeds are above 10 mph (at application site) at nozzle end height.
- Do not apply at a lower dosage and/or concentration than specified on this label for applications prior to the installation of the finished grade.

When treating foundations deeper than 4 feet, apply the termiticide as the backfill is being replaced, or if the construction contractor fails to notify the applicator to permit this, treat the foundation to a minimum depth of 4 feet after the backfill has been installed. The applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to a minimum depth of 4 feet. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

To produce effective pre-construction subterranean termite control, create vertical and/or horizontal chemically treated zones of protection using 0.06% emulsion of Bifenthrin-Plus-C Termiticide/Insecticide. Follow the current edition of the Housing and Urban Development Minimum Property Standards to assure that F.H.A. termite-proofing requirements are met.

Horizontal Barriers

Establish a horizontal chemical barrier wherever treated soil will be covered by a slab, such as basement floors, carports, entrance platforms, footing trenches, and slab floors and the soil below stairs and crawl spaces.

Apply 1 gallon of 0.06% emulsion per 10 square feet, or use 1 fluid ounce of Bifenthrin-Plus-C Termiticide/Insecticide per 10 square feet in sufficient water (no less than ½ gallon or more than 2 gallons) to provide a uniform treated barrier for the area being treated.

If the fill is coarse aggregate, such as washed gravel, a sufficient volume of emulsion must be applied to allow it to reach the soil beneath the coarse fill. Make applications with a low-pressure spray (less than 50 p.s.i.) using a coarse spray nozzle. If foundation walls have not been installed around the treated soil and the slab will not be poured the same day as treatment, the treated soil must be covered with a water-proof barrier. Polyethylene sheeting may be used for this purpose.

Vertical Barriers

Vertical barriers must be established in Critical Areas such as along the inside of foundation walls, plumbing, bath traps, utility services and other features that will penetrate the slab.

Using a 0.06% emulsion, apply 4 gallons of emulsion per 10 linear feet per foot of depth or 4 fluid ounces of Bifenthrin-Plus-C Termiticide/ Insecticide per 10 linear feet per foot of depth from grade level to the top of the footing in sufficient water (not less than 2 gallons or more than 8 gallons) to provide a uniform treated barrier.

- When trenching and rodding into the trench, or trenching, ensure that the emulsion reaches the top of the footing. Space rod holes so that a continuous treated barrier is created, but not exceeding 12 inches apart.
- Avoid soil wash-out around the footing.
- Trenches should be about 6 inches wide and 6 inches deep. Mix the chemical emulsion with the soil as it is being replaced in the trench.
- Inside vertical barriers may not be required for monolithic slabs.

When treating hollow block voids, use 2 gallons of emulsion per 10 linear feet to assure that the emulsion reaches the top of the footing.

Prior to each application, applicators must notify the general contractor, construction superintendent, or similar responsible party, of the intended termiticide application and intended sites of application and instruct the responsible person to notify construction workers and other individuals to leave the area to be treated during application and until the termiticide is absorbed into the soil.

Post Construction Subterranean Termite Treatment

For a post-construction treatment, use a 0.06% emulsion. Post-construction treatments shall be made by injection, trenching and rodding into the trench or trenching using a low-pressure spray not exceeding 25 p.s.i at the nozzle. Proper precautions should be taken to avoid soil wash-out around the footing.

Locate, identify, and mark wells, electrical conduits, water and sewer lines, and radiant heat pipes prior to application of Bifenthrin-Plus-C Termiticide/Insecticide. Do not puncture or inject Bifenthrin-Plus-C Termiticide/Insecticide into these structures.

Foundations

For applications made after the final grade is installed, the applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to the top of the footing. When the footing is more than four (4) feet below grade, the applicator must trench and rod into the trench or trench along the foundation walls at the rate prescribed to a minimum depth of four feet. The actual depth of treatment will vary depending on soil type, degree of compaction, and location of termite activity. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

Slabs

Create vertical barriers by trenching and rodding into the trench or trenching outside at the rate of 4 gallons of emulsion per 10 linear feet per foot of depth and by sub-slab injection within the structure. Ensure an even distribution of chemical. Applications must not be made below the bottom of the footing. Apply beside the outside of the foundation and under the slab on the inside of foundation walls, where needed. Treatment of slabs may also be necessary

under and beside both sides of any interior footing-supported walls, in all cracks and expansion joints, and beside one side of interior partitions. By long-rodding or grid pattern injection vertically through the slab, horizontal barriers may be created where necessary.

- a. To permit the creation of an uninterrupted insecticidal barrier, drill holes in the foundation and/or slab.
- b. For foundations that are less than or equal to 1 foot, dig a narrow trench about 6 inches wide beside the outside of the foundation walls. Do not dig beneath the bottom of the footing. As the soil is placed back into the trench, apply 4 gallons of emulsion per 10 linear feet per foot of depth to the trench and soil.
- c. For foundations that are deeper than 1 foot, follow the rates stated for basements.
- d. A 0.06% emulsion may be used to treat exposed wood in bath traps.

Basements

Treatment must be made by trenching and rodding into the trench, or trenching at the rate of 4 gallons of emulsion per 10 linear feet per foot of depth wherever the footing, from grade to the bottom of the foundation, is greater than 1 foot of depth. When the footer is greater than four feet below grade, the applicator may trench and rod into the trench, or trench beside foundation walls at the rate designated for four feet of depth. Space rod holes to create a continuous insecticidal barrier, but in no case more than 12 inches apart. Depending on the type of soil, degree of compaction and location of termite activity, the actual depth of treatment will differ. However, a structure should never be treated below the footer. Sub-slab injection may be needed beside the inside of foundation walls, around conduits, piers, and pipes, beside both sides of interior footing-supported walls, and beside cracks and partition walls.

Accessible Crawl Spaces: For crawl spaces, apply vertical termiticide barriers at the rate of 4 gallons of emulsion per 10 linear feet per foot of depth from grade to the top of the footing, or if the footing is more than 4 feet below grade, to a minimum depth of 4 feet. Apply by trenching and rodding into the trench, or trenching. Treat both sides of foundation and around all piers and pipes. Where physical obstructions such as concrete walkways adjacent to foundation elements prevent trenching, treatment may be made by rodding alone. When soil type and/or conditions make trenching prohibitive, rodding may be used. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. Read and follow the mixing and use direction section of the label if situations are encountered where the soil will not accept the full application volume.

1. Rod holes and trenches must not extend below the bottom of the footing.
2. Rod holes must be spaced to achieve a continuous termiticide barrier but in no case more than 12 inches apart.
3. Trenches must be a minimum of 6 inches deep or to the bottom of the footing, whichever is less, and need not to be wider than 6 inches. When trenching in sloping (tiered) soil, the trench must be stepped to ensure adequate distribution and prevent termiticide from running off. The emulsion must be mixed with the soil as it is replaced in the trench.
4. When treating plenums or crawl spaces, turn off the air circulation system of the structure until application has been completed and all termiticide has been absorbed by the soil.

Inaccessible Crawl Spaces: For inaccessible interior areas, such as areas where there is insufficient clearance between floor joists and ground surfaces

to allow operator access, excavate if possible, and treat according to the instruction for accessible crawl spaces. Otherwise, apply one or a combination of the following two methods.

