

WISDOM[®] 2EC[™]

Insecticide/Miticide

Intended for use by authorized individuals and/or firms licensed or registered by their local State or Regulatory Agency to apply termiticide products in that state. States may have more restrictive requirements regarding qualifications of persons applying this product and/or termiticide products. Individuals are advised to consult with the appropriate structural pest control regulatory agency of your State or the application regulations thereof prior to use of this product.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS.

Intended for use by professional lawncare applicators.

ACTIVE INGREDIENT:

Bifenthrin

(2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-
2,2-dimethyl-cyclopropanecarboxylate* 25.1%

INERT INGREDIENTS** 74.9%

TOTAL 100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

** Contains xylene range aromatic solvents.

Wisdom 2EC Insecticide/Miticide contains 2 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN WARNING/AVISO

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

SEE (SIDE) (BACK) PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE.

EPA Reg. No. 5481-592

EPA Est. No. _____

Net Contents: _____



AMVAC Chemical Corporation
4100 E. Washington Blvd.
Los Angeles, CA 90023 U.S.A.
1-888-462-6822

FIRST AID	
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 a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
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.
<p>Note to Physician: This product is a pyrethroid. This product also contains aromatic hydrocarbons. Because of the risk of hydrocarbon pneumonitis if even tiny amounts are aspirated into the lung during emesis, consideration should be given to gastric lavage with endotracheal tube in place. Treatment is symptomatic and supportive. Animal and vegetable fats, milk, cream and alcohol may increase absorption and should not be administered.</p>	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY: For Medical Emergencies, phone:1-888-681-4261 For Transportation Emergencies, including spill, leak or fire, phone: CHEMTREC®1-800-424-9300 For Product Use Information phone: AMVAC®1-888-462-6822</p>	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING: Contains petroleum distillate. May be fatal if swallowed. Causes moderate eye injury. Do not get in eyes or on clothing. Harmful if inhaled or absorbed through skin. Avoid breathing vapor or spray mist and contact with skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. User should remove clothing/PPE immediately if pesticide gets inside. Then, wash thoroughly and put on clean clothing. User should remove PPE immediately after handling this product. Wash outside of gloves before removing, and wash thoroughly and change into clean clothing as soon as possible. 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.

All pesticide handlers (mixers, loaders, and applicators) must wear long-sleeved shirt, pants, or coveralls (worn over a minimum of short-sleeved shirt and short pants), socks, chemical-resistant footwear, chemical-resistant gloves and protective eyewear. After the product is diluted in accordance with label directions for use, and/or when mixing and loading using a closed spray tank transfer system, or an in-line injector system, shirts, pants, socks, shoes and waterproof gloves are sufficient. In addition, all pesticide handlers must wear a respiratory protection device (NIOSH-approved respirator with any R, P, or HE filter, or a NIOSH-approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE prefilter) when handling the concentrate or when working in a non-ventilated space. All pesticide handlers must wear protective eyewear when working in a non-ventilated space or applying termiticide by rodding or sub-slab injection.

When treating adjacent to an existing structure as a soil termiticide, the applicator must check the area to be treated and the immediately adjacent areas of the structure, for visible and accessible cracks and holes to prevent any termiticide solution leaks or significant exposures to persons occupying the structure. People present or residing in the structure during application must be advised to remove their pets and themselves from the structure if they see any signs of leakage. After application, the applicator is required to check for leaks. All leaks resulting in the deposition of termiticide solution within locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy

contaminated areas of the structure until the clean-up is completed.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, where runoff into such water is likely to occur, or to intertidal areas below the mean high water mark. Rinsing application equipment over the treated area will help avoid runoff to water bodies or drainage systems. Do not apply when weather conditions favor drift from treated areas or if rain is predicted within the next 24 hours. Care should be used when spraying to avoid contamination by spray application to waters inhabited by fish and reptile pets in or around ornamental ponds.

Do not apply this product or allow it to drift to blooming crops or weeds if bees are foraging the treatment area.

Physical/Chemical Hazards

Combustible. Do not use or store near heat or open flame.

Do not apply 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.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS.

Do not apply by air.

Do not use in greenhouses or nurseries.

Do not apply this product through any kind of irrigation system.

