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# D-FENSE™ SC

## INSECTICIDE



- **D-FENSE™ SC is a concentrated suspension of pure microcrystals of the active ingredient Deltamethrin**
- **Low odor**
- **Controls Ants, Bed Bugs, Cockroaches, Fleas, Flies, Silverfish, Spiders and many other listed pests**
- **Mattress and broadcast application for Bed Bugs and Lice**
- **Controls Carpet Beetles, Fleas, and Ticks indoors when applied as a low pressure crack and crevice spot treatment**

D-FENSE™ SC can be utilized for crack and crevice and spot applications in homes, hotels, and schools. D-FENSE™ SC is a valuable tool in your integrated pest management arsenal for many types of structural pest control.

Broad use sites include Residential, Commercial, Residential Turf and Landscape, and Ornamental Plants. D-FENSE™ SC can even be applied to mattresses for control of Bed Bugs and Lice, and is safe for use on paints, plastics, fabrics and other surfaces.

Mix D-FENSE™ SC with water and apply indoors as a crack and crevice, spot or general surface treatment with hand pressurized, backpack sprayers or power operated sprayers or other suitable equipment for indoor & outdoor pest control.

800-242-5562 (Phone)  
281-892-2501 (Fax)  
[www.controlsolutionsinc.com](http://www.controlsolutionsinc.com)

**CSI**  
**CONTROL**  
**SOLUTIONS**  
incorporated  
A Makhteshim-Agan Company

# D-FENSE™ SC

## INSECTICIDE

### For Use in Residential, Industrial and Institutional Areas

- Provides control of listed insect/pests in and around the home
- For insect control on commercial and residential turf and landscape ornamental plants
- For crack and crevice and spot applications in homes, hotels, and schools.
- Controls ants, bed bugs, cockroaches, fleas, flies, silverfish, spiders and many other listed pests
- Mattress application for bed bugs and lice
- Broadcast spray for lawns and turfgrass to control fleas, ticks and other listed insects
- Concentrated suspension of pure micro-crystals
- Long lasting residual
- Safe for use on paints, plastics, fabrics and other surfaces

#### ACTIVE INGREDIENT:

*Deltamethrin .....	4.75%
OTHER INGREDIENTS: .....	95.25%
TOTAL: .....	100.00%

\*Contains 0.42 lb deltamethrin per gallon.

Reg. No.: 53883-276

EPA Est. No. : 53883-TX-002

## KEEP OUT OF REACH OF CHILDREN CAUTION

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

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS

#### CAUTION

Harmful if inhaled. Avoid breathing vapor or spray mist. Contact with product may result in transient tingling and reddening of the skin. Remove contaminated clothing and wash before reuse.

#### FIRST AID

<b>If Inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
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#### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact SafetyCall® (866) 897-8050 for emergency medical treatment information.

#### Environmental Hazards

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

This pesticide is highly toxic to bees exposed to direct treatment. Do not apply or allow it to drift to crops or weeds on which bees are actively foraging.

#### Physical and Chemical Hazards

Do not use water-based sprays of D-FENSE SC in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard.

#### DIRECTIONS FOR USE

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

Not for use on turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes.

#### RESTRICTIONS:

1. DO NOT apply D-FENSE SC through any type of irrigation system.
2. DO NOT water the treated area to the point of run-off.
3. DO NOT make applications during rain.
4. DO NOT apply this product to edible crops.
5. DO NOT apply this product in hospital patient rooms while occupied or in any rooms occupied by the elderly or infirm.
6. DO NOT apply in classrooms when in use.
7. DO NOT apply this product in the immediate area when occupants are present (including people and animals).
8. DO NOT apply this product more than once every 21 days.

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

- a. Treatment to soil or vegetation around structures;
- b. Applications to lawns, turf, and other vegetation;
- c. Applications to building foundations, up to a maximum height of 3 feet.

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.

Application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur. Do not allow this product to

enter any drain during or after application.

#### PRODUCT INFORMATION

D-FENSE SC is a suspension concentrate insecticide for use both indoors and outdoors for effective knockdown and long residual control of listed pests.

#### Mixing Instructions

Mix D-FENSE SC with water and apply using a hand pressurized or power operated sprayer, such as Actisol® or similar equipment. For outdoor broadcast application, apply as a coarse spray or with conventional hydraulic boom-type sprayer or other suitable equipment. Shake container well before using.