1. To establish a horizontal barrier, apply to the soil surface, 1 gallon of emulsion per 10 square feet overall using a nozzle pressure of less than 25 p.s.i. and a coarse application nozzle (e.g., Delavan® Type RD Raindrop®, RD-7 or larger, or Spraying Systems Co. 8010LP TeeJet® or comparable nozzle). For an area that cannot be reached with the application wand, use one or more extension rods to make the application to the soil. Do not broadcast or powerspray with higher pressures.
2. To establish a horizontal barrier, drill through the foundation wall or through the floor above and treat the soil perimeter at a rate of 1 gallon of emulsion per 10 square feet. Drill spacing must be at intervals not to exceed 16 inches. Many states have smaller intervals, so check State regulations which may apply.

When treating plenums and crawl spaces, turn off the air circulation systems of the structure until application has been completed and all termiticide has been absorbed by the soil.

Masonry Voids: Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil in order to create a continuous treatment barrier in the area to be treated. Apply at a rate of 2 gallons of emulsion per 10 linear feet of footing, using a nozzle pressure of less than 25 p.s.i. When using this treatment, access holes must be drilled below the sill plate and should be as close as possible to the footing as is practical. Treatment of voids in block or rubble foundation walls must be closely examined. Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not be treatable or may require mechanical alteration prior to treatment.

All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy the contaminated areas of the structure until the clean-up is completed.

Note: When treating behind veneer structures (walls, etc.) take proper care to not drill beyond the veneer. If concrete blocks exist behind the veneer, both

can be drilled and treated simultaneously.

Bifenthrin-Plus-C Termiticide/Insecticide may not be used in voids insulated with rigid foam insulation.

Excavation Technique: When treating in troublesome areas (e.g., beside fieldstone or rubble walls, beside faulty foundation walls, and around pipes and utility lines leading downward from the structure to a well or pond) apply using the following technique:

- a. Prepare a trench, placing the removed soil into heavy-weight plastic sheeting or similar, water-impermeable material.
- b. Treat the soil with 4 gallons of emulsion per 10 linear feet per foot of depth of the trench. Completely mix the emulsion into the soil exercising care to avoid liquid running off the sheeting.
- c. Place the treated soil back into the trench after it has absorbed the emulsion.

SPECIFIC PEST CONTROL APPLICATIONS

Underground Services including wires, cables, utility lines, pipes, conduits. Services may be within structures, in right-of-ways or to protect long range (miles) of installations of services.

To prevent attack by termites and ants, apply 0.06 to 0.12% Bifenthrin-Plus-C Termiticide/Insecticide emulsion to the soil. Apply to the bottom of the trench at the rate of 2 gallons of emulsion per 10 linear feet. Let the emulsion be absorbed into the soil. Lay services on the treated soil and cover with about 2 inches of fill soil. Apply another 2 gallons per 10 linear feet over the soil surface to complete the chemical barrier. In wide trenches, only the soil near the services should be treated. A continuous barrier of treated soil surrounding the services must be established.

In cases where the soil will not accept the above labeled volume, 1 gallon of 0.12% Bifenthrin-Plus-C Termiticide/Insecticide may be used per 10 linear feet of trench. Apply both to the bottom of the trench and over the soil on top of the services.

Fill the trench with treated fill soil. Treat the soil where each service sticks out from the ground by trenching/rodding of not more than 1 to 2 gallons of emulsion into the soil.

Precautions: Do not treat electrically active underground services.

Posts, Poles, and Other Constructions: Around wooden constructions such as signs, fences and landscape ornamentation an insecticidal barrier can be established by treating with a 0.06% emulsion. Sub-surface injection and gravity-flow through holes in the bottom of the trench, are two treatment methods that can be used on poles and posts that have already been installed. A complete chemical barrier around the pole can be established by treating on all sides. For poles and posts less than six inches in diameter use 1 gallon of emulsion per foot of depth and for larger poles, use 1.5 gallons of emulsion per foot of depth. Apply to a depth of 6 inches below the bottom of the wood. For larger constructions, use 4 gallons per 10 linear feet per foot of depth.

Treatment of Wood-in-Place for Control of Wood-Infesting Insects: (Localized Areas in Structure) For the control of listed insects: Termites, Ants, Carpenter Ants, and wood-infesting beetles such as Old House Borer and Powder Post in localized areas of infested wood in and around structures, apply a 0.06% emulsion to voids and galleries in damaged wood and in spaces between wooden members of a structure and between wood and foundations where wood is at risk. Paint on or fan spray applications may also be used. Place plastic sheeting under overhead areas that are spot treated except for soil surfaces in crawl spaces. Areas in which access is difficult may be treated by drilling, and then injecting the emulsion with a crack and crevice injector into the damaged wood or void spaces. This type of application is not intended to be a substitute for soil treatment, mechanical alteration or fumigation to control extensive infestation of wood-infesting insects.

Termite carton nests in trees or building voids: To control termite carton nests in trees or building voids inject with a 0.06% emulsion. Multiple injection points to varying depths may be necessary. Carton nest material should be removed from building voids when nests are discovered.

Control of Bees, Wasps, Hornets, and Yellow Jackets Indoors: To control Bees, Wasp, Hornets, and Yellow-Jackets, apply a 0.06% emulsion. Apply in the late evening when insects are at rest. Spray liberally into hiding and breeding places, especially under attic rafters, contacting as many insects as possible. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity.

Important: Do not apply emulsion until location of heat pipes, ducts, water and sewer lines and electrical conduits are known and identified. Avoid puncturing and injection into these structural elements. Do not apply into electrical fixtures, switches, or sockets.

In the home, cover all food processing surfaces and utensils in the treatment area during treatment or thoroughly washed before re-use. Remove pets, birds, and cover aquariums before spraying. Do not permit humans or pets to contact treated surfaces until the spray has dried.

During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials. Do not touch sprayed surfaces until spray has completely dried.

Outside of Structures

Broadcast Treatment of Wood for the Control of Wood-Infesting Insects and Nuisance Pests

In order to control wood-infesting insects active inside trees, utility poles and/or fence posts, drill to the interior infested cavity and inject a 0.06% emulsion. If treating nuisance pests on the exterior of the structure, apply a 0.06% emulsion with a fan spray using a maximum pressure of 25 p.s.i. and

apply just to the point of run-off. To control Bees, Wasps, Hornets, and Yellow-Jackets, direct the spray at nest openings in the ground, bushes, and in cracks and crevices. Saturate nest openings and contact as many insects as possible. Apply in late evening when insects are at rest.

Pests Under Slabs: To control infestations of Arthropods including ants, cockroaches and scorpions living beneath the slab area, drill and inject, or horizontal rodding and then inject 1 gallon of a 0.06% to 0.12% emulsion per 10 square feet or 2 gallons of emulsion per 10 linear feet.

Formula for Determining the Active Ingredient Content of the Finished Spray Mixture: The following formula may be used to determine the percent active ingredient that is in the spray tank after mixing Bifenthrin-Plus-C Termiticide/Insecticide:

$$\frac{(7.9\%) \times (\text{Fl. oz. of Bifenthrin-Plus-C Termiticide/Insecticide added to tank})}{(\text{Gallons of finished spray mix}) \times (128)} = \text{Percent Active Ingredient of spray mix}$$

LAWNS AND ORNAMENTALS

Application Instructions

Bifenthrin-Plus-C Termiticide/Insecticide may be mixed with water and other aqueous carriers for the control of insects and mites on trees, shrubs, foliage plants, non-bearing (perennial crops that will not produce a harvestable raw agricultural commodity within 365 days of application) fruit and nut trees, and flowers* in interiorscapes: hotels, shopping malls, office buildings, and outdoor plantscapes, around residential dwellings, parks, institutional buildings, recreational areas, athletic fields and home lawns.