Not for use on sod farm turf, golf course turf or grass grown for seed.

Do not water treated area to the point of run-off.

Do not make applications during rain.

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, if allowed elsewhere on this label:

1. Applications to soil or vegetation, as listed on this label, around structures;
2. Applications to lawn, 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 undersides 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 the 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.

Product Use Information

Do not use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use only on plants intended for aesthetic purposes or climate modification and being grown in ornamental parks and gardens, interior plantscapes, or lawns and grounds.

Control of Wood-Infesting Insects in Wood (Localized Areas in Structures)

Insects	Application Rate	Remarks
Ants Carpenter Ants Termites Wood-infesting beetles (including but not limited to Old House Borer & Powder Post beetles)	Apply a 0.06% dilution to voids and galleries in damaged wood and in spaces between wooden members of a structure and between wood and foundations where wood is at risk.	Can be applied as a paint or fan spray. Place plastic sheeting under overhead areas that are spot treated except for soil surfaces in crawl spaces. Areas to which access is difficult can be treated by drilling, and then injecting dilution with a crack and crevice injector into the damaged wood or void spaces. (Not intended as a replacement for soil treatment, mechanical alteration or fumigation to control widespread infestation of wood-infesting insects.

Controlling termite carton nests in building voids can be accomplished by injecting with a 0.06% dilution. To obtain control, various depths of injection and numerous injection points may be needed. After treatment is complete and when feasible, remove the carton nest material from the building void.

To control Bees, Wasps, Hornets, and Yellow-Jackets, apply a 0.06% dilution late in the evening or when insects are at rest. Direct the spray at nest openings in the ground, bushes, and in cracks and crevices, where the insects may nest. Saturate the openings and contact as many insects as possible.

Important: Locate, identify, and mark wells, electrical conduits, water and sewer lines, and radiant heat pipes prior to application of Wisdom 2EC Insecticide/Miticide. Do not puncture or inject Wisdom 2EC Insecticide/Miticide into such structures. Do not apply into electrical fixtures, switches or sockets.

In the home, all food processing surfaces and utensils in the treatment area must be covered during treatment or thoroughly washed before re-use. Remove pets, birds, and cover aquariums before spraying. Do not permit humans or pets to contact treated surfaces until the spray has dried.

During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials (except where exempt).

Wear protective clothing, unvented goggles, gloves and respirator, when applying to overhead areas or in poorly ventilated areas. Avoid touching sprayed surfaces until spray has completely dried.

Do not use in food/feed areas of food/feed handling establishments, restaurants or other areas where food/feed 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 food may be prepared or held.

In the home, cover all food handling surfaces and cover or remove all food and cooking utensils, or wash thoroughly after treatment. Non-food/feed areas of food/feed areas are areas such as garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets, and storage (after bottling or canning).

Not for use in Federally Inspected Meat and Poultry Plants.

Control of Wood-Infesting Insects and Nuisance Pests (Outside of Structures)

In order to control wood-infesting insects active inside trees, utility poles and/or fences, a 0.06% dilution should be injected into the infested cavity, which can be found by drilling into the wood. If treating nuisance pests on the exterior of the structure, use a fan spray at a maximum pressure of 25 p.s.i. and apply up to the point of runoff. To

control Bees, Wasps, Hornets, and Yellow-Jackets, apply late in the evening. Direct the spray at nest openings in the ground, bushes, and in cracks and crevices, where the insects may nest. Saturate the openings and contact as many insects as possible.

Pests under Slabs, in Crawl Spaces and Other Such Areas

To control infestations of arthropods (e.g., ants, cockroaches, scorpions and spiders) that live beneath slabs, in crawl spaces and other such areas, drill or horizontally rod and inject 1 gallon of a 0.06% to 0.12% dilution per 10 square feet or 2 gallons of dilution per 10 linear feet. Direct or residual applications may be made using a suitable application device such as a compressed air sprayer to pests and/or the areas where these pests may harbor or travel. Refer to application and solution mix rates located elsewhere on this label.

Attention

Do not apply to pets, crops, or sources of electricity.

Do not treat firewood

Use only in well ventilated areas.

During any application to overhead areas of structure, cover surfaces below with plastic sheeting or similar material (except where exempt).

