

71532-28

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D C 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Matthew Brooks
Ag Chem Consulting
12208 Quinque Lane
Clifton VA 20124

JUL 13 2012

Subject Notification to Add Not for Use in California to Caribbean Crazy Ants
Esfenvalerate 3.5% CS
EPA Reg No 71532-28

Dear Mr Brooks

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated March 19, 2012 for the product **Esfenvalerate 3.5% CS (EPA Reg No 71532-28)**. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10.

If you have any questions please call me directly at 703 305 0120

Sincerely

A handwritten signature in black ink, appearing to be "Mark Suarez".

Mark Suarez
Project Manager Team 13
Registration Division (7505P)
Office of Pesticide Programs

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United States Environmental Protection Agency Washington DC 20460

Registration
Amendment
Other

OPP Identifier Number

Application for Pesticide Section I

1 Company/Product Number LG Life Sciences/ 71532 28
2 EPA Product Manager Richard Gebken
3 Proposed Classification None Restricted
4 Company/Product (Name) LG Life Sciences / Esfenvalerate 3 5% CS
5 Name and Address of Applicant (Include ZIP Code) LG Life Sciences c/o Ag Chem Consulting 12208 Quinque Lane Clifton VA 20124
6 Expedited Review In accordance with FIFRA Section 3(c)(3)(b)(i) my product is similar or identical in composition and labeling to EPA Reg No Product Name

Section II

Amendment Explain below
Resubmission in response to Agency letter dated
Notification Explain below
Final printed labels in response to Agency letter dated
Me Too Application
Other Explain below

Explanation Use additional page(s) if necessary (For section I and Section II)

Notification to add Not for Use in California language to Caribbean Crazy Ants
This notification is consistent with the provisions of PR Notice 98 10 and EPA regulations at 40CFR 152 46 and no other changes have been made to the labeling or the confidential statement of formula of this product I understand that it is a violation of 18 U S C Sec 1001 to willfully make any false statement to EPA I further understand that if this notification is not consistent with the terms of PR Notice 98 10 and 40CFR152 46 this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA

Section III

1 Material This Product Will Be Packaged In
Child Resistant Packaging
Unit Packaging
Water Soluble Packaging
2 Type of Container
3 Location of Net Contents Information
4 Size(s) Retail Container
5 Location of Label Directions
6 Manner in Which Label is Affixed to Product

Section IV

1 Contact Point (Complete items directly below for identification of individual to be contacted if necessary to process this application)
Name Dr Matthew Brooks Title Regulatory Consultant Telephone No (Include Area Code) 703 266 0128
Certification I certify that the statements I have made on this form and all attachments thereto are true accurate and complete I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law
2 Signature 3 Title Regulatory Consultant
4 Typed Name Matthew Brooks 5 Date 03 19-12
6 Date Application Received (Stamped)

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ESFENVALERATE 3.5% CS

ACTIVE INGREDIENT
Esfenvalerate (CAS #66230-04-4)
OTHER INGREDIENTS

3.5%
96.5%
100.00%

Contains 0.3 lbs active ingredient per gallon

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
IF SWALLOWED	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice • Have a person sip a glass of water if able to do so • Do not induce vomiting unless told to by a poison control center or doctor • Do not give anything to an unconscious person
IF IN EYES	<ul style="list-style-type: none"> • Hold open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
IF ON SKIN	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN Have the product container or label with you when calling a poison control center or doctor or going for treatment. For information regarding medical emergencies or pesticide incidents call 1-888-740-8712.	

Manufactured by
LG Life Sciences Ltd
910 Sylvan Avenue
Englewood Cliffs NJ 07632

EPA Reg No 71532-28
EPA Est No 71532-KOR-001

Net Contents _____

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**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

CAUTION

Harmful if swallowed Causes moderate eye irritation Avoid contact with eyes skin or clothing Wear protective eyewear Wash thoroughly with soap and water after handling and before eating drinking chewing gum using tobacco or using the toilet Remove and wash contaminated clothing before reuse

ENVIRONMENTAL HAZARDS

This product is toxic to fish birds and other wildlife Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark Do not contaminate ornamental fish ponds Do not contaminate water when disposing of equipment washwaters or rinsate Do not discharge effluent containing this product into lakes streams ponds estuaries oceans or other 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 into sewer systems without previously notifying the sewage treatment plant authority For guidance contact your State Water Board or Regional Office of the EPA

PHYSICAL OR CHEMICAL HAZARDS

COMBUSTIBLE Do not use or store near heat or open flame Do not apply this product around 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

