

# Adonis™ 2F

## Insect Concentrate

**CONTROLS:** Subterranean Termites, Drywood Termites, Dampwood Termites, Carpenter Ants, And Other Listed Wood-Infesting Insects

**FOR USE ON:** Turfgrass, Landscape Ornamentals, Residential Fruit And Nut Trees And Interior Plantscapes  
For use by individuals/firms licensed or registered by the state to apply termiticide products. States may have more restrictive requirements regarding qualifications of persons using this product. Consult the structural pest control regulatory agency of your state prior to use of this product.

### SPECIMEN LABEL

**ACTIVE INGREDIENTS:**

Imidacloprid: 1-[(6-Chloro-3-pyridinyl) methyl]-N-nitro-2-imidazolidinimine ..... 21.4%

**OTHER INGREDIENTS:** ..... 78.6%

**TOTAL:** ..... 100.0%

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

See inside label booklet for Additional Precautionary Statements.  
PRECAUCION AL USUARIO: Si usted no puede leer o entender ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente. (TO THE USER: If you cannot read or understand English, do not use this product until the label has been fully explained to you.)

GROUP	4	INSECTICIDE
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EPA Reg.No. 89459-54  
EPA Est. No. 53883-TX-002

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION:** Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Keep children or pets away from treated area until dry.

FIRST AID	
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eyelids open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>

<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of soap and water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>HOT LINE NUMBER:</b> Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.	
<b>NOTE TO PHYSICIAN:</b> No specific antidote is available. Treat patient symptomatically.	

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and other handlers (mixers and loaders) must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinylchloride (PVC) or viton
- Shoes plus socks

In addition: All pesticide handlers must wear protective eyewear when working in a non-ventilated space or when applying termiticide by rodding or subslab injection. Follow manufacturer's instructions for cleaning/ maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### USER SAFETY RECOMMENDATIONS

User should:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.
- Remove and wash contaminated clothing before reuse.

#### ENVIRONMENTAL HAZARDS

This product is highly toxic to aquatic invertebrates. 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 contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops, plants or weeds. Do not apply this product or allow it to drift to blooming crops, plants or weeds if bees are foraging in the treatment area.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Apply this product only as specified on this label. Extreme care must be taken to avoid runoff. Apply only to soil or other fill substrate that will accept the solution at the specified rate. Do not treat soil that is water-saturated or frozen or in any conditions where runoff or movement from the treatment area (site) is likely to occur.

#### PROTECTION OF POLLINATORS



**APPLICATION RESTRICTIONS** EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.

Look for the bee hazard icon  in the Directions for Use for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar.

Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications.
- Ingestion of residues in nectar and pollen when the pesticide is applied as a seed treatment, soil, tree injection, as well as foliar applications.

When Using This Product, Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.

*(continued)*

When Using This Product, Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product on to beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at: <http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx>.

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state, go to: [www.aapco.org/officials.html](http://www.aapco.org/officials.html). Pesticide incidents should also be reported to the National Pesticide Information Center at: [www.npic.orst.edu](http://www.npic.orst.edu) or directly to EPA at: [beekill@epa.gov](mailto:beekill@epa.gov).

#### DIRECTIONS FOR USE

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

See individual sites for specific pollinator protection application restrictions. If none exist under the specific site, for outdoor foliar applications, follow these application directions.



Do not apply Adonis™ 2F Insect Concentrate while bees are foraging. Do not apply Adonis™ 2F Insect Concentrate to plants that are flowering. Only apply after all flower petals have fallen off. Do not use this product on plants

being grown for sale or other commercial use or for commercial seed production or for research purposes.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

#### APPLICATION AS A TERMITICIDE

Use this product in and along outside perimeter of structures and building construction to prevent and control termite infestations.

