



U.S. ENVIRONMENTAL PROTECTION AGENCY

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

EPA Reg. Number:

53883-549

Date of Issuance:

7/21/26

NOTICE OF PESTICIDE:

☒ Registration
☐ Reregistration
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

CSI 16-198 CS

Name and Address of Registrant (include ZIP Code):

Lisa Adamson
Control Solutions, Inc.
5903 Genoa Red Bluff
Pasadena, TX 77507

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)(C). 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 3
Invertebrate and Vertebrate Branch 1, Registration Division
(7505T)

Date:

7/21/26

EPA Form 8570-6

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. 53883-549."
4. Submit one copy of the final printed label for the record before you release the product for shipment.

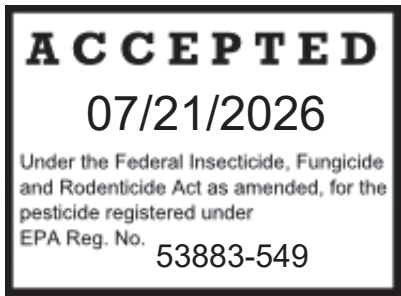
Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under 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 9/11/2024
- Alternate CSF 1 dated 9/11/2024
- Alternate CSF 2 dated 9/11/2024
- Alternate CSF 3 dated 9/11/2024

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

Enclosure



{Text in braces and italics are notes to the label editor.}
[Text in brackets alone are optional statements or alternative statements.]
[Text separated by “/” indicates an either/or choice.]

BIFENTHRIN	GROUP	3A	INSECTICIDE
------------	-------	----	-------------

CSI 16-198 Bifen CS

[ABN:]

[CONTROLLED RELEASE INSECTICIDE] [Microencapsulated] [Insecticide]

[With CapVantage™ Technology] [Encapsulated Solutions]

[For prevention and control of listed pests in and around structures [fleas, flies, ants, mosquitoes, ticks, cockroaches, stored product pests, [any listed pest] and others].] [For control and prevention of listed pests [in and around structures [residential, public, institutional, commercial, food handling establishments] and] [on lawns, turfgrass, ornamental trees, ornamental grasses and shrubs around residential, institutional, public, commercial, agricultural and industrial buildings, parks, recreational areas, golf course out of play areas (native planting areas, around clubhouses, outbuildings and on-course lavatories), athletic fields and greenhouses.]]

For both indoor and outdoor use.

ACTIVE INGREDIENTS:

Bifenthrin* 3.95%

OTHER INGREDIENTS:96.05%

TOTAL:100.00%

*Cis isomers 97% minimum, trans isomers 3% maximum.
Contains 0.33 lbs. Bifenthrin per gallon.



Manufactured for:
Control Solutions, Inc.
5903 Genoa Red Bluff
Pasadena, TX 77507

EPA Reg. No: 53883-XXX
EPA Est. No: _____
Net Contents: _____

KEEP OUT OF REACH OF CHILDREN
CAUTION

[Alternate text – all or in part: See [side] [back] [inside] [panel(s)] [booklet] for First Aid, Precautionary Statements, Directions for Use and Storage and Disposal.]

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

FIRST AID	
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • DO NOT induce vomiting unless told to do so by the poison control center or doctor. • DO NOT give anything by mouth to an unconscious person.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact SafetyCall® International for emergency medical treatment at (866) 897-8050.	
Note to Physician – This product contains 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 should be avoided.	

{Note to label editor: Table format will be used if space allows for the first aid section; otherwise, paragraph format will be used.}

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Harmful if inhaled. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All pesticide handlers (mixers, loaders, and applicators) must wear long-sleeved shirt and long pants, socks, shoes, and chemical resistant gloves made of barrier laminate, butyl rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), natural rubber (≥ 14 mils), polyethylene, PVC (≥ 14 mils), or viton (≥ 14 mils). After the product is diluted in accordance with label directions for use, and/or when mixing and loading using a closed spray tank transfer system, or an in-line injector system, shirt, pants, socks, shoes, and chemical resistant gloves made of barrier laminate, butyl rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), natural rubber (≥ 14 mils), polyethylene, PVC (≥ 14 mils), or viton (≥ 14 mils) are sufficient. In addition, all pesticide handlers must wear a respiratory protection device¹ when working in a non-ventilated space.

¹ Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination R, or P filters; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters.

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

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

{Text in braces and italics are notes to the label editor.}
[Text in brackets alone are optional statements or alternative statements.]
[Text separated by “/” indicates an either/or choice.]

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. Care should be used when spraying to avoid fish and reptile pets in/around ornamental ponds.

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. Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other public waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL AND CHEMICAL HAZARDS

Do not use this product in or on electrical equipment due to the possibility of shock hazard.

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirement specific to your State and Tribe, consult the State/Tribal agency responsible for pesticide regulation.

PRODUCT INFORMATION

CSI 16-198 Bifen CS is for use as a broadcast, general surface (food/feed and nonfood/nonfeed areas), crack-and-crevice, or spot treatment application.

For use in:

Industrial Plants, Factories, Warehouses, Commercial Buildings, Condominiums, Apartments, Cabins, Day Care Centers, Duplexes, Mobile Homes, Homes, Hospitals, [Clinics,] Hotels, Motels, Nursing Homes, Office Buildings, Other Public Buildings, Campsites, [Campgrounds,] [Cemeteries,] Gas Stations, Prisons, Rooms, Schools, [Resorts,] Golf Course Out of Play Areas, Parks, [Theme Parks,] Institutions, Recreational Areas Outdoors, Jails, Sport Stadiums, Supermarkets, Taverns, Theaters, [Salons,] Townhomes, Morgues, Mortuaries, Mobile Homes, Crematoriums, Funeral Parlors, Mausoleums, Atriums, Attics, Bathrooms, Basements, Bedrooms, Porches, Closets, Draperies, Dressers, Kitchens, Porches, Upholstered Furniture, Cabinets, Crawl Spaces, Carpet, Campers, Garbage Areas [and Dumpsters], Garbage Cans [and Other Refuse Bins], Patios, Garages, Gazebos, Storage Sheds/Areas, Floors, Furniture, Locker Rooms, Utility Room Indoor, Utility Room Outdoor, Washrooms;

Animal Quarters (enclosed premise treatment), Cat Living Quarters (enclosed premise treatment), [Livestock and Poultry Housing Structures, Enclosures, and Premises,] Dog Houses, Dog Living Quarters, Dog Kennel Runs, Kennels, Pet Bedding, Pet Carriers, Pet Grooming Parlors, Pet Sleeping Areas, Pet Stores, Pet Quarters (enclosed premise

treatment), Veterinaries, Zoos;

Food Handling Establishments, Candy Plants, Canneries, Bakeries, Breweries, Cereal Processing Facilities, Food Processing Plants, Food and Non-Food Warehouses, Cafeterias, Indoor Eating Establishments, Grocery Stores, Institutional Dining Areas, Flour Mills, Grain Storage Facilities, Outdoor Eating Establishments, Restaurants, Dairies, Delicatessens;

Transportation Equipment (automobiles, aircraft cargo areas, boxcars, buses, boats, trucks, railcars, ship cargo holds);

Outdoor Areas and Surface Perimeters including Lawns, Turfgrass, Artificial Turf, Landscapes, , Ornamental Plants, Shrubs, and Around Foundation Walls;

Indoor or outdoor areas where turf and ornamentals grow: residential landscaped areas and non-residential landscapes around institutional, public, commercial and industrial buildings, parks, recreational areas, athletic fields (including trees, shrubs, flowers, evergreens, foliage plants and groundcovers) and greenhouses.

*These requirements apply only to the greenhouse uses on this label

AGRICULTURAL USE REQUIREMENTS*

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. The REI is 72 hours in outdoor areas where average annual rainfall is less than 25 inches a year.

PPE required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as, plants, soil, or water), is:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), natural rubber (≥ 14 mils), polyethylene, PVC (≥ 14 mils), or viton (≥ 14 mils)
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, and greenhouses. Do not allow people or pets on treated surfaces until the spray has dried.

Resistance-Management Recommendations

For resistance management, CSI 16-198 Bifen CS contains a Group 3A (Bifenthrin) insecticide. Any insect population may contain individuals naturally resistant to CSI 16-198 Bifen CS and other Group 3A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of CSI 16-198 Bifen CS 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):
 - o 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.
 - o Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
 - o When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
 - o Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - o 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/acaricides use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

- For further information or to report suspected resistance contact Control Solutions, Inc. at 800-242-5562 or at controlsolutionsinc.com

SPRAY DRIFT

Boom-less Ground Applications:

- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.
- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

SPRAY DRIFT ADVISORIES

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

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

IMPORTANCE OF DROPLET SIZE

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

SHIELDED SPRAYERS

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

TEMPERATURE AND HUMIDITY

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

TEMPERATURE INVERSIONS

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

WIND

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

Handheld Technology Applications:

- Take precautions to minimize spray drift.

Water Protection Statements:

- Do not spray the product into fish pools, ponds, streams, or lakes.
- Do not apply directly to sewers or storm drains, or to any outdoor area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.

{Text in braces and italics are notes to the label editor.}
[Text in brackets alone are optional statements or alternative statements.]
[Text separated by “/” indicates an either/or choice.]

- Do not allow the product to enter any indoor or outdoor drain during or after application unless for labelled drain treatment.
- 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 apply or irrigate to the point of runoff.

