



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

October 28, 2016

Mr. Jan Brill
Federal Regulatory Affairs
Environmental Science Division
Bayer CropScience LP
2 TW Alexander Dr.
Research Triangle Park, NC 27709

Subject: Label Amendment – Addition of claims against public-health insects
Product Name: K-Othrine® SC Insecticide
EPA Registration Number: 432-763
Application Date: 02-Aug-2016
Decision Number: 520940

Dear Mr. Brill:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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 the Federal Insecticide Fungicide and Rodenticide Act 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) list 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.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

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with FIFRA section 6. If you have any questions, please contact Matthew Aubuchon by phone at 703 347-0477, or via email at aubuchon.matthew@epa.gov.

Sincerely,

 for

Kable Bo Davis, Product Manager 3
Invertebrate & Vertebrate Branch 1 (IVB1)
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

K-Othrine[®] SC Insecticide

[ABN: Suspend SC Insecticide]

*[Spider, Ant, Bed bug, Crickets, Mosquito, and/or Cockroach Images]

Editorial Note – [Bracketed text] is optional language

*For Residential, Industrial and Institutional Control of Major Nuisance Pests Listed on The Label

*Controls Numerous Pests in and around Households and Other Structures

*Will not Damage Paints, Plastics, Fabrics or Other Surfaces Where Water Alone Causes No Damage

*For Insect Control on Commercial and Residential Turf and Landscape Ornamental Plants

ACTIVE INGREDIENTS:

*Deltamethrin.....4.75%

OTHER INGREDIENTS:.....95.25%

TOTAL: 100.00%

*Contains 0.42 lb deltamethrin per gallon.

EPA Reg No. 432-763

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

CAUTION

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.)

See [Back] [Side] Panel for First Aid Instructions and [Leaflet][Booklet] for Complete Precautionary Statements and Directions for Use.
(Note to reviewer: Location of additional precautionary statements, directions for use will vary between those listed, depending on container type/size.)

FIRST AID

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 further treatment advice.

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 [insert phone number] for emergency medical treatment.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND 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.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to fresh water and estuarine fish and invertebrates.. Use with care when applying in areas adjacent to any body of water. 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.

ACCEPTED

10/28/2016

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 432-763

PHYSICAL & CHEMICAL HAZARDS

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

Product Facts:	
<ul style="list-style-type: none"> • Quick Knockdown & Residual Control • Low Odor • Non-staining • No phytotoxicity on wide range ornamentals 	
K-Othrine SC Insecticide	<p>This product is a suspension concentrate formulation containing 0.42 lb of Deltamethrin per gal.</p> <p>This product is designed for use both indoors and outdoors and will provide effective knockdown and long residual control of the pests listed on this label.</p> <p>For residential, industrial and institutional control of major nuisance and public health pests listed on the label.</p> <p>Will not damage paints, plastics, fabrics or other surfaces where water alone causes no damage.</p>
Controls	<ul style="list-style-type: none"> • Indoor, General Household Pests, Pantry and Stored Product Pests, and Food/Feed Processing/Handling Pests • Outdoor/ Perimeter Pests • Wood-Infesting Pests <p><i>For list of specific insects, see inside</i></p>
Where to Apply	<ul style="list-style-type: none"> • Apply where pests have been seen or found, or can find shelter • In and around buildings and structures • On ornamentals in landscapes and interior plantscapes • On residential, commercial, and recreational areas of turf
Dilution Rates	<ol style="list-style-type: none"> 1. When 1.5 fl oz (45.4 ml) is diluted in one gal of water, the active ingredient concentration is equivalent to 0.06% Deltamethrin. Use of the 1.5 fl oz (0.06%) rate is recommended for severe pest infestations or when longer residual control is desired. 2. When 0.75 fl oz (22.7 ml) is diluted in one gal of water, the active ingredient concentration is equivalent to 0.03% Deltamethrin. Use of the 0.75 fl oz (0.03%) rate is recommended for initial service or clean out treatments. 3. When 0.25 fl oz (7.5 ml) is diluted in one gal of water, the active ingredient concentration is equivalent to 0.01% Deltamethrin. Use of the 0.25 fl oz (0.01%) rate is recommended for maintenance treatments.
Mixing Information	<p>This product is intended to be mixed with water and applied with hand pressurized or power operated sprayers.</p> <p>Shake this product well before measuring concentrate for dilution in water.</p> <p>Mix the appropriate amount of this product with water.</p> <p>Thoroughly shake, agitate, or invert sprayer to insure proper suspension.</p> <p>If spraying is interrupted when using a back-pack or hand-held sprayer, invert sprayer to re-suspend the dilution before starting to make applications.</p> <p>Diluted spray mixture can be stored overnight, but agitate well before using.</p> <p>If spray screens are used, they should be 50 mesh or larger.</p>
Tank mixing	<p>This product may be tank-mixed with other registered pesticides unless expressly prohibited by the product label. A small volume mixing test with other products is recommended to ensure compatibility. Observe all restrictions and precautions which appear on the labels of these products.</p>
How to Apply	<p>General surface applications, spot treatments, crack and crevice sprays, or void injections by sprays, mists, or foams.</p> <p>Broadcast application to turf and foliar application to ornamentals.</p>
Re-Apply	<p>Treatments may be applied at 21-day intervals, or as necessary to maintain adequate control.</p>
Re-Entry	<p>Avoid contact with treated surfaces until dry.</p> <p>People and pets may re-enter after the treated area is dry.</p>
Questions	<p>For questions or comments, call toll free 1 800 331-2867</p>