Do not allow spray to contact food, foodstuffs, food contacting surfaces, food utensils or water supplies.

Do not treat areas where food is exposed.

Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated by application of this product.

During indoor surface applications do not allow dripping or run-off to occur.

General Application Instructions

Wisdom 2EC Insecticide/Miticide mixes readily with water and other aqueous carriers, and controls a wide spectrum of insects and mites on trees, shrubs, foliage plants, non-bearing fruit and nut trees, and flowers in interior landscapes including hotels, shopping malls, office buildings, etc. and outdoor landscapes, such as around residential dwellings, parks, institutional, recreational, athletic fields and home lawns. Non-bearing crops are perennial crops that will not produce a harvestable raw agricultural commodity during the season of application.

Wisdom 2EC Insecticide/Miticide may be tank-mixed with other products, including insect growth regulators. When tank mixing Wisdom 2EC Insecticide/Miticide with other products, observe all precautions and limitations on each separate product label. The addition of spreader stickers is not necessary. The physical compatibility of Wisdom 2EC Insecticide/Miticide may vary with different sources of pesticide products and local cultural practices. Any tank mixture which has not been previously tested should be prepared on a small scale (such as a pint or quart jar quantity), using the proper proportions of product concentrates and water to ensure the physical compatibility of the mixture.

The following procedure is recommended for preparation of a new tank mix, unless specified otherwise in label directions:

(1) Add wettable powders to tank water, (2) Agitate, (3) Add liquids and flowables, (4) Agitate, (5) Add emulsifiable concentrates, and (6) Agitate. If a mixture is found to be incompatible following this order of addition, try reversing the order of addition, or increase the volume of water. **Note:** If the tank mixture is found to be compatible after increasing the amount of water, then the sprayer will need to be recalibrated for a higher volume application. Do not allow tank mix to stand overnight.

APPLICATION RECOMMENDATIONS

Lawns

Wisdom 2EC Insecticide/Miticide solution may be used as a broadcast treatment. To accomplish uniform control when applying to dense grass foliage, use volumes of up to 10 gallons per 1,000 square feet being treated.

For low water volume usage, less than 2 gallons/1,000 square feet, addition of a non-ionic or silicone based surfactant (0.25% v/v) is recommended, as is immediate irrigation of treated area with at least 0.25 inch of water following application to ensure efficacy against sub-surface pests such as, but not limited to, Mole Crickets.

LAWN APPLICATION RATES

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, Wisdom 2EC may be applied at up to 0.33 fl. oz. per 1,000 square feet to control each of the pests listed in this Table. The higher application rates should be used when maximum residual control is desired.

Pest	Application Rate Wisdom 2EC
Armyworms ¹ Cutworms ¹ Sod Webworm ¹	0.06-0.083 fluid oz. per 1,000 sq. ft.
Annual Bluegrass Weevil (<i>Hyperodes</i>) (Adult) ² Banks Grass Mite ³ Billbugs (Adult) ⁴ Black Turfgrass Ataenius (Adult) ⁵ Centipedes Chinch Bugs ⁶ Crickets Earwigs Fleas (adult) Grasshoppers Leafhoppers Mealybugs Millipedes Mites ³ Pillbugs Sowbugs	0.083-0.167 fluid oz. per 1,000 sq. ft.
Ants Crane Fly larvae ⁷ Fleas (Larvae) ⁸ Imported Fire Ants ⁹ Japanese Beetle (Adult) Mole Cricket (Adult) ¹⁰ Mole Cricket (Nymph) ¹¹ Ticks ¹²	0.167-0.33 fluid oz. per 1,000 sq. ft.

In New York State, this product may NOT be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).

In New York State, do make a single repeat application of Wisdom 2EC Insecticide/Miticide if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

Comments

¹**Armyworms, Cutworms and Sod Webworms:** To ensure optimum control, delay watering (irrigation) or mowing for 24 hours after application. If the grass area is being maintained at a mowing height of greater than 1 inch, then higher application rates (up to 0.33 fluid oz. per 1,000 square feet) may be required during periods of high pest pressure.

²**Annual Bluegrass Weevil (*Hyperodes*) adults:** Applications should be timed to control adult weevils as they leave their overwintering sites and move into grass areas. This movement generally begins when *Forsythia* is in full bloom and concludes when flowering dogwood (*Cornus florida*) is in full bloom. Consult your State Cooperative Extension Service for more specific information regarding application timing.