Remove pets birds and cover fish aquariums before spraying

For control of insects indoors and outdoors in food and non food areas such as but not limited to homes schools warehouses office buildings apartment buildings theatres hotels industrial buildings motels kennels livestock housing food processing plants food service establishments restaurants supermarkets and grocery stores transportation equipment truck trailers railroad cars and food manufacturing and warehousing establishments Also for use on backyards lawns trees ornamental landscaping recreational areas parks and athletic fields

Pests Controlled Include

General Ants (including Caribbean crazy ants¹ and fire ants) aphids asian lady beetles bedbugs beetles boxelder bugs carpet beetles centipedes cockroaches crickets dog ticks earwigs firebrats fleas mealy bugs midges millipedes mites pillbugs psocids scales silverfish spiders springtails stink bugs (including brown marmorated stink bug and kudzu bug) swarming termites ticks and waterbugs

Flying Pests Blow flies clothes moths crane flies deer flies face flies fruit flies gnats including fungus gnats horn flies houseflies mosquitoes small flying moths and whiteflies

Biting and Stinging Pests Bedbugs bees biting flies chiggers deer flies deer ticks dog ticks fire ants fleas gnats hornets lice mosquitoes scorpions spiders ticks wasps and yellow jackets

¹ Not for use in California

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Stored Product Pests Angoumois grain moths ants cadelles cigarette beetles confused flour beetles dark mealworms dried fruit beetles drugstore beetles flat grain beetles fruit flies grain mites grain moths granary weevils indian meal moths lesser grain borers maize weevils meal moth larvae Mediterranean flour moths merchant grain beetles red flour beetles rice weevils rusty grain beetles saw toothed grain beetles skippers spider beetles spider mites square necked grain beetles tobacco moths and yellow mealworms

Livestock Premise Pests Bedbugs carrion beetles chiggers darkling beetles (lesser mealworm) deer flies face flies fleas flies hide beetles horn flies horse flies lice litter beetles mites mosquitoes and stable flies

Wood Destroying Pests Carpenter ants carpenter bees deathwatch beetles furniture beetles old house borers powder post beetles round headed house borers and swarming termites

Plant Pests Alfalfa caterpillars artichoke plum moth American plum borers annual bluegrass weevils aphids apple maggots armyworms bagworms balsam woolly adelgids beet armyworms billbugs blueberry spanworms cherry fruit flies cherry fruitworms chinch bugs codling moths cowpea curculios cranberry fruitworms cranberry weevils cucumber beetles cutworms diamondback moths elm leaf beetles european pine sawflies fall webworms filbert worms flea beetles grasshoppers green cloverworms green fruitworms gypsy moth caterpillars hickory shuckworms imported cabbageworms Japanese beetles lace bugs leaf feeding caterpillars leaf miners leaf rollers leaf tiers leafhoppers lesser appleworms lesser peach tree borers loopers lygus bugs Mexican bean beetles mites mole crickets naval orangeworms northern pine weevils oriental fruit moths painted lady caterpillars pea weevils peach tree borers peach twig borers pear psyllid pear slugs pecan leaf phylloxera pecan nut casebearers pecan spittlebugs pecan stem phylloxera pecan weevils pepper weevils periodical cicadas pickleworms pillbugs pine chafers pine coreid bugs plant bugs plum curculios red pine sawflies red striped fireworms red headed pine sawflies rindworms salt marsh caterpillars sap beetles scales sod webworms sowbugs spiders spittlebugs stink bugs (including brown marmorated stink bug and kudzu bug) tarnished plant bugs tent caterpillars thrips tobacco hornworms tufted apple bud moths velvet bean caterpillars walnut husk flies western bean cutworms and whiteflies

GENERAL INFORMATION

Do not apply this product in patient rooms or in any rooms while occupied by patients the elderly or infirm Do not apply to classrooms while in use Do not apply in institutions (including libraries sports facilities etc) in the immediate area where occupants are present

Esfenvalerate 3.5% CS is a microencapsulated suspension concentrate containing 0.3 pounds active ingredient per gallon

Esfenvalerate 3.5% CS is designed to provide long residual activity against pests listed on this label when applied as surface or spot treatments or as a crack and crevice spray in and around residential and commercial structures as well as on turf and landscaping Esfenvalerate 3.5% CS may be sprayed on any surface that will not be stained by water DO NOT use this product as a fogger or apply as a space spray Do not apply in electrical conduits junction and switch boxes motor housings or other electrical equipment due to shock hazard from water based spray

Use only in areas described Remove pets and cover fish aquariums and pets food and water dishes before spraying Keep all people (especially children) and pets out of areas being treated and restrict access to these areas until all surfaces are dry DO NOT leave product where children or pets can come into contact with it DO NOT allow spray to contact food or food containing surfaces feed or water

supplies Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated with this product Food utensils such as teaspoons and measuring cups must not be used for food purposes after use with pesticides

