

73049-193

03/04/2009

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Mr. Nasser Assaf, Ph.D.
Valent BioSciences
870 Technology Way, Suite 100
Libertyville, IL 60048

MAR 4 2009

Dear Dr. Assaf:

Subject: Amendment- efficacy data MRID 47573001
Permanone 10 Insect Control
EPA Registration Number 73049-193
Your submission dated October 8, 2008

The application referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable with the following comments:

1. Change "Kills Mosquitoes that may carry West Nile Virus, Encephalitis, yellow fever and malaria" to Kills Mosquitoes that may carry West Nile Virus".
2. The new claim (p. 1), "Kills cockroaches [(including American... Bees." is acceptable.
3. The new section (p. 4) "To kill cockroaches [(including American... insects as possible." is acceptable.
4. The claims that the product kills termites are acceptable. Revise the section for termites and carpenter ants (p. 6) to read: "Termites and Carpenter Ants: Apply directly to insects and infested wood. THIS APPLICATION WILL NOT PROVIDE STRUCTURAL PROTECTION. The purpose of this application is to kill workers or winged forms present at the time of application. Not recommended as sole protection against termites. For active infestations, get a professional inspection. Such applications are not a substitute for mechanical alteration, soil treatment or foundation treatment but are merely a supplement. For an active termite infestation get a professional inspection."

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5. Kill claims against wasps, hornets, yellow jackets, and bees are acceptable.

6. Kill claims against spiders (specifically black widow and brown recluse spiders) are acceptable.

If you have any questions regarding this action, please contact Linda A. DeLuise of my team at (703) 305-5428.

Sincerely yours,



f Richard Gebken
Product Manager (13)
Insecticide Branch
Registration Division (7505P)

Enclosure

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Permanone® 10 Insect Control

- For Agricultural/Commercial/Use And Mosquito Abatement District Officials.
- Not For Use On Plants Being Grown For Sale Or Other Commercial Use, Or For Commercial Seed Production, Or For Research Purposes. For Use On Plants Intended For Aesthetic Purposes Or Climate Modification And Being Grown In Interior Plantscapes, Ornamental Gardens Or Parks Or On Golf Courses Or Lawns And Grounds.
- [• For Use Outdoors, In Residences And Non-Food Areas Of Commercial Buildings, Institutions, Warehouses, Theaters, Office Buildings, Schools, Motels, Hotels, Restaurants, Kennels And Food/Feed Processing Establishments.
- Kills Cockroaches [(Including American cockroach, Oriental cockroach, German cockroach and smokybrown cockroaches)] (Waterbugs), Crickets, Silverfish (Firebrats), Centipedes, Millipedes, Earwigs, fleas, scorpions, termites, ticks, bedbugs, Sowbugs (Pillbugs), Spiders (Including black widow, brown recluse or violin), hobo and funnel web), Ants (Including Pharaoh, carpenter, fire ant), Flies, Mosquitoes), Gnats, Small Flying Moths, Wasps Hornets, Yellow Jackets, And Bees.
- Kills Mosquitoes that may carry West Nile Virus, Encephalitis, yellow fever and malaria
- Broad Spectrum Multi-Use Insecticide
- Use On Lawns, Ornamental Gardens & Trees
- Controls/Kills Lawn Pests
- Controls/Kills Ornamental Plant Pests
- Controls Hard-To-Kill Insects For Up To 4 Weeks
- Effective Control Of Hard To Kill Insect Pests
- Multi-Purpose Insect Killer
- Works Fast - Residual Action - Long-Lasting - Quick-Acting
- Kills Fast - Proven To Last
- For Use On Livestock
- Livestock & Animal Premise Spray]

ACTIVE INGREDIENT:

Permethrin*..... 10.0%

OTHER INGREDIENTS:**..... 90.0%
100.0%

*Cis/trans ratio: Max. 65% (+/-) trans and min. 35% (+/-) cis.

**Contains petroleum distillate.

REGISTERED
and CONTROLLED
in EPA Label Unit 1

MAR 4 2009

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
is amended, for the pesticide
registered under EPA Reg. No.
73049-193

EPA REG. NO. 73049-193

EPA EST. NO.

**KEEP OUT OF REACH OF CHILDREN
WARNING**
See Side Panel For Additional Precautionary Statements

Net Contents:

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FIRST AID

If on Skin or Clothing:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in Eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If Inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If Swallowed:	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of Medical emergencies or health and safety inquiries or in case of fire, leaking or damaged containers, information may be obtained by calling 1-877-315-9819.	
Note to Physician	
Contains petroleum distillate. Vomiting may cause aspiration pneumonia.	