Rain Related Statements:

- Do not make applications during rain. Avoid making applications when rainfall is expected before the product has sufficient time to dry (minimum 4 hours).
- Rainfall within 24 hours after application may cause unintended runoff of pesticide application.

Statements 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.

USE RESTRICTIONS

- **DO NOT** apply a broadcast application to interior surfaces of homes.
- **DO NOT** apply by aerial application.
- **DO NOT** apply when the wind speed is greater than 15 mph.**DO NOT** apply in nurseries.
- **DO NOT** apply this product through any kind of irrigation system.
- **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** apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack-and-crevice treatment, unless permanently protected from rainfall by a covering, awning, or other structure.
- **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 4 hours).
- Rainfall within 24 hours after application may cause unintended runoff to pesticide application.
- 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** use on sod farm turf, golf course turf (playable areas), or grass grown for seed.
- **DO NOT** apply to pets, crops, or sources of electricity.
- **DO NOT** treat firewood.
- Use only in well-ventilated areas.
- Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572).
- For soil or foliar applications, do not apply by ground equipment within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

- During any indoor application to overhead areas of structure, cover surface below with plastic sheeting or similar material except for soil surfaces in crawlspaces or in uninhabited attics.
- **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.
- **DO NOT** allow dripping or runoff to occur during indoor surface applications.
- **DO NOT** excessively wet carpet, draperies and furniture.
- **DO NOT** allow contact with treated surfaces by people or pets before spray has dried.
- **DO NOT** apply this product in patient rooms or in any rooms while occupied by the elderly or infirm.
- **DO NOT** return patients to treated room until after thorough ventilation.
- **DO NOT** apply CSI 16-198 Bifen CS in occupied areas of classrooms, libraries, sports venues, or other institutional facilities.
- **DO NOT** use on plants for commercial seed production or research purposes.

Unless labeled for drain treatments, application is prohibited directly into sewers or storm drains, or to any area where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur. **DO NOT** allow the product to enter indoor or outdoor drains unless labeled for drain treatments.

No permita la entrada a desagües internos o externos a menos que el etiquetado indique que está permitido el uso del producto para tratamiento de desagües.

Follow proper disposal procedures on this label.

Siga las indicaciones del etiquetado para el desecho apropiado del producto.



Additional Application Restrictions for Residential Outdoor Surface and Space Sprays:

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

1. Applications 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, or 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. 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;

Other than applications to building foundations, all outdoor applications to impervious surfaces such as sidewalks, driveways, patios, porches, and structural surfaces (such as windows, doors, and eaves) are limited to spot and crack-and-crevice applications, only. Spot treatments must not exceed two square feet in size (for example 2 ft by 1 ft or 4 ft by 0.5 ft).

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 off-target drainage, movement, 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. **DO NOT** allow people or pets to contact contaminated areas or to reoccupy contaminated areas of the structure until the clean-up is completed.

PRECAUTIONS:

- Follow directions for specific use areas.
- Always test in an inconspicuous area prior to use as some natural and synthetic fibers may be adversely affected by any liquid product.
- While phytotoxicity testing has been carried out on a wide range of ornamental plants under various environmental conditions, and no phytotoxicity has been observed, it is impossible to test all species and varieties. Certain cultivars may be sensitive to the final spray solution. It is advised to pre-spray a small section of ornamental plants and observe them for 7-10 days prior to treating large areas if local use experience is unavailable.

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 or regulatory agencies.

MIXING INSTRUCTIONS

Prepare a diluted spray solution by adding the appropriate amount of CSI 16-198 Bifen CS per gallon of water [and/or for the area to be treated]. Partially fill the mixing container with water, add CSI 16-198 Bifen CS, agitate and fill to final volume. Agitate before each spray application.

CSI 16-198 Bifen CS can be tank-mixed with 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 may vary with different combinations of products, so prepare a small scale (pint or quart jar) test sample for any combination not tested previously. Use proper proportions in the small-scale test to achieve the correct result.

[Unless otherwise noted in the label instructions, use the procedure below for preparation of a new tank mix:

- Add wettable powders to tank water
- Mix well
- Add liquids and flowables
- Mix well
- Add emulsifiable concentrates
- Mix well

]

[Try reversing the order of addition or increasing the amount of water if the combination is not compatible using the above order. **NOTE:** After increasing the amount of water, if the mixture is found to be compatible, it is necessary to recalibrate the sprayer for a higher volume application. If mixture sits for more than 2 hours, shake

{Text in braces and italics are notes to the label editor.}
 [Text in brackets alone are optional statements or alternative statements.]
 [Text separated by “/” indicates an either/or choice.]

well before application. Do not allow mixture to stand overnight.]

Foam Applications

CSI 16-198 Bifen CS may be converted to a foam and the foam used to treat structural voids to control or prevent pests: ants, bees, cockroaches, silverfish, spiders, ticks, termites (above ground only), wasps, or other listed arthropods harboring in walls, and under slabs.

Low Volume Treatments

CSI 16-198 Bifen CS may be applied with low-volume application equipment, i.e. Actisol®, for general surface (in food handling and poultry houses only), spot, crack-and-crevice, and deep harborage treatments.

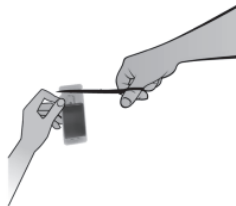
DILUTION CHART FOR STRUCTURAL PERIMETER BARRIER APPLICATIONS

Application Volume (Gallons of Solution per 1,000 ft ²)	Application rate (fl. oz. of CSI 16-198 Bifen CS per 1,000 ft ²)	Fl. oz. of CSI 16-198 Bifen CS to Dilute in Water According to Spray Tank Volumes				
		1 gallon	5 gallons	10 gallons	15 gallons	50 gallons
1 gallon	1.0 fl. Oz.	1.0	5.0	10.0	15.0	50.0
	2.0 fl. Oz.	2.0	10.0	20.0	30.0	100.0
2 gallons	1.0 fl. Oz.	-	2.5	5.0	7.5	25.0
	2.0 fl. Oz.	-	5.0	10.0	15.0	50.0
5 gallons	1.0 fl. Oz.	-	1.0	2.0	3.0	10.0
	2.0 fl. Oz.	-	2.0	4.0	6.0	20.0

	% Active Ingredient in Dilution for Labeled Mix Rates	
	1.0 fl. oz. CSI 16-198 Bifen CS Per Gallon of Water	2.0 fl. oz. CSI 16-198 Bifen CS Per Gallon of Water
Bifenthrin	0.03%	0.06%

	Lbs. Active Ingredient in Dilution for Labeled Mix Rates	
	1.0 fl. oz. CSI 16-198 Bifen CS Per Gallon of Water	2.0 fl. oz. CSI 16-198 Bifen CS Per Gallon of Water
Bifenthrin	0.00258 lbs.	0.00516 lbs.

Use the high rate for fast knockdown, heavy pest pressure, or for longer residual control.



{Text in braces and italics are notes to the label editor.}
 [Text in brackets alone are optional statements or alternative statements.]
 [Text separated by “/” indicates an either/or choice.]

PEST SPECIFIC USE DIRECTIONS

ANTS: When combining liquid CSI 16-198 Bifen CS treatments with bait treatments, use CSI 16-198 Bifen CS as instructed below and apply baits in those areas where CSI 16-198 Bifen CS has not been applied.

Use Sites	Application Method	Application Rate	Use Directions
[Indoors] [/] Interior applications Food serving areas/surfaces, non-food serving areas/surfaces	Spot and crack-and-crevice applications Broadcast/General Surface Applications (food/feed establishments only) Low-pressure Sprayers, adjustable hose end sprayer, tank type sprayer, and backpack mister, or similar application	1-2 fl. oz. per gallon of water to cover 1,000 ft²	Apply to any trails around doors and windows and other places where ants may be found. Locate and treat nests. Where ants are trailing inside, apply as a residual spot treatment to active areas: crawlspaces, baseboards, corners, around pipes, in and behind cabinets, behind and under refrigerators, sinks, furnaces, dishwashers, stoves, cracks and crevices. When combining baits and residual insecticides, apply residual insecticides in cracks and crevices, along baseboards, and infested surfaces and outside barrier treatments. Rates may be increased to 2 fl. oz. per gallon when environmental conditions are conducive to higher pest populations or high numbers of pests are present. Repeat application should only take place if there are signs of renewed activity and must not exceed one application every 7 days.
Outdoor Exterior Surfaces	Spot and crack-and-crevice applications Broadcast/General surface applications Low-pressure Sprayer, adjustable hose end sprayer, tank	1-2 fl. oz. in a minimum of 1 gallon of water to cover 1,000 ft²	Apply as a spot or crack-and-crevice treatment to window frames, doors, garage doors, edges of siding and eaves, soffits, electrical or plumbing penetrations, patios, carports, and shutters. All outdoor applications to impervious exterior and structural surfaces are limited to spot and crack-and-crevice applications only unless permanently protected from rainfall by a covering, overhang, awning, or other structural component. If treatment site is permanently protected from rainfall, general surface application may be used. Repeat application should only take place if there are

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

	type sprayer, and backpack mister, or similar application		signs of renewed activity and must not exceed one application every 7 days.
Outdoor Exterior Surfaces, Perimeter [or around foundation walls]	Low pressure sprayer, adjustable hose end sprayer, tank type sprayer, and backpack mister, or similar application or similar application	1-2 fl. oz. in a minimum of 1 gallon of water to cover 1,000 ft ²	Apply to exterior perimeter or around foundation walls where ants are actively foraging at a height of 2 feet on the foundation and in a band 7 feet wide adjacent to the foundation wall of the building. Apply around decks, around garbage areas, sill plates, around storage sheds, trunks of woody plants, and other areas as listed on the label. Repeat treatments may be made 14 days after previous treatment. This product should not be applied if rainfall is expected
Lawns and Turfgrass [, Landscaped Areas]	Mound drench or broadcast application	1-2 fl. oz. in a minimum of 1 gallon of water to cover 1,000 ft² For broadcast applications use 1 - 2 fl. oz in 3-5 gallons of water to cover 1,000 ft²	For mound treatments, use 1 – 2 gallons of dilution for each mound. Apply a 4-foot diameter circle around and over the mound. For mounds larger than 12 inches, use a larger volume. Application should be made in late evening or early morning, when it is cooler (65 - 80°F) and insects are most active. For broadcast applications, apply to turf or lawn, fence lines, artificial turf, or other pervious areas where ants are active.