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.

INDOOR PESTS				
Indoor applications to buildings and structures may be made as a general surface, spot treatment, crack and crevice applications, or void (spray, mist, foam) injections. This includes schools, factories, stores, warehouses, hospitals, food processing facilities (food/feed and non food/feed areas), and modes of transportation. For a list of common facilities where this product may be used, see Appendix.				
Ants Bed bugs Bird mites Blue/green bottle flies Boxelder bugs Carpet beetles Centipedes Clothes moths Clover mites Cluster flies Cockroaches Crickets	Darkling beetles Dermestids Earwigs Elm leaf beetles Firebrats Fleas Flesh flies Flies Fruit flies Gnats Hide beetles Hornets	House flies Leather beetles Midges Millipedes Moths Multi-colored Asian lady beetles Pantry pests, beetles & moths Phorid flies	Pillbugs Sciarid flies (fungus gnats) Scorpions Silverfish Sowbugs Spiders Ticks Wasps Yellowjackets	<u>Pantry and Stored Product Pests; beetles & moths</u> Angoumois grain moths Cigarette beetles Drugstore beetles Flour beetles Foreign grain beetles Grain mites Grain weevils Hairy fungus beetles Indian meal moths Lesser grain borers Mediterranean flour moths Merchant grain beetles Saw-toothed grain beetles Spider mites Warehouse beetles
Where to Apply	Treat where pests have been seen or found, or can find shelter. Treat areas where pests normally feed or hide, such as baseboards, corners, around water pipes, behind and under refrigerators, cabinets, sinks and stoves. This product can be applied to walls, floors, ceilings, in and around cabinets, between, behind and beneath equipment and appliances, around floor drains, window and door frames and around plumbing, sinks and other possible pest harborage sites. Treat entry points around water pipes, utility penetrations, windows, doors, vents, and eaves. Void applications can be made behind veneers, piers, and chimney bases, into rubble foundations, into block voids and structural voids, wall voids, under slabs, stoops, porches or to the soil in crawlspaces, and other similar voids. Spot treat floors, floor coverings, carpets, or rugs for flea and tick control; DO NOT treat entire floor area.			
Use Rate	0.01% - - 0.25 fl oz (7.5 ml) per gal 0.03% - - 0.75 fl oz (22.7 ml) per gal 0.06% - - 1.50 fl oz (45.4 ml) per gal			
How to Apply (see Application for Indoor Pests)	<u>Spot Applications</u> <ul style="list-style-type: none"> Use a low pressure system (do not exceed 50 psi at nozzle tip) with a fan-type nozzle to uniformly apply spot treatments in and around cupboards, and beneath, between and behind equipment or appliances. In the home, all food processing surfaces and utensils should be covered before treatment or thoroughly washed following treatment. Cover exposed food or remove from area being treated. <u>Spray, Mist or Foam Crack and Crevice or Void Applications</u> <ul style="list-style-type: none"> Spray, mist, or foam directly into cracks and crevice or voids where pests or their nests are present. Apply the volume of spray, mist, or foam sufficient to cover the area. <u>Spray</u>: Use a low pressure system (do not exceed 50 psi at nozzle tip) with a pinpoint or variable pattern nozzle to apply the spray mixture to areas such as floors, cracks and crevices in and around baseboards, walls, expansion joints, areas around water and sewer pipes or utility penetrations, and voids created by equipment and appliances. <u>Mist</u>: Use appropriate mist generating equipment. Do not allow mist to drift out of void spaces into commonly occupied areas of structure. <u>Foam</u>: Use foam to treat structural voids and control pests in walls, under slabs or other void areas. Using appropriate foam generating equipment, mix dilution with manufacturers specified volume of foaming agent and apply sufficient volume of foam. 			