#### Dilution Instructions:

- add half the water to the spray tank;
- add D-FENSE SC as specified in the appropriate application rates table;
- agitate well;
- add the remaining water slowly to avoid excess foam;
- thoroughly agitate the sprayer before using to ensure proper suspension.

**Note:** If spraying is stopped when using a back-pack or hand-held spray equipment, reinvert sprayer before use. If spray screens are used, they should be 50 mesh or larger. Dilute D-FENSE SC only with water. Only prepare the spray solution when ready to make applications.

**Tank Mixing:** D-FENSE SC may be tank-mixed with other currently registered pesticides unless prohibited by the product label. To check for product compatibility, a small volume mixing test with other products is recommended. Follow all restrictions and precautions specified on the labels of these tank-mix products.

#### PEST CONTROL INDOORS

D-FENSE SC may be applied to non/food/nonfeed areas in and around residential and non-residential buildings and structures, including residential kitchens, and nonfood/nonfeed areas of food/feed handling establishments.

Mix D-FENSE SC with water and apply indoors as a crack and crevice, spot or general surface treatment with hand pressurized or power operated sprayers or other suitable equipment.

**For residential buildings and structures** - apply only as a crack and crevice or spot treatment.

Approved use sites include the non-food/non-feed areas of:

Aircraft (cargo only)	Industrial buildings
Apartment buildings	Installations
Bakeries	Kitchens
Bottling facilities	Laboratories
Breweries	Mausoleums
Buses	Meat, poultry & egg processing & packaging plants
Cafeterias	Mobile & motor homes
Candy plants	Nursing homes
Canneries	Offices
Dairy product processing plants	Railcars
Food manufacturing plants	Restaurants
Food processing plants	Schools
Food service establishments	Ships & vessels
Granaries & grain mills	Trailers
Hospitals	Trucks
Hotels	Warehouses
Houses	Wineries

**Crack and Crevice:** Apply D-FENSE SC spray mixture to cracks and crevices in and around baseboards, floors, walls, appliances, areas around water and sewer pipes, and other voids with a low pressure system using a pinpoint or variable pattern nozzle.

**Spot Treatment:** Apply D-FENSE SC as a spot treatment in and around cupboards, and between, beneath and behind equipment or appliances using a low pressure system with fan-type nozzle.

**To control Carpet Beetles, Fleas and Ticks indoors:** Apply as a coarse, low pressure crack and crevice spot treatment to problem areas and infested habitats.

#### Restrictions:

- Do not treat entire area of floor, carpet or floor coverings.
- Do not apply as a space spray.
- Do not make applications to areas where prolonged contact by humans can occur.
- Limit spot treatment to pet beds and infested floor coverings.
- Do not apply to areas where food or feed can come into contact with treated surfaces.

Application Rates			
Pests	Concentration of Active Ingredient <sup>1</sup>	Dilution Rate <sup>2</sup>	Use Instructions
Ants, Carpet Beetles, Firebrats, Fleas, Gnats, Midges, Centipedes, Millipedes, Pantry Pests, Silverfish, Ticks (indoors)	0.01% - 0.03%w/w	0.25-0.75 fl. oz./gal 12.5-37.5 fl. oz./50 gals 25-75 fl. oz./100 gals	Apply at 21-day intervals. Remove pets and cover aquariums and terrariums before spraying. Do not apply to classrooms when in use. Do not use in aircraft cabins.
Bees, Bed Bugs, Boxelder Bugs, Fleas (outdoors), Ticks (outdoors), Cecid Flies, Cockroaches, Crickets, Flies (including such flies as Stable, House, Cluster and Horseflies), Elm Leaf Beetles, Ground Beetles, Moths, Midges, Hornets, Killer Bees, Lice, Mosquitoes, Multicolored Asian Lady Beetle, Pillbugs, Scorpions, Sowbugs, Spiders, Yellowjackets, Wasps	0.03% - 0.06%w/w	0.75-1.5 fl.oz./gal 37.5-75 fl. oz./50 gals 75-150 fl. oz./100 gals	Treat areas that insects inhabit or where they are normally found.  Use 0.25 to 1.5 fluid ounces of D-FENSE SC in sufficient amount of water and apply to adequately cover 1,000 square feet. Do not allow dripping or run-off to occur. Under conditions of severe pest infestation, when quick knockdown and/or longer residual control is desired, use 1.5 ounces of 0.06% D-FENSE SC per 1,000 sq. ft.
Termites (Formosan & Eastern subterranean - localized control only)	0.06% w/w	1.5 fl. oz./ gal 75 fl. oz./50 gals 150 fl. oz./100 gals	
Carpenter ants	0.03% w/w	0.75 fl. oz./gal 37.5 fl. oz./50 gals 75 fl. oz./100 gals	

<sup>1</sup> The specified rate for maintenance treatments is 0.01% and for cleanout treatments is 0.03%. For control of severe infestations and longer residual control use the 0.06% rate. More frequent applications may be needed on concrete surfaces.