*Apply when pollinators are not present{Footnote will be in close proximity to claim.}

Bifenthrin-Plus-C Termiticide/Insecticide may be tank-mixed with insect growth regulators as well as other pesticides. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and Directions for Use on all product labels involved in tank mixing. Users must follow the most restrictive Directions for Use and Precautionary Statements of each product in the tank mixture. Physical compatibility of Bifenthrin-Plus-C Termiticide/Insecticide may vary with different combinations of products, and local cultural practices. Prepare a small scale (pint or quart jar) test sample for any combination not tested previously. Use the proper proportions of pesticides and water to make sure of the compatibility of the mixture.

Tank Mix Compatibility Testing

A jar test is recommended prior to tank mixing to ensure compatibility of Bifenthrin-Plus-C Termiticide/ Insecticide and other products. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Always use water from the intended source. Invert the jar containing the mixture several times and observe the mixture for approximately ½ hour. Evaluate the solution for uniformity and stability. If the mixture balls-up, forms flakes, sludges, gels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

Tank Mix Preparation:

Unless otherwise noted, follow the procedure below to prepare a tank mix:

- 1) Add wettable powders to tank water
- 2) Agitate
- 3) Add liquids and flowables
- 4) Agitate
- 5) Add emulsifiable concentrates
- 6) Agitate

Formula for Determining the Active Ingredient Content of the Finished Spray Mixture: The following formula may be used to determine the percent active ingredient that is in the spray tank after mixing Bifenthrin-Plus-C Termiticide/Insecticide:

$$\frac{(7.9\%) \times (\text{Fl. oz. of Bifenthrin-Plus-C Termiticide/Insecticide added to tank})}{(\text{Gallons of finished spray mix}) \times (128)} = \text{Percent Active Ingredient of spray mix}$$

In the State of New York, for application uses outdoors on ornamentals and lawns in landscaped areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields:

The Following Precautionary Measures Must be Obeyed.

A 100 foot buffer must be maintained between the application site and the waters of the State. A 100 foot buffer is required for all waters except those entirely privately owned with no outlet to State waters. The buffer must consist of well maintained, established vegetation (i.e. grass, etc.) growth and must be maintained to prevent the development of channels.

In New York State, do make a single repeat application of this product if there are signs of renewed insect activity, but no sooner than two weeks after the first application.

LAWNS

Apply Bifenthrin-Plus-C Termiticide/Insecticide as a broadcast treatment. For uniform control when applying to dense grass foliage, use volumes of up to 10 gallons per 1,000 square feet.

To ensure control of sub-surface pests, including Mole Crickets, using low volume applications (less than 2 gallons per 1,000 square feet) immediately follow treatment with irrigation of treated area with at least 0.25 inches of water.

Application Rates

Under typical conditions, the application rates shown in the table below will provide control of the listed pests. Follow the application rates listed in the table below for typical pest pressure. Bifenthrin-Plus-C Termiticide/Insecticide may be applied at up to 1 fl. oz. per 1000 square feet (0.23 lb ai/A) at the discretion of the applicator. Use the higher labeled application rate for maximum residual control.

Pest	Application Rate	Application Instructions
Armyworms Cutworms Sod Webworm	0.18-0.25fl. oz. per 1,000sq. ft.	For best results, postpone watering (irrigation) or mowing for 24 hours after application.
	1.0fl. oz. per 1,000 sq. ft.	Higher treatment rates (up to 1 fluid oz. per 1000 square feet) may be necessary if high pest pressure exists and grass is maintained taller than 1 inch.

Pest	Application Rate	Application Instructions
Annual Bluegrass Weevil (Hyperodes) (Adult) Banks Grass Mite Billbugs (Adult) Black Turfgrass Ataenius (Adult) Centipedes Crickets Earwigs Fleas (Adult) Grasshoppers Leafhoppers Mealybugs Millipedes Mites Pillbugs Sowbugs	0.25 - 0.5 fl. oz. per 1,000 sq. ft.	<p>Annual Bluegrass Weevil (<i>Hyperodes</i>) adults: Time treatments as they travel into grass away from their overwintering sites. Travel usually begins when <i>Forsythia</i> is in full bloom and concludes when flowering dogwood (<i>Cornus florida</i>) is in full bloom. For additional detailed information, check with your State Cooperative Extension Service.</p> <p>Billbug adults: Apply when adult billbugs are first noticed in April and May. To optimize treatment, degree day models have been developed. For additional detailed information, check with your State Cooperative Extension Service. Spring treatments for billbug adults will also offer control of over-wintered chinch bugs in temperate climates.</p> <p>Black Turfgrass Ataenius adults: To control the first and second generation of black turfgrass ataenius adults, respectively, apply in May and July. Time the May treatment to coincide with the full bloom stage of <i>Vanhoutte spiraea</i> (<i>Spiraea vanhouttei</i>) and horse chestnut (<i>Aesculus hippocastanum</i>). Time the July treatment to coincide with the blooming Rose of Sharon (<i>Hibiscus syriacus</i>).</p> <p>Mites: Apply in combination with a labeled application rate of a surfactant to achieve optimal control of eriophyid mites. A second application may be needed, five to seven days after the first, to ensure optimal control.</p>
Chinch Bugs	0.25 - 0.5 fl. oz. per 1,000 sq. ft. 1.0 fl. oz. per 1,000 sq. ft.	<p>Chinch Bugs: Mostly found in the thatch layer, Chinch bugs infest the base of grass plants. In order to optimize the penetration of the insecticide to location of the chinch bugs, irrigation of the grass prior to treatment may be necessary. If the grass is kept at a long mowing height or if the thatch layer is excessive, use higher volume treatments.</p> <p>It may be necessary to use higher labeled application rates (up to 1 fluid oz. per 1000 square feet) to control Chinch Bug populations made up of both nymphs and adults in midsummer.</p>
Crane Flies	0.5 fl. oz. per 1,000 sq. ft.	<p>Apply in August – February to control early to mid-season larvae as they feed on plant crowns. Applications made March – April to late-season larvae may aid in suppression.</p>
Ants Fleas (Larvae) Imported Fire Ants Japanese Beetle (Adult) Mole Cricket (Adult) Mole Cricket (Nymph) Ticks	0.5 - 1.0 fl. oz. per 1,000 sq. ft.	<p>Flea larvae: Flea larvae mature in shaded areas accessible to pets or other animals. When treating these areas use a higher volume treatment so that the insecticide penetrates into the soil. Note: If the lawn area is being treated with Bifenthrin-Plus-C Termiticide/Insecticide at 0.25 fluid ounces per 1000 square feet for adult flea control, then the larval application rate can be accomplished by a two- to four-fold increase in spray volume.</p> <p>Imported Fire Ants: For best control use broadcast treatments in combination with mound drenches. This will control present colonies along with foraging workers and newly mated fly-in queens. It is critical either to use high volume treatments or to irrigate prior to application if the soil is dry. Apply 1 fluid oz. per 1,000 square feet when using broadcast treatments. For mound drenches, dilute 1 teaspoon of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water and use 1 to 2 gallons of finished spray per mound using sufficient force to penetrate the top and allow the emulsion to flood ant channels. Treat a four foot diameter around each ant mound. Apply in late evening or early morning when it is cooler (65-80°F). Note: A spray rig calibrated to apply 1 fluid oz. per 1,000 square feet of Bifenthrin Plus-C Termiticide/Insecticide in 5 gallons per 1,000 square feet contains the equivalent emulsion (1 teaspoon per gallon) required for fire ant mound drenches in the spray tank.</p> <p>Mole Cricket adults: Since the preferred grass areas are subject to constant invasion in early spring by the active adult stage, it can be difficult to maintain control of adult mole crickets. Make treatments as late in the day as possible and follow with up to 0.5 inches of water after treatment. To ensure maximum contact with the insecticide when the soil is dry, irrigate prior to treatment to bring the adult mole crickets closer to the soil surface.</p> <p>To obtain optimal control of potential nymphal populations immediately, the grass areas preferred by adult mole crickets in the spring, treat prior to peak hatch stage.</p> <p>Mole Cricket nymphs: To obtain optimal control of potential nymphal populations treat immediately, the grass areas preferred by adult mole crickets, in the spring prior to peak hatch stage. Young nymphs are more vulnerable to insecticidal treatment at this stage because they are close to the soil surface where the insecticide is most effective. Use higher labeled application rates and frequent applications to control larger, more damaging, nymphs later in the year. Make treatments as late in the day as possible and water immediately with up to 0.5 inches of water. To ensure maximum contact with the insecticide when the soil is dry, irrigate prior to treatment to bring the adult mole crickets closer to the soil surface.</p> <p>Ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever): Make application to the entire area where contact with ticks may occur. Do not make spot treatments. When applying to areas with heavy leaf litter or dense ground cover use higher spray volumes. To attain and/or sustain control in times of high pest pressure, retreatments may be necessary; retreat only if signs of continued or renewed tick activity are present. Repeat treatments must not be made more often than once per seven days.</p> <p>Deer ticks (<i>Ixodes</i> sp.) have a four-stage life cycle spanning 2 years. Treat in the late fall and/or early spring to control adult ticks located on brush or grass above the soil surface and in mid to late spring to control larvae and nymphs that live in the soil and leaf litter.</p> <p>American dog ticks invade suburban settings in areas where residences and dwellings are constructed on former fields or wooded areas. These pests normally gather by paths or roadways where they are likely to find a host. To control tick larvae, nymphs and adults, treat, as needed, from mid spring to early fall.</p>