³**Mites:** To ensure optimal control of eriophyid mites, apply in combination with the labeled application rate of a surfactant. A second application, five to seven days after the first, may be necessary to achieve acceptable control.

⁴**Billbug adults:** Applications should be made when adult billbugs are first observed during April and May. Degree day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate regions, spring applications targeting billbug adults will also provide control of over-wintered chinch bugs.

⁵**Black Turfgrass Ataenius adults:** Applications should be made during May and July to control the first and second generation of black turfgrass ataenius adults, respectively. The May application should be timed to coincide with the full bloom stage of Vanhoutte spiraea (*Spiraea vanhouttei*) and horse chestnut (*Aesculus hippocastanum*). The July application should be timed to coincide with the blooming of Rose of Sharon (*Hibiscus syriacus*).

⁶**Chinch Bugs:** Chinch bugs infest the base of grass plants and are often found in the thatch layer. Irrigation of the grass area before treatment will optimize the penetration of the insecticide to the area where the chinch bugs are located. Use higher volume applications if the thatch layer is excessive or if a relatively long mowing height is being maintained. Chinch bugs can be one of the most difficult pests to control in grasses and the higher application rates (up to 0.33 fluid oz. per 1,000 square feet) may be required to control populations that contain both nymphs and adults during the middle of the summer.

⁷**Crane Fly larvae:** Applications should target early- to mid-stage larvae. Applications targeting late-stage larvae may only provide suppression. Two species of crane flies damage turfgrass. *Tipula paludosa* has one generation per year and adults emerge in late summer. Early- to mid-stage larvae of this species are present from late summer through mid-winter. Late-stage larvae, which are more difficult to control, are present from mid-winter through spring. *T. oleracea* has two generations per year. The timing of one of its generations coincides with that of *T. paludosa*. Adults of *T. oleracea* also emerge in the spring and produce a summer generation of larvae.

⁸**Flea Larvae:** Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. Use a higher volume application when treating these areas to ensure penetration of the insecticide into the soil. **Note:** If the lawn area is being treated with Wisdom 2EC at 0.083 fluid oz. per 1,000 square feet for adult flea control, then the larval application rate may be achieved by increasing the application volume two- to four-fold.

⁹**Imported Fire Ants:** Control will be optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound drenches that will control existing colonies. If the soil is not moist, then it is important to irrigate before application or use a high volume application. Broadcast treatments should apply 0.33 fluid oz. per 1,000 square feet. Mounds should be treated by diluting 1 teaspoon of Wisdom 2EC per gallon of water and applying 1 to 2 gallons of finished spray per mound. The mounds should be treated with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. A four foot diameter circle around the mound should also be treated. For best results, apply in cool weather (65-80°F) or in early morning or late evening hours. **Note:** A spray rig that is calibrated to apply 0.33 fluid oz. per 1,000 square feet of Wisdom 2EC in 5 gallons per 1,000 square feet contains the approximate dilution (1/3 teaspoon per gallon) that is required for fire ant mound drenches in the spray tank.

¹⁰**Mole Cricket adults:** Achieving acceptable control of adult mole crickets is difficult because preferred grass areas are subject to continuous invasion during the early spring by this extremely active stage. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inch of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized. Grass areas that receive pressure from adult mole crickets should be treated at peak egg hatch to ensure optimum control of subsequent nymph populations (see below).

¹¹**Mole Cricket nymphs:** Grass areas that received intense adult mole cricket pressure in the spring should be treated immediately prior to peak egg hatch. Optimal control is achieved at this time because young nymphs are

more susceptible to insecticides and they are located near the soil surface where the insecticide is most concentrated. Control of larger, more damaging, nymphs later in the year may require both higher application rates and more frequent applications to maintain acceptable control. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inch of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized.

¹²**Ticks (Including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever):** Do not make spot applications. Treat the entire area where exposure to ticks may occur. Use higher spray volumes when treating areas with dense ground cover or heavy leaf litter. Ticks may be reintroduced from surrounding areas on host animals. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed activity. Repeat application must be limited to no more than once per seven days.