INDOOR USE

APPLICATION IN FOOD PROCESSING/ HANDLING ESTABLISHMENTS

Application is Permitted Within Food and Non Food Areas of Food Service and Handling Establishments (Places Other Than Private Residences) Including But Not Limited to Restaurants Meat Processing Plants Grocery Stores Bakeries Food Manufacturing and Processing Establishments and Food Warehousing Establishments Do not treat establishments where livestock feed is present

Food areas include areas for receiving storing packing canning bottling wrapping boxing preparing edible waste storage and enclosed processing systems mills and dairies Serving areas are places where prepared foods are served such as dining rooms but excluding areas where foods may be prepared or held Non food areas include garbage rooms lavatories floor drains (to sewers) entries and vestibules offices locker rooms machine rooms garages mop closets and storage after canning or bottling

General Surface Applications Do not apply Esfenvalerate 3 5% CS as a general surface application in food areas of the facility when the facility is in operation or food is exposed Do not apply directly to food Cover or remove all food and food processing equipment prior to application After spraying in nonfood areas of meat packing plants bakeries and other food processing plants wash with an effective cleaning compound and then rinse all equipment benches shelving etc where exposed food will be handled with potable water Repeat applications as need but do not exceed more than one (1) application every (14) days

Spot or Crack & Crevice Applications Spot or crack and crevice applications may be made while facility is in operation provided exposed food is covered or removed from the area being treated Do not apply directly to food or food handling surfaces Repeat applications as needed but do not exceed more than one (1) application every (14) days

MIXING INSTRUCTIONS

Esfenvalerate 3 5% CS should be mixed with water and applied with hand pressurized or power operated sprayers Shake container of Esfenvalerate 3 5% CS before diluting Clean spray equipment before use For dilution add approximately half the required water to spray tank and then add the appropriate amount of Esfenvalerate 3 5% CS Agitate and slowly add the remaining water Agitate spray thoroughly before using and also occasionally during use to ensure dispersion If spray filter screens are used they should be 50 mesh or larger Use 1 0 fluid ounce (30 cc) of Esfenvalerate 3 5% CS in 1 gallon of water to make a spray mix containing 0 025% active ingredient Use 2 0 fluid ounces (60 cc) per gallon of water to make a spray containing 0 05% active ingredient Use 0 025% solution for light infestations or as a maintenance control rate Use 0 05% for heavy infestations or as an initial clean out rate Apply two second bursts of spray per square foot of area being treated Avoid excessive application Dampen surfaces but not to the point of saturation or run off Only dilute Esfenvalerate 3 5% CS with water

Formula for determining the active ingredient content of the finished spray mixture The following formula may be used to determine the percent active ingredient that is in the sprayer tank after mixing Esfenvalerate 3 5% CS

$$\frac{(3.48) \times (\text{number of fl oz of Esfenvalerate 3.5\% CS added to tank})}{(\text{Gallons of finished spray mix}) \times (128)} = \text{Percent Active Ingredient of Spray Mix}$$

Tank Mixing

Esfenvalerate 3.5% CS may be tank mixed with an insect growth regulator such as NyGuard® IGR Concentrate or pyrethrum containing products or any other currently registered pesticides unless expressly prohibited the product label. The resulting tank mix may be applied in areas where these products are allowed to be sprayed. Do not tank mix Esfenvalerate 3.5% CS with products containing dichlorvos (DDVP).

Application Rates for Indoor Structural Pests

Pests	Concentration of Active Ingredient	Dilution Rate in Water	Application Rate of Mixed Solution	Application Method(s)
Crawling Insects Light Infestations	0.025%	1.0 fl oz /gallon	1 gallon/1,000 sq ft	Apply as a course wet spray *Broadcast Surface Spray
Heavy Infestations	0.050%	2.0 fl oz /gallon	1 gallon/1,000 sq ft	
Flying Insects	0.025%	1.0 fl oz /gallon	1 gallon/1,000 sq ft	*Crack & Crevice Treatment *Spot Treatment *Injected into Wall Voids
Stinging Insects	0.050%	2.0 fl oz /gallon	1 gallon/1,000 sq ft	
Ticks	0.025%	1.0 fl oz /gallon	1 gallon/1,000 sq ft	
Fleas, Lice & Bedbugs	0.025%	1.0 fl oz /gallon	1 gallon/1,000 sq ft	Apply as noted above with a fine particle spray

Crawling Insect Pests Indoors

Apply as a course wet spray to surfaces where these pests are normally found. Treat floors, baseboards around doors and windows, in attics, crawl spaces, eaves, corners, closets, walls, utility pipes, storage areas, and all cracks and crevices. Treat underneath sinks, dishwashers, refrigerators, stoves, the underside of shelves, drawers, cabinets, areas behind pipes, and in all places where these insects shelter. Contact as many insects as possible with direct spray. Repeat applications as needed, but do not exceed more than one (1) application every seven (7) days.