**READ ENTIRE LABEL BEFORE EACH USE
PET USE APPLIES TO USE ONLY ON DOGS**

**PRECAUTIONARY STATEMENTS
Hazards To Humans & Domestic Animals**

WARNING

Causes skin irritation. Do not get on skin or on clothing. Wear long sleeved shirt and long pants, socks, chemical resistant footwear and gloves. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Causes moderate eye irritation. Avoid contact with eyes. Harmful if inhaled. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse. Remove pets, birds and cover fish aquaria before spraying.

Environmental Hazards

This pesticide is extremely toxic to fish. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when cleaning equipment or disposing of equipment washwater.

This product is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply this product or allow it to drift to crops or weeds on which bees are actively foraging. Additional information may be obtained from your Cooperative Extension Service. Apply this product only as specified on this label.

Physical or Chemical Hazards

Do not use or store near heat or open flame. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

DIRECTIONS FOR USE

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

SHAKE WELL BEFORE USE.

Do not allow people or pets in treated areas until sprays have dried.

Do not apply by air.

Do not allow spray treatment to drift onto pastureland, cropland, poultry ranges or water supplies. Do not use on crops used for food, forage or pasture.

GENERAL USE DIRECTIONS:

Mixing Instructions: This is an easy-to-apply product that can be used to control nuisance insects. Apply with hand pressurized or power operated sprayers. Carefully measure and mix the amount of product and water as directed. Where appropriate, measure the area to be treated by measuring the length and the width then multiply to determine the square footage of the area. When mixing, fill the application equipment with half of the water first and then measure and add the appropriate amount of Permanone 10 followed by the remaining water. Shake or stir thoroughly to mix the product and water. Thorough spray coverage is necessary but do not allow run-off.

For maximum effectiveness, a combination of localized application and space treatment is recommended.

Do not use in food areas of food-handling establishments, restaurants or other areas where food is commercially prepared or processed. Do not use in serving areas while food is exposed or facility is in operation. Serving areas are areas where prepared foods are served such as dining rooms, but excluding areas where foods may be prepared or held. In the home, remove or cover all food processing surfaces and utensils during treatment or thoroughly wash before use. Remove or cover exposed food prior to treatment.

NON-FOOD/FEED AREAS include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage (after canning or bottling).

Dilution rates on this label will yield the following ready-to-use product:

Rate	Ounces of Concentrate	
	Per Gallon	% Permethrin
1:19	6.4	0.50%
1:39	3.2	0.25%
1:100	1.28	0.10%
1:200	0.64	0.05%
1:400	0.32	0.025%

The number following the dilution directions on this label refers to the ready-to-use Permethrin level.

INDOOR USE

SURFACE SPRAY: For initial cleanup of severe insect infestation, dilute at a rate of 1 part concentrate in 19 parts water (6.4 ounces per gallon) (0.5%).

For normal infestations and maintenance, dilute 1 part concentrate in 39 parts water (3.2 ounces per gallon) (0.25%).

TO CONTROL **Cockroaches, Waterbugs, Palmetto Bugs, Ants, Silverfish, Firebrats, Spiders, Crickets, Millipedes, Clover Mites, Cheese Mites, Granary Weevils, Rice Weevils, Confused Flour Beetles, Rust Red Flour Beetles, Saw-Toothed Grain Beetles, Spider Beetles, Cigarette Beetles, Drugstore Beetles, Mealworms, Grain Mites and Cadelles**, use a good sprayer adjusted to deliver a coarse wet spray. Direct the spray into hiding places, cracks and crevices, under pallets, around containers of stored foods, around the base of machinery, and behind shelves and drawers. Spray bookcases for silverfish. Spray ant trails, nests and points of entry. If surface application only is to be used, spray floors, walls and other surfaces applying at a rate of 1 gallon to 750 square feet.

Wasps, Hornets, Yellow Jackets, Bees: Application should be made in the late evening when insects are at rest. Spray liberally into hiding and breeding places, especially under attic rafters, contacting as many insects as possible.

TO CONTROL **Centipedes, Ground Beetles, Pillbugs, Sowbugs, Scorpions and Ticks** - Apply around doors and windows and other places where these pests may enter premises. Treat baseboards, storage areas and other locations where these pests are found.