#### USE INSTRUCTIONS

For subterranean termite control, specific treatments may differ due to regulations, treatment procedures, soil types, construction practices and other factors. The purpose of chemical soil treatment for termite control is to establish a continuous chemical treated zone (horizontal and/or vertical) between the wood and other cellulose material in the structure and the termite colonies in the soil. Follow all federal, state, and local regulations and treatment standards for protection of a structure from termites. The establishment of an aerial or above ground colony may require additional treatments to control the termites, as well as landscape modifications, and/or structural repairs to deny termites of a moisture source. Use a 0.05% to 0.10% dilution based on current recommendations. For a typical control situation, use a 0.05% dilution. Use a 0.10% dilution when a severe or persistent infestation exists.

When treating adjacent to an existing structure, the applicator must check the area to be treated, and immediately adjacent areas of the structure, for visible and accessible cracks and holes to prevent any 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 in 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.

Structures that contain wells or cisterns within the foundation of the structure can only be treated using the treated backfill method described in the Treatment Around Wells and Cisterns section of this label. Consult state and local specifications for recommended distances of wells from treated area, or if such regulations do not exist, refer to Federal Housing Administration Specifications (H.U.D.) for guidance.

**MIXING:** Refer to **MIXING TABLE** for correct amount of this product to be used.

Follow this procedure for mixing the termiticide dilution:

1. Fill tank to  $\frac{1}{3}$  full.
2. If using large sprayer, start pump to begin bypass agitation and place end of treating tool in tank to allow circulation through hose.
3. Add appropriate amount of this product. Add remaining amount of water. Let pump run and allow recirculation through the hose for 2 to 3 minutes.

<b>MIXING TABLE - FOR 1 GALLON OR 2.15 GALLON CONTAINER</b>		
<b>EMULSION CONCENTRATE</b>	<b>GALLONS WATER</b>	<b>AMOUNT OF PRODUCT (fl. oz.)</b>
0.05%	100	27.5
	50	13.8
	25	6.9
	1	0.3
0.10%	100	55.0
	50	27.5
	25	13.8
	1	0.6

**IN-LINE INJECTION:** Use the table below to mix the appropriate amount of this product for the desired injection volume of finished emulsion.

<b>MIXING TABLE - INJECTOR</b>	
<b>INJECTOR VOLUME</b>	<b>CONCENTRATION</b>
0.3 fl oz/gal	0.05%
0.6 fl oz/gal	0.10%

CONVERSION KEY: 128 fl oz = 1 gal; 16 fl oz = 1 pint; 8 pints = 1 gal; 1 fl oz = 29.5 mL

### **APPLICATION VOLUME**

Use the application volumes described in the **DIRECTIONS FOR USE** whenever possible. However, where soil conditions will not accept application of 4 gallons of this product per 10 linear feet, apply twice the product concentration in 2 gallons of solution per 10 linear feet. For example, if 0.05% is the correct use rate to be applied in 4 gallons of water, then use 2 gallons of 0.10% dilution per 10 linear feet to deliver an equivalent amount of product per unit of soil.

## **PRE-CONSTRUCTION TREATMENT**

Do not apply at a lower dosage and/or concentration than specified on this label for application prior to installation of the finished grade.

Prior to each application, applicators must notify the general contractor, construction superintendent, or similar responsible party, of the intended termiticide application and intended sites of application and instruct the responsible person to notify construction workers and other individuals to leave the area to be treated during application and until the termiticide is absorbed into the soil.

**CONCRETE SLAB-ON-GROUND OR BASEMENTS:** Apply an overall treatment to the entire surface of soil or other substrate to be covered by the slab including areas to be under carports, porches, basement floor and entrance platforms. Apply at the rate of 1 gallon of solution to accurately and uniformly cover 10 square feet. If fill under slab is gravel or other coarse aggregate, apply at the rate of 1.5 gallons or sufficient volume of solution, to accurately and uniformly cover 10 square feet. In addition, apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet to provide a uniform treated zone in soil at critical areas such as along the inside of foundation walls, and around plumbing, bath traps, utility services, and other features that will penetrate the slab.