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by "/" indicates an either/or choice.]

RESTRICTIONS:

- In the home, cover all exposed food processing surfaces and utensils during treatment or thoroughly wash before reuse. Exposed food should be covered or removed.
- **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, except crawlspaces and in uninhabited attics, cover surfaces below with plastic sheeting or similar materials.
- Wear protective clothing, unvented goggles, chemical resistant gloves made of barrier laminate, butyl rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), natural rubber (≥ 14 mils), polyethylene, PVC (≥ 14 mils), or viton (≥ 14 mils) and respirator, when applying to overhead areas or in poorly ventilated areas. Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination R, or P filters; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters.
- Do not touch sprayed surfaces until spray has completely dried.
- Applications to building foundations are restricted to a maximum height of 2 feet above grade.
- Applications on lawns and turf should NOT exceed a maximum rate of 0.23 lb. Bifenthrin/A.
- Spot treatments must not exceed two square feet in size (for example 2ft by 1ft or 4ft by 0.5 ft).
- **DO NOT** use a general surface application in food/feed handling establishments when the facility is in operation or when foods/feeds are exposed.

BED BUGS:

Use Sites	Application Method	Application Rate	Use Directions
[Indoors] [/] Interior applications	Low-pressure Sprayers or similar application Spot and crack-and- crevice applications	2 fl. oz. per gallon of water to cover 1,000 ft ²	[Vacuum floors, harborage areas, and surfaces to remove eggs, bugs, and cast skins. Dispose of vacuum bag contents in an exterior trash receptacle.] Apply as a coarse, low-pressure spray to harborage areas including cracks and crevices, baseboards, loose plaster/wall paper, inside closets, behind picture frames and other wall coverings/decorations, bookcases, nightstands, behind bed frames and headboards, beneath beds and other furniture, undersides and fabric folds of chairs, sofas, and upholstered furniture. Treat desks, shelves and drawers, non-seating parts of wheelchairs, carpet edges, and box springs and bed frames. Repeat application should only take place if there are signs of renewed activity and must not exceed one application every 7 days.

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

USE RESTRICTIONS:

- **DO NOT** apply to furniture surfaces or mattresses where people will be laying or sitting.
- **DO NOT** apply to bed linens, mattresses, pillows or clothes.
- **DO NOT** apply to clothes; items should be removed from furniture/floors before application.
- **DO NOT** treat bed bug infested bedding, instead place items in sealed plastic bags, and take for laundering and drying at high temperatures.
- Spot treatments must not exceed two square feet in size (for example 2ft by 1ft or 4ft by 0.5 ft).

COCKROACHES AND CRICKETS:

Use Sites	Application Method	Application Rate	Use Directions and Restrictions
[Indoors] [/] Interior applications Food serving areas/surfaces, non-food serving areas/surfaces	Spot and crack-and-crevice applications Broadcast/General surface applications (food/feed establishments only) Low-pressure Sprayers or similar application	1–2 fl. oz. per gallon of water to cover 1,000 ft²	Contact as many insects as possible. Make applications into harborage areas where these pests may hide, paying attention to places such as cracks and crevices, corners, beneath sinks, behind and beneath stoves and refrigerators, around garbage cans, cabinets, along baseboards, door and window sills, door and window frames and floors, around and on drains, pipes, plumbing, behind bookcases, storage and other utility installation areas, crawlspaces, attics, eaves, infested furniture, the underside of shelves and drawers, and inside of cabinets and closets. [For enhanced control, combine CSI 16-198 Bifen CS with an insect growth disruptor/regulator (i.e. Tekko Pro).] Repeat application should only take place if there are signs of renewed activity and must not exceed one application every 7 days.
Outdoor Exterior Surfaces and Perimeter Treatments	Spot and crack-and-crevice applications General Surface Applications (food/feed establishments only) Low-pressure Sprayer, adjustable hose	1-2 fl. oz. in a minimum of 1 gallon of water to cover 1,000 ft²	Apply as a spot or crack-and-crevice treatment to window frames, doors, garage doors, edges of siding and eaves, soffits, electrical or entry points , patios, carports, and shutters. Apply around decks, around garbage areas, sill plates, around storage sheds, trunks of woody plants, and other areas as listed on the label. Apply at a height of 2 feet up the foundation and in a band 7 feet wide adjacent to and around the structure where pests may be active or may find entrance.

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

	end sprayer, tank type sprayer, and backpack mister		If treatment site is permanently protected from rainfall, general surface application may be used. [For enhanced control, combine CSI 16-198 Bifen CS with an insect growth disruptor/regulator (i.e. Tekko Pro).] Repeat application should only take place if there are signs of renewed activity and must not exceed one application every 7 days.
Lawns and Turfgrass	Broadcast application	1-2 fl. oz. in a minimum of 1 gallon of water to cover 1,000 ft² For broadcast applications use 1-2 fl. oz in 3-5 gallons of water to cover 1,000 ft²	For broadcast applications, apply to turf or lawn, landscaped areas, fence lines, or other pervious areas where listed pests are active. [For enhanced control, combine CSI 16-198 Bifen CS with an insect growth disruptor/regulator (i.e. Tekko Pro).] Repeat treatments may be made 7 days after previous treatment. This product should not be applied prior to rainfall.

RESTRICTIONS:

- In the home, cover all exposed food processing surfaces and utensils during treatment or thoroughly wash before reuse. Exposed food should be covered or removed.
- **DO NOT** permit humans or pets to contact treated surfaces until the spray has dried.
- **DO NOT** spray into the air; only spray directed toward the specific use sites.
- During any overhead applications to overhead interior areas of structures, except for soil surfaces in crawlspaces or in uninhabited attics, cover surfaces below with plastic sheeting or similar materials.
- **DO NOT** apply to clothes; items should be removed from furniture/floors before application.
- Wear protective clothing, unvented goggles, chemical resistant gloves made of barrier laminate, butyl rubber (≥14 mils), nitrile rubber (≥14 mils), neoprene rubber (≥14 mils), natural rubber (≥14 mils), polyethylene, PVC (≥14 mils), or viton (≥14 mils) and respirator, when applying to overhead areas or in poorly ventilated areas. Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination R, or P filters; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters.
- Avoid touching sprayed surfaces until spray has completely dried. Applications to building foundations are restricted to a maximum height of 2 feet above grade.
- Spot treatments must not exceed two square feet in size (for example 2ft by 1ft or 4ft by 0.5 ft).
- **DO NOT** use a general surface application in food/feed handling establishments when the facility is in operation or when foods/feeds are exposed.

ADDITIONAL OCCASIONAL PESTS (Asian Lady Beetles, Beetles, Boxelder bugs, Brown Marmorated Stink bugs, Centipedes, Cicadas, Cluster Flies, Earwigs, Firebrats, Millipedes, Moths, Pillbugs, Psyllids, Seed bugs, Silverfish, Sowbugs, Spiders, Springtails, and Stink bugs.):

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

Use Sites	Application Method	Application Rate	Use Directions and Restrictions
[Indoors] [/] Interior applications Food serving areas/surfaces, non-food serving areas/surfaces	Spot and crack-and-crevice applications Broadcast/General surface applications (food/feed establishments only) Low-pressure Sprayer or similar application	1–2 fl. oz per gallon of water to cover 1,000 ft²	Treat around doors, windows, storage areas, baseboards, and other areas as listed on the label. Treat where pests hide. These areas include, attics, crawlspaces, baseboards, closets, corners, storage areas, around water pipes, doors and windows, behind and under cabinets, furnaces, refrigerators, sinks, stoves, the underside of shelves and drawers. [For enhanced control, combine CSI 16-198 Bifen CS with an insect growth disruptor/regulator (i.e. Tekko Pro).] Repeat application should only take place if there are signs of renewed pest activity and must not exceed one application per 7 days.
Exterior and Perimeter applications to residential, commercial, public, industrial and agricultural buildings	Adjustable hose-end sprayer, backpack mister, handheld or backpack [tank type] sprayer, [sprinkling can,] low-pressure sprayer, or similar application General surface, (including spot, and crack- and- crevice) applications	1-2 fl. oz. in a minimum of 1 gallon of water to cover 1,000 ft²	Apply at a height of 2 feet on the foundation in a band 7 feet wide adjacent to and around the structure where pests may be active or may find entrance. Treat around decks, landscaped and garbage areas, soffit vents, sill plates and other areas as listed on the label. Apply as a spot and crack-and-crevice treatment to window frames, doors, garage doors, patios, carports, shutters, edges of siding and eaves, soffits, and electrical or plumbing penetrations. All outdoor applications to impervious exterior and structural surfaces are limited to spot and crack-and-crevice applications only unless permanently protected from rainfall by a covering, overhang, awning, or other structural component. If permanently protected from rainfall, general surface application may be used. Apply around decks, around garbage areas, sill plates, around storage sheds, trunks of woody plants, and other areas as listed on the label. [For enhanced control, combine CSI 16-198 Bifen CS with an insect growth disruptor/regulator (i.e. Tekko Pro).]