TO CONTROL **Fleas and Ticks** - Remove pet bedding and destroy or clean thoroughly. Spray pet resting quarters. Adult fleas and larvae contacted by spray will be killed. Put fresh bedding down once spray has dried. Spray rugs and carpets where infestations are bad. Test delicate fabrics in an inconspicuous area prior to use.

TO KILL **Fleas and Ticks ON DOGS** - Dilute 1 part concentrate to 100 parts water (1.28 ounces per gallon). Using protective gloves (mitts), wet the animal by dipping or spraying. Reapply every 30 days, if necessary.

Do not use on dogs under 12 weeks old. Consult a veterinarian before using this product on medicated, debilitated, aged, pregnant or nursing animals. Sensitivities may occur after using ANY pesticide product for pets. If signs of sensitivity occur, bathe your pet with mild soap and rinse with large amounts of water. If signs continue, consult a veterinarian immediately.

To Kill Cockroaches [(Including American cockroach, Oriental cockroach, German cockroach and smokybrown cockroaches)] (Waterbugs), Crickets, Silverfish (Firebrats), Centipedes, Millipedes, Earwigs, fleas, scorpions, termites, ticks, bedbugs, Sowbugs (Pillbugs), Spiders (Including black widow, brown (recluse or violin), hobo and funnel web), Ants (Including Pharaoh, carpenter, fire ant), dilute 1 part concentrate in 39 parts water (3.2 ounces per gallon) (0.25%). Spray into hiding places, cracks and crevices, behind baseboards, shelves and drawers under sinks, refrigerators and similar areas contacting as many insects as possible.

TREATMENT OF FLYING INSECTS RESTING PLACES - To aid in control of **Mosquitoes, Gnats, Skippers**, treat walls, ceilings, moldings, screens, door frames, window frames, beams, light cords and similar resting places using a dilution of 1:19 (0.5%).

TO CONTROL **Carpet Beetles** - Spray edges of carpeting and under carpeting and rugs. Make localized application to floor and baseboards. Spray directly into cracks, closets and infested areas of shelving.

TO CONTROL **Bedbugs** - Spray mattresses lightly, particularly around tufts and seams. Take bed apart and spray in all joints. Treat baseboards, moldings and floors. Allow all treated articles to thoroughly dry before use.

TO CONTROL **Clothes Moths** - Remove any infested articles from storage, brush thoroughly and air for several hours in sunlight, if possible. Apply spray liberally to empty chests, closets, bureaus

and other storages directing the spray into cracks, joints and crevices. After airing, infested articles may be treated lightly, keeping nozzle at least three feet from fabric to avoid staining.

TO KILL Lice and Louse Eggs - Spray in an inconspicuous area to test for possible staining or discoloration. Inspect again after drying, then proceed to spray entire area to be treated. Spray from a distance of 8 to 10 inches. Treat only those garments and parts of bedding, including mattresses and furniture that cannot be either laundered or dry cleaned. Allow all treated articles to dry thoroughly before use.

SPACE SPRAY: For initial clean out of severe insect infestation, dilute at a rate of 1 part concentrate to 19 parts water (6.4 fluid ounces per gallon) (0.5%). For normal infestations and maintenance, dilute 1 part concentrate in 39 parts water (3.2 ounces per gallon) (0.25%). Apply with mechanical or compressed air equipment (non-thermal) adjusted to deliver a fine mist. Close doors and windows and shut off ventilating systems. For rapid control of **Houseflies, Fruit Flies, Gnats, Mosquitoes, Skipper Flies, Black Flies, Angoumois Grain Moths** and **Tobacco Moths**, direct spray at an upward angle distributing it uniformly through the entire area at a rate of 1 ounce per 1,000 cu. ft. of space. Keep area closed for at least 10 minutes. Vacate areas after treatment and ventilate and sweep up dead insects before reoccupying.

For rapid kill of exposed or accessible stages of other insects named on this label, apply using conventional, mechanical or compressed air equipment (non-thermal), following directions for space spraying. Apply the above dilutions at a rate of 1 ounce per 1,000 cu. ft. of space.

ORNAMENTAL PLANTS:

Mix 0.32 ounce in 1 gallon of water. Do not use more Permanone 10 than recommended, as this may cause some plant injury. Use this dilution unless other instructions are given.