<sup>2</sup> 0.25 fl. oz. = 7.5 milliliters  
0.75 fl. oz. = 22.7 milliliters  
1.5 fl. oz. = 45.4 milliliters

### Premise Pest Control

To control Cockroaches, Ants, Crickets, Silverfish, Firebrats, Centipedes, Millipedes, Cloth Moths, Earwigs, Pillbugs, Sowbugs, Scorpions and Spiders.

**Use Instructions:** Apply as a coarse, low pressure spot or crack and crevice spray to areas that these pests are found especially dark corners of rooms and closets; floor drains; cracks and crevices in walls; along and behind baseboards; beneath and behind sinks, stoves, refrigerators, and cabinets; around plumbing and other utility installations; doors, windows and in attics and crawl spaces. Make applications to floor surfaces along baseboards and around air ducts. Allow surfaces to dry before children or pets come into contact.

### Pantry Pest Control

To kill adult and manageable stages of insect pests such as Lesser Grain Borers, Grain Weevils, Flour Beetles, Saw-toothed Grain Beetles, Cigarette Beetles, Merchant Grain Beetles, Angoumois Grain Moths, Mediterranean Flour Moths, Indian Meal Moths, Grain Mites and Spider Mites.

**Application Instructions:** Apply to cupboards, shelving and storage areas. Before spraying, remove all foodstuffs, utensils, shelf paper and other objects. Allow treated surfaces to dry and cover shelves with clean paper prior to replacing foodstuffs, utensils or other items. Discard any foodstuff contaminated with any spray solution.

### Crawling and Flying Insect Pests

D-FENSE SC controls crawling and flying insects such as Flies, Gnats, Midges, Mosquitoes, Cockroaches, Ants and Silverfish.

**Application Instructions:** Use as a residual surface treatment to walls, ceilings, window screens and other resting areas inside residential buildings, as well as in and around carports, garages, storage sheds, unoccupied horse stables and pet kennels.

**Ants (including Pharaoh Ants):** D-FENSE SC may be applied to areas including where ants enter premises or live, and to trails, around doors and windows.

**Bed Bugs and Lice:** Remove bed linens and wash before reuse. Apply D-FENSE SC to mattresses taking care to treat tufts, folds and edges until moist. Make application to the interior of the bed frame. Before remaking the bed, make sure the mattress is dry.

**Carpet Beetles, Fleas and Ticks:** Use of an IPM (integrated pest management) program should be followed. Before starting to treat, vacuum carpets, upholstered furniture, baseboards and other indoor areas where pets spend time. After vacuuming, discard the vacuum cleaner bag outside in a garbage can. Clean or replace pet bedding.

**Application Instructions:** Apply D-FENSE SC as a uniform coarse low-pressure spot or crack and crevice treatment to areas where pests are found. Limit spot treatments to pet bedding and its surrounding area, infested floor coverings and pest habitats.

### Restrictions:

- Do not treat entire area of floor, carpet or floor coverings.
- Use a dust in areas around electrical equipment.
- Do not apply as a space spray.
- Restrict applications to furniture where no prolonged contact by humans will occur.
- Do not allow people or pets to contact treated areas until spray has dried.

D-FENSE SC can be used with an Insect Growth Regulator (IGR). For effective control of fleas, treatment directly to the pet with an EPA registered product for such use, as well as treating outside areas pets frequently may be required. D-FENSE SC can also be applied outdoors for flea control. DO NOT treat pets with this product.

**Pet Kennels:** D-FENSE SC may be applied to control crawling and flying insects in and around pet kennels. Make application as a general surface and/or crack and crevice spray. For best results, at the same time, clean the facility to be treated and use D-FENSE SC to treat the exterior perimeter.

### Restrictions:

- Apply only to areas of facility where animals are not present.
- Allow spray to dry before allowing re-entry of animals into treated areas.
- Do not apply to animal feed or watering equipment.

### FOOD/FEED HANDLING ESTABLISHMENTS

Applications are permitted in non-food/non-feed areas of food/feed handling and processing establishments as a general surface, spot or crack and crevice treatment to control labeled pests.