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by "/" indicates an either/or choice.]

			Repeat application should only take place if there are signs of renewed pest activity and must not exceed one application per 7 days.
RESTRICTIONS: - In the home, cover all exposed food processing surfaces and utensils during treatment or thoroughly wash before reuse. Exposed food should be covered or removed. DO NOT permit humans or pets to contact treated surfaces until the spray has dried. DO NOT apply to clothes; items should be removed from furniture/floors before application. - During any overhead applications to overhead interior areas of structures, except for soil surfaces in crawlspaces, cover surfaces below with plastic sheeting or similar materials. DO NOT spray into the air; only spray directed at the specific use sites. - Wear protective clothing, unvented goggles, chemical resistant gloves made of barrier laminate, butyl rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), natural rubber (≥ 14 mils), polyethylene, PVC (≥ 14 mils), or viton (≥ 14 mils) and respirator, when applying to overhead areas or in poorly ventilated areas. Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination R, or P filters; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters. DO NOT touch sprayed surfaces until spray has completely dried. - Applications to building foundations are restricted to a maximum height of 2 feet above grade. - Spot treatments must not exceed two square feet in size (for example 2ft by 1ft or 4ft by 0.5 ft). DO NOT use a general surface application in food/feed handling establishments when the facility is in operation or when foods/feeds are exposed.			

FLEAS AND TICKS :

Use Sites	Application Method	Application Rate	Use Directions and Restrictions
[Indoor] [/] Interior applications, and broadcast applications in crawlspaces	General surface/broadcast, spot, and crack-and-crevice applications Low-pressure Sprayer or similar application	1–2 fl. oz. in a minimum of 1 gallon of water to cover 1,000 ft ²	For spot and crack-and crevice treatments, use in areas where pets may rest including on carpets, furniture, pet sleeping areas & throw rugs. Before treatment, vacuum carpets, draperies and upholstered furniture. Dispose of vacuum bag or contents in an outdoor trash receptacle. In crawlspaces, apply to all surfaces as a broadcast/general surface application, focusing on pet or animal resting areas. [For enhanced control, combine CSI 16-198 Bifen CS with an insect growth disruptor/regulator (i.e. Tekko Pro).] Repeat application should only take place if there are signs of renewed activity and must

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

			not exceed one application every 7 days.
Kennels and doghouses	Adjustable hose-end sprayer, backpack mister, handheld or backpack [tank type] sprayer, [sprinkling can,] or low-pressure sprayer General surface/broadcast, spot, and crack-and-crevice applications	1–2 fl. oz. in a minimum of 1 gallon of water to cover 1,000 ft ²	Remove animals before treating. Apply as a general surface application, spot, or crack-and-crevice application to building, resting areas, walls, floor, animal bedding and run areas. [Pets and their bedding should be treated with EPA registered flea and tick control products in conjunction with this application as part of a complete flea control program.] [For enhanced control, combine CSI 16-198 Bifen CS with an insect growth disruptor/regulator (i.e. Tekko Pro).] Repeat application should only take place if there are signs of renewed activity and must not exceed one application every 7 days. Follow use directions for other EPA registered products that are used in conjunction with this product.
Animal runs, lawns, under decks, trees, ornamental plants & shrubs and other areas where animals are known to rest	Adjustable hose-end sprayer, backpack mister, [or] handheld or backpack [tank type] sprayer [or sprinkling can] General surface/broadcast, spot, and crack-and-crevice applications	1-2 fl. oz. in a minimum of 1 gallon of water to cover 1,000 ft ²	To control ticks, apply to vegetation, brush, branches, retaining walls, structures, and other areas near habitat where ticks may harbor or frequent. Treat entire area rather than making spot treatments and retreat as necessary to maintain control. To control fleas, make broadcast applications to shaded areas accessible to pets or other animals. Use higher volume applications to ensure penetration of insecticide into the soil. [For enhanced control, combine CSI 16-198 Bifen CS with an insect growth disruptor/regulator (i.e. Tekko Pro).] If needed, repeat treatments may be made 14 days after last treatment or if new pest activity is observed.

RESTRICTIONS:

- Remove pets prior to spraying treatment area.
- **DO NOT** permit humans or pets to contact treated surfaces until the spray has dried.
- **DO NOT** apply CSI 16-198 Bifen CS directly to animals or pets.
- Spot treatments must not exceed two square feet in size (for example 2ft by 1ft or 4ft by 0.5 ft).
- **DO NOT** spray into the air; only spray directed toward the specific use sites.
- Wear protective clothing, unvented goggles, chemical resistant gloves made of barrier laminate, butyl

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by "/" indicates an either/or choice.]

rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), natural rubber (≥ 14 mils), polyethylene, PVC (≥ 14 mils), or viton (≥ 14 mils) and respirator when applying to overhead areas or in poorly ventilated areas. Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination R, or P filters; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters.

- Avoid touching sprayed surfaces until spray has completely dried.
- During any overhead applications to overhead interior areas of structures, except for soil surfaces in crawlspaces, cover surfaces below with plastic sheeting or similar materials.
- **DO NOT** spray when wind conditions could create a mist to blow back to applicator.
- **DO NOT** apply this product in or around bodies of water.
- **DO NOT** soak young or flowering plants.
- Applications to building foundations are restricted to a maximum height of 2 feet above grade.

STORED PRODUCT PESTS (Cigarette Beetles, Confused Flour Beetles, Dermestid Beetles, Indian Meal Moths, Lesser Grain Borers, Merchant Grain Beetles, Pscocids, Red Flour Beetles, Rice Moths, Saw-toothed Grain Beetles, Tobacco Moths, and Warehouse Beetles):

Use Sites	Application Method	Application Rate	Use Directions and Restrictions
[Indoor] [/] Interior applications Food serving areas/surfaces, non-food serving areas/surfaces	Spot and crack-and-crevice applications Broadcast/General surface applications (food/feed establishments only) Low-pressure Sprayer or similar application	1-2 fl. oz. per gallon of water to cover 1,000 ft²	Crack-and-Crevice applications may be made directly to cracks and crevices, baseboards, floors, corners, ceilings, walls, expansion joints, molding, areas around water and sewer pipes, and voids where pests can hide. Spot treatments may also be made around storage areas, closets, around water pipes, doors and windows, behind and under refrigerators, cabinets, sinks, stoves and other equipment, shelves, and drawers. Make applications under and behind pallets, shelves and bins, garbage rooms, locker rooms, storage rooms, and other non-food/non-feed areas where pests may hide or harbor. Contact as many pests as possible. [For enhanced control, combine CSI 16-198 Bifen CS with an insect growth disruptor/regulator (i.e. Tekko Pro).]

{Text in braces and italics are notes to the label editor.}
 [Text in brackets alone are optional statements or alternative statements.]
 [Text separated by “/” indicates an either/or choice.]

			Refer to FOOD HANDLING section for additional, more specific application instructions. When used in treatment of food processing and food handling establishments and in food and non-food storage warehouses (Places other than private residences in which food is held, processed, prepared, or served.), repeat applications may be made 14 days after last treatment.
RESTRICTIONS: • In the home, cover all exposed food processing surfaces and utensils during treatment or thoroughly wash before reuse. Exposed food should be covered or removed. • DO NOT permit humans or pets to contact treated surfaces until the spray has dried. • Spot treatments must not exceed two square feet in size (for example 2ft by 1ft or 4ft by 0.5 ft). • During any overhead applications to overhead interior areas of structures except in crawlspaces over soil, cover surfaces below with plastic sheeting or similar materials. • Wear protective clothing, unvented goggles, chemical resistant gloves made of barrier laminate, butyl rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), natural rubber (≥ 14 mils), polyethylene, PVC (≥ 14 mils), or viton (≥ 14 mils) and respirator, when applying to overhead areas or in poorly ventilated areas. Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination R, or P filters; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters. • Avoid touching sprayed surfaces until spray has completely dried. • DO NOT use a general surface application in food/feed handling establishments when the facility is in operation or when foods/feeds are exposed.			

FLYING INSECT PESTS (Flies, Gnats, Midges, Mosquitoes and Moths):

CSI 16-198 Bifen CS may be used for the control of house flies, stable flies, moths, mosquitoes, nuisance flies (gnats, midges) and flying insect pests in, on and around residential, commercial, public, industrial and agricultural buildings. CSI 16-198 Bifen CS may be used to control nuisance flies, gnats, midges, and mosquitoes by application into moist breeding areas (potted plants, moist debris or litter) or into areas holding standing water such as gutters, drains, pools and fountains.

CSI 16-198 Bifen CS may be applied for MOSQUITO CONTROL at a rate of 1–2 fl. oz per 1,000ft² as a general surface treatment. For a list of approved application sites, please refer to the PRODUCT INFORMATION section of this label.] [Use CSI 16-198 Bifen CS for control of mosquitoes that may potentially transmit Zika and other arboviruses (West Nile, Dengue, Eastern Equine Encephalitis, and St. Louis Encephalitis Viruses.)