To protect plants in indoor landscaping, spray directly on insects. In the home, remove infested plants from living areas prior to application. Spray plants in an area not likely to be occupied by children or pets (particularly fish). When leaves dry, plants can be returned to original location. Use with care on ferns, palms and fuchsia. As with all plants, especially carnations, chrysanthemums and roses, there exist a wide variety of species and cultivars and therefore, a wide variety of susceptibility to injury. To ascertain possible phytotoxicity, spray a few plants as described above, wait 24 hours, and check for possible injury. Repeat applications may be necessary to control citrus black flies on non-bearing citrus and adult Japanese beetles on roses.

Plants	Insects
Ageratum, Arizona cypress, aster, azalea, begonia, coleus, common ninebark, connon snowberry, elm, exacum euonymous, English ivy, gladiolus, gold bells, hypoestes, ivy, lilac, marigold, mock orange, nannyberry, orchid, palm pansy, pea shrub, petunia, philodendron, poinsettia, rhododendron, rose, snapdragon, taxus, wax plants, weeping fig, zinnia	Aphids, bagworms, cicadas, corn earworms, fall cankerworms, inchworms, leafminers, leafrollers, mealybugs, spider mites, exposed thrips, whiteflies
Chrysanthemums	Armyworms, cabbageworms, cutworms, leafrollers
Velvet plants	Fungus gnats

OUTDOOR USE:

HOSE-END SPRAYER USE DIRECTIONS:

Mixing Instructions: Fill sprayer bottle halfway with water, then add 4 ounces of Permanone 10 to spray bottle. Add water to fill bottle. Shake well. Attach to hose and follow these simple instructions.

1. Make sure the hose-end sprayer is firmly connected to the hose.
2. Make sure the sprayer is in the OFF position. Turn water supply on at the faucet. For best results, turn hose faucet to maximum. Water pressure will build in the hose.
3. To apply product, turn the control valve to the ON position. Water and product are now being mixed at the proper rate.

LAWNS: TO CONTROL *Ants, Armyworms, Chiggers, Chinch Bugs, Crickets, Cutworms, Fleas, Grasshoppers, Mosquitoes, Sod Webworms, Sowbugs* and *Ticks*, spray when pests first appear. For *Sod Webworms*, delay watering or mowing the treated area for 12 to 24 hours after treatment.

Spray grass starting at the edge of the lawn furthest from the faucet. Walk backwards away from spray mist toward faucet. This avoids contact of shoes and hose with treated grass. Always point sprayer away from body. Use when wind is calm to avoid splash back. Do not spray on a windy day. Sweep sprayer left and right to ensure an even coverage. Apply entire contents evenly over 1000 square feet of lawn.

To stop spraying, turn the control valve to the OFF position. Turn off water at the faucet. To relieve water pressure in hose, turn control valve to the ON position before removing from the garden hose.

ALLOW SPRAY TO THOROUGHLY DRY ON LAWN BEFORE PERMITTING ANIMALS OR CHILDREN TO ENTER TREATED AREA.

WHEN/WHERE TO SPRAY: To avoid drift, spray on calm days. DO NOT spray near fish ponds, streams or rivers as this product is toxic to aquatic life. DO NOT spray plants in the middle of the day in hot summer weather (i.e. above 85°F) as spray may burn the plants. For best results, spray when insects or damage are first observed.

Ornamentals and Hedges: To Control *Aphids, Bagworms, Eastern Tent Caterpillar, Fall Webworms, Grasshoppers, Mites, Mosquitoes, Orange Striped Oakworm, Spittle Bugs, Whiteflies, Yellownecked Caterpillar, Cutworms, Leafhoppers, Mealybugs, Mimosa Webworms, Redhumped Caterpillar* and *Thrips (Exposed)*: Apply spray thoroughly to all parts of hedges and bushes. Be sure to cover trunks, branches, inside and outside leaves. When spraying leaves, be sure to spray both upper and lower surfaces. Spray to penetrate dense foliage but avoid over spraying to the point of excessive runoff. To prevent being hit by spray, do not apply to overhead areas. Treat when pests appear and repeat at 7 to 10 day intervals, if needed.

PERIMETER: Spray surfaces of barns, dairies, poultry houses, swine and livestock housing and feedlots to control *Houseflies, Stable Flies* and other manure breeding flies. Also aids in control of *Cockroaches, Ants, Spiders, Mosquitoes, Crickets* and *Face Flies*. Walk and spray at a steady pace. Spray walls and surfaces thoroughly but do not allow runoff to occur. Do not contaminate animal feed or water by spray.