For Ant Control Indoors

Apply to ant trails around garbage receptacles and near food sources. Also apply around doors and windows and wherever these pests may find entrance to the structure. Remove sources of food through basic hygiene practices whenever possible.

Flying Insect Pests Indoors

Treat insect resting areas such as walls and ceilings, screens around windows, doors, and light fixtures and other surfaces that attract flying insects. Initiate treatments at the beginning of fly season and repeat treatments during periods of heavy infestation.

Stinging Insect Pests Indoors

Apply spray to nests late in the evening when stinging insects are at rest Thoroughly spray nest nest entrance and surrounding areas where insects land or walk Treat around doors and windows in attics crawl spaces and possible harborage sites or points of entry

For Control of Brown Dog Ticks

Thoroughly apply as a spot treatment to infested areas such as pet beds and resting areas nearby cracks and crevices along and behind baseboards windows and door frames and localized areas of floor and floor coverings where these pests may be present DO NOT SPRAY PETS WITH THIS PRODUCT Treat dogs and cats with a product registered for use on animals

For Control of Fleas

Thoroughly apply as a fine particle broadcast spray to infested rugs carpets and pet resting areas Prior to treatment aquariums and fish bowls should be covered and pet animals should be removed from the area being treated Do not permit humans or pets to contact treated surfaces until spray has dried Old pet bedding should be removed and replaced with clean fresh bedding after treatment DO NOT SPRAY PETS WITH THIS PRODUCT Treat dogs and cats with a product registered for use on animals

To Control Bedbugs

Thoroughly clean and sanitize mattresses and box springs Treat mattresses and box springs with an approved pesticide such as a pyrethrin aerosol Apply Esfenvalerate 3.5% CS as a spot treatment to potential harborage sites and migration paths and cracks and crevices around baseboards floorboards headboards and walls

For Control of Stored Product Pests

Spray thoroughly around and into floor drains non food conveyors benches pipes pallets moist areas storage racks pieces of equipment and other areas where stored product pests may be found Tank mix or sequential use of an insect growth regulator such as NyGuard® IGR Concentrate is recommended to break the insect reproduction cycle Do not apply this spray to surfaces or utensils that may come in contact with food since excessive residues in food may result

To Treat Voids in Equipment and Structures

To kill insects harboring in wall voids and other inaccessible spaces in equipment and structures use injection equipment designed for deep void applications Follow the injection equipment manufacturer's recommendations for proper set up and air pressures Place the applicator tip at or into the void space to be treated For inaccessible voids it may be necessary to drill and access hole(s) Inject product into the void space in short bursts allowing air pressure to push insecticide deep into the space Avoid applying to the point of runoff or drip Ventilate area thoroughly before re entry Do not reapply more than every fourteen (14) days

To Kill the Accessible Stages of Listed Granary Insects Pest Management Professionals and grain spice nut seed etc producers may use Esfenvalerate 3.5% CS to treat grain storage facilities and other listed areas for storage of grain dried nut seed or spice products including silos storage bins containers and shelters For control of exposed adult and immature stages of stored product pests apply to cracks crevices joints small voids and other surface where the pests have been seen or have harborage Treat areas where products are stored before filling with the product Apply at the concentration and rates

listed in prior charts. Cleaning all areas prior to use will increase levels of control. Any foodstuffs infested with pests should be removed and destroyed.

Repeat application as needed but DO NOT exceed more than one application every fourteen (14) days.

RESIDENTIAL AREAS

RESIDENTIAL /COMMERCIAL USE INDOORS

Application within residential and non residential buildings including homes, apartment buildings, kennels, food and non food areas of industrial, institutional, and commercial buildings such as hospitals, hotels, warehouses, truck trailers, railroad cars, theatres, office buildings, and schools.

Apply as a coarse wet spray to thoroughly treat hiding places such as cracks, crevices, and moist areas around pipes, under refrigerators, and along baseboards to control pests listed below. Spray directly on insects when possible. Do not permit humans or pets to contact treated surfaces until the spray has dried. Repeat as necessary. Do not treat establishments where livestock feed is present.

In the home, cover exposed food and do not allow spray to contact food surfaces. If spray does contact these surfaces, clean surfaces with soap and water.