When to Apply	When pests are seen or found. Treatments may be applied at 21-day intervals, or as necessary to maintain adequate control.
Restrictions	Do not apply broadcast treatments to floors or floor coverings. Do not apply as a space spray. Remove or tightly cover fish tanks and disconnect aerators during application. Keep people and pets away from sites of application until treated area has dried. When treating areas directly over your head, wear eye protection (safety glasses, goggles or face shield) and dust/mist mask or respirator. In the home, do not allow spray to contact food/feed surfaces. If it does, clean surfaces with soap and water.
APPLICATION FOR INDOOR PESTS	
Ants, Centipedes, Clothes Moths, Cockroaches, Crickets, Earwigs, Firebrats, Millipedes, Pillbugs, Scorpions, Silverfish, Sowbugs, and Spiders	Apply as a coarse, low pressure (do not exceed 50 psi at nozzle tip) spot or crack and crevice spray to areas that these pests normally inhabit. Pay particular attention to 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, window frames and in attics and crawl spaces. Spot applications may be made to floor surfaces along baseboards and around air ducts. Let surfaces dry before allowing people or pets to contact surfaces.
Pantry Pest Control	To kill adult and accessible immature stages of insects 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: Make applications to cupboards, shelving and storage areas. Remove all foodstuffs, all utensils, shelf paper, and other objects before spraying. Allow all treated surfaces to dry before replacing foodstuffs, utensils or other items. Any foodstuff accidentally contaminated with any spray solution must be discarded.
Ants, Cockroaches, Crawling and Flying Insect Pests Flies, Gnats, Midges, Mosquitoes, and Silverfish	Apply directly to walls, ceilings, window screens and other resting areas as a residual surface treatment. May be used inside residential buildings, as well as in and around carports, garages, storage sheds, unoccupied barns, stables, or pet kennels.
Ants Including Pharaoh's ant	Apply to trails, around doors and window frames and other areas where ants inhabit or enter premises.
Bed Bugs	Spray bed bugs and eggs directly wherever possible following site directions below. For infested mattresses, remove linens and wash before reuse. Apply to mattresses, especially tufts, folds, and edges until moist. Allow to dry before remaking bed. Apply to bedsprings, box springs, and the interior of bed frames or headboards, including all cracks and crevices. When bed bugs are found in upholstered furniture, apply only to the infested tufts, seams, folds and edges, but do not make broadcast applications to flat surfaces where prolonged human contact will occur. If bugs heavily infest furniture (inside cushions and/or batting) apply a labeled insecticide dust or consider fumigation. Apply as a crack and crevice treatment to all baseboards, moldings, beneath floor coverings and carpets, closets, shelves, curtains, furniture and picture frames that may provide harborage to bed bugs.
Carpet Beetles, Fleas, and Ticks	A total integrated pest management program is recommended. It is suggested that infested areas be thoroughly vacuumed prior to treatment. These areas include all carpet, upholstered furniture, baseboards, and other indoor areas frequented by pets. The vacuum cleaner bag should be discarded in an outdoor trash container upon completion. Pet bedding should be cleaned or replaced. Apply this product as a uniform, coarse low-pressure (do not exceed 50 psi at nozzle tip) spot or crack and crevice treatment to areas where these pests normally inhabit. Care should be taken to limit spot treatments to pet bedding and its surrounding area, infested floor coverings and pest habitats. DO NOT treat entire area of floor, carpet or floor coverings. When these pests are found in upholstered furniture, apply only to the infested tufts, seams, folds and edges, but do not make broadcast applications to flat surfaces where prolonged human contact will occur. This product can also be applied out-of-doors for flea and tick control (see directions in Outdoor/Perimeter Pests).
Pet Kennels	For residual control of crawling and flying insects in and around these structures, apply as a general surface and/or crack and crevice spray. Optimal control results if facilities to be treated are clean and if the exterior perimeter is concurrently treated with this product. 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. Do NOT treat pets with this product.