After completion of grading, make an application by trenching or trenching and rodding around the slab or foundation perimeter. Rodding may be done from the bottom of a shallow trench. When rodding, rod holes must be spaced in a manner that will allow for a continuous chemical treated zone, not to exceed 12 inches, to be deposited along the treated area. Rod holes must not extend below the footing. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet, per foot of depth to provide a uniform treated zone. When trenching, the trench along the outside foundation must be about 6 inches in width and 6 inches in depth. Use a low pressure spray (not to exceed 25 PSI at the treatment tool when the valve is open) to treat soil which will be placed in the trench after rodding. Mix the spray solution with soil as it is being placed in the trench. When treating voids in hollow masonry units, use 2 gallons of solution per 10 linear feet of wall. Apply solution so it will reach the footing by injecting into the lower areas of the wall, just above the floor or footing.

When treating foundations deeper than 4 feet, apply the termiticide as the backfill is being replaced, or if the construction contractor fails to notify the applicator to permit this, treat the foundation to a minimum depth of 4 feet after the backfill has been installed. The applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to a minimum depth of 4 feet. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. Do not treat structures below the footing.

Rodding in trench followed by flooding of trench and treatment of backfill may provide a better opportunity to achieve a continuous chemical treated zone than using soil rodding alone to establish a vertical termiticide treated zone.



**CRAWL SPACES:** Application must be made by trenching or trenching and rodding downward along the inside and outside of foundation walls, around piers, interior supports in contact with the soil, plumbing, and utility services. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet, per foot of depth to provide a uniform treated zone. Rodding may be done from the bottom of a shallow trench to top of the footing or a minimum of 4 feet. When rodding, rod holes must be spaced in a manner that will allow for a continuous chemical treated zone to be deposited along the treated area. Rod holes must not extend below the footing. When trenching, the trench must be about 6 inches wide and 6 inches deep. Use a low pressure spray to treat soil which will be placed in the trench, mixing the spray solution with soil as it is being placed in the trench.

**HOLLOW BLOCK FOUNDATIONS OR VOIDS:** Treat hollow block foundations or voids in masonry resting on the footing to provide a continuous chemical treated zone in the voids at the footing. Apply 2 gallons of solution per 10 linear feet to the lower part of the void so that it reaches the top of the footing or soil. Treatment of voids in block or rubble foundation walls must be closely examined. Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not be treatable or may require mechanical alteration prior to treatment.

All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site (refer to **USE INSTRUCTIONS** of this label).

**RESTRICTION:** Do not allow people or pets to contact or to reoccupy the contaminated areas of the structure until the clean up is completed.

## **POST-CONSTRUCTION TREATMENT**

**CONCRETE SLAB-ON-GROUND:** To apply a treatment under the slab, including attached porches, carports, entrance platforms, garages and similar slab structures, it may be necessary to drill through the slab or exterior foundation. Drill holes must be spaced in a manner that will allow for application of a continuous chemical treated zone. Treat all existing cracks and cold, construction or expansion joints. Also, treat around bath traps, plumbing and utility services which penetrate the slab. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet per foot of depth to provide a uniform treated zone. **DO NOT MAKE TREATMENT UNTIL LOCATION OF HEAT OR AIR CONDITIONING DUCTS AND VENTS ARE KNOWN AND IDENTIFIED. USE EXTREME CAUTION TO NOT CONTAMINATE DUCTS AND VENTS.** Plug and fill all drilled holes in commonly occupied areas with a suitable sealant. Plugs must be of non-cellulose material or covered by an impervious, non-cellulose material.

Apply by trenching or trenching and rodding around the outside of the foundation wall. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet per foot of depth to provide a uniform treated zone. When trenching, the trench along the outside foundation must be about 6 inches wide and 6 inches deep. Use a low pressure spray to treat soil as it is being placed in the trench.