**Non-Food/Non-Feed Areas:** Areas include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, mop closets and storage (after packaging, canning or bottling). Treat any area that insects are observed in or where insects may enter.

**General Surface Applications:** Before application cover or remove all food/feed processing and/or handling equipment. After application, wash all equipment, benches, shelving and other surfaces that food/feed will contact in food/feed processing plants, cafeterias and similar facilities. Clean food/feed handling or processing equipment and rinse well with clean, fresh water. After application in bakeries, clean all food contact surfaces thoroughly with appropriate equipment.

### Restrictions:

- Do not use this application method in the food/feed handling areas of the facility when the facility is in operation or foods/feeds are exposed.
- Do not apply directly to food/feed products.

**Spot or Crack & Crevice Applications:** Spot or crack and crevice applications may be made while the facility is in operation provided exposed food is covered or removed from area being treated prior to application.

### Restrictions:

- Application is prohibited in Federally inspected meat and poultry plants while such facility is in operation.
- Do not apply directly to food or food-handling surfaces.
- In the home, do not allow spray to contact food/feed surfaces. If it does, clean surfaces with soap and water.

### GRAIN BINS AND WAREHOUSES

Dilute 0.25-1.5 fl. oz. of D-FENSE SC with water to make 1 gallon of solution. Use D-FENSE SC as a perimeter treatment to prevent infestation of these structures. Apply to areas where pests are seen or may find entrance. Treat a band of soil or lawn up to 6-10 feet wide around and adjacent to structures and treat the foundation to a height of 2 to 3 feet. Apply as a coarse spray at a rate of 1 gallon per 1,000 sq. ft. Thoroughly and uniformly wet the barrier area but do not allow run-off to occur.

### PEST CONTROL OUTDOORS

Apply D-FENSE SC as a perimeter treatment, residual spray or broadcast application to lawns, grounds and ornamental plantings.

Apply as a perimeter treatment or residual spray around residential and non-residential settings. Treatments should begin at the first sighting of pests.

**Residual Spray:** Apply D-FENSE SC as a coarse low-pressure spray at the rate of 0.75 to 1.5 fl. oz. to surfaces of buildings, porches, screens, window frames, eaves, patios, refuse dumps, garages and lawns.

**Perimeter Treatments:** For best results, apply D-FENSE SC to areas where pests are seen and may find entrance. Treat a band of soil or lawn up to 6 -10 feet wide around and adjacent to buildings and treat the building foundation to a height of 2 to 3 feet. Apply as a coarse spray at the rate of 0.25 to 1.5 fl. oz. of D-FENSE SC in sufficient amount of water. (See Mixing Directions for Perimeter Application below). Use an adequate volume to thoroughly and uniformly wet the barrier area but do not allow run-off to occur.

MIXING DIRECTIONS FOR D-FENSE SC - OUTDOOR PERIMETER APPLICATION								
I. D-FENSE SC DILUTION (0.25 oz. /1,000 sq. ft.) - (Based on one home being 1,000 sq. ft.)								
Tank Size	15 Gallon		25 Gallon		50 Gallon		100 Gallon	
Finished Spray: Gallons Per 1,000 sq. ft	D-FENSE SC Per Tank (fl. oz.)	Homes Per Tank*	D-FENSE SC Per Tank (fl. oz.)	Homes Per Tank*	D-FENSE SC Per Tank (fl. oz.)	Homes Per Tank*	D-FENSE SC Per Tank (fl. oz.)	Homes Per Tank*
1	3.75	15	6.25	25	12.50	50	25.00	100
3	1.25	5	2.08	8	4.17	16	8.33	33
5	0.75	3	1.25	5	2.50	10	5.00	20
10	0.37	1.5	0.63	2.5	1.25	5	2.50	10
*Based on D-FENSE SC applied at 0.25 ounces per 1,000 square feet treated per home or structure.								
II. D-FENSE SC DILUTION (1.00 oz. /1,000 sq. ft.)								
1	15.0	15	25.0	25	50	50	100.0	100
3	5.0	5	8.4	8.3	16.7	16.7	33.3	33.3
5	3.0	3	5.0	5	10.0	10	20.0	20
10	1.5	1.5	2.5	2.5	5.0	5	10.0	10
*Based on D-FENSE SC applied at 1.00 ounce per 1,000 square feet treated per home or structure.								

**Fleas and Ticks:** To control fleas and ticks, make application of D-FENSE SC as a coarse wet spray. Treat dog houses, kennels, run areas, cracks and crevices in sidewalks, patios, areas under plants, shrubs, bushes, trees, or other moist, shaded areas where pests are known to rest.