To kill and control mosquitoes on/around structures, apply to areas where mosquitoes are observed. Make applications on the outside surfaces of commercial, residential and non-commercial structures and buildings, including exterior siding, eaves, porches, door and window frames, carports, patios, under decks, porches, open crawlspaces, garages and around entry points using hand-held and backpack sprayers, power sprayers, mist blowers or other pressurized spray methods.

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

For application into landscapes to kill and control mosquitoes, apply 1–2 fl. oz per 1,000ft² of CSI 16-198 Bifen CS to non-flowering plants and leaves and landscape areas, focusing on mosquito resting areas. Pay particular attention to vining groundcover, non-flowering bedding plants, ornamental plants, non-bearing crops/trees, undersides of leaves, and breeding areas.

To kill mosquitoes observed on, outside surfaces of commercial, residential and non-commercial structures and building, including exterior siding, eaves, porches, door and window frames, carports, patios, under decks, porches, open crawlspaces, garage and around entry points, treat using hand-held, backpack sprayers, power sprayers, mist blowers or other pressurized spray methods. Apply at a rate of 1–2 fl. oz per 1,000 ft². Treat at a height of 2 feet on the foundation and in a band 7 feet wide adjacent to and around the structure where listed pests are observed. For application into landscapes, to kill and control mosquitoes, apply 1–2 fl. oz per 1,000ft² in a minimum of 1 gallon of water to foliage on ornamental plants, focusing on mosquito resting areas. Pay attention to non-flowering bedding plants, ornamental plants, non-bearing crops/trees, undersides of leaves. Apply when the mosquitoes are most active. Application during the cooler hours of the night or early mornings are recommended. **DO NOT** apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack-and-crevice treatment, unless permanently protected from rainfall by a covering, awning, or other structure.

Use Sites	Application Method	Application Rate	Use Directions
[Indoor] [/] Interior applications to residential, commercial, public, industrial and agricultural buildings Food serving areas/surfaces, non-food serving areas/surfaces	General surface, spot, and crack-and-crevice applications Broadcast/General surface applications (food/feed establishments only) Low-pressure Sprayer or similar application	1-2 fl. oz. per gallon of water to cover 1000 ft²	Apply product to fly breeding or resting areas, including garbage cans, storage areas, cracked tile, plumbing areas, behind and under equipment, windows, and doors. For drains, apply dilution to kill listed insects in/around the drain and catch basin area. When possible, in agricultural buildings only, treat flies observed on vertical surfaces surrounding breeding sites. Rates may be increased to 2 fl. oz. per gallon when environmental conditions are conducive to higher pest populations or high numbers of pests are present. [For enhanced control, combine CSI 16-198 Bifen CS with an insect growth disruptor/regulator (i.e. Tekko Pro).] Repeat application should only take place if there are signs of renewed activity and must not exceed one application every 14

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by "/" indicates an either/or choice.]

			days.
Fly breeding sites such as drains, traps of sinks, and in-floor drains	Foam application	1-2 fl. oz. per gallon of water to cover 1000 ft² To convert to foam, add foaming agent at the manufacturer's specified rate.	Using a professional foam applicator, apply finished foam to areas of fly breeding sites such as drains, traps of sinks, below sinks, under equipment, broken tile, bathtubs, and in-floor drains. Foam should be applied thoroughly ensuring all void areas and fly breeding material is treated. Follow the requirements of the foam equipment manufacturer. [For enhanced control, combine CSI 16-198 Bifen CS with an insect growth disruptor/regulator (i.e. Tekko Pro).] Rates may be increased to 2 fl. oz. per gallon when environmental conditions are conducive to higher pest populations or high numbers of pests are present.
Exterior Applications to Residential, Commercial, Public, Industrial and Agricultural Buildings (up to 3 feet) For recreational areas: golf course out of play areas, native plantings, landscape beds, ornamental grasses, residential turf, around clubhouse buildings, maintenance facilities, pump houses and on-course lavatories	General Surface, Broadcast, Spot, and Crack-and-Crevise applications Adjustable hose-end sprayer, backpack mister, handheld or backpack [tank type] sprayer, [sprinkling can,] or low-pressure sprayer	1-2 fl. oz. in a minimum of 1 gallon of water to cover 1,000 ft²	Apply to outside surfaces of buildings, porches, patios, garages and other areas as listed on the label. To help prevent infestations of buildings by flying insects, treat the foundation to a height of 2 feet and treat soil, vegetation or other substrates in a band 7 feet wide adjacent to the building foundations, walls, around doors and windows, and overhead areas where these pests are active and may find entrance or harborage. For spot and crack-and-crevice applications, treat entry points such as around doorways, around windows, garbage and refuse areas. [For enhanced control, combine CSI 16-198 Bifen CS with an insect growth disruptor/regulator (i.e. Tekko Pro).] Apply to foliage and ornamental plants as well as into moist breeding areas: potted plants, moist debris or litter, or into areas

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

			holding standing water: gutters, drains, pools and fountains. Treat trash and refuse areas. Control will be enhanced when facilities are cleaned, and interior applications are supplemented with exterior perimeter treatments.
(For Mosquito Control Only) Exterior Applications to Residential, Commercial, Public, Industrial and Agricultural Buildings (up to 3 feet) Exterior applications to landscaped areas, trees, shrubs, ornamentals plants, weeds For recreational areas, including golf course out of play areas, native plantings, landscape beds/plantings, ornamental grasses, residential turf, around clubhouse buildings, maintenance facilities, pump houses and on-course lavatories	Hand-held and backpack sprayers or mist blowers, adjustable hose-end sprayers, ground sprayers, power sprayers, or low pressure sprayers General Surface/ Broadcast applications, (including spot, and crack- and- crevice) applications	1-2 fl. oz. in a minimum of 1 gallon of water to cover 1,000 ft²*	Use CSI 16-199 B-N-P CS for control of mosquitoes that may transmit Zika and arboviruses (West Nile Fever, Dengue fever, Eastern equine encephalitis, and St. Louis encephalitis.) CSI 16-199 B-N-P CS may be applied for MOSQUITO CONTROL at a rate of 1 – 2 fl. oz per 1,000 ft² as a general surface treatment. For a complete list of approved application sites, refer to the PRODUCT INFORMATION section of this label. To kill and control mosquitoes on/around structures, apply as a general surface or spot treatment. Apply as a spot treatment to window frames, doors, garage doors, patios, carports, shutters, soffits, and edges of siding and eaves, unless permanently protected from rainfall by a covering, overhang, awning, or other structure. If permanently protect from rainfall, general surface application may be used. To kill and control mosquitoes on non-flowering ornamental plants, shrubs, weeds, bushes, trees, vining ground cover, and hedges, apply as a broadcast application. [For enhanced control, combine CSI 16-198 Bifen CS with an insect growth disruptor/regulator (i.e. Tekko Pro).] Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure, or if there are signs of

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

			renewed pest activity. DO NOT apply more than once every 7 days.
RESTRICTIONS: • DO NOT permit humans, pets, or livestock to contact treated surfaces until the spray has dried. • For mosquito control, DO NOT apply when wind speed exceeds 10 MPH. • DO NOT spray into the air; only spray directed at the specific use sites. • During any overhead applications to overhead interior areas of structures, except soil surfaces in crawlspaces or in uninhabited attics, cover surfaces below with plastic sheeting or similar materials. • Wear protective clothing, unvented goggles, chemical resistant gloves made of barrier laminate, butyl rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), natural rubber (≥ 14 mils), polyethylene, PVC (≥ 14 mils), or viton (≥ 14 mils) and respirator when applying to interior overhead areas or in poorly ventilated areas. Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination R, or P filters; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters. • Avoid touching sprayed surfaces until spray has completely dried. • DO NOT spray when wind conditions could create a mist to blow back to applicator. • DO NOT apply this product in or around fish ponds or other bodies of water. • Applications to building foundations are restricted to a maximum height of 2 feet above grade. • DO NOT make outdoor broadcast applications when wind speed is 15 mph or greater. • DO NOT apply by aircraft or with handheld or truck mounted cold aerosol ULV sprayers and thermal fogging devices. • DO NOT apply more than 2 fl. oz. per 1000 ft² per application. • DO NOT use a general surface application in food/feed handling establishments when the facility is in operation or when foods/feeds are exposed.			
*See DILUTION CHART FOR STRUCTURAL PERIMETER BARRIER APPLICATIONS for additional information on mix rates.			

FOOD HANDLING ESTABLISHMENTS

(Places other than private residences in which food is held, processed, prepared, or served):

If used as a spot, general surface, or crack-and-crevice treatment, CSI 16-198 Bifen CS 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, areas for receiving, storing, packing (bottling, boxing, canning, wrapping), preparing, enclosed processing systems (dairies, edible oils, mills, syrups) of food and edible waste storage. Serving areas where food is exposed, and the facility is in operation are also considered food areas.

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

Some of the use sites that are allowed include: Aircraft (cargo areas only), apartments, 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, grocery stores,

{Text in braces and italics are notes to the label editor.}
[Text in brackets alone are optional statements or alternative statements.]
[Text separated by “/” indicates an either/or choice.]

hotels, industrial buildings, laboratories, meat/poultry/egg processing plants, mobile/motor homes, nursing homes, offices, railcars, restaurants, schools, ships, theatres, trailers, trucks, vessels, warehouses†, wineries.