Rodding can be done from the bottom of a shallow trench. When

rodding, rod holes must be spaced in a manner that will allow for a continuous chemical treated zone, not to exceed 12 inches, to be deposited along the treated area. Rod hole depth must not extend below the footing.

**BATH TRAPS:** Treat exposed soil or soil covered with tar or a similar type sealant beneath and around plumbing and/or drain pipe entry areas with 3 gallons of solution per square foot. Cut and install an access door or inspection vent if not already present. After inspection and removal of any wood or cellulose debris, the soil can be treated by rodding or drenching the soil.

**CRAWL SPACES:** When there is insufficient clearance between floor joists and ground surfaces to allow applicator access, excavate, if possible, and treat according to crawl spaces (refer to **PRE-CONSTRUCTION TREATMENT**). If unable to excavate, use crawl space soil and wood treatment to prevent surface access by termites. Apply 1 gallon of solution (see **APPLICATION VOLUME**) per 10 square feet to provide a uniform chemical treated zone. Use a very coarse spray at a pressure not exceeding 25 PSI at the treatment tool when the valve is open.

Where a crawl space cannot be reached with the application wand, use extension wands or other suitable equipment to apply a coarse spray on the soil, wood and structural members contacting the soil at the above rates. Do not apply to inaccessible crawl space areas using pressures greater than 25 PSI at the treatment tool when the valve is open.

Make treatment also by drilling through the foundation wall or through the floor above and treating the soil perimeter at a rate of 1 gallon of solution per 10 square feet. Drill spacing must be at intervals not to exceed 16 inches. Many states have smaller intervals so check state regulations which may apply.

To prevent subterranean termites from constructing mudtubes between soil and crawl space wood members above, apply an overall soil treatment of this product. Remove all cellulose debris before application. Apply 1 gallon of solution (see **APPLICATION VOLUME**) per 10 square feet to provide a uniform chemical treated zone.

**SHALLOW FOUNDATIONS:** For shallow foundations, one foot or less in depth, dig a narrow trench approximately 6 inches wide and deep along the outside and inside of the foundation walls, being careful not to dig below the bottom of the footings. For foundations with exposed footings, dig a trench alongside the footing taking care not to undermine the footing. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet to the top of footer to provide a uniform treated zone. The dilution must be applied to the trench and mixed with the soil as it is placed in the trench.

**BASEMENTS - OUTSIDE PERIMETER:** Along the outside of the exterior walls, an application must be made by trenching or rodding within the trench. Rodding depth must be to the top of the footer, or to a minimum of 4 feet or according to state or local regulations. When rodding through a trench, dig a narrow trench about 6 inches wide and 6 inches deep. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet, per foot of depth to provide a uniform treated zone by rodding through the trench. Use a low pressure spray to treat soil which will be placed

into the trench after rodding. Mix spray solution with the soil as it is being placed in the trench.

**BASEMENTS - INSIDE PERIMETER:** If necessary, treat by drilling along the perimeter of the interior walls. Also, make applications around sewer pipes, floor drains, conduits, expansion joints or any cracks or holes in the basement floor. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet to provide a uniform treated zone.

Drill holes must be spaced in a manner that will allow for application of a continuous chemical treated zone. Plug and fill all drill holes in commonly occupied areas of the building with a suitable sealant. Plugs must be of non-cellulose material or covered by an impervious, non-cellulose material.

**HOLLOW BLOCK FOUNDATION OR VOIDS:** Treat hollow block foundations or voids in masonry resting on the footing to provide a continuous chemical treated zone in the voids at the footing. Apply 2 gallons of solution per 10 linear feet to the lower part of the void so that it reaches the top of the footing or soil. Drill spacing must be at intervals not to exceed 16 inches. Many states have smaller intervals so check state regulations which may apply. Treatment of voids in block or rubble foundation walls must be closely examined. Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not be treatable or may require mechanical alteration prior to treatment.

All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site (refer to **PRECAUTIONARY STATEMENTS**).

**RESTRICTION:** Do not allow people or pets to contact or to reoccupy the contaminated areas of the structure until the clean up is completed.