MIXING INSTRUCTIONS

Esfenvalerate 3.5% CS should be mixed with water and applied with hand pressurized or power operated sprayers. Shake container of Esfenvalerate 3.5% CS before diluting. Clean spray equipment before use. For dilution, add approximately half the required water to spray tank and then add the appropriate amount of Esfenvalerate 3.5% CS. Agitate and slowly add the remaining water. Agitate spray thoroughly before using and also occasionally during use to ensure dispersion. If spray filter screens are used, they should be 50 mesh or larger. Use 1.0 fluid ounce (30 cc) of Esfenvalerate 3.5% CS in 1 gallon of water to make a spray mix containing 0.025% active ingredient. Use 2.0 fluid ounces (60 cc) per gallon of water to make a spray containing 0.05% active ingredient. Use 0.025% solution for light infestations or as a maintenance control rate. Use 0.05% for heavy infestations or as an initial clean out rate. Apply two second bursts of spray per square foot of area being treated. Avoid excessive application. Dampen surfaces but not to the point of saturation or run off. Only dilute Esfenvalerate 3.5% CS with water.

Formula for determining the active ingredient content of the finished spray mixture The following formula may be used to determine the percent active ingredient that is in the sprayer tank after mixing Esfenvalerate 3.5% CS

$$\frac{(3.48) \times (\text{number of fl. oz. of Esfenvalerate 3.5\% CS added to tank})}{(\text{Gallons of finished spray mix}) \times (128)} = \text{Percent Active Ingredient of Spray Mix}$$

Tank Mixing

Esfenvalerate 3.5% CS may be tank mixed with an insect growth regulator such as NyGuard® IGR Concentrate or pyrethrum containing products or any other currently registered pesticides unless expressly prohibited the product label. The resulting tank mix may be applied in areas where these

products are allowed to be sprayed Do not tank mix Esfenvalerate 3.5% CS with products containing dichlorvos (DDVP)

Application Rates for Indoor Structural Pests

Pests	Concentration of Active Ingredient	Dilution Rate in Water	Application Rate of Mixed Solution	Application Method(s)
Crawling Insects Light Infestations Heavy Infestations	0.025% 0.050%	1.0 fl oz/gallon 2.0 fl oz/gallon	1 gallon/1,000 sq ft	Apply as a coarse wet spray *Broadcast Surface
Flying Insects	0.025%	1.0 fl oz/gallon	1 gallon/1,000 sq ft	Spray
Stinging Insects	0.050%	2.0 fl oz/gallon	1 gallon/1,000 sq ft	*Crack & Crevice
Ticks	0.025%	1.0 fl oz/gallon	1 gallon/1,000 sq ft	Treatment *Spot Treatment
Fleas, Lice & Bedbugs	0.025%	1.0 fl oz/gallon	1 gallon/1,000 sq ft	Apply as noted above with a fine particle spray

Crawling Insect Pests Indoors

Apply as a coarse wet spray to surfaces where these pests are normally found. Treat floors, baseboards around doors and windows, in attics, crawl spaces, eaves, corners, closets, walls, utility pipes, storage areas, and all cracks and crevices. Treat underneath sinks, dishwashers, refrigerators, stoves, the underside of shelves, drawers, cabinets, areas behind pipes, and in all places where these insects shelter. Contact as many insects as possible with direct spray. Repeat applications as needed, but do not exceed more than one (1) application every seven (7) days.

For Ant Control Indoors

Apply to ant trails around garbage receptacles and near food sources. Also apply around doors and windows and wherever these pests may find entrance to the structure. Remove sources of food through basic hygiene practices whenever possible.

Flying Insect Pests Indoors

Treat insect resting areas such as walls and ceilings, screens around windows, doors, and light fixtures and other surfaces that attract flying insects. Initiate treatments at the beginning of fly season and repeat treatments during periods of heavy infestation.

Stinging Insect Pests Indoors

Apply spray to nests late in the evening when stinging insects are at rest. Thoroughly spray nest entrance and surrounding areas where insects land or walk. Treat around doors and windows, in attics, crawl spaces, and possible harborage sites or points of entry.