FOR TEMPORARY REDUCTION OF ANNOYANCE FROM *Flies, Gnats* and *Mosquitoes*. In drive-in restaurants, drive-in theaters, golf courses, urban areas, parks, playgrounds and other recreational areas, dilute 1 part concentrate in 39 parts water (3.2 fluid ounces per gallon) (0.25%). Direct the spray into tall grass, shrubbery and around lawns, where these pests may hover or rest. Apply while the air is still and avoid wetting foliage. Application should be made prior to occupancy.

Termites and Carpenter Ants: (localized only). Apply to voids or channels in damaged wood of a structure, or to cracks, crevices and spaces in and between wooden portions of a structure or

between wood and the foundation, in locations vulnerable to attack such as crawl spaces. Retreat if needed but not more than once per week.

For **Termites**, the purpose of such applications is to kill workers or winged forms, which may be present in the treated areas at the time of application. Not recommended as sole protection against termites. For active infestations, get a professional inspection. Such applications are not a substitute for mechanical alteration, soil treatment or foundation treatment but are merely a supplement. For active termite infestation, contact a professional pest control operator in your area.

IN THE TREATMENT OF CORRALS, FEEDLOTS, SWINE LOTS AND ZOOS: Cover any exposed water, drinking fountains and animal feed before applications. Fill the area with mist and direct the spray into tall grass, shrubbery and around lawns where the above pests may hover or rest. Apply while the air is still and avoid wetting foliage. In zoos, prevent exposure of reptiles to the product.

ORNAMENTAL PLANTS: To protect ornamental plants including trees, shrubs, flowers, evergreens, foliage plants and ground covers, use as a contact and residual spray. Spray at the first sign of insects. Apply in the late afternoon or evening when the temperature ranges from 50°F to 80°F and when there is little or no wind. Spray at 4 to 8 day intervals if insect activity continues. Wet the plants thoroughly, but avoid runoff or dripping. Try to hit underside of leaves. Do not use more product than recommended as this may cause some plant injury.

Plants	Insects
Ageratum, Arizona cypress, aster, azalea, begonia, coleus, common ninebark, common snowberry, elm, exacum euonymous, English ivy, gladiolus, gold bells, hypoestes, ivy, lilac, marigold, mock orange, nannyberry, orchid, palm pansy, pea shrub, petunia, philodendron, poinsettia, rhododendron, rose, snapdragon, taxus, wax plants, weeping fig, zinnia	Aphids, bagworms, cicadas, corn earworms, fall cankerworms, inchworms, leafminers, leafrollers, mealybugs, spider mites, exposed thrips, whiteflies

ORNAMENTAL TREES - Use sufficient spray to obtain full coverage of all foliage. Avoid heavy wetting.

Plants	Insects
Birch	leafminers
Cherry & honeysuckle	fall webworms
Conifers	budworms
Douglas and Grand firs	tussock moths
Elm	elm leaf beetle, elm spanworms, fall webworms
Non-bearing citrus	citrus black flies
Oak	oakworms
Pine	pine moths, pine needle miners, pine beetles, needle scales
Tulip poplar	aphids

NUISANCE PESTS IN OUTDOOR AREAS:

For severe infestation, dilute 1 part concentrate in 19 parts water (6.4 oz per gallon of water) (0.5%) and treat 400 linear feet with a 6-inch spray band. For normal infestations, dilute 1 part concentrate in 39 parts water (3.2 oz per gallon) (0.25%).

Insects

Ants, crickets, earwigs,
fleas, ticks

Directions

For localized infestations of these insects in areas where there are weeds or bushy non-crop areas, spray infested areas thoroughly. For ants, thoroughly wet hills and runways.

Tent Caterpillars

Apply when caterpillars are young and tents are first noticed. For best results, apply in the late afternoon or evening, when caterpillars have returned to their tents. Wet tents on all sides. A few caterpillars may be seen escaping from the tent, however, they should die within several hours.

Outside Surfaces of Buildings:

Ants, clover mites,
crickets, earwigs,
millipedes,
sowbugs (pillbugs)

To help prevent infestation of buildings, treat the building foundation to a height of 2 to 3 feet where pests are active and may find entrance. Also, apply as a residual spray to outside surfaces of buildings, patios, garages and other areas where these pests may be found.

Flies (cluster, house),
gnats, flying moths,
mosquitoes

As an aid in reducing annoyance from these insects, spray outside surfaces of screens, doors, window frames or wherever these insects may enter the home. Also treat surfaces around light fixtures on porches, in garages and other places where these insects alight.

LAWNS:

Use on Bent, Bermuda, Bluegrass, Dichondra, Fescue, Irish Moss, Merion and St. Augustine lawns.