Calculating Dilution Rates: To determine the proper dilution of Bifenthrin-Plus-C Termiticide/Insecticide that is required to control specific pests, follow the steps below:

- 1) Determine the target pest requiring the highest application rate for effective control in the **Application Rates** chart.
- 2) Choose the treatment rate in terms of fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide.

3) Determine the dilution volume necessary for the treatment in the **Dilution Chart**.

4) Use the proper amount of Bifenthrin-Plus-C Termiticide/Insecticide that must be mixed in your desired volume of water as shown in the **Dilution Chart**.

For example, to control ticks the **Application Rates** table shows that 0.5 to 1.0 fluid ounces of Bifenthrin-Plus-C Termiticide/Insecticide must be applied per 1,000 square feet. You select an application rate of 1.0 fluid oz. per 1,000 square feet because maximum residual control is desired. Your application volume is approximately 10 gallons per 1,000 sq. ft. Consulting the **Lawn Dilution Chart** reveals the dilution rate of 1.0 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide in 10 gallons of water.

Lawn Application Dilution Chart

Application Volume Gallons Per 1,000 Sq. Ft.	Application Rate Fluid Ounces Per 1,000 Sq. Ft.	Fluid Ounces* of Bifenthrin-Plus-C Termiticide/Insecticide Diluted to these Volumes of Finished Spray			
		1 Gallon	5 Gallons	10 Gallons	100 Gallons
1.0	0.18	0.18	0.90	1.8	18.0
1.0	0.25	0.25	1.25	2.5	25.0
1.0	0.5	0.5	2.5	5.0	50.0
1.0	1.0	1.0	5.0	10.0	100.0
2.0	0.18	-	0.45	0.90	9.0
2.0	0.25	0.13	0.63	1.25	12.5
2.0	0.5	0.25	1.25	2.5	25.0
2.0	1.0	0.5	2.5	5.0	50.0
3.0	0.18	-	0.30	0.60	6.0
3.0	0.25	-	0.42	0.83	8.3
3.0	0.5	0.17	0.83	1.67	16.7
3.0	1.0	0.33	1.67	3.33	33.3
4.0	0.18	-	0.23	0.45	4.5
4.0	0.25	-	0.31	0.63	6.3
4.0	0.5	0.13	0.63	1.25	12.5
4.0	1.0	0.25	1.25	2.5	25.0
5.0	0.18	-	0.18	0.36	3.6
5.0	0.25	-	0.25	0.5	5.0
5.0	0.5	0.1	0.5	1.0	10.0
5.0	1.0	0.2	1.0	2.0	20.0
10.0	0.18	-	-	0.18	1.8
10.0	0.25	-	0.13	0.25	2.5
10.0	0.5	-	0.25	0.5	5.0
10.0	1.0	0.1	0.5	1.0	10.0

*To convert to milliliters, multiply by 29.57

1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Bifenthrin-Plus-C Termiticide/Insecticide.

ORNAMENTALS AND TREES

Bifenthrin-Plus-C Termiticide/Insecticide is for use on trees, shrubs, ground covers, bedding plants, and foliage plants. Treat with 0.125 to 1.0 fl. oz. of Bifenthrin-Plus-C Termiticide/Insecticide per 1,000 square feet or 5.4 to 43.5 fl. oz. per 100 gallons. Bifenthrin-Plus-C Termiticide/ Insecticide may be diluted and used in different volumes of water as long as the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz. per 100 gallons) is not exceeded. If diluted with water or other carriers, Bifenthrin-Plus-C Termiticide/Insecticide may be applied through low volume application equipment as long as the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz. per 100 gallons) is not exceeded.

Treat as a full coverage foliar spray using the stated application rate. If pest pressure and density of foliage increases, repeat treatments using higher labeled rates may be needed to reach the desired control. Repeat treatments must not be made more often than once per 7 days.

Before application to entire planting, test treat a small number of plants and watch for signs of sensitivity. Some plant species may be sensitive to the final spray solution.

To avoid or delay pest resistance, it is recommended to use an alternate class of pesticide in any application program.

Calculating Dilution Rates: To determine the proper dilution of Bifenthrin-Plus-C Termiticide/Insecticide that is required to control specific pests, follow the steps below:

- 1) Determine the target pest requiring the highest application rate for effective control in the **Application Rates** chart.
- 2) Choose the treatment rate in terms of fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide.
- 3) Determine the dilution volume necessary for the treatment in the **Dilution Chart**.
- 4) Use the proper amount of Bifenthrin-Plus-C Termiticide/Insecticide that must be mixed in your desired volume of water as shown in the **Dilution Chart**.