Food/Feed Handling Establishments	<p>For control of all labeled pests, applications are permitted in food/feed and non-food/non-feed areas of food/feed handling and processing establishments as a general surface, spot or crack and crevice treatment.</p> <p>Food/Feed handling establishments are defined as places other than private residences in which exposed food/feed is held, processed, prepared or served. Included also are areas for receiving, storing, packing (canning, bottling, wrapping, boxing), preparing, edible waste storage and enclosed processing systems (mills, dairies, edible oils, syrups) of food/feed. Serving areas where food/feed is exposed and the facility is in operation are also considered food/feed areas.</p> <p>Non-Food/Non-Feed Areas: Examples of non-food/non-feed 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). All areas that insects inhabit or through which insects may enter should be treated.</p> <p>General Surface Applications: 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. Cover or remove all food/feed processing and/or handling equipment during application. After application in food/feed processing plants, cafeterias and similar facilities, wash all equipment, benches, shelving, and other food contact surfaces. Clean exposed food/feed handling or processing equipment and thoroughly rinse with clean, fresh water. After application in bakeries, clean all food contact surfaces thoroughly with appropriate equipment.</p> <p>Spot or Crack & Crevice Applications: Except in federally inspected meat and poultry plants, 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. Do not apply directly to food or food-handling surfaces.</p>
Commercial Stored Product Pest	<p>Dilute 0.25-1.5 fl oz of product with water to make 1 gal of solution. Apply finished spray to equipment, wall and floor surfaces of grain bins, warehouses, production facilities, storage areas, rail cars, truck beds, and other areas where products are stored at the rate of 1 gal per 1000 sq ft prior to storing or handling grain. Application should be made only after equipment bins and buildings have been thoroughly cleaned.</p> <p>To help prevent infestation of these structures, apply product as a perimeter treatment where pests are active and may find entrance. It is recommended to 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. Mix 0.25 - 1.5 fl oz of product with water to make 1 gal of solution. Apply as a coarse spray at a rate of 1 gal per 1000 sq ft. Thoroughly and uniformly wet the barrier area but do not allow run-off to occur.</p>

Stored Grain

Pest Control: To control adults and accessible stages of insect pests such as, *lesser grain borer, larger grain borer, Angoumois grain moth, Indianmeal moth, tobacco moth, dermestids, and bean weevil*; also to suppress populations of granary weevil, rice weevil, maize weevil, saw-toothed grain beetle, red flour beetle, and confused flour beetle.

GENERAL DIRECTIONS FOR TREATMENT

Dilute K-Othrine SC Insecticide with water or FDA approved food grade mineral or soybean oils and apply to the moving grain stream as a coarse spray to provide a concentration of 0.5 ppm of deltamethrin on the grain. Final spray volume with water solutions-5 gallons of liquid per 1,000 bushels of grain. Final spray volume with oil solutions should be applied at oil manufacturer's rates. Occasional agitation is needed in water solutions and constant agitation is necessary in oil solutions. A uniform treatment can only be obtained by treating a moving grain stream.

K-Othrine SC Insecticide is to be applied to stored grain in accordance with the General Directions at the rate of 5 gallons of solution per 1,000 bushels to achieve a 0.5 ppm concentration of deltamethrin. Apply at rates as shown in the tables below:

AMOUNT OF K-Othrine SC Insecticide/1,000 BUSHELS OF GRAIN			
Grain	K-Othrine SC Insecticide AT 0.5 PPM TREATMENT		GALLONS OF DILUTE
	fl oz	mL	
BARLEY	7.31	216	5
CORN	8.53	252	5
OATS	4.88	144	5
POPCORN	8.53	252	5
RICE	6.86	202	5
RYE	8.53	252	5
SORGHUM (milo)	8.53	252	5
WHEAT	9.14	270	5

K-Othrine SC Insecticide is to be applied in solution in accordance with the General Directions to stored grains. Final spray volumes to treat 100 metric tons of grain at 0.5 ppm concentrations of deltamethrin are provided in the tables below corresponding to the grain being treated.

Amount of K-Othrine SC Insecticide/100 metric tons of Grain			
Grain	K-Othrine SC Insecticide per 100 metric tons at 0.5 PPM		Liters of dilute solution
	fl oz	mL	
BARLEY	33.6	993	86.9
CORN	33.6	993	74.5
OATS	33.6	993	130.4
POPCORN	33.6	993	74.5
RICE	33.6	993	92.7
RYE	33.6	993	74.5
SORGHUM (milo)	33.6	993	74.5
WHEAT	33.6	993	69.5

SEED TREATMENT: For protection of stored grain seed against injury from stored grain insects listed above. For optimum results, thoroughly clean and treat seed storage areas prior to storage. If seed is insect infested, fumigate** to control existing populations and apply K-Othrine SC Insecticide for residual protection. K-Othrine SC Insecticide may also be used in conjunction with registered fungicide or other insecticide seed protectants, to protect barley, corn, oats, popcorn, rice, rye, sorghum and wheat seed during the seed treating process, and prior to bagging or placing in bulk seed storage at the rate of 0.5 ppm. Treated seed with other pesticide products should be properly tagged, indicating the seed should not be used for food, feed or oil purposes. Seed treated with K-Othrine SC Insecticide alone is considered grain.