**Fire Ants:** Dilute 1.5 oz. per one gallon of water and apply D-FENSE SC as a drench treatment. Gently sprinkle 1 to 2 gallons of the diluted insecticide over the surface of each mound and surrounding area to a 2-foot diameter. Best results are obtained when applied in cool weather, 65 to 80°F or in early morning or late evening hours. Treat new mounds as they appear. Pressurized sprays may disturb the ants and cause migration, reducing product effectiveness.

**Wood-infesting Insects:** For control of wood-infesting beetles on surfaces in homes and other structures, apply a 0.06% suspension of D-FENSE SC. Brush or spray the suspension evenly on wood surfaces to treat small areas. Use a coarse spray to treat large or overhead areas of homes, apartment buildings, etc., and thoroughly cover the area. Before spraying, cover all surfaces below the treatment area with plastic sheeting or other material. After spraying, dispose of the plastic sheeting or other material in the trash. Allow surfaces in the treated area to dry completely before coming into contact.



**Restrictions:** Do not apply D-FENSE SC until the location of heating or air conditioning ducts, vents, water and sewer lines and electrical conduits are identified. Once known, applications may be made around these structures, however, be careful to avoid contamination of these structures and airways.

**Foam Application:** To treat structural voids for the control of insect and arthropod pests in walls, under slabs or in other void areas, convert D-FENSE SC to a foam by mixing the end-use dilution of D-FENSE SC with the manufacturer's recommended volume of foaming agent. Use the rate as recommended for a suspension treatment converted to a foam to get the correct foam expansion ratios. Before treatment check to make sure that the foaming agent is compatible with D-FENSE SC.

For control of **above-ground termites and wood-infesting beetles** in localized areas, apply a 0.06% suspension or sufficient volume of foam of D-FENSE SC to voids and galleries in damaged wood and in spaces between wooden structural members and between the sill plate and foundation where wood is vulnerable. Applications may be made to inaccessible areas by drilling and then injecting the suspension or foam with a suitable directional injector into the damaged wood or wall voids. All treatment holes drilled in construction elements in commonly occupied areas of structures must be securely plugged.

To control **termite carton nests** in building voids and trees, inject a 0.06% suspension or foam using a pointed injection tool. Multiple injection points to varying depths may be necessary. For best results, remove carton nest material from building voids and trees when nests are found. Termite carton nests in trees may be injected with 0.06% suspension or foam using a pointed injection tool.

To control **exposed worker and winged reproductive forms of termites**, applications to attics, crawl spaces, unfinished basements, or man-made voids may be made with a coarse fan spray of 0.06% suspension.

For control of **swarming or reproductive stages of termites**, apply a 0.06% suspension to the swarm or area on which they collect. D-FENSE SC will kill **workers or winged reproductive forms** present at the time of treatment. These applications are supplemental only, and do not take the place of mechanical alteration, soil treatment or foundation treatment.

For control of **above-ground termites and carpenter ants** inside trees, utility poles, fencing and decking materials and similar structures, locate the infested area by drilling then inject 0.06% suspension or foam using an appropriate treatment tool with a splashback guard.

For protection of firewood from **carpenter ants and termites**, before stacking firewood, treat the soil underneath with a 0.06% suspension at 1 gallon per 8 square feet to prevent infestation. DO NOT treat firewood with this product.

For control of **carpenter ants** in houses and other structures, use a 0.06% suspension and apply as a general surface, spot, crack and crevice or wall void application using coarse spray or foam to thoroughly cover the treatment area. Make application around doors and windows and any other areas where carpenter ants may gain entrance. Apply as a spray or foam into cracks and crevices, and drill small holes into voids where ants or nests may be present. Do not apply more than 1 gallon of dilute suspension per 1,000 square feet of treated surface.

For control of **tunneling carpenter ants** in soil, apply a 0.06% suspension as a drench or inject the suspension or foam at 8 to 12 inch intervals. Create a uniform vertical barrier at the edge of walls, driveways or other hard surfaces where ants are tunneling beneath the surfaces.

For control of **carpenter bees** in structures, apply a 0.06% suspension or sufficient volume of foam directly into gallery entrance holes. Leave the entrance holes open for 24 hours to make sure that returning adult bees are killed. If no activity is visible, use an appropriate sealant to seal the hole.