**PLENUMS:** For plenum-type structures which use a sealed underfloor space to circulate heated and/or cooled air throughout the structure, apply the dilution at the rate of 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet, per foot of depth of soil to provide a uniform treated zone adjacent to both sides of foundation walls, supporting piers, plumbing and conduits. Treat soil by trenching to a depth of 6 inches or trenching and rodding (where conditions permit) or to the top of the footing. When conditions will not permit trenching or rodding, make a surface application adjacent to interior foundation walls, but the treated strip shall not exceed a width of 18 inches, horizontally, from the foundation walls, piers or pipes. The surface application will be made at a rate of 1.5 gallons of solution per 10 square feet as a very coarse spray under low pressure (not to exceed 25 PSI when measured at the treating tool when valve is on).

When treating plenums, turn off the air circulation system of the structure until application has been completed and all termiticide has been absorbed by the soil.

**RESTRICTION:** Do not allow people or pets to contact or to reoccupy the contaminated areas of the structure until the clean up is completed.

**TREATMENT AROUND WELLS OR CISTERNS:** Do not contaminate wells or cisterns.

**Structures With Wells/Cisterns Inside Foundations:** Structures that

contain wells or cisterns within the foundation of a structure can only be treated using the following techniques:

1. Do not apply within 5 feet of any well or cistern by rodding and/or trenching or by the backfill method. Treat soil between 5 and 10 feet from the well or cistern by the backfill method only. Use the backfill method if treatment of soil adjacent to water pipes is within 3 feet of grade.
  - a. Trench and remove soil to be treated onto heavy plastic sheeting or similar material or into a wheelbarrow.
  - b. Treat the soil at the rate of 4 gallons of solution per 10 linear feet per foot of depth of the trench, or 1 gallon per 1 cubic foot of soil. Mix thoroughly into the soil taking care to contain the liquid and prevent runoff or spillage.
  - c. After the treated soil has absorbed the solution, replace the soil into the trench.
2. Treat infested and/or damaged wood in place using an injection technique such as described in the **CONTROL OF WOOD INFESTING PESTS** section of this label.

**Structures With Adjacent Wells/Cisterns and/or Other Water Bodies:** Applicators must inspect all structures with nearby water sources such as wells, cisterns, surface ponds, streams, and other bodies of water and evaluate, at a minimum, the treatment directions listed below prior to making an application.

1. Prior to treatment, if feasible, expose the water pipes coming from the well to the structure, if the pipes enter the structure within 3 feet of grade.
2. Prior to treatment, applicators are advised to take precautions to limit the risk of applying the termiticide into subsurface drains that could empty into any bodies of water. These precautions include evaluating whether application of the termiticide to the top of the footer may result in contamination of the subsurface drain. Factors such as depth to the drain system and soil type and degree of compaction must be taken into account in determining the depth of treatment.
3. When appropriate (i.e., on the water side of the structure), the treated backfill technique (described above) can also be used to minimize off-site movement of termiticide.

**RESTRICTION:** Do not contaminate wells or cisterns.

## **EXTERIOR PERIMETER/INTERIOR SPOT TREATMENT\***

\*Not approved for use in Louisiana.

### **INFORMATION**

Exterior Perimeter/Interior Spot Treatment is an optional method of termite treatment only for use in post-construction applications, after the final grade is established. Structural protection when using the Exterior Perimeter/Interior Spot Treatment is accomplished by: 1) establishing a continuous treated zone around the entire exterior foundation wall of the building; and 2) spot-treating infested areas on the building interior. Soil adjacent to the exterior foundation wall must be treated in the same manner as conventional (full) application. It is required that a complete and continuous treated zone be achieved around the entire exterior perimeter, including under any attached slabs such as garages, porches, patios, driveways and pavement adjoining the foundation. Interior spot treatments must then be made to any indoor areas where termite activity is present. Optional interior spot treatments may also be made

to high risk areas including, but not limited to, plumbing and utility penetrations (including bath traps), along settlement cracks and expansion joints, and dirt-filled porches.