**Fumigate with EPA-registered fumigant according to manufacturer's label recommendations

OUTDOOR/PERIMETER PESTS

Use this product to control outdoor pests by application as a perimeter treatment, residual spray or broadcast application to exterior surfaces of buildings, lawns, grounds, and ornamental plantings.

Ants Blue or green bottle flies Boxelder bugs Brown marmorated stink bug Carpenter ants Centipedes Cockroaches Cluster flies Clover mites	Crickets Earwigs Elm leaf beetles Fire ants Firebrats Fleas Flesh flies Flies	Gnats Ground beetles Hornets House flies Midges Millipedes	Mosquitoes Moths Multi-colored Asian lady beetle Pill bugs Scorpions Silverfish	Sow bugs Spiders Springtails Stable flies Ticks Wasps Yellow jackets
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Where to Apply	<p>This product may be applied as a residual spray or as a perimeter treatment around residential and non-residential settings.</p> <p>Residual Spray: Apply to surfaces on building exteriors, porches, patios and other structures, around door and window frames, eaves and attic vents, utility entry points, soffit areas and other exterior openings (including foundation cracks or drilled holes) where pests enter the structure or where they have been seen or found, or can find shelter.</p> <p>Perimeter Treatments: Treat the outside of the structure, including walls (to a height of 2 to 3 feet), around door and window frames, and soffits where pests are active or may enter or hide. Treat the soil, turf, or other ground covering adjacent to the structure (in a band up to 10 feet wide) where pests are seen, have been found, or can find shelter. In ant management programs, apply to flower, shrub or ornamental plant beds where ants may be nesting, find food or forage.</p>
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Application Restrictions	<p>Do not water the treated area to the point of run-off</p> <p>Do not make applications during rain.</p> <p>Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack and crevice treatment. During application, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters, or surface waters. All outdoor applications, if permitted elsewhere on this label, must be limited to spot or crack and crevice treatments only, except for the following permitted uses:</p> <ol style="list-style-type: none"> 1. Applications to soil or vegetation, as listed on this label, around structures; 2. Applications to lawns, turf, and other vegetation, as listed on this label; 3. Applications to the side of a building, up to a maximum height of 3 feet above grade; 4. Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure; 5. Applications around potential pest entry points into buildings, when limited to a surface band not to exceed one inch in width; 6. Applications made through the use of a coarse, low pressure spray to only those portions of surfaces that are directly above bare soil, lawn, turf, mulch or other vegetation, as listed on this label, and not over an impervious surface, drainage or other condition that could result in runoff into storm drains, drainage ditches, gutters, or surface waters, in order to control occasional invaders or aggregating pests. <p>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 the product to enter any drain during or after application.</p>
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Use Rate	0.25 fl oz (7.5 ml) per 1,000 sq ft of surface 0.75 fl oz (22.7 ml) per 1,000 sq ft of surface 1.50 fl oz (45.4 ml) per 1,000 sq ft of surface																																				
How to Apply (see Application for Outdoor/ Perimeter Pests)	Apply as a coarse low pressure (do not exceed 50 psi at nozzle tip) spray at the rate of 0.25 to 1.5 fl oz of this product per 1,000 sq ft of surfaces. Apply in a sufficient volume of water to provide adequate coverage but do not allow run-off to occur. High volume applications using power sprayers: You must adjust the rate of product dilution to ensure the correct amount of the product (see Use Rate section above) is applied per 1,000 sq ft of treated surface. For example, mixing 12.5 fl oz of this product in a 50 gal tank, while using an application volume of 3.0 gals per 1,000 sq ft, will apply 0.75 fl oz of this product per 1,000 sq ft. The table below gives examples of end use dilutions for typical power spraying application volumes.																																				
	<p>DILUTION RATE CHART</p> <table border="1"> <thead> <tr> <th>Amount of Product fluid ounces (milliliter)</th> <th>Application Volume gallons water</th> <th>Concentration (% AI) in spray solution</th> </tr> </thead> <tbody> <tr> <td rowspan="5">0.25 (7.5)</td> <td>1</td> <td>0.01%</td> </tr> <tr> <td>2</td> <td>0.005%</td> </tr> <tr> <td>3</td> <td>0.0033%</td> </tr> <tr> <td>4</td> <td>0.0025%</td> </tr> <tr> <td>5</td> <td>0.002%</td> </tr> <tr> <td rowspan="5">0.75 (22.7)</td> <td>1</td> <td>0.03%</td> </tr> <tr> <td>2</td> <td>0.015%</td> </tr> <tr> <td>3</td> <td>0.01%</td> </tr> <tr> <td>4</td> <td>0.0075%</td> </tr> <tr> <td>5</td> <td>0.006%</td> </tr> <tr> <td rowspan="5">1.5 (45.4)</td> <td>1</td> <td>0.06%</td> </tr> <tr> <td>2</td> <td>0.03%</td> </tr> <tr> <td>3</td> <td>0.02%</td> </tr> <tr> <td>4</td> <td>0.015%</td> </tr> <tr> <td>5</td> <td>0.012%</td> </tr> </tbody> </table>	Amount of Product fluid ounces (milliliter)	Application Volume gallons water	Concentration (% AI) in spray solution	0.25 (7.5)	1	0.01%	2	0.005%	3	0.0033%	4	0.0025%	5	0.002%	0.75 (22.7)	1	0.03%	2	0.015%	3	0.01%	4	0.0075%	5	0.006%	1.5 (45.4)	1	0.06%	2	0.03%	3	0.02%	4	0.015%	5	0.012%
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	4	0.015%																																			
	5	0.012%																																			
When to Apply	Begin applications when pests are noticed. Treatments may be applied at 21-day intervals or as necessary to maintain adequate control.																																				
APPLICATION FOR OUTDOOR/PERIMETER PESTS																																					
Ants, roaches, and other listed crawling pests	Apply as a residual spray and/or perimeter treatment around the infested structure as described above. Locate and treat ant nests if possible. Follow trails of foraging worker ants and inspect for likely nest sites. If ants are nesting in soil, drench or inject the nest and surrounding soil. Foliar applications to landscape ornamentals will control aphids, scale insects, and other plant-sucking insects and limit the production of honeydew (an important food source for ant populations). Apply a light mist of the dilute spray, and do not allow excess run-off. Treat thoroughly for good coverage, including the underside of leaves. It is recommended to remove or prune away any shrubbery, bushes, or tree branches touching the structure. Vegetation touching the structure may offer a route of entry for ants into the structure, allowing ants to avoid contact with the treatment.																																				
Occasional invaders including multi-colored Asian lady beetle, boxelder bug, brown marmorated stink bug, and elm leaf beetle.	Apply directly to insects that have congregated around doors, windows, frames, and similar areas where they may enter the structure. Apply a perimeter treatment as described above. For best results, treat trees and shrubs infested with boxelder bugs, elm leaf beetles, and other occasional invading species early in the season. [Tree spraying may require ornamental license - check with your local regulator.]																																				
Fleas and Ticks (including ticks that may transmit Rocky Mountain Spotted Fever)	Apply as a coarse wet spray to areas where fleas and ticks are most likely to be found, such as dog houses, kennels, runways, along paths or trails, under plants, shrubs, bushes, trees, or other shaded, moist areas where pests may be found. Treat the entire area where these pests could be present. Fleas and ticks may be re-introduced from surrounding areas by host animals.																																				
Mosquitoes (including mosquitoes that may transmit Zika, Dengue, Chikungunya, and West Nile virus)	Treat with spray or mist around landscape plants, turf and ground cover, under decks, around building foundations and other places where mosquitoes may rest.																																				