**TURFGRASS APPLICATIONS**

D-FENSE SC controls listed insects on turfgrasses and ornamental plants in outdoor areas such as athletic fields, recreational areas, residential landscapes, parks, and public and commercial sites. Make application when insects first appear ensuring uniform coverage.

Apply as a broadcast application using a minimum of 2 gallons of water per 1,000 sq. ft. with a hydraulic boom-type sprayer or other suitable equipment for turfgrass pests. Follow the specified rates listed in the Application Rates for Turfgrass Sites table. Use higher volumes (4 to 10 gallons of water per 1,000 sq. ft.) for areas of dense turfgrass and/or where turfgrass is mowed at greater heights. Control is achieved when the insecticide contacts the target pest. For best results on surface-feeding insects, do not irrigate or mow within 24 hours after application. For subsurface-feeding insects, apply 0.25 to 0.5 inch of water immediately after application. Do not allow people or pets into the treatment area until turfgrass has dried.

**Tank Mixing:** D-FENSE SC may be tank-mixed with other pest control or fertilizer products. Observe all restrictions, precautions and limitations appearing on the tank-mix partner label. To check for compatibility with D-FENSE SC, mix a small test sample of the products in the correct proportions with water in a quart jar. The use of silicone surfactants in tank mixtures with D-FENSE SC may enhance the control of some insects.

**RESTRICTIONS:** In New York State, product may not be applied to turf within 100 feet of a coastal marsh or stream that drains directly into a coastal marsh. For control of turf insects in New York, a second application may be made after two weeks if target insect activity persists.

Application Rates For Turfgrass Sites			
Sites	Pests	Rates	Use Instructions
Athletic fields, recreational areas, lawns & grounds, residential areas, parks, public and commercial sites	Ants, Armyworms, Centipedes, Chiggers, Cockroaches, Crickets, Cutworms, Fleas (adult), Grasshoppers, Ground Beetles, Japanese Beetles (adults), Leafhoppers, Mealybugs, Pillbugs, Scorpions, Sod Webworms, Sowbugs, Springtails, Spiders, Ticks	0.4 to 0.6 fl. oz./1,000 sq. ft. or 17.5 to 26 fl. oz./Acre or 0.06 to 0.08 lb. ai/A	Apply at first sign of pest presence. Apply as a broadcast spray in a minimum of 2 gallons of water per 1,000 sq. ft.  For best control of surface feeders such as cutworms and webworms, do not water or mow for 24 hours after application. For subsurface feeders, such as mole crickets, apply 0.25 to 0.5 inch of water immediately after application. The use of silicone surfactants in tank mixtures with D-FENSE SC may enhance the control of some insects.
	Annual Bluegrass Weevil (adult), Billbugs (adult), Black Turfgrass Ataenius (adult), Chinch Bugs, Mites*, Mole Crickets.	0.6 to 0.9 fl. oz./sq. ft. or 26 to 39 fl. oz./Acre or 0.08 to 0.13 lb. ai/A	

\*Suppression Only

**LANDSCAPE ORNAMENTAL TREATMENTS**

Use D-FENSE SC to control the listed insects when applied as directed in the Application Rates for Ornamentals table below. Mix the D-FENSE SC with the required amount of water and apply as a finished spray to upper and lower leaf surfaces to ensure thorough coverage, but not to the point of run-off. Make sure to apply sufficient product to wet the leaves, trunk and branches of ornamentals.

**Restrictions:** Similar formulations have been tested on many species of ornamental plants with good results, but if local use information in this product is not available, it is recommended to pre-spray a few plants to check for compatibility.

Application Rates for Ornamentals:			
Sites	Pests	Rates	Remarks
Landscape ornamentals including trees, shrubs, evergreens and foliage plants	Adelgids, Ants, Aphids, Azalea Lace Bugs, Bagworms, Boxelder Bugs, Cankerworms, Cardamom Thrips, Cockroaches, Crickets, Elm Leaf Beetles, Elm Spanworms, European Pine Sawflies, Fall Webworms, Flea Beetles, Flies, Fungus Gnats, Grasshoppers, Greenstriped Mapleworm, Gypsy Moth (larvae), Imported Willow Leaf Beetles, Japanese Beetles (adults)*, June Beetles (adults), Lace Bugs, Leaf-Feeding Caterpillars, Leafhoppers, Leaf Rollers, Loopers, Leaf Skeletonizers, Mealybugs, Midges, Mimosa Webworms, Mites**, Orangestriped Oakworms, Pillbugs, Pine Shoot Beetles, Pine Tip Moths, Pinyon Spindlelegall Midges, Plant Bugs, Redhumped Caterpillar, Red Imported Fire Ants, Sawfly Larvae, Sowbugs, Spiders, Springtails, Spanworms, Scale Insects (crawlers), Tent Caterpillars, Ticks, Webworms, Yellownecked Caterpillar	4 to 8 oz./100 gallons of water	Apply at first sign of pest presence. Mix D-FENSE SC with the required amount of water and apply as a finished spray to ensure thorough coverage of all plant surfaces, but not to the point of run-off.