Exterior Perimeter/Interior Spot Treatment can be used as a preventative treatment (before structural infestation occurs) or as a curative treatment (after structural infestation occurs) in existing structures. Preventative treatment does not include pre-construction applications made to protect construction. It is required that a thorough structural inspection be completed before treatment, to locate all areas of active infestation. Spot treatment of all known sites of termite activity is required with this optional labeling. If no termite activity is observed inside the structure, interior spot treatments are not required.

## EXTERIOR PERIMETER TREATMENT

It is required that all structures, regardless of the type of construction, be protected by establishing a vertical treated zone along the outer perimeter of the foundation wall. Consult the **OUTER FOUNDATION WALLS** section of this label (see below) for detailed directions of this treatment procedure.

- 1. OUTER FOUNDATION WALLS:** Application must be made by trenching, or where appropriate (see below) by trenching, or trenching and rodding from the bottom of the trench, around the outside of the foundation walls. When trenching, excavate a trench along the outside foundation that is about 6 inches wide and 6 inches deep. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet, per foot of depth to provide a uniform vertical treated zone.
  - For shallow foundations, one foot or less of depth, dig a narrow trench that does not exceed 6 inches wide and 6 inches deep along the outside of the foundation walls, being careful not to dig below the bottom of the footings. For foundations with exposed footings, dig a trench alongside the footing taking care not to undermine the footing.
  - For basements and other foundations deeper than one foot, the application must be made by trenching and rodding from the bottom of a shallow trench. When rodding, rod holes must be spaced in a manner that will allow for a continuous treated zone, not to exceed 12 inches, to be deposited along the treated area. Rod holes must not extend below the footing. Rodding depth should be to the top of the footer, or to a maximum depth of 4 feet, or according to state or local regulations.
  - For all applications, apply the solution into the trench and mix with the excavated soil as it is replaced into the trench. Use a low-pressure spray to treat soil that will be replaced into the trench after rodding. Mix spray solution with the soil as it is being replaced in the trench.

Where direct access to soil on the outer foundation wall is impossible due to attached porches, entrance platforms, garages and similar slab structures, consult the **CONCRETE SLAB-ON-GROUND** section of this label for directions on treatment of soil beneath these structures. However, where obstructions (e.g., concrete walkways) adjacent but not attached to foundation, or where soil type and/or conditions prevent trenching the exterior perimeter treatment may be performed at the obstructed location by rodding alone. When rodding, rod holes must be spaced in a manner that will allow for a continuous treated zone, not to exceed 12 inches, to be deposited along the treated area.

- 2. CONCRETE SLAB-ON-GROUND:** To treat soil beneath a slab,

including attached porches, carports, entrance platforms, garages and similar slab structures abutting the foundation wall, it is necessary to drill through the slab. If an infestation is associated with an expansion joint, crack, utility penetration, or similar access point in the slab, treat by drilling and injecting through the slab. Drill holes on both sides of the infested site. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet.

**DO NOT MAKE TREATMENT UNTIL LOCATION OF HEAT OR AIR CONDITIONING DUCTS AND VENTS ARE KNOWN AND IDENTIFIED. USE EXTREME CAUTION TO NOT CONTAMINATE DUCTS AND VENTS.** Plug and fill all drilled holes in commonly occupied areas with suitable sealant. Plugs must be of non-cellulose material.

- 3. INACCESSIBLE CRAWL SPACES:** If termite activity is found along the perimeter wall or on a pier within an inaccessible crawl space, areas with termite activity must be treated. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet to create a vertical treated zone, which must extend a minimum of 3 feet on both sides of the infested site.

Optional directions for horizontal rodding: Treatment may also be made by drilling through the foundation wall (or through the floor above) to treat the soil along the perimeter wall at a rate of 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet. Drill spacing must