Deer Ticks (*Ixodes sp.*) have a complicated life cycle that ranges over a two year period and involves four life stages. Applications should be made in the late fall and/or early spring to control adult ticks that are usually located on brush or grass above the soil surface and in mid to late spring to control larvae and nymphs that reside in the soil and leaf litter.

American dog ticks may be a considerable nuisance in suburban settings, particularly where homes are built on land that was previously field or forest. These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Applications should be made as necessary from mid-spring to early fall to control American dog tick larvae, nymphs and adults.

Wisdom 2EC Lawn Dilution Chart

Application Volume: Gallons per 1,000 sq. ft.	Application Rate: Fluid Ounces per 1,000 sq. ft.	Fluid Ounces* of Wisdom 2EC Diluted to these Volumes of Finished Spray			
		1 gallon	5 gallons	10 gallons	100 gallons
1.0	0.06	0.06	0.30	0.60	6.00
1.0	0.083	0.083	0.416	0.83	8.33
1.0	0.16	0.16	0.83	1.66	16.66
1.0	0.33	0.33	1.66	3.33	33.33
2.0	0.06	---	0.15	0.30	3.00
2.0	0.083	0.043	0.21	0.416	4.16
2.0	0.16	0.083	0.416	0.83	8.33
2.0	0.33	0.16	0.83	1.66	16.66
3.0	0.06	---	0.10	0.20	2.00
3.0	0.083	---	0.14	0.276	2.76
3.0	0.16	0.056	0.276	0.556	5.56
3.0	0.33	0.11	0.556	1.11	11.10
4.0	0.06	---	0.076	0.15	1.50
4.0	0.083	---	0.10	0.21	2.10
4.0	0.16	0.043	0.21	0.416	4.16
4.0	0.33	0.083	0.416	0.83	8.33
5.0	0.06	---	0.06	0.12	1.20
5.0	0.083	---	0.083	0.16	1.66
5.0	0.16	0.033	0.16	0.33	3.33
5.0	0.33	0.066	0.33	0.66	6.66
10.0	0.06	---	---	0.06	0.60
10.0	0.083	---	0.043	0.083	0.83
10.0	0.16	---	0.083	0.16	1.66
10.0	0.33	0.033	0.16	0.33	3.33

*To convert to milliliters, multiply by 29.57.

1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Wisdom 2EC.

Ornamental Trees, Shrubs, Flowers and Foliage Plants: Dilute 0.18 to 1.45 fl. oz. of Wisdom 2EC Insecticide/Miticide per 10 gallons of water and apply as a full coverage foliar spray. As foliage and pest pressure increases, repeat application as needed using the higher rates.

ORNAMENTAL APPLICATION RATES

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, Wisdom 2EC may be applied at up to 0.33 fluid oz. per 1,000 square feet (14.5 fl. oz. per 100 gallons) to control each of the pests listed in this Table. The higher application rates should be used when maximum residual control is desired.

Pest	Application Rate Wisdom 2EC	
	Fluid Ounces per 1,000 square feet	Fluid Ounces per 100 gallons
Bagworms ¹³ Cutworms Elm Leaf Beetles Fall Webworms Gypsy Moth Caterpillars Lace Bugs Leaf Feeding Caterpillars Tent Caterpillars	0.042-0.083	1.80-3.60
Adelgids [†] Ants Aphids Bees Beet Armyworm Beetles ^{14, †} Black Vine Weevil (Adults) Brown Soft Scales Broad Mites Budworms California Red Scale (Crawlers) ¹⁴ Centipedes Cicadas [†] Citrus Thrips Clover Mites Crickets Diaprepes (Adults) Earwigs European Red Mite Flea Beetles Fungus Gnats (Adults) Grasshoppers Japanese Beetle (adults) [†] Leafhoppers Leafrollers Mealybugs Millipedes Mites	0.083-0.167	3.60-7.23

Mosquitoes Orchid Weevil Pillbugs Pine Needle Scales (Crawlers) ¹⁴ Plant Bugs (Including <i>Lygus spp.</i>) Psyllids [†] San Jose Scales (Crawlers) ¹⁴ Scorpions Sowbugs Spider Mites ¹⁵ Spiders Spittlebugs [†] Thrips Tip Moths Treehoppers [†] Twig Borers ¹⁴ Wasps Weevils ¹⁴ Whiteflies		
Imported Fire Ants** Leafminers Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Spider Mites ¹⁵	0.167-0.33	7.23-14.50

¹³**Bagworms:** Apply when larvae begin to hatch and spray larvae directly. Applications when larvae are young will be most effective.