Fire Ants	Apply as a mound drench. Dilute 1.5 oz per one gal of water. Gently sprinkle 1 to 2 gals of the diluted insecticide over the surface of each mound and surrounding area to a 2-foot diameter. For best results, apply in cool weather, 65 to 80°F or in early morning or late evening hours. Treat new mounds as they appear.
Scorpions	Treat areas where scorpions may hide. Treat known or suspected harborages on and around exterior walls. Apply spot treatments into cracks, crevices, weep holes or other access points into hollow block walls or masonry veneer. Spray around and beneath stones and along rocky areas. Scorpions will often harbor beneath the bark on trees, so inspect these areas and treat as required. When possible, remove piles of debris and building materials near the exterior wall that can harbor the pests. Apply a perimeter treatment to the exterior walls and adjacent soil. You may treat around piles of firewood, but do not treat firewood with this product.
Centipedes, millipedes, pill bugs, sow bugs, springtails.	Apply perimeter treatment to reduce the number of insects entering the structure. Thoroughly treat mulched areas. Correcting moisture problems around the structure will reduce pest pressure.
House flies and Cluster flies	Apply low pressure (do not exceed 50 psi at nozzle tip) mist or spray to outside of surfaces of buildings, porches, patios, garages, fences, and other areas where house flies rest. Cluster flies: Treat in late summer or fall, just before cluster flies begin looking for winter shelter. Spray siding, eaves, around window frames and doors, and window screens. To help reduce infestations, treat cracks and crevices, attics and other indoor winter hiding places.