For example, to control black vine weevil adults on rhododendron, the **Application Rates** table shows that 0.25 to 0.5 fluid ounces of Bifenthrin-Plus-C Termiticide/Insecticide must be applied per 1,000 square feet. You select an application rate of 0.5 fluid oz. per 1,000 square feet because maximum residual control is desired. Your application volume is approximately 300 gallons per acre, which is equivalent to 6.9 gallons per 1,000 square feet. Consulting the **Ornamental Dilution Chart** reveals that you should dilute 0.72 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide in 10 gallons of water.

Ornamental Application Dilution Chart

Application Volume Gallons Per		Application Rate Fl. oz. per 1,000 sq. ft.	Fluid Ounces* of Bifenthrin-Plus-C Termiticide/Insecticide Diluted to these Volumes of Finished Spray			
1,000 sq. ft.	Acre		1 Gallon	5 Gallons	10 Gallons	100 Gallons
2.3	100	0.125	-	0.27	0.54	5.4
2.3	100	0.25	0.11	0.54	1.08	10.8
2.3	100	0.5	0.22	1.09	2.17	21.7
2.3	100	1.0	0.44	2.17	4.35	43.5

Application Volume Gallons Per		Application Rate Fl. oz. per	Fluid Ounces* of Bifenthrin-Plus-C Termiticide/Insecticide Diluted to these Volumes of Finished Spray			
1,000 sq. ft.	Acre	1,000 sq. ft.	1 Gallon	5 Gallons	10 Gallons	100 Gallons
4.6	200	0.125	-	0.14	0.27	2.7
4.6	200	0.25	-	0.27	0.54	5.4
4.6	200	0.5	0.11	0.54	1.09	10.9
4.6	200	1.0	0.22	1.09	2.17	21.7
6.9	300	0.125	-	-	0.18	1.8
6.9	300	0.25	-	0.18	0.36	3.6
6.9	300	0.5	-	0.36	0.72	7.2
6.9	300	1.0	0.15	0.72	1.45	14.5

*To convert fluid ounces to milliliters, multiply by 29.57
300 gallons per acre is a typical application volume for landscape ornamental applications.
1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons
Do not use household utensils to measure Bifenthrin-Plus-C Termiticide/Insecticide.

In the State of New York, for application uses outdoors on ornamentals and lawns in landscaped areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields:

The Following Measures Must be Obeyed.

A 100 foot buffer must be maintained between the application site and the waters of the State. A 100 foot buffer is required for all waters except those entirely privately owned with no outlet to State waters. The buffer must consist of well maintained, established vegetation (i.e. grass, etc.) growth and must be maintained to prevent the development of channels.

In New York State, do make a single repeat application of this product if there are signs of renewed insect activity, but no sooner than two weeks after the first application.

Application Rates

Under typical conditions, the application rates in the table below will offer optimal control of the listed pests. Apply Bifenthrin-Plus-C Termiticide/Insecticide at up to 1 fl. oz. per 1000 square feet (43.5 oz. per 100 gallons) at the discretion of the applicator. When maximum residual control is preferred, use the higher labeled treatment rates.

Pest	Application Rate	Application Instructions
Bagworms Cutworms Elm Leaf Beetles Fall Webworms Gypsy Moth Caterpillars Lace Bugs Leaf Feeding Caterpillars Tent Caterpillars	0.125 - 0.25 fl. oz. per 1,000 sq. ft. (5.4 – 10.8 fl. oz. per 100 gal.)	Bagworms: For optimum control treat when larvae have started to hatch and are young, directing spray to contact as many larvae as possible.
Adelgids Ants Aphids Bees Beet Armyworm Beetles Black Vine Weevil (Adults) Brown Soft Scales Broad Mites Budworms California Red Scale (Crawlers) Centipedes Cicadas Citrus Thrips Clover Mites Crickets Diaprepes (Adults) Earwigs European Red Mite Flea Beetles Fungus Gnats (Adults) Grasshoppers Japanese Beetle (Adult) Leafhoppers Leafrollers Mealybugs Millipedes Mites Mosquitoes Orchid Weevil Pillbugs Pine Needle Scales (Crawlers) Plant Bugs (Including <i>Lygus</i> spp.) Psyllids San Jose Scales (Crawlers) Scorpions	0.25 - 0.5 fl. oz. per 1,000 sq. ft. (10.8 – 21.7 fl. oz. per 100 gal.)	Beetles, Scale Crawlers, Twig Borers, and Weevils: Apply to plant foliage; also treat trunks, stems and twigs.

Pest	Application Rate	Application Instructions
Sowbugs Spider Mites Spiders Spittlebugs Thrips Tip Moths Treehoppers Twig Borers Wasps Weevils Whiteflies		
Imported Fire Ants** Leafminers Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Spider Mites	0.5- 1.0 fl. oz. per 1,000sq. ft. (21.7–43.5 fl. oz. per 100 gal.)	Spider Mites: Apply during spring and summer for most effective control of twospotted spider mites. During mid- to late-summer it may be necessary to make more frequent treatments, possibly at higher labeled rates to achieve suitable control. Control may be enhanced by adding a surfactant or horticultural oil or by combining Bifenthrin-Plus-C Termiticide/Insecticide with other products registered to control mites. Applications of Bifenthrin-Plus-C Termiticide/Insecticide may be alternated with chemicals offering other modes of action in programs that are designed to manage resistance by twospotted spider mites. For recommendations on resistance management in your region check with your local Cooperative Extension Service.
**For foraging ants.		

PEST CONTROL ON OUTSIDE SURFACES AND AROUND BUILDINGS

Apply Bifenthrin-Plus-C Termiticide/Insecticide to outside surfaces of buildings: exterior siding, foundations, porches, window frames, eaves, patios (spot or crack and crevice treatments only), garages, refuse dumps, lawns: grass areas adjacent or around private homes, duplexes, townhouses, condominiums, house trailers, apartment complexes, carports, garages, fence lines, storage sheds, barns, and other residential and non-commercial structures, soil, trunks of woody ornamentals and other areas where pests congregate or have been seen.

Pests controlled:

Ants Carpenter Ants Fire Ants Armyworms Bees Beetles* Biting Flies Boxelder Bugs Centipedes Chiggers Chinch Bugs	Clover Mites Crickets Cutworms Dichondra Flea Beetles Earwigs Elm Leaf Beetles Firebrats Fleas Flies Gnats	Grasshoppers Hornets Japanese Beetles* Midges Millipedes Mosquitoes Moths Roaches (including cockroaches) Scorpions	Silverfish Sod Webworms Sowbugs (Pillbugs) Spider Mites Spiders (including Black Widow Spiders) Springtails Ticks (including Brown Dog Ticks) Wasps
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* Not for use in California.

Application

Use a 0.02 to 0.06% dilution to spray outside surfaces of buildings. Use a spray volume of up to 10 gallons of dilution per 1,000 square feet. Use higher labeled application volumes if vegetation or landscape materials are dense.

Mixing Directions: For 0.02% suspension, mix 0.33 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water. For 0.06% suspension, mix 1 fluid oz. Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water (1 fluid oz. = 2 tablespoons). Do not use household utensils to measure Bifenthrin-Plus-C Termiticide/Insecticide. Use the higher labeled rates for heavy pest infestation, quicker knockdown or longer residual control. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application only if there are signs of renewed insect activity. Repeat application limited to once per seven days.