¹⁴**Beetles[†], Scale Crawlers, Twig Borers, and Weevils:** Treat trunks, stems and twigs in addition to plant foliage.

¹⁵**Spider Mites:** Wisdom 2EC provides optimal twospotted spider mite control when applied during spring to mid-summer. Higher application rates and/or more frequent treatments may be required for acceptable twospotted spider mite control during mid- to late summer. The addition of a surfactant or horticultural oil may increase the effectiveness of Wisdom 2EC. Combinations of Wisdom 2EC with other registered miticides have also proven effective. Alternately, Wisdom 2EC applications may be rotated with those of other products that have different modes of action in control programs that are designed to manage resistance by twospotted spider mites. Consult your local Cooperative Extension Service for resistance management recommendations in your region.

**For foraging ants.

[†]Not for use in California.

Wisdom 2EC Ornamental Dilution Chart

Application Volume: Gallons per		Application Rate: Fluid ounces per	Fluid Ounces* of Wisdom 2EC Diluted to these Volumes of Finished Spray			
1,000 sq. ft	Acre	1,000 sq. ft	1 gallon	5 gallons	10 gallons	100 gallons
2.3	100	0.042	---	0.09	0.18	1.80
2.3	100	0.083	0.036	0.18	0.36	3.60
2.3	100	0.167	0.073	0.363	0.723	7.23
2.3	100	0.33	0.146	0.723	1.45	14.50
4.6	200	0.042	---	0.046	0.09	0.90
4.6	200	0.083	---	0.09	0.16	1.80
4.6	200	0.167	0.036	0.18	0.363	3.63
4.6	200	0.33	0.073	0.363	0.723	7.23
6.9	300	0.042	---	---	0.06	0.60
6.9	300	0.083	---	0.06	0.12	1.20
6.9	300	0.167	---	0.12	0.24	2.40
6.9	300	0.33	0.05	0.24	0.483	4.83

*To convert to milliliters, multiply by 29.57.

300 gallons per acre is a typical application volume for landscape ornamental applications.

1 fluid oz. = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Wisdom 2EC

Pest Control on Outside Surfaces and Around Buildings

Use Sites	Pests	Rate	Comments
Including, but not limited to: Outdoor siding Foundations Porches Window frames Overhangs and eaves Patios Garages Garbage sites Soil Mulched areas Trunks of woody ornamentals Lawns next to: Private houses Duplexes Townhomes Condos Trailers Apartments Carports Garages Fence rows Utility sheds	Ants (Carpenter Ants and Fire Ants) Armyworms Bees Centipedes Chiggers Chinch Bugs Clover Mites Crickets Cockroaches Cutworms Dichondra Flea Beetles Earwigs European Crane Flies Grasshoppers Hornets Millipedes Mosquitoes Moths Scorpions Sod Webworms Sowbugs (Pillbugs) Spiders (Black Widow Spiders) Springtails Ticks (Brown Dog Ticks)	For a 0.02% dilution mix 1/10 fl. oz. / 1 gal. water (1/10 fl.oz. = 2/3 teaspoon) or 2/3 pint / 100 gallons For a 0.06% dilution mix 1/3 fl. oz. / 1 gal. water (1/3 fl.oz. = 2 teaspoons) or 2 pints / 100 gallons	Apply Wisdom 2EC Insecticide/Miticide as a residual spray using a 0.02 to 0.06% dilution. Do not use household utensils to measure Wisdom 2EC Insecticide/Miticide. For heavy pest infestation, quicker knockdown or longer residual control, use the higher rate. To sustain effectiveness, repeat treatment as needed.

Barns	Wasps		
Residential and noncommercial structures			
Areas where pests gather or have been seen			

Perimeter Treatment: Apply to a 10 foot wide band of soil and vegetation around and adjacent to the structure and treat the foundation of the structure to a height of 3 feet. Use a spray volume of up to 10 gals. of solution per 1,000 sq. ft. If foliage is thick or there is mulch or leaf litter nearby, the higher volumes of water may be necessary. If certain pests such as gypsy moth adults and caterpillars, boxelder bugs, elm leaf beetles, earwigs or silverfish are nearby, application to siding and surfaces where these pests harbor may be necessary.