For Control of Brown Dog Ticks

Thoroughly apply as a spot treatment to infested areas such as pet beds and resting areas, nearby cracks and crevices, along and behind baseboards, windows and door frames, and localized areas of floor and

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floor coverings where these pests may be present DO NOT SPRAY PETS WITH THIS PRODUCT
Treat dogs and cats with a product registered for use on animals

For Control of Fleas

Thoroughly apply as a fine particle broadcast spray to infested rugs carpets and pet resting areas Prior to treatment aquariums and fish bowls should be covered and pet animals should be removed from the area being treated Do not permit humans or pets to contact treated surfaces until spray has dried Old pet bedding should be removed and replaced with clean fresh bedding after treatment DO NOT SPRAY PETS WITH THIS PRODUCT Treat dogs and cats with a product registered for use on animals

To Control Bedbugs

Thoroughly clean and sanitize mattresses and box springs Treat mattresses and box springs with an approved pesticide such as a pyrethrin aerosol Apply Esfenvalerate 3.5% CS as a spot treatment to potential harborage sites and migration paths and cracks and crevices around baseboards floorboards headboards and walls

For Control of Stored Product Pests

Spray thoroughly around and into floor drains non food conveyors benches pipes pallets moist areas storage racks pieces of equipment and other areas where stored product pests may be found Tank mix or sequential use of an insect growth regulator such as NyGuard® IGR Concentrate is recommended to break the insect reproduction cycle Do not apply this spray to surfaces or utensils that may come in contact with food since excessive residues in food may result

To Kill the Accessible Stages of Listed Granary Insects Pest Management Professionals and grain spice nut seed etc producers may use Esfenvalerate 3.5% CS to treat grain and other storage facilities and other listed areas such as but not limited to silos storage bins chambers containers shelters and other potential areas for stored product pest control For control of exposed adult and immature stages of stored product pest apply to cracks crevices joints small voids and other surface where the pests have been seen or have harborage Treat areas where products are stored before filling with the product Apply at the concentration and rates listed in prior charts Cleaning all areas prior to use will increase levels of control Any foodstuffs infested with pests should be removed and destroyed

Repeat application as needed but DO NOT exceed more than one application every fourteen (14) days

USE IN AND AROUND LIVESTOCK HOUSING

For use in and around unoccupied areas of livestock facilities such as Barns Cow and Calf Pens & Hutches Dairy Barns & Milk Rooms Hog Barns Horse Barns Sheep Barns Poultry Houses and Rabbit Hutches Do not contaminate milk food or drinking water Remove animals from area being treated Cover feeders and waterers Do not apply or allow insecticide to drift onto animals Do not allow animals to enter treated areas until spray solution has dried

MIXING INSTRUCTIONS

Esfenvalerate 3.5% CS should be mixed with water and applied with hand pressurized or power operated sprayers Shake container of Esfenvalerate 3.5% CS before diluting Clean spray equipment before use For dilution add approximately half the required water to spray tank and then add the appropriate amount of Esfenvalerate 3.5% CS Agitate and slowly add the remaining water Agitate spray thoroughly before using and also occasionally during use to ensure dispersion If spray filter screens are used they should be 50 mesh or larger Use 1.0 fluid ounce (30 cc) of Esfenvalerate 3.5% CS in 1 gallon of water to make a spray mix containing 0.025% active ingredient Use 2.0 fluid ounces (60 cc) per gallon of water to make a spray containing 0.05% active ingredient Use 0.025% solution for light infestations or as a

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maintenance control rate Use 0.05% for heavy infestations or as an initial clean out rate Apply two second bursts of spray per square foot of area being treated Avoid excessive application Dampen surfaces but not to the point of saturation or run off Only dilute Esfenvalerate 3.5% CS with water

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Pests	Concentration of Active Ingredient	Dilution Rate in Water	Application Method(s)
Crawling Insects *Including litter beetles	0.050%	2 fl. oz./gallon or 2 fl. oz. in sufficient water to cover 1,000 sq. ft.	Apply as a coarse wet spray *General Surface Spray *Crack & Crevice Treatment *Spot Treatment
Flying Insects	0.025%	1 fl. oz./gallon or 1 fl. oz. in sufficient water to cover 1,000 sq. ft.	

Crawling Insect Pests in Livestock and Poultry Premises

Apply as a general surface spot treatment and/or crack and crevice treatment Apply to floors and vertical and overhead surfaces where crawling insects are or may be present Treat stanchions pipes windows doors posts cage framing gates under (but not in) feeders and other areas where insects hide or congregate To reduce immigration of insects make a perimeter treatment around the outside of building foundations Apply in a uniform band 1.3 feet up the exterior foundation wall and 3.6 feet out from the foundation

Litter Beetle Control in Livestock and Poultry Premises

To control litter beetles (darkling hide and carrion beetles) apply Esfenvalerate 3.5% CS to walls and floors at cleanout and before reintroduction of animals Treat areas where beetles frequently occur such as walls supports cages cage framing stalls and around feeders To reduce immigration of insects make a perimeter treatment around the outside of building foundations Apply in a uniform band 1.3 feet up the exterior foundation wall and 3.6 feet out from the foundation

Flying Insect Pests in Livestock and Poultry Premises

For residual control of flying insects treat insect resting areas such walls ceilings screens around windows doors light fixtures and other surfaces that attract flying insects Initiate treatments at the beginning of fly season and repeat treatments during periods of heavy infestation