WOOD-INFESTING PESTS			
Drywood termites Beetles - Lyctid or powder post - Anobiid or deathwatch	Beetles (con't) - False powderpost - old house borers - wharf borers	Beetles (con't) - Ambrosia beetles - bark beetles	Carpenter ants Carpenter bees
Where to Apply	For treatment of wood infested with, or subject to infestation by, wood-infesting pests. Apply where pests have been seen or found, or can find shelter. Not for structural protection.		
Use Rate	0.06% - - 1.50 fl oz (45.4 ml) per gals		
How to Apply	Apply spray, mist, or foam as described below in the application section. Treatment dilutions may also be applied to wood surfaces by paint brush or roller. Do not contact treated surfaces until dry.		
When to Apply	When pests are seen or found. Treatments may be applied at 21-day intervals, or as necessary to maintain adequate control.		
Foam Applications	This product can be converted to foam and used to treat structural voids to control wood-infesting pests in walls, under slabs, within masonry voids, or in other void areas. Mix end-use dilution with manufacturer's specified volume of foaming agent.		

APPLICATION FOR WOOD-INFESTING PESTS	
<p>Drywood termites & wood-infesting beetles (Not for Structural Protection)</p>	<p><u>Galleries and structural voids:</u> Treat by applying sprays, mists, or foams. Locate galleries by using visual signs (frass or pellets, blistered wood, emergence or clean out holes), the presence of live insects, mechanical sounding techniques, or listening devices (e.g., stethoscopes, acoustic emission detectors). Penetrate the gallery system by drilling holes to receive the injector tip or treatment tool. Distribute drill holes to adequately cover the gallery system. Apply as low pressure (do not exceed 50 psi at nozzle tip) spray, or by misting or, where appropriate, by foaming. Do not treat to the point where runoff is detected from adjacent holes.</p> <ul style="list-style-type: none"> • Avoid drilling where electrical wiring, plumbing lines, etc. are located. • Do not apply where electrical shock hazards exist. • Drill holes in commonly occupied areas must be sealed after treatment. <p><u>Wood surfaces:</u> Treat by spray or mist or, where appropriate, foam applications. For inaccessible surfaces, drill and treat the interior of structural voids. Surfaces treated may include exposed wooden surfaces in crawlspaces, basements, or attics. Wooden exterior surfaces such as decks, fencing, or siding, structural voids, channels in damaged wood, in spaces between wooden members of a structure, and junctions between wood and foundations. Apply by brushing or as a coarse, low pressure (do not exceed 50 psi at nozzle tip) spray to the wood surface; apply sufficient volume to cover the surface to the point of wetness, but avoid applying to the point of runoff.</p> <p>When spraying wood surfaces overhead in living areas, cover surfaces below the treated area with plastic sheeting or similar material. Do not contact treated surfaces until spray deposits have dried.</p>
<p>Carpenter ants</p>	<p><u>Homes and other structures:</u> Apply around doors and window frames and other places where carpenter ants may enter. Spray or foam into cracks and crevices, or spray, mist or foam through small drilled holes into voids where ants or their nests are present. Use enough spray or foam to cover the area, but do not exceed 1 gal of dilute suspension per 1,000 sq ft of treated surface.</p> <p>It is recommended to remove or prune away any shrubbery, bushes, or tree branches touching the structure. Vegetation touching the structure may offer a route of entry for ants into the structure, allowing ants to avoid contact with the treatment.</p> <p><u>Exterior ant nests:</u> Inside trees, utility poles, fencing and decking materials and similar structural members, drill to find the interior infested cavity and inject spray, mist, or foam using a treatment tool with a backslash guard.</p> <p><u>Tunneling in soil:</u> Apply as a soil drench or inject the dilution or foam in the soil at intervals of 8 to 12 inches. Use 1 gal of dilution per 8 sq ft. Treat along the edges of walls, driveways or other hard surfaces where ants are tunneling beneath the surface.</p> <p><u>Protecting firewood from carpenter ants:</u> Treat soil beneath firewood before stacking at 1 gal of dilution per 8 sq ft. Do not treat firewood with this product.</p>
<p>Carpenter bees</p>	<p>Apply as a spray or mist, or sufficient volume of foam, directly into gallery entrance holes. Leave entrance open to be sure that returning adult bees are killed. When there is no longer any insect activity, the entrance hole may be sealed with a suitable sealant.</p> <p>Exterior wood surfaces may be treated by general surface application to prevent nest cavity excavation by adult carpenter bees.</p>

Turfgrass Applications

K-Othrine® SC Insecticide controls a broad spectrum of insects on turfgrasses and ornamental plants in outdoor areas such as athletic fields, recreational areas, residential landscapes, parks, and public and commercial sites such as around institutional commercial and industrial buildings.