Perimeter Treatment: Treat a band of soil and vegetation 7 feet wide around and next to the structure and the foundation of the structure to a height of 2 feet. Use 0.33 to 1.0 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide per 1,000 square feet in enough water to provide sufficient coverage (refer to **Perimeter Application Dilution Chart**).

For sections of foundation that abut non-porous horizontal surfaces, the treated areas must be protected from rainfall and spray from sprinklers, or they do not drain into a sewer, storm drain, or curbside gutter (e.g., not to sections that abut driveways or sidewalks that drain into streets).

For Ant and Fire Ant Mounds use Bifenthrin-Plus-C Termiticide/Insecticide 0.06% dilution as Drench Method: Use 1-2 gallons of dilution for each mound area. Sprinkle the mound until wet and apply to a 4 foot diameter circle around the mound. For mounds larger than 12", use a higher volume. Applications should be made in cool weather, such as in early morning or late evening hours, not in the heat of the day.

Mosquito Control: To control mosquitoes around buildings, landscapes, and lawns, dilute 0.33 to 1.0 fl. oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water and apply at the rate of one gallon of dilution per 1,000 square feet as a general spray. Bifenthrin-Plus-C Termiticide/Insecticide may be diluted at lower concentrations and applied at higher volumes to ensure the proper amount of product per area (refer to the **Ornamental or Perimeter Application Dilution Charts**).

Calculating Dilution Rates: The following steps should be taken to determine the appropriate dilution of Bifenthrin-Plus-C Termiticide/Insecticide that is required to control specific pests:

- 1) Select an application rate in terms of fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide.
- 2) Determine your application volume and amount of spray mix you want to prepare in the **Dilution Chart**.
- 3) Use the Dilution Chart to determine the appropriate volume of Bifenthrin-Plus-C Termiticide/Insecticide that must be mixed in your desired volume of water.

Perimeter Application Dilution Chart

Application Volume Gallons Per	Application Rate Fluid Ounces Per	Fluid Ounces* of Bifenthrin-Plus-C Termiticide/Insecticide Diluted to these Volumes of Finished Spray			
		1,000 Sq. Ft.	1000 sq. ft.	1 Gallon	5 Gallons
1	0.33	0.33	1.67	3.3	33.3
1	0.5	0.5	2.5	5.0	50.0
1	0.67	0.67	3.33	6.7	66.7
1	0.75	0.75	3.75	7.5	75.0
1	1.0	1.0	5.0	10.0	100.0
2	0.33	0.17	0.83	1.65	16.5
2	0.5	0.25	1.25	2.5	25.0
2	0.67	0.33	1.67	3.35	33.5
2	0.75	0.38	1.88	3.75	37.5
2	1.0	0.5	2.5	5.0	50.0
3	0.33	0.11	0.55	1.10	11.0
3	0.5	0.17	0.83	1.67	16.7
3	0.67	0.22	1.11	2.23	22.3
3	0.75	0.25	1.25	2.5	25.0
3	1.0	0.33	1.67	3.33	33.3
4	0.33	-	0.42	0.83	8.3
4	0.5	0.13	0.63	1.25	12.5
4	0.67	0.17	0.84	1.67	16.7
4	0.75	0.19	0.94	1.88	18.8
4	1.0	0.25	1.25	2.5	25.0
5	0.33	-	0.33	0.67	6.7
5	0.5	0.1	0.5	1.0	10.0
5	0.67	0.13	0.67	1.33	13.3
5	0.75	0.15	0.75	1.5	15.0
5	1.0	0.2	1.0	2.0	20.0
10	0.33	-	0.17	0.33	3.3
10	0.5	-	0.25	0.5	5.0
10	0.67	-	0.33	0.67	6.7
10	0.75	-	0.38	0.75	7.5
10	1.0	0.1	0.5	1.0	10.0

*To convert fluid ounce to milliliters, multiply by 29.57
1 fluid oz. = 29.57 ml = 2 tablespoons = 6 teaspoons
Do not use household utensils to measure Bifenthrin-Plus-C Termiticide/Insecticide.

INDOOR USE

Bifenthrin-Plus-C Termiticide/Insecticide may be used for residual pest control in buildings and structures and on modes of transport. For control of ants, bees, beetles, boxelder bugs, carpet beetles, centipedes, clothes moths, cockroaches, crickets, earwigs, firebrats, flies, gnats, midges, millipedes, pillbugs, scorpions, silverfish, sowbugs, spiders, ticks and wasps.

In the home, cover all food processing surfaces and utensils or thoroughly washed before reuse. Cover or remove exposed food. Do not permit humans or pets to contact treated surfaces until the spray has dried. During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials.

Application

Apply to areas where pests hide: baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, stoves, the underside of shelves, drawers and similar areas. Treat with a low- pressure spray (25 psi or less), coarse, crack and crevice, pinstream, spot or with a paint brush. Pay close attention to cracks and crevices. Not for use as a space spray.

Mixing Directions: Prepare a dilution of Bifenthrin-Plus-C Termiticide/Insecticide for spray or brush application. See mixing directions in the **Pest Control on Outside Surfaces and Around Buildings** section.

- Fill sprayer with the required amount of water.
- Add Bifenthrin-Plus-C Termiticide/Insecticide.
- Close sprayer and shake to ensure proper mixing.
- Prepare only the amount of solution necessary for treatment.

In order to achieve and/or maintain control in times of high pest pressure, retreatment may be needed. Repeat application should only take place if there are signs of renewed insect activity and must not exceed one application per 7 days.

Application Rates: For 0.02% suspension, mix 0.33 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water. For 0.06% suspension, mix 1 fluid oz. Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water (1 fluid oz. = 2 tablespoons). Do not use household utensils to measure Bifenthrin-Plus-C Termiticide/Insecticide. Use the higher labeled rates for heavy pest infestation, quicker knockdown or longer residual control.

Pest	Application Rate	Application Instructions
Ants Bedbugs Bees Beetles Boxelder bugs Carpet beetles Centipedes Clothes moths Cockroaches Crickets Earwigs Firebrats Flies Gnats Midges Millipedes Pillbugs Scorpions Silverfish Sowbugs Spiders Ticks Wasps	0.33 – 1.0 fl. oz. per gallon of water (0.02% - 0.06% suspension)	<p>Ants: Apply to ant trails, around doors and windows and other places that ants frequent.</p> <p>Bedbugs: To help control bedbugs, apply thoroughly to crack and crevices where bedbugs frequent: bed frames, box springs, inside empty dressers and clothes closets, carpet edges, wall moldings (high and low), and wallpaper edges. Do not use on bed linens, pillows, mattresses, or clothes. Before application, remove all clothes and other articles from dressers or clothes closets. Allow all treated areas to dry before use. Not recommended for use as sole protection against bedbugs. If evidence of bedbugs is found in/on mattresses, use a product approved for this use.</p> <p>Bees and Wasps: Apply to nest in late evening when pests are at rest. Spray nests, entrances to nests and surrounding areas thoroughly. Contact as many insects as possible. Retreat if signs of renewed activity exist.</p> <p>Boxelder Bugs, Centipedes, Earwigs, Beetles, Millipedes, Pillbugs, and Sowbugs: Treat around doors, windows, baseboards, storage areas and other locations where pests may be found.</p> <p>Cockroaches, Crickets, Firebrats, Scorpions, Silverfish, Spiders, and Ticks: Use a coarse, low pressure spray to areas where pests hide: baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, and stoves, the underside of shelves, drawers, and similar areas. Pay close attention to cracks and crevices.</p>

FOOD/FEED HANDLING ESTABLISHMENTS

Bifenthrin-Plus-C Termiticide/Insecticide, when used as a general spot, surface, or crack and crevice treatment, may be applied in both food/feed and nonfood areas of food/feed handling establishments.