\*Will provide anti-feedant properties on treated ornamentals against Japanese beetles.

\*\*Suppression only.

**STORAGE & DISPOSAL**

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

**PESTICIDE STORAGE:** Mix as needed. Store in original container in a secured dry storage area. Avoid extremes in temperatures. Prevent cross-contamination with other pesticides and fertilizers. If the container is leaking and/or material is spilled, on floor or paved surfaces, absorb on sawdust or other commercially available absorbing material, sweep up and remove to chemical waste area for your disposal. Concentrate is stable at normal storage temperatures.

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

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

**Refillable containers:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following conditions, disclaimer of warranties and limitations of liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and should be followed carefully. However, because of manner of use and other factors beyond Control Solutions, Inc.'s control, it is impossible for Control Solutions, Inc. to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, CONTROL SOLUTIONS, INC. MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Control Solutions, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Control Solutions, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

**LIMITATIONS OF LIABILITY:** THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT CONTROL SOLUTIONS, INC.'S ELECTION, THE REPLACEMENT OF PRODUCT.

# MATERIAL SAFETY DATA SHEET

## Section 1 – Product Identification

<b>Product Name:</b>	D-Fense SC Insecticide	<b>EPA Registration #:</b>	53883-276
<b>Manufacturer:</b>	Control Solutions Inc. 5903 Genoa- Red Bluff Pasadena, TX 77507 281-892-2500	<b>EPA Establishment #:</b>	53883-TX-002

## Section 2 – Chemical Composition

Material	CAS #	% by Weight	OSHA PEL/ACGIH TLV
Deltamethrin	52918-63-5	4.75%	None established
Inert Ingredients	Proprietary blend	95.25%	None established

## Section 3 – Hazard Identification

<b>Symptoms of Toxicity:</b>	<b>HAZARDS TO HUMANS &amp; DOMESTIC ANIMALS CAUTION</b> Harmful if inhaled. Avoid breathing vapor or spray mist. Contact with product may result in transient tingling and reddening of the skin. Remove contaminated clothing and wash before reuse.
<b>Flammability:</b>	N/A
<b>Reactivity:</b>	Stable under normal storage conditions.
<b>Carcinogenicity:</b>	Not carcinogenic.

## Section 4 – First Aid

<b>Eye Contact:</b>	Flush eyes with water for 15 minutes. Seek medical attention if irritation persists.
<b>Inhalation:</b>	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
<b>Ingestion:</b>	Call poison control center immediately. Do not induce vomiting unless directed to do so by physician.
<b>Dermal Contact:</b>	Wash promptly with plenty of soap and water. Wash contaminated clothing.
<b>Notes/Physician's Information:</b>	Contact SafetyCall® International (866) 897-8050 for emergency medical treatment information.

## Section 5 – Fire and Explosion Hazards

<b>Flash Point:</b>	Non-flammable	<b>Upper Flammability Limit:</b>	N/A
<b>Extinguishing Media:</b>	Water fog, CO <sub>2</sub> , foam, dry chemical	<b>Lower Flammability Limit:</b>	N/A
<b>Special Procedures:</b>	Use self-contained breathing apparatus. Cool fire exposed areas and equipment.		
<b>Unusual Fire Hazards:</b>	May release irritating and toxic gases due to thermal decomposition or combustion.		
<b>Reactivity/Stability:</b>	Stable. May release HCl, oxides of chlorine, CO, hydrogen and carbon. Avoid strong oxidizers and corrosives. Hazardous polymerization will not occur.		