†WAREHOUSES and GROCERY/PET STORES: CSI 16-198 Bifen CS dilution may be applied as a surface, spot or crack-and-crevice treatment in food and nonfood storage warehouses and stores. Apply to all areas that may harbor listed pests, including under and between pallets, bins, and shelves. Do not apply directly to food, grain bins (interior), or animals.

General Surface Application: Do not use this application method in food/feed handling establishments when the facility is in operation, or foods/feeds are exposed. Do not apply directly to food products, food prep surfaces, utensils or any surface that food may contact. All equipment, benches, shelving and other surfaces in food processing plants, bakeries, cafeterias and other facilities, that product came into contact with, and food will contact must be washed after treatment. Clean food handling equipment or processing equipment and rinse completely with fresh, clean water if there is any contact with product during application.

Spot and Crack-and-Crevice Applications: These types of treatments can be done when the facility is operating, but food should be covered or removed from the immediate treatment area. **DO NOT** apply directly to food.

Foam Applications: Converting CSI 16-198 Bifen CS to foam will allow it to be used to treat structural voids. To produce a foam concentration, dilute 1.0 – 2.0 fl. oz. of CSI 16-198 Bifen CS per gallon of water and add the manufacturer’s specified amount of foaming agent. Before application, make sure that the foaming agent is compatible with CSI 16-198 Bifen CS. These types of treatments can be done when the facility is operating, but food should be covered or removed from the immediate treatment area if contamination is likely. **DO NOT** apply directly to food.

LAWNS/TURFGRASS AND LANDSCAPE ORNAMENTALS

(Not for use on Sod Farms, Golf Course Turf (playable areas), or grass grown for seed)

CSI 16-198 Bifen CS may be used for applications to maintain indoor or outdoor areas where turf and ornamentals are grown: residential lawns and landscaped areas, non-residential lawns and landscapes around institutional, public, commercial, and industrial buildings, parks, recreational areas, and athletic fields (including trees, shrubs, flowers, evergreens, foliage plants and groundcovers).

Applicators must ensure that they are certified in the necessary pesticide certification categories to allow application of CSI 16-198 Bifen CS away from structures, such as to turf and ornamental plantings. Structural pest control certification categories may limit the distance away from structures for pesticide application. Consult your state extension office or pesticide regulatory officials for further information.

RESTRICTIONS:

- **DO NOT** apply this product to edible crops.
- **DO NOT** apply this pesticide within 25 ft. of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. Use of this pesticide adjacent to water may affect aquatic organisms.
- **DO NOT** make outdoor broadcast applications to turf and ornamentals when wind speed is 15 mph or greater.
- In the state of New York only, **DO NOT** apply within 100 ft. of coastal marshes, water bodies, or streams that drain into coastal marshes.

Mixing Instructions

CSI 16-198 Bifen CS is to be mixed with water and may be used in all types of standard application equipment. Fill applicator tank with the desired volume of water and add CSI 16-198 Bifen CS. It is suggested that the water be pH 5 - 7. Adjust water pH with a buffering agent if necessary. Slowly add CSI 16-198 Bifen CS to applicator tank water with maximum agitation. Close and shake or re-agitate applicator tank before use if application is interrupted. Make up only amount of treatment volume as required.

Tank Mixing

CSI 16-198 Bifen CS may be tank mixed with other currently registered pesticides unless expressly prohibited by the product label. A small volume mixing test (jar test) with the other products is recommended to ensure compatibility. If other chemicals are added to the applicator tank, add CSI 16-198 Bifen CS last. Fill tank to desired volume and continue to agitate while making applications. If mixed with EC formulations, use within 24 hours.

Follow all restrictions and precautions which appear on the labels of these products.

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.

INSECT CONTROL IN LANDSCAPE ORNAMENTAL PLANTS AND INTERIORSCAPES:

INSECT CONTROL IN LANDSCAPE ORNAMENTAL PLANTS

CSI 16-198 Bifen CS is for use to control the ornamental pests listed in the table below on ornamentals in landscaped areas around residential, institutional, public, commercial, and industrial buildings, parks, recreational areas, and athletic fields (including trees, shrubs, flowers, evergreens, bedding plants, foliage plants and groundcovers). Direct applications as a full coverage onto plant foliage, leaves, soil, rocks, and other areas in and around the landscape to provide thorough coverage at the rates listed in the Interiorscapes and Landscape Ornamental Application Rates table below. When pest pressure and foliage density increases, use higher rates. Foliage that emerges after application will not be protected.

INSECT CONTROL IN INTERIORSCAPES:

CSI 16-198 Bifen CS may also be used in interiorscapes: hotels, shopping centers, offices, and other indoor spaces. Direct applications as a full coverage onto plant foliage, leaves, soil, rocks, and other areas to provide thorough coverage. When pest pressure and foliage density increases, use higher rates. Foliage that emerges after application will not be protected.

Restrictions:

- Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572).

To determine the appropriate amount of CSI 16-198 Bifen CS to be mixed using the Interiorscapes and Landscape Ornamental Application Rates table below, follow these steps:

- Identify the target pest present requiring the highest rate for control
- Choose the application rate based on the table

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

- Determine the needed volume to adequately cover foliage or area to be treated
- Mix the appropriate volume based on the application rate table and mixing chart

Higher labeled application rates should be used when pest pressure is severe. Use application rates with higher volumes of water to achieve thorough coverage.

INTERIORSCAPES AND LANDSCAPE ORNAMENTAL APPLICATION RATES

Pest	Application Rate	
Bagworms Cutworms Elm Leaf Beetles Fall Webworms Gypsy Moth Caterpillars Lace Bugs Leaf Feeding Caterpillars Tent Caterpillars	0.25 – 0.50 fl. oz. per 1,000 ft ² 10.8 – 21.6 fl. oz. per 100 gallons	For Bagworm control, make applications during their early larval stage when caterpillars are most susceptible. Make applications as necessary to manage listed pests but not more often than every 7 days.
Adelgids [†] Aphids Beet Armyworm Beetles [‡] Black Vine Weevil (Adults) Brown Soft Scales Broad Mites Budworms California Red Scale (Crawlers) Centipedes Cicadas Citrus Thrips Clover Mites Crickets <i>Diaprepes</i> spp. (Adults) Earwigs European Red Mite Flea Beetles Fungus Gnats (Adults) Grasshoppers Japanese Beetle (Adult) [†] Leafhoppers Mealybugs Millipedes Mites Orchid Weevil Pillbugs Plant Bugs (including <i>Lygus</i> spp.) Planthoppers [†] (including Spotted lanternfly ^[1])	0.50 – 1.0 fl. oz. per 1,000 ft ² 21.6 – 43.4 fl. oz. per 100 gallons	For Beetles, Scale Crawlers, Twig Borers and Weevils , ensure thorough coverage of all plant parts including tree trunks, stems, buds, twigs and leaves. Make applications as necessary to manage listed pests but not more often than every 7 days.

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

Psyllids [†] Scale crawlers, such as California scale, San Jose scale, etc. Spider Mites Spiders Spittlebugs [†] Thrips Tip Moths Treehoppers [†] Twig Borers Wasps Weevils Whiteflies		
Ants Imported Fire Ants Leafminers Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Sawfly larvae Spider Mites Stink Bugs	1–2 fl. oz. per 1,000 ft ² 43.4 – 87.0 fl. oz. per 100 gallons	For Imported Fire Ants, do not apply for foraging red imported ants on LANDSCAPE ornamental plants. For Twospotted Spider Mite control, apply during spring to mid-summer when conditions are conducive. Pay particular attention to areas of new growth. Use higher label application rates and/or more frequent treatments for twospotted spider mite control during mid- to late-summer due to overlapping generations. Use of a surfactant or horticultural oil may increase the effectiveness of applications. Rotation of modes of action/active ingredients are recommended for resistance management of twospotted spider mites. Consult your local Cooperative Extension Service for resistance management recommendations in your area. Make applications as necessary to manage listed pests but not more often than every 7 days.
Mosquitoes	See Mosquito Control directions for application rates.	
[†] Not for use in California		
- Remove animals and pets prior to spraying treatment area. DO NOT permit humans or pets to contact treated surfaces until the spray has dried. DO NOT apply CSI 16-198 Bifen CS directly to animals or pets. DO NOT spray into the air; only spray directed toward the specific use sites. - Wear protective clothing, unvented goggles, chemical resistant gloves made of barrier laminate, butyl rubber (≥14 mils), nitrile rubber (≥14 mils), neoprene rubber (≥14 mils), natural rubber (≥14 mils), polyethylene, PVC (≥14 mils), or viton (≥14 mils) and respirator when applying to overhead areas or in poorly ventilated areas. Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination R, or P filters; OR a NIOSH-approved gas mask with OV		

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

canisters; OR a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters.

- Avoid touching sprayed surfaces until spray has completely dried.
- **DO NOT** spray when wind conditions could create a mist to blow back to applicator.
- **DO NOT** apply this product in or around bodies of water.
- **DO NOT** soak young or flowering plants.

LAWN/TURFGRASS INSECT PEST CONTROL

CSI 16-198 Bifen CS is for use to control the lawn/turfgrass pests listed in the Rates for Lawn and Turfgrass Pests table below around: residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields. Not for use on playable areas of golf courses.

RESTRICTIONS:

- KEEP CHILDREN AND PETS OFF TREATED AREAS UNTIL SPRAY HAS DRIED FOLLOWING APPLICATION.
- **DO NOT** apply when turfgrass is waterlogged or when soils are saturated with water (i.e. will not accept irrigation).