Applications to vertical exterior surfaces (e.g., foundations) are permitted to a maximum height of 3 feet from ground level. Sections of vertical exterior surfaces that abut non-porous horizontal surfaces can only be treated if either 1) these sections are protected from rainfall and spray from sprinklers or 2) they do not drain into a sewer, storm drain or curbside gutter (e.g., not to sections that abut driveways or sidewalks that drain into streets). The following procedures must be followed to help achieve maximum control of the pest. 1. Treat non-porous surfaces only in areas protected from rainfall and spray from sprinklers with low volume applications using 1 to 2 teaspoons of product per gallon of water and applying this dilution at the rate of 1 gallon per 1,000 square feet.

Wisdom 2EC Perimeter Application Dilution Chart

Application Volume: Gallons per 1,000 sq. ft.	Application Rate: Fluid ounces per 1,000 sq. ft.	Fluid Ounces* of Wisdom 2EC Diluted to These Volumes of Finished Spray			
		1 gallon	5 gallons	10 gallons	100 gallons
1	0.11	0.11	0.556	1.11	11.10
1	0.16	0.16	0.83	1.66	16.66
1	0.22	0.22	1.11	2.22	22.23
1	0.25	0.25	1.25	2.50	25.0
1	0.33	0.33	1.66	3.33	33.33
2	0.11	0.056	0.276	0.55	5.50
2	0.16	0.083	0.416	0.83	8.33
2	0.22	0.11	0.556	1.116	11.16
2	0.25	0.126	0.626	1.25	12.5
2	0.33	0.16	0.83	1.66	16.66
3	0.11	0.036	0.183	0.366	3.66
3	0.16	0.056	0.276	0.556	5.56
3	0.22	0.073	0.37	0.743	7.43
3	0.25	0.083	0.416	0.83	8.33
3	0.33	0.11	0.556	1.11	11.10
4	0.11	---	0.136	0.276	2.76
4	0.16	0.043	0.21	0.416	4.16
4	0.22	0.056	0.28	0.556	5.56
4	0.25	0.063	0.313	0.626	6.26
4	0.33	0.083	0.416	0.83	8.33
5	0.11	---	0.11	0.22	2.23
5	0.16	0.033	0.16	0.33	3.33
5	0.22	0.043	0.22	0.443	4.33
5	0.25	0.05	0.25	0.50	5.00
5	0.33	0.06	0.33	0.66	6.66
10	0.11	---	0.056	0.11	1.10
10	0.16	---	0.083	0.16	1.66
10	0.22	---	0.11	0.22	2.23

10	0.25	---	0.126	0.25	2.50
10	0.33	0.033	0.16	0.33	3.33

*To convert to milliliters, multiply by 29.57.

1 fluid oz. = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Wisdom 2EC.

For Optimal Control of Ants and Fire Ant Mounds use Wisdom 2EC Insecticide/Miticide 0.06% solution as a Mound Drench Method: Sprinkle the mound, using 1-2 gallons of dilution, until it is wet and apply to a 4 foot diameter circle around the mound. When treating mounds larger than 12", use the higher volume. Do not treat in the heat of the day and for optimum results, apply in cool weather, such as in early morning or late evening hours. Incorporating the solution into the mound soil will enhance control results.

Application to Home Lawns: Apply Wisdom 2EC Insecticide/Miticide as a broadcast treatment in 2 to 10 gallons of carrier per 1000 sq. ft. When treating thick grass foliage, use the higher volumes to get complete, uniform coverage.

Attention: Keep children and pets off treated areas following application until the spray has dried.

TRUNK SPRAYS TO ORNAMENTAL TREES

To control *Dendroctonus* bark beetles such as black turpentine beetle, mountain pine beetle, western pine beetle, southern pine beetle, as well as engraver beetles (*Ips* spp.)