Food/feed handling establishments are any place other than private residences where exposed food/feed is held, processed, prepared or served, including areas for receiving, storing, packing (canning, bottling, wrapping, boxing), preparing, enclosed processing systems (mills, dairies, edible oils, syrups) of food and edible waste storage. Serving areas where food is exposed and the facility is in operation are also considered food areas.

Non-food areas in which applications are allowed include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, garages, mop closets and storage (after canning or bottling).

The use sites that are allowed: aircraft (do not use in aircraft cabins), apartment buildings, bakeries, bottling facilities, breweries, buses, cafeterias, candy plants, canneries, dairy product processing plants, food manufacturing plants, food processing plants, food service establishments, granaries, grain mills, hospitals, hotels, industrial buildings, laboratories, meat/poultry/egg processing plants, mobile/motor homes, nursing homes, offices, railcars, restaurants, schools, ships, trailers, trucks, vessels, warehouses and wineries.

Surface Application: Do not use this application method in food/feed handling establishments when the facility is in operation or foods/feeds are exposed. During treatment, remove or cover all food processing and/or handling equipment and do not apply directly to food products. All equipment, benches, shelving and other surfaces in food processing plants, bakeries, cafeterias, and other facilities, which food will contact must be washed after treatment. Clean food handling equipment or processing equipment and rinse completely with fresh, clean water.

Spot, Crack and Crevice Application: These types of treatments can be done when the facility is operating but cover or remove food from the treatment area. Do not apply directly to food.

Foam Applications: Converting Bifenthrin-Plus-C Termiticide/Insecticide to foam will allow it to be used to treat structural voids. To produce a 0.02% to 0.06% foam concentration, dilute 0.33 to 1.0 fl. oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water and add the manufacturer's recommended amount of foaming agent. Before application, make sure that the foaming agent is compatible with Bifenthrin-Plus-C Termiticide/Insecticide.

TERMITE CONTROL (ABOVE GROUND ONLY)

The treatment methods that are expressed below are intended to kill termite workers or winged reproductives present at the time of application. These methods should supplement, not substitute for, mechanical alteration, soil treatment or foundation treatment.

Controlling winged reproductive termites and exposed workers in localized areas can be accomplished by diluting 1.0 fluid ounce of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water and applying the dilution at the rate of one gallon per 1,000 square feet to attics, crawl spaces, unfinished basements and other void areas as a coarse fan spray. Treat both swarming termites and the areas where they gather.

Controlling above-ground termites in localized areas of infested wood can be accomplished by diluting 1.0 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water and applying as a liquid or foam to voids and galleries in wood that is damaged, in addition to spaces between wooden structural members and between the sill plate and foundation where the wood is at risk to attack. Drilling and then injecting the foam or dilution into damaged wood or wall voids with an appropriate directional injector will help reach those areas that are not easy to access. After treatment is completed, securely plug the holes that are in regularly occupied areas in the construction elements.

Controlling termite carton nests in building voids can be accomplished by diluting 1.0 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water and apply as a liquid or foam using a pointed injection tool. To obtain control, various depths of injection and numerous injection points may be needed. After treatment is complete and when feasible, remove the carton nest material from the building void.

ANT CONTROL

Nuisance Ants Indoors: Apply to ant nests for best results. Apply a dilution of 0.5 to 1.0 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water at the rate of one gallon of dilution per 1,000 square feet to places where ants have been seen or are believed to forage as a general surface, crack and crevice or spot treatment: baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks and stoves, around pipes, cracks and crevices and in corners. Pay close attention when treating entry points into the home or around doors and windows. When combining liquid Bifenthrin-Plus-C Termiticide/Insecticide with bait treatments use Bifenthrin-Plus-C Termiticide/Insecticide as instructed above and apply baits in those areas where Bifenthrin-Plus-C Termiticide/Insecticide has not been applied. Do not apply as a broadcast or general surface

treatment in residential areas.

Nuisance Ants Outdoors: Apply to ant nests for best results. Treat ant trails, around doors and windows, and other places where ants have been seen or are likely to forage. Treat using a low or high volume perimeter treatment depending on the density of vegetation and landscape materials as described in the **Pest Control on Outside Surfaces and Around Buildings** section of this label. When treating concrete surfaces, more frequent treatments, higher dilutions and/or application volumes may be needed for ant control. The following procedure must be followed to help achieve maximum control of the pest:

1. Treat non-porous surfaces only in areas protected from rainfall and spray from sprinklers with low volume applications using 0.5 to 1.0 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
2. Treat vegetation and porous surfaces with high volume applications (usually 5 to 10 finished gallons per 1,000 square feet) using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide per 1,000 square feet (refer to the **Ornamental and Perimeter Application Dilution Charts**).
3. Dilute 1.0 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 square feet for maximum residual control.

Carpenter Ants Indoors: Treat areas where carpenter ants are seen or are predicted to forage: baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks, and stoves, around pipes, cracks and crevices, and in corners by diluting 0.5 to 1.0 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water and applying at the rate of one gallon of dilution per 1,000 square feet as a general surface, crack and crevice or spot and/or foam treatment. Pay close attention to treating entry points into the home or premises such as around doors and windows. Spray or foam into cracks and crevices or drill holes and spray, mist or foam into voids and galleries where carpenter ants or their nests are present. When combining liquid Bifenthrin-Plus-C Termiticide/Insecticide with bait treatments use Bifenthrin-Plus-C Termiticide/ Insecticide as instructed above and apply baits in those areas where Bifenthrin-Plus-C Termiticide/Insecticide has not been applied. Do not apply as a broadcast or general surface treatment in residential areas.

Carpenter Ants Outdoors: Treat carpenter ant nests for best results. Treat areas where carpenter ants are seen or are believed to forage: ant trails, around doors and windows. As stated in **Pest Control on Outside Surfaces and Around Buildings** section, apply using a low or high volume perimeter treatment of this label. When treating concrete surfaces, more frequent treatments, higher dilution and/or application volumes may be needed for carpenter ant control. The following procedure must be followed to help achieve maximum control of the pest:

1. Treat non-porous surfaces only in areas protected from rainfall and spray from sprinklers with low volume applications using 0.5 to 1.0 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
2. Bifenthrin-Plus-C Termiticide/Insecticide may be used as a treatment for the trunks of trees that have carpenter ant trails, or where carpenter ants are foraging. Use 0.5 to 1.0 fl. oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water and apply this dilution to wet the bark from the base of the tree to as high as possible on the trunk.
3. Treat Vegetation and porous surfaces with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide per 1,000 square feet (refer to the **Ornamental and Perimeter Application Dilution Charts**).
4. Dilute 0.5 to 1.0 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 sq. ft. to obtain maximum residual control.