OUTDOOR USE

Do not spray in or near fishponds or other bodies of water

Not for use on plants being grown for sale or other commercial use Not for use in nurseries on all turf types such as golf course greens tees and fairways and on sod farms

MIXING INSTRUCTIONS

Esfenvalerate 3.5% CS should be mixed with water and applied with hand pressurized or power operated sprayers Shake container of Esfenvalerate 3.5% CS before diluting Clean spray equipment before use For dilution add approximately half the required water to spray tank and then add the appropriate amount of Esfenvalerate 3.5% CS Agitate and slowly add the remaining water Agitate spray thoroughly before using and also occasionally during use to ensure dispersion If spray filter screens are used they should be 50 mesh or larger Use 1.0 fluid ounce (30 cc) of Esfenvalerate 3.5% CS in 1 gallon of water to make a spray mix containing 0.025% active ingredient Use 2.0 fluid ounces (60 cc) per gallon of water to make a spray containing 0.05% active ingredient Use 0.025% solution for light infestations or as a maintenance control rate Use 0.05% for heavy infestations or as an initial clean out rate Apply two second bursts of spray per square foot of area being treated Avoid excessive application Dampen surfaces but not to the point of saturation or run off Only dilute Esfenvalerate 3.5% CS with water

Formula for determining the active ingredient content of the finished spray mixture The following formula may be used to determine the percent active ingredient that is in the sprayer tank after mixing Esfenvalerate 3.5% CS

$$\frac{(3.48) \times (\text{number of fl. oz. of Esfenvalerate 3.5\% CS added to tank})}{(\text{Gallons of finished spray mix}) \times (128)} = \text{Percent Active Ingredient of Spray Mix}$$

Tank Mixing

Esfenvalerate 3.5% CS may be tank mixed with an insect growth regulator such as NyGuard® IGR Concentrate or pyrethrum containing products or any other currently registered pesticides unless expressly prohibited the product label The resulting tank mix may be applied in areas where these products are allowed to be sprayed Do not tank mix Esfenvalerate 3.5% CS with products containing dichlorvos (DDVP)

Application Rates for Outdoor Pests

	Concentration of Active Ingredient	Dilution Rate in Water	Application Method(s)
Treating Exterior Walls Foundations and Structures	0.025 to 0.050%	1 to 2 fl oz /gallon or 1 to 2 fl oz in sufficient water to cover 1 000 sq ft	Apply as a coarse wet spray *General Surface Spray *Crack & Crevice Treatment
Treating nests and harborage areas of stinging insects	0.050%	2 fl oz /gallon or 2 fl oz in sufficient water to cover 1 000 sq ft	*Spot Treatment
To Control Swarming Termites and Wood Destroying Pests	0.050%	2 fl oz /gallon or 2 fl oz in sufficient water to cover 1 000 sq ft	
Treating Ornamental Trees and Landscapes	0.005 to 0.050%	0.2 to 2 fl oz /gallon or 0.2 to 2 fl oz in sufficient water to cover 1 000 sq ft	Apply as a coarse wet spray *Broadcast Spray Treatment *Foliar Spray Treatment
Mosquito Breeding Sites	0.025%	1 fl oz /gallon or 1 fl oz in sufficient water to cover 1 000 sq ft	
Treating Lawns and Turf	0.005 to 0.050%	0.2 to 2 fl oz /gallon or 0.2 to 2 fl oz in sufficient water to cover 1 000 sq ft	Apply as a coarse wet spray *Broadcast Spray Treatment

Treating Exterior Walls, Foundations and Structures

To control infestations of listed pests treat exterior surfaces of buildings walls window frames around garbage cans eaves cracks and crevices porches decks gazebos patios carports garages fence lines and other areas where pests are active or may be hiding

To help prevent insect infestation of buildings Treat a 2-6 foot band of soil or other substrate adjacent to buildings Treat building foundation to a height of 2-3 feet Treat exterior walls eaves cracks and crevices and other areas where listed pests are active and may find entrance into building

Apply with sufficient water to adequately cover the area being treated but do not allow dripping or run off to occur. Alternate mixing directions are to use 4 to 8 fluid ounces of concentrate per 50 gallons of water.

Stinging Insect Control Outdoors

For stinging insects apply spray solution to nests and harborage areas late in the evening when stinging insects are commonly at rest. Thoroughly spray nest, nest entrance, harborage sites, and surrounding areas where insects land or walk. For nests inside walls inject sufficient spray to treat nest. Do not use in areas where an electrical shock hazard exists. For applications made when pests are active, applicator should wear protective equipment as required. Repeat application when there are signs of renewed insect activity.