RATES FOR LAWN AND TURFGRASS PESTS

Pest	Application Rate CSI 16-198 Bifen CS	Application Instructions
Armyworms Cutworms Sod Webworms	0.36 – 0.50 fl. oz. per 1000 ft ²	For Armyworms, Cutworms and Sod Webworms , DO NOT water immediately after application so the product remains on the leaf surface. Refrain from mowing for at least 2 days after application. Higher application rates may be needed for grass maintained at heights >1 inch, (Up to 1 fl. oz. per 1000 ft ²). During periods of high pest pressure, higher label rates may also be required. Make applications as necessary to manage listed pests but not more often than every 7 days.
Annual Bluegrass Weevil (Hyperodes) (Adult) Banks Grass Mite Billbugs (Adult) Black Turfgrass Ataenius (Adult) Centipedes Crickets Earwigs Fleas (Adults) Grasshoppers Leafhoppers	0.50 – 1.0 fl. oz. per 1000 ft ²	For Annual Bluegrass Weevil (Hyperodes) adults , time applications to intercept adults as they emerge from overwintering sites and migrate towards turfgrass. Use monitoring or scouting for timing of application or consult your State Cooperative Extension Service for more information regarding application timing in your area. For Billbug adults , apply when adult billbugs are first observed. Use monitoring or scouting for timing of application or consult your State Cooperative Extension

{Text in braces and italics are notes to the label editor.}
 [Text in brackets alone are optional statements or alternative statements.]
 [Text separated by “/” indicates an either/or choice.]

Mealybugs Millipedes Mites Pillbugs Sowbugs		Service for information specific to your region. For Mites, apply with a non-ionic surfactant to enhance coverage and penetration into turf canopy. Multiple applications may be necessary for optimal control. For Black Turfgrass Ataenius adults, for optimal control use monitoring or scouting to determine timing of application or consult your State Cooperative Extension Service for information specific to your region.
Crane Fly Larvae	1.0 fl. oz. per 1000 ft ²	For Crane Fly larvae , make applications when larvae are feeding on plant crowns.
Ants Chinch Bugs Fleas (Larvae) Imported Fire Ants Japanese Beetle (Adult) Mole Cricket (Adult) Mole Cricket (Nymph) Spotted Lanternfly Stink Bugs (including Brown Marmorated Stink Bugs) Ticks (including species that transmit Lyme disease)	1-2 fl. oz. per 1000 ft ²	For Chinch Bugs, apply after thorough watering of lawn/turf to enhance penetration of the thatch layer. Apply in a minimum of 2 gal of application volume per 1,000 ft². The higher rate range (up to 2 fluid oz. per 1000 ft².) may be required when pressure is severe. For Flea Larvae, Imported Fire Ants, and Ticks, refer to relevant section above. For Mole Cricket adults, target small nymphs, before large nymphs and adults develop. During dry periods, irrigating prior to application will bring mole crickets closer to the surface where applications can be more effective. Surface activity is greatest at night, so late afternoon/evening applications are recommended. Apply at a minimum of 2 gallons of finished solution per 1,000 ft². For Mole Cricket nymphs, make applications as close to egg hatch as possible because small nymphs are most susceptible to insecticide applications. Focus on areas where adult activity was highest in the spring. For optimal control, use monitoring or scouting (such as soap flushes) to determine timing of application. Later in the year, when nymphs are larger, higher application rates and more frequent applications may be necessary to achieve adequate control. During dry periods, irrigating prior to application will bring mole crickets closer to the surface where applications can be more effective. Surface activity is greatest at night, so late afternoon/evening applications are recommended.

{Text in braces and italics are notes to the label editor.}
 [Text in brackets alone are optional statements or alternative statements.]
 [Text separated by “/” indicates an either/or choice.]

{note to reviewer: this table is optional and the information in it is repeated in the table above. One or both tables may be printed on the label}

CSI 16-198 Bifen CS Mixing Chart for Lawns, Turfgrass, Landscape Ornamental and Interiorscape Insect Pest Control

CSI 16-198 Bifen CS Application Rate fl. oz. / 1000 ft ²	Application Volume gal / 1000 ft ²	fl. oz. of CSI 16-198 Bifen CS diluted to these volumes of finished spray			
		1 gallon	5 gallons	10 gallons	100 gallons
0.25	1	0.25	1.25	2.5	25
0.36	1	0.36	1.8	3.6	36
0.50	1	0.50	2.5	5.0	50
1.0	1	1.0	5	10.0	100
2.0	1	2.0	10	20.0	200
0.25	2	0.13	0.63	1.25	12.5
0.36	2	0.18	0.9	1.8	18
0.50	2	0.25	1.25	2.5	25
1.0	2	0.5	2.5	5.0	50
2.0	2	1	5	10	100
0.25	3	0.08	0.42	0.83	8.33
0.36	3	0.12	0.6	1.2	12
0.50	3	0.17	0.85	1.7	17
1.0	3	0.33	1.65	3.3	33
2.0	3	0.67	3.35	6.7	67
0.25	4	0.06	0.31	0.63	6.25
0.36	4	0.09	0.45	0.9	9
0.50	4	0.13	0.65	1.3	13
1.0	4	0.25	1.25	2.5	25
2.0	4	0.5	2.5	5.0	50

Uses for Agricultural Production

INSECT CONTROL IN GREENHOUSES AND SHADEHOUSES:

CSI 16-198 B-N-P CS may also be used in greenhouses and shadehouses. Direct applications as a full coverage onto plant foliage, leaves, soil, and other areas to provide thorough coverage. When pest pressure and foliage density increases, use higher rates. Foliage that emerges after application will not be protected.

Restrictions:

- **DO NOT** apply when the wind speed is greater than 15 mph.
- Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572).
- For soil or foliar applications, do not apply by ground equipment within 25 feet of lakes, reservoirs,

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

- In New York State, this product may not be applied within 100 feet of coastal marshes or streams that drain into coastal marshes.

To determine the appropriate amount of CSI 16-198 B-N-P CS to be mixed using the Greenhouses and Shadehouses directions, follow these steps:

- Identify the target pest present requiring the highest label rate for control
- Choose the application rate based on the table
- Determine the needed volume to adequately cover foliage or area to be treated
- Mix the appropriate volume based on the application rate table and mixing chart

Higher label application rates should be used when pest pressure is severe. Larger plants will require higher volumes of spray to achieve thorough coverage.

GREENHOUSE AND SHADEHOUSES APPLICATION RATES

Pest	Application Rate	
Bagworms Cutworms Elm Leaf Beetles Fall Webworms Gypsy Moth Caterpillars Lace Bugs Leaf Feeding Caterpillars Tent Caterpillars	0.25 – 0.50 fl. oz. per 1,000 ft ² 10.8 – 21.6 fl. oz. per 100 gallons	For Bagworm control make applications, during their early larval stage when caterpillars are most susceptible. Make applications as necessary to manage listed pests but not more often than every 7 days.
Adelgids [†] Aphids Beet Armyworm Beetles [†] Black Vine Weevil (Adults) Brown Soft Scales Broad Mites Budworms California Red Scale (Crawlers) Centipedes Cicadas Citrus Thrips Clover Mites Crickets <i>Diaprepes spp.</i> (Adults) Earwigs European Red Mite Flea Beetles	0.50 – 1.0 fl. oz. per 1,000 ft ² 21.6 – 43.4 fl. oz. per 100 gallons	For Beetles, Scale Crawlers, Twig Borers and Weevils , ensure thorough coverage of all plant parts including tree trunks, stems, buds, twigs and leaves. For Twospotted Spider Mite control, apply during spring to mid-summer when conditions are conducive. Pay particular attention to areas of new growth. Use higher label application rates and/or more frequent treatments for twospotted spider mite control during mid- to late-summer due to overlapping generations. Use of a surfactant or horticultural oil may increase the effectiveness of applications. Rotation of modes of action/active ingredients are recommended for resistance management of twospotted spider mites. Consult your local Cooperative

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

Fungus Gnats (Adults) Grasshoppers Japanese Beetle (Adult) [†] Leafhoppers Mealybugs Millipedes Mites Orchid Weevil Pillbugs Plant Bugs (including <i>Lygus</i> spp.) Planthoppers [†] (including Spotted Lanternfly) Psyllids [†] Scale crawlers, such as California scale, San Jose scale, etc. Spider Mites Spiders Spittlebugs [†] Thrips Tip Moths Treehoppers [†] Twig Borers Wasps Weevils Whiteflies		Extension Service for resistance management recommendations in your area. Make applications as necessary to manage listed pests but not more often than every 7 days.
Ants Imported Fire Ants Leafminers Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Sawfly larvae Stink Bugs	1–2 fl. oz. per 1,000 ft ² 43.4 – 87.0 fl. oz. per 100 gallons	For Imported Fire Ants , do not apply for foraging red imported ants on ornamental plants. Make applications as necessary to manage listed pests but not more often than every 7 days.
Mosquitoes	See Mosquito Control directions for residual control rates and information on previous relevant section.	
[†] Not for use in California		
- Remove animals and pets prior to spraying treatment area. DO NOT permit humans or pets to contact treated surfaces until the spray has dried. DO NOT apply CSI 16-198 Bifen CS directly to animals or pets. DO NOT spray into the air; only spray directed toward the specific use sites. - Wear protective clothing, unvented goggles, chemical resistant gloves made of barrier laminate, butyl rubber (≥14 mils), nitrile rubber (≥14 mils), neoprene rubber (≥14 mils), natural rubber (≥14 mils), polyethylene, PVC (≥14 mils), or viton (≥14 mils) and respirator, when applying to overhead areas or in poorly ventilated areas. Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination R, or P filters; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters.		