Uniform coverage is essential. Begin applications when pests are evident.

Apply K-Othrine® SC Insecticide as a broadcast application using a conventional hydraulic boom-type sprayer or other suitable equipment for turfgrass pests according to the rates listed in the Application Rates for Turfgrass Sites table. Apply using a minimum of 2 gals of water per 1,000 sq ft. Higher volumes (4 to 10 gals of water per 1,000 sq ft) may be needed for adequate coverage of dense turfgrass canopies and/or turfgrasses maintained under high mowing heights. Allow sufficient time for the application to dry before allowing pets or people to enter treatment area.

Target insects must be exposed to the insecticide to be controlled. For optimum control of surface-feeding insects, delay irrigation or mowing for 24 hours after application. For subsurface-feeding insects, irrigate with 0.25 to 0.5 inch of water immediately after application.

NOTE: 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	Remarks
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/A or 0.06 to 0.08 lb ai/A	Apply when pests become evident. Apply as a broadcast spray in a minimum of 2 gals of water per 1,000 sq ft Delay irrigation or mowing for 24 hours after application for optimum control of surface-feeders such as cutworms and webworms. For subsurface-feeders, such as mole crickets, irrigate with 0.25 to 0.5 inch of water immediately after application.
	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/A or 0.08 to 0.13 lb ai/A	

Landscape Ornamental Treatments

K-Othrine® SC Insecticide provides control of a wide range of insects on landscape ornamentals. Mix K-Othrine® SC Insecticide with the required amount of water according to the Application Rates for Ornamentals table below. Thoroughly apply the finished spray to upper and lower leaf surfaces to ensure adequate coverage, but prior to dripping. Be sure to penetrate dense foliage to wet leaves, trunk and branches. Plant safety testing has been conducted on many species of ornamental plants under a wide range of environmental and cultural conditions and no injury has been observed. If local use information is not available, it is advisable to pre-spray a few plants.

Application Rates for Ornamentals:

Sites	Pests	Rate	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 spindlegall 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 fl oz/100 gals of water	Apply when pests become evident. Thorough coverage is required for best results. Apply with sufficient water to ensure coverage of upper and lower leaf surfaces.

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

**Suppression only.

STORAGE AND DISPOSAL

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

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 may be disposed of on site or at an approved waste disposal facility.
CONTAINER HANDLING	<p>[less than one gallon] Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 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. Securely wrap container in several layers of newspaper and discard in trash or offer for recycling if available. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.</p> <p>[One to 5 gallon size] Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 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 or reconditioning, or puncture and dispose of in a sanitary landfill. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.</p> <p><u>Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs)</u> Non-refillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill.</p> <p><u>Refillable container.</u> 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 this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the 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.</p>

APPENDIX

Use this product as a general surface, spot, mist, or crack and crevice treatment. Permitted areas of use include the following buildings, structures, and modes of transport:

- aircraft (cargo holds only)
- apartment buildings
- bakeries
- bottling facilities
- breweries
- buses
- cafeterias
- candy plants
- cereal processing and manufacturing plants
- correctional facilities
- dairies and dairy product processing plants
- food manufacturing plants
- food processing plants
- food service establishments
- frozen food plants
- grain mills
- granaries
- greenhouses (structures only)
- hospitals
- hotels
- houses
- industrial buildings
- kitchens
- laboratories
- livestock housing
- pet kennels
- manufacturing establishments
- mausoleums
- meat, poultry & egg processing & packaging plants
- meat and produce canneries
- mobile & motor homes
- nursing homes
- offices
- pickle factories
- poultry houses
- processing and packing plants
- restaurants
- schools
- spice plants
- stores
- warehouses
- wineries and similar structures*
- transportation vessels such as buses, trucks, trailers, rail cars, and marine vessels

For indoor applications at these sites, observe the following restrictions:

- Do not allow people or pets to contact treated areas until spray has dried.
- Do not apply in hospital and/or nursing home rooms while they are occupied.
- Do not apply in classrooms while they are occupied.
- Do not apply in aircraft cabins.
- Do not apply to furniture or upholstery where prolonged contact with humans will occur.
- Do not apply as a space spray.
- Do not allow excessive dripping or run-off to occur when treating vertical or overhead surfaces.
- Do not apply in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard.

For outdoor application at all listed sites:

- Do not apply K-Othrine® SC Insecticide through any type of irrigation system.
- Do not apply this product to edible crops.

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 must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

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Bayer Environmental Science
A Division of Bayer CropScience LP
PO BOX 12014, 2 T. W. Alexander Drive
Research Triangle Park, NC 27709

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