Insects

Armyworms, ticks,
cutworms, chinch bugs,
fleas, sod webworms

Directions

Thoroughly wet down grass a few hours before applying. Home lawns should be no taller than 3 inches at time of application. Mix 3.2 fl. oz. per gallon of water and treat 1,000 sq. ft. Slightly more water may be used as long as the amount of product per area is the same. Delay watering or mowing for 24 hours after treatment. For heavy infestations, repeat application after 2 weeks.

Japanese beetle grubs,
mole crickets

Lawns should be no taller than 3 inches at the time of application. Mix 1.28 fl. oz. per gallon of water and treat 1,000 sq. ft. Slightly more water may be used as long as the amount of product per area is the same. Irrigate with ¼ inch of water immediately after application. For heavy infestations, repeat application after 2 weeks.

Ants, crickets,
grasshoppers

Thoroughly wet down grass a few hours before applying. Home lawns should be no taller than 3 inches at time of application. Mix 1.28 fl. oz. per gallon of water and treat 1,000 sq. ft. Slightly more water may be used as long as the amount of product per area is the same. For heavy infestations, repeat application after 2 weeks.

Fire Ants

Mix 6.4 fl. oz. in 1 gallon of water. Apply at the rate of one gallon per mound as a gentle rain from a typical garden sprinkling can. Thoroughly wet the mound and surrounding area to a diameter of 4 feet. 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. Do not disturb the mound prior to treatment. Treat all mounds in the vicinity and treat all colonies which have not yet constructed mounds. Do not use equipment that produces a pressurized spray since this will disturb fire ants and cause migration, reducing product effectiveness.

TREES & SHRUBS:

Mix 1 fl. oz. in 3 gallons of water. Spray at the first sign of insects. Wet leaves and branches to the point of dripping. Try to penetrate dense foliage. Treat in late afternoon or evening when temperatures range from 50° - 75°F and when there is little or no wind. Repeat every 4 to 8 days if needed. Application can be made up to the day of collection.

Plants	Insects
Arizona cypress, azalea, birch, ornamental cherry, non-bearing citrus, conifers, elm, English ivy, euonymus, weeping fig, fir, honeysuckle, lilac, mock-orange, oak, palm, philodendron, pine, poinsettia, tulip, poplar, rhododendron, taxus	Aphids, bagworms, cicadas, fall cankerworms, fall webworms, inchworms, leafminers, leafrollers, mealybugs, spider mites, thrips (exposed), whiteflies
Conifer	Budworms
Elm	Elm leaf beetles, elm spanworms, fall webworms
Douglas and grand fir	Tussock moths
Non-bearing citrus	Citrus black flies
Oak	Oakworms
Pine	Pine beetles, pine moths, pine needleminers, needle scales

	parts water) (0.50%). For normal infestations, dilute at a rate of 3.2 oz per gallon of water (1 part concentrate to 39 parts water) (0.25%).	about 1 ounce per 1,000 cubic feet of space. For best results, close doors and windows before spraying and keep closed for ten to fifteen minutes. Vacate the treated area and ventilate before reoccupying.
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PESTS ON SWINE AND POULTRY (Do not ship swine for slaughter within 5 days of last treatment)

Mange Mites	Dilute 1.28 oz per gallon of water (1 part concentrate to 100 parts water) (0.10%)	Spray, dip or sponge animals. Retreat after 14 days, spraying walls and floor space and bedding to kill late hatching, developing stages.
Blowflies, Flies, Mosquitoes, Hog Lice, Fleas, Ticks (including Deer Tick which may carry Lyme disease)	Dilute 1.28 oz per gallon of water (1 part concentrate to 100 parts water) (0.10%)	Spray, dip or sponge to apply 1 pint per pig, especially around ears.
Poultry Mites, Northern Fowl Mites and Lice	Dilute 1.28 oz per gallon of water (1 part concentrate to 100 parts water) (0.10%)	Spray at the rate of 1 gal per 100 birds, with a fine mist. Spray roosts, walls and nests or cages.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.
Storage: Store in a cool, dry place away from heat or open flame. Avoid extremes in temperature.
Pesticide Disposal: Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.
Container Disposal: *Non-refillable container. Do not reuse or refill this container.* Triple rinse or equivalent then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other approved State and local procedures.

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. 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 Valent BioSciences Corporation. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, VALENT BIOSCIENCES CORPORATION MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Valent BioSciences Corporation is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Valent BioSciences Corporation disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

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