Preventative Control: In the spring, or when trees nearby have become infested posing a threat, treat the trunk of the tree with a hydraulic sprayer using a mixture that contains 1 to 2 pints of Wisdom 2EC Insecticide/Miticide per 100 gallons (0.25 to 0.5 lb. ai/100 gallons) of water. Treat the main trunk from the base of the tree to at least halfway into the live crown spraying the tree directly and until the bark is completely wet (usually 1 to 4 gallons of spray per tree). Do not apply more than 0.2 lb. ai (12.8 fl. oz.) of Wisdom 2EC Insecticide/Miticide to trees per acre. If reinfestation is probable it may be necessary to repeat treatment. Depending on certain local variables and target pests, application rates and timing will differ. Check with your local State Extension Specialist or other qualified expert for specific recommendations.

Treatment of Infested Trees: To control emerging brood, treat trees that still have beetles in the bark by using a spray mixture containing 2 pints of Wisdom 2EC Insecticide/Miticide per 100 gallons of water. Treat the main trunk from the base of the tree to at least halfway into the live crown spraying the tree directly and until the bark is completely wet (usually 1 to 4 gallons of spray per tree). Do not apply more than 0.2 lb. ai (12.8 fl. oz.) of Wisdom 2EC Insecticide/Miticide to trees per acre. Trees that have needles that have all turned brown normally have been vacated and should not be treated unless infestation is evident. Scrape off the outer bark to determine whether or not the tree is infested. If trunks are currently infested, fell the infested trees and cut into sections. Spray the trunk and large limbs of the sections thoroughly to treat the entire surface area. Do not apply more than 0.2 lb. ai (12.8 fl. oz.) of Wisdom 2EC Insecticide/Miticide per acre.

To control other beetles such as ambrosia beetles, elm bark beetles and emerald ash borer

Preventative Control: In the early spring or before adult beetle flight and tree infestation, treat the trunk, scaffolding and limbs of the tree with a hydraulic sprayer using a spray mixture containing 1 to 2 pints of the product per 100 gallons (0.25 to 0.5 lb. ai/100 gallons) of water. Spray the tree until the bark is completely wet (usually 6 to 12 gallons of spray per tree). Do not to apply more than 0.2 lb. ai to trees per acre. If reinfestation is probable it may be necessary to repeat treatment. Depending on certain local variables and target pests, application rates and timing will differ. Check with your local State Extension Specialist or other qualified expert for specific recommendations.

Other Borers on Ornamental Trees

To control other boring insects see the table below. Depending on geographic location and environmental

conditions, application rate and timing will differ. Spray the tree until the bark is completely wet (usually 1 to 4 gallons of spray per tree). Do not apply more than 100 gallons of diluted spray mixture to trees on a treated acre. Check with your local State Extension Specialist or other qualified expert for specific recommendations.

Pest	Rate	Comments
Clearwing Moth Borers Ash borer Banded Ash Clearwing Dogwood Borer Lesser Peachtree Borer Lilac Borer Oak Borer	6.4 to 12.8 fl. oz. per 100 gallons	Treat trunks and lower branches before adult emergence.
Coleopteran Borer Bronze Birch Borer Flatheaded Appletree Borer	6.4 to 12.8 fl. oz. per 100 gallons	
For maximum residual control of the above listed pests.	12.8 fl. oz. per 100 gallons	

Resistance: Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state pest management authorities for details. If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and suspect that resistance is a reasonable cause, immediately consult your local company representative or pest management advisor for the best alternative method of control for your area.

STORAGE AND DISPOSAL

Pesticide Storage : Do not freeze or store product below 40°F. If crystals are observed, gradually warm product to above 60°F by placing container in a warmer location. Gently shake or roll container periodically to redissolve solids. Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

In case of spill, isolate area and keep out animals and unprotected persons. Confine spills. Call Chemtrec 1-800-424-9300.

To confine spill: Dike surrounding area or absorb with sand, cat litter or commercial clay. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Disposal

For 1 quart plastic container: Nonrefillable container. Do not reuse or refill this container.

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, or by other procedures approved by State and local authorities.

Distributors Should Deal in Original Packages Only.

Terms of Sale or Use: On purchase of Wisdom 2EC Insecticide/Miticide buyer and user agree to the following

conditions:

LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use, subject to the inherent risks referred to herein, when it is used in accordance with such directions; and (c) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions.

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