For Yellow Jacket control Esfenvalerate 3.5% CS can be mixed with baits in traps. Follow trap instructions for preparation of bait.

For control of Fire Ants combine broadcast application with mound drenches to control foraging workers and newly mated fly in queens. Apply Esfenvalerate 3.5% CS as a broadcast application at a rate of 16 fl oz of concentrate per 1,000 square feet. Treat mounds with a registered fire ant mound treatment.

Insect Control in Ornamental Trees and Landscapes

For residential and commercial trees, shrubs, ground covers, and bedding and foliage plants that will not be harvested for food, apply Esfenvalerate 3.5% CS in appropriate volumes of water to obtain thorough coverage. Apply as a full coverage foliar spray, applying to the point of drip but not runoff. Treat active soil pests with an application to surrounding soil. Repeat treatments as necessary to achieve control using higher application rates as pest pressure and foliage area increases. Repeat applications as necessary but no more than once every seven (7) days. Certain plants may be sensitive to the final spray solution. A small scale test is recommended to verify safety to ornamental plants. Spray and observe for one (1) week prior to application of an entire planting.

Insect Control on Lawns, Turf Grass and Turf

For best results lawn or turf grass should be mowed 1-2 days before spraying. Treat with spraying equipment or a hand sprayer. Use application volumes of up to 10 gallons per 1,000 square feet to get uniform coverage when treating dense grass foliage. For low volume applications using less than 2 gallons of spray solution per 1,000 square feet, immediate irrigation with at least 0.25 inches of water is recommended to improve effectiveness on subsurface pests.

When hand spraying spray using a slow, even sweeping motion, making sure to cover the entire lawn or turf grass areas where pests are observed. Spray under ornamentals and trees. Repeat treatments may be necessary at 7 to 14 day intervals.

Rate Range

Use lower rate range for pests that are commonly exposed and will be contacted by 'spray' solution at the time of application. For pests that will not be contacted by spray solution at the time of application use the upper rate range. Use 2 fl oz per 1,000 sq ft when treating Mole Crickets and Chinch Bug.

To Kill Swarming Termites OUTDOORS ONLY

Apply spray mix as a coarse wetting spray when swarming termites are seen emerging from woodpiles, wooden fence posts, wooden structures, or from the ground. Swarming usually occurs in the spring or at other times when a termite colony becomes overcrowded and new reproductive termites with wings emerge and fly away to mate and establish new colonies. This treatment will control the sprayed termites and will not protect the structure from which the swarm is coming. Use only as a contact spray to kill.

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emerging reproductive (winged) and worker termites emerging from infested wood This treatment is not a substitute for a comprehensive termite control program

To Kill Wood Destroying Pests OUTDOORS ONLY

Apply spray mix as a coarse wetting spray to exposed pests and to the damaged areas of wood spraying into galleries or tunnels in the exposed wood Also spray around doors window and door frames and other areas where these pests may hide or enter the house Spray into cracks and crevices and if necessary drill small holes and spray into inaccessible wooden structural voids where these pests are suspected

Mosquito Breeding Sites

Mosquito populations may be reduced by application of Esfenvalerate 3 5% CS to sites where mosquitoes rest harbor and breed Apply spray solution into tall grass shrubbery and around backyards and lawns where these pests may hover or rest Apply while air is still

Not for wide area mosquito use Do not apply with hand held or truck mounted cold aerosol ULV sprayers and thermal fogging devices

STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage or disposal

PESTICIDE STORAGE Store in a warm dry area Always store pesticides in the original container Store away from food and pet food

PESTICIDE DISPOSAL

To avoid wastes use all material in this container by application according to label directions If wastes cannot be avoided offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry)

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility In case of spill or leak soak up with sand earth or synthetic absorbents Do not use alkaline absorbents or clean area of spill with alkaline detergents

PESTICIDE DISPOSAL AND CONTAINER HANDLING [RESIDENTIAL USE] Nonrefillable container Do not reuse or refill this container If empty Place in trash or offer for recycling if available If partly filled Call your local solid waste agency for disposal instructions Never placed unused product down any indoor or outdoor drain

CONTAINER HANDLING

Nonrefillable container Do not reuse or refill this container Triple rinse container (or equivalent) promptly after emptying Then offer for recycling if available or puncture and dispose of in a sanitary landfill

Triple Rinse as follows [for containers of 5 Gallons (18 9 L) or less] Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip Fill the container 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

Triple Rinse as follows [for containers greater than 5 Gallons (18 9 L)] Empty the remaining content into application equipment or a mix tank Fill the container 1/2 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 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