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

- Avoid touching sprayed surfaces until spray has completely dried.
- **DO NOT** spray when wind conditions could create a mist to blow back to applicator.
- **DO NOT** apply this product in or around bodies of water.
- **DO NOT** soak young or flowering plants.

CONFINED ANIMAL ENCLOSURES, LIVESTOCK AND POULTRY HOUSING STRUCTURES AND PREMISES

Controls pests of poultry and livestock facilities, including biting flies, filth-breeding flies, fleas, litter beetles, hide beetles, bed bugs, mites and ticks. Apply as a general surface (including directed spray) and/or crack-and-crevice treatment. Control is enhanced when facilities are cleaned prior to application, and interior and exterior perimeter applications are made in and around the livestock or poultry housing structures after cleaning takes place. Normal cleaning practices of the structure also must be followed along with applications of CSI 16-198 Bifen CS to effectively control crawling and flying insect pests.

To control bed bugs, mites, and ticks in animal facilities, treat cracks-and-crevices, harborages, walls, posts, nest boxes and mobile side curtains.

Allow CSI 16-198 Bifen CS to dry before applying disinfectants.

Use Sites	Application Method	Application Rate	Use Directions and Restrictions
Occupied areas of poultry and livestock facilities	Low-pressure Sprayers	0.66 – 2.0 fl. oz in a minimum of 1 gallon of water to cover 1,000 ft ²	For adult fly control in and around animal facilities, spray application should target areas where flies will rest: the ceiling, rafters and trusses. Also treat windows, interior and exterior walls and supports, fences and vegetation. CSI 16-198 Bifen CS may be sprayed on manure in areas where fly larvae are abundant and the area cannot be cleaned.
Unoccupied areas of poultry facilities	General surface, spot, and crack-and-crevice applications Hand-held and backpack sprayers or mist blowers, adjustable hose-end sprayers, ground sprayers, power sprayers, or low pressure sprayers	0.66 – 2.0 fl. oz in a minimum of 1 gallon of water to cover 1,000 ft ²	Apply to floors, vertical and overhead surfaces where crawling or flying insect pests may be present. Feeders, waterers, and feed carts must be covered before application to prevent contamination. Pay attention to animal areas: stanchions, pipes, windows, doors and other areas as listed on the label . Exterior applications to walls and foundation perimeters can help prevent interior infestations of flying and crawling insect pests. For poultry [broiler, turkey brooder and turkey grow out/finishing] houses, apply to floor area (birds grown on litter) or to walls, posts and cage framing (birds grown in cages). Application should also be made into cracks and crevices around insulation. Reapply after each grow out or de-caking and sanitizing procedure, but not more frequently than every 8 weeks. Indoor control can be enhanced by making perimeter treatments around the outside of building foundations to prevent immigrating adult beetles. Apply in a uniform band 2 feet up and 7

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

			feet out from the structure. Maintaining a year-round treatment program will prevent background populations from reaching problem levels. To control beetles in houses containing birds grown on litter, apply CSI 16-198 Bifen CS after birds are removed and all litter management activities are complete. If all litter is removed and replaced with fresh bedding, apply CSI 16-198 Bifen CS to new bedding after it is spread. Apply spray to inside walls, posts and exterior perimeter. Reapply between each flock. Allow CSI 16-198 Bifen CS treatment to dry before applying disinfectants. To control beetles in broiler-breeder houses, apply as directed above for litter and soil/floor treatment. To control beetles in caged-layer houses, do not treat accumulated manure as it will likely disrupt natural enemies that control fly breeding. Instead, treat the perimeter of the manure. Pit walls, posts and exterior of structure should also be sprayed. Reapply between each flock.
RESTRICTIONS: • DO NOT treat birdcages or stock pens when animals are present. • DO NOT apply CSI 16-198 Bifen CS directly to animals. • DO NOT allow animals back in treated areas of facility until treated areas have dried. • DO NOT apply directly to any natural bodies of water such as ponds, lakes, streams, rivers, marshes, potholes, and estuaries. • DO NOT apply CSI 16-198 Bifen CS to any animal feed, water or watering equipment. • DO NOT contaminate any animal feed, food or water in and around livestock or poultry housing when making applications. • DO NOT contaminate feeders, waterers, or feed carts during application. Feed carts must be covered before application. • DO NOT apply to milk rooms.			

Insecticide Class Rotations: To avoid problems with developed resistance to insecticides, an insecticide of a different class should be rotated each 2-3 flocks. Use of at least 3 different classes of insecticides is recommended during a calendar year.

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spillage or leakages, soak up with an absorbent material such as sand, sawdust, earth, Fuller’s earth, etc. Dispose of with chemical waste.

PESTICIDE DISPOSAL: Do not pour or dispose down-the-drain or sewer. Call your local solid waste agency for local disposal options.

{Text in braces and italics are notes to the label editor.}

[Text in brackets alone are optional statements or alternative statements.]

[Text separated by “/” indicates an either/or choice.]

CONTAINER HANDLING:

For Containers equal to or less than 5 Gallons: Nonrefillable container. **DO NOT** reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available. If recycling is not available, then dispose of container in a sanitary landfill

For Containers greater than 5 Gallons: Nonrefillable container. **DO NOT** reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling if available. If recycling is not available, then dispose of container in a sanitary landfill.

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

LIMITATION OF WARRANTY AND LIABILITY

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Control Solutions, Inc. or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Control Solutions, Inc. and Seller harmless for any claims relating to such factors.

Control Solutions, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Control Solutions, Inc., and Buyer and User assume the risk of any such use. To the extent permitted by applicable law, **CONTROL SOLUTIONS, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

IT IS CONTROL SOLUTIONS INC., AND SELLERS INTENTION THAT in no event shall Control Solutions or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF CONTROL SOLUTIONS, INC., AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF CONTROL SOLUTIONS, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

{Text in braces and italics are notes to the label editor.}
[Text in brackets alone are optional statements or alternative statements.]
[Text separated by “/” indicates an either/or choice.]

Control Solutions, Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Control Solutions, Inc.

[OPTIONAL MARKETING STATEMENTS]

[Miscellaneous Efficacy related claims]

- Effective control of [Fleas,] [Cockroaches,] [Flies,] [Mosquitoes,] [Gnats,] [Crickets,] [Litter Beetles] [&] [Ants]
- Effective control of listed pests
- Continuous protection against stored product pests for 3 months
- Provides up to 1 [one] month residual control of house flies

[Flea Efficacy related claims]

- Kills and controls fleas and ticks
- Controls fleas and ticks
- Kills fleas and ticks
- Kills fleas for up to 3 [three] months

[Cockroach Efficacy Related Claims]

- Kills indoor and outdoor infesting cockroaches
- Kills and controls indoor and outdoor cockroaches
- Controls [German,] [American,] [Oriental,] [Smokybrown,] [Asian,] [Turkestan,] [Brownbanded] cockroaches

[Mosquito Efficacy Related Claims]

- Kills mosquitoes including those that may transmit [West Nile] [and] [Zika] virus
- Kills mosquitoes[, listed flies and gnats [and other labeled [pests][insects]]]
- Kills mosquitoes on [ornamental] [plant[s]] [hedges] [shrubs] [leaves] in your yard for 30 days
- Controls mosquitoes on [ornamental] [plant[s]] [hedges] [shrubs] [leaves] in your yard for 30 days
- Controls mosquitoes on [ornamental] [plant[s]] [hedges] [shrubs] [leaves] for 30 days
- Controls mosquitoes on [ornamental] [plant[s]] [hedges] [shrubs] [leaves] [in your yard]
- Controls (*Anopheles*, *Culex*, *Aedes*) mosquitoes on [ornamental] [plant[s]] [hedges] [shrubs] [leaves] for 30 days
- Kills mosquitoes on trees in your yard for 30 days
- Controls mosquitoes on trees in your yard for 30 days
- Controls mosquitoes on trees for 30 days
- Controls mosquitoes on trees [in your yard]
- Controls (*Anopheles*, *Culex*, *Aedes*) mosquitoes on [ornamental] [plant[s]] [leaves] for 30 days
- Controls (*Anopheles*, *Culex*, *Aedes*) mosquitoes on trees (for 30 days)
- Kills mosquitoes

{Text in braces and italics are notes to the label editor.}
[Text in brackets alone are optional statements or alternative statements.]
[Text separated by “/” indicates an either/or choice.]

[Use/Formulation related claims]

- For use in Animal Quarters, Kennels and Poultry Houses
- For both indoor/outdoor use
- Intended for Pest Control Operators and Commercial Use
- [1][One] ounce in [1 gallon] [128 ounces] of water for indoor/outdoor pest control
- [2][Two] ounces in [1 gallon] [128 ounces] of water for indoor/outdoor pest control
- Mix with water
- Concentrate [to be mixed with water]
- Microencapsulated Insecticide for Control of Fleas, Stored Product Pests, Cockroaches, Crickets, Litter Beetles, and Flying Insects.
- Microencapsulated formulation
- Labeled for use in food areas of food handling establishments.
- Labeled for Spot and/or [Crack and Crevice] [Crack-and-Crevice] use in food-handling establishments.
- Ideal for use before outdoor [activities][events]
- Encapsulated Solutions



•