To control carpenter ants inside trees, utility poles, fencing or deck materials and similar structural members, drill to find the inside infested cavity and inject or foam a 0.06% dilution (1.0 fl. oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water) into the cavity with adequate volume and a proper treatment tool with a splash-back guard.

Where there are carpenter ants tunneling below the surface, dilute 0.5 to 1.0 fluid ounces of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water and apply as a drench or inject the dilution or foam at intervals of 8 to 12 inches. A uniform vertical barrier should be established where there are ants tunneling below surfaces such as at the edges of walls, driveways or other hard surfaces.

Apply a 0.06% dilution to stored lumber or wood piles using a sprinkling can or a hose-end sprayer to deliver a coarse drenching spray. This wood may be used for lumber or burned after 30 days. Do not use this method of application in structures.

The soil under the area where firewood will be stacked may be treated with a dilution of 1.0 fluid oz. of Bifenthrin-Plus-C Termiticide/Insecticide per gallon of water to protect the firewood from carpenter ants (and termites). Apply at the rate of one gallon of dilution per 8 square feet. DO NOT treat firewood with this product.

IMPREGNATION AND APPLICATION OF BIFENTHRIN-PLUS-C TERMITICIDE/INSECTICIDE ON DRY BULK LAWN FERTILIZERS

Bifenthrin-Plus-C Termiticide/Insecticide may be impregnated on dry bulk fertilizers. When applied as directed, Bifenthrin-Plus-C Termiticide/ Insecticide dry bulk fertilizer mixtures provide insect control equal to that provided by the same rates of Bifenthrin-Plus-C Termiticide/Insecticide applied in water.

Impregnation: Apply using a minimum 2.3 pounds of dry bulk fertilizer per 1,000 square ft. with the labeled amount of Bifenthrin-Plus-C Termiticide/Insecticide per 1,000 square ft. Use a closed rotary-drum mixer or a similar type of closed blender equipped with suitable spray equipment. The spray nozzle(s) should be positioned to provide a uniform, fine spray pattern over the tumbling fertilizer for thorough coverage. The physical properties of fertilizers vary, particularly in liquid absorptive capacity. When absorptivity is sufficient, simply spray impregnation of the fertilizer with Bifenthrin-Plus-C Termiticide/Insecticide provides a satisfactory dry mixture. If the absorptive capacity is inadequate, use of a highly absorptive powder is required to provide a dry, flowable mixture. Microcel E (Johns-Manville Products Corporation) is a recommended absorbent powder. Generally less than 2% by weight of Microcel E is required. DO NOT impregnate Bifenthrin-Plus-C Termiticide/Insecticide onto straight coated ammonium nitrate or straight limestone because these materials will not absorb the insecticide. Dry fertilizer blends containing mixtures of ammonium nitrate or limestone may be impregnated with Bifenthrin-Plus-C Termiticide/Insecticide.

Carefully determine the amount of Bifenthrin-Plus-C Termiticide/Insecticide actually required in the preparation of individual fertilizer mixtures for each production operation. This is necessary to ensure that the amount of pesticide actually contained in the mixture applied to the soil represents the correct rate of use. Apply bulk fertilizer impregnated with Bifenthrin-Plus-C Termiticide/Insecticide immediately. Do not store.

All individual Federal and State regulations relating to bulk dry fertilizer blending, registration, labeling, and application of the mixtures are the responsibility of the individual and/or company selling the fertilizer and Bifenthrin-Plus-C Termiticide/Insecticide mixture.

Fertilizer for this use should be Turf fertilizers recommended for specific regions.

USE IN LIVESTOCK/POULTRY HOUSING STRUCTURES AND PET KENNELS

For control of pests including biting flies, filth-breeding flies, fleas, litter beetles, hide beetles, bed bugs, mites, and ticks.

Apply as a general surface spray (including directed spray) and/or as a crack and crevice treatment. For best results, make interior and exterior applications at or around the same time. In addition to applications of Bifenthrin-Plus-C Termiticide/Insecticide, ensure that normal cleaning practices are followed.

Occupied areas

Indoors, apply only to indoor cracks and crevices. For exteriors, apply to walls and foundation perimeters to help prevent interior infestations of pests. Use Bifenthrin-Plus-C Termiticide/Insecticide at a rate equivalent to 0.33 to 1 fl. oz. per 1000 sq. feet.

Unoccupied areas

Apply to areas where crawling or flying pests may be present: floors, vertical surfaces, and overhead surfaces, paying special attention to stanchions, pipes, windows, and doors. Cover feeders, waterers, and feed carts before application, to avoid contamination. Do not apply to milk rooms. Make exterior applications to walls and foundation perimeters to help prevent interior infestations of pests. Use Bifenthrin-Plus-C Termiticide/insecticide at a rate equivalent to 0.33 to 1 fl. oz. per 1000 sq. feet.

Bed bugs, mites and ticks - treat cracks and crevices, walls, posts, nest boxes, and mobile side curtains. Do not apply this product directly to animals.

Adult flies – make applications to areas where flies will rest: the ceiling, rafters, and trusses; also treat windows, walls (interior and exterior), supports, fences, and vegetation. Bifenthrin-Plus-C Termiticide/Insecticide may be applied to manure in situations where fly larvae are abundant and the area cannot be cleaned.

Poultry houses - make applications to the floor (where birds are grown on litter), walls, posts, and cage framing (where birds are grown in cages); apply also into cracks and crevices around insulation. Reapply after each growout or sanitization procedure, but not more often than every 8 weeks. For improved indoor control, apply to the outside of building foundations to keep adult beetles from moving indoors. Apply in a uniform band 2 feet up the foundation, and 7 feet out from the structure. A routine, year-round treatment program will prevent pests from reaching problem levels.

Where birds are grown on litter - apply Bifenthrin-Plus-C Termiticide/Insecticide to litter after birds are removed and during tilling at a rate equivalent to 0.33 to 1 fl. oz. per 1000 sq. feet. If litter is removed and replaced with fresh litter, make an application to bare soil or concrete at a rate equivalent to 0.33 to 1 fl. oz. per 1000 sq. feet, and treat the new litter once it is spread. Spray inside walls, posts, and exterior perimeter. Reapply between each flock.

Broiler-breeder houses -- to control beetles; apply as directed above for litter and soil/floor treatment.

Caged-layer houses - for control of beetles, do not treat accumulated manure because it may disrupt natural enemies that control fly breeding. Treat the perimeter of the manure at a rate equivalent to 0.33 to 1 fl. oz. per 1000 sq. feet. Also spray pit walls, posts, and the exterior of the structure. Reapply between each flock. Before applying disinfectants, ensure that the Bifenthrin-Plus-C Termiticide/Insecticide treatment is dry.

DO NOT apply Bifenthrin-Plus-C Termiticide/Insecticide as a general surface spray when animals are present in the facility. Allow applications to dry before restocking the facility. Crack and crevice treatment may be made when animals are present.

DO NOT apply Bifenthrin-Plus-C Termiticide/Insecticide to any animal feed, water, or watering equipment.

DO NOT contaminate any animal feed, food, or water in and around livestock, poultry, or pet housing when making applications.

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