## Section 6 – Spill/Release Procedures

<b>Absorbent:</b>	Universal absorbent pads, vermiculite, or clay granules.
<b>Containment:</b>	Do not discharge into municipal wastewater or public storm drains. Eliminate runoff as much as possible.
<b>Waste Disposal:</b>	Dispose of waste material in municipal land-fill or through licensed TSDF. Open dumping is prohibited. Not an RCRA hazardous waste.
<b>Reporting:</b>	Report all major spills and uncontrolled releases to proper local, state, and federal agencies.
<b>Emergency Contact #:</b>	For chemical spills: Chemtrec: 1-800-424-9300

## Section 7 – Storage and Disposal

<b>Pesticide Storage:</b>	Do not contaminate water, food or feed by storage or disposal. Mix as needed. Store in original container in a secured dry storage area. Avoid extremes in temperatures. Prevent cross-contamination with other pesticides and fertilizers. If the container is leaking and/or material is spilled, on floor or paved surfaces, absorb on sawdust or other commercially available absorbing material, sweep up and remove to chemical waste area for your disposal. Concentrate is stable at normal storage temperatures.
<b>Pesticide Disposal:</b>	Wastes resulting from the use of this product must disposed of on site or at an approved waste disposal facility.
<b>Container Handling:</b>	<b>Nonrefillable container.</b> Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke. <b>Refillable containers:</b> Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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## Section 8 – Protective Equipment/Engineering Controls

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<b>Eye Protection:</b>	Avoid contact
<b>Respiratory Protection:</b>	None likely to be needed.
<b>Dermal Protection:</b>	Long sleeves, pants, shoes with socks.
<b>Engineering Controls:</b>	Use only in adequately ventilated areas.
<b>Other Precautions:</b>	Wash thoroughly after handling. Remove and wash clothing before reuse.

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## Section 9 – Physical Data

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<b>Odor:</b>	Odorless	<b>Melting Point:</b>	N/A
<b>Physical State:</b>	Liquid	<b>Flash Point:</b>	N/A
<b>Color:</b>	White	<b>Specific Gravity:</b>	1.03-1.04 (g/ml)
<b>Bulk Density:</b>	N/A	<b>pH:</b>	4.5-6.0
<b>Vapor Pressure:</b>	N/A	<b>Water Solubility:</b>	Emulsifies
<b>Viscosity:</b>	1,000 – 1,600 cps	<b>Refractive Index:</b>	N/A

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## Section 10 – Toxicity

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<b>EPA Toxicity Category:</b>	Caution	<b>Oral LD<sub>50</sub>:</b>	>5,000 mg/kg
<b>Skin Contact:</b>	No irritation	<b>Dermal LD<sub>50</sub>:</b>	> 20,000 mg/kg
<b>Eye Contact:</b>	No irritation	<b>Inhalation LC<sub>50</sub>:</b>	>2 – 20 mg/kg
<b>HMIS/NFPA Classification:</b>	Fire - 0      Health - 1 Reactivity - 0      Special - none		
<b>Other Comments:</b>	Avoid cross contamination. Always wash hands thoroughly after handling pesticides and before eating, drinking, or smoking.		

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## Section 11 – Ecological Data

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<b>Aquatic:</b>	Extremely toxic to fresh water and estuarine fish and invertebrates.
<b>Avian:</b>	LD <sub>50</sub> Bobwhite quail- >2,250 mg/kg
<b>Bioaccumulation:</b>	Unknown.
<b>Summary:</b>	To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters.

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## Section 12 – Transportation

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<b>DOT:</b>	Not DOT regulated.
<b>IATA:</b>	Not regulated.
<b>IMDG:</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. (4.75% deltamethrin), Class 9, PG III, marine pollutant.
<b>Federal Motor Carrier Classification:</b>	Insecticide, Liquid, Other Than Agriculture N.O.I.B.N.

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## Section 13 – Regulatory

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<b>Section 302/TPQ:</b> (emergency planning)	Contains no components listed under section 302.
<b>Section 304/EHS RQ:</b> (release notification)	Contains no components listed under section 304.
<b>CERCLA RQ:</b> (release notification)	Not regulated by CERCLA.
<b>Section 311/Tier II:</b> (MSDS submission)	Acute health hazard.
<b>Section 313/TRI Chemicals:</b>	4.75% deltamethrin, CAS #: 52918-63-5
<b>RCRA Haz-Waste Code(s):</b>	None
<b>CAA TQ:</b> (air emissions)	None

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## Section 14 – Other

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NFPA and HMIS ratings assigned to this product are based on the hazards of its ingredient (s). Because the customer is most aware of the application of the product, he must ensure that the proper personal protective equipment (PPE) is provided consistent with information contained in the product MSDS.

**The information provided on this Material Safety Data Sheet is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Control Solutions, Inc. The data on this sheet relates only to the specific material designated herein. Control Solutions, Inc. assumes no legal responsibility for the accuracy or completeness of this data, nor for use or reliance upon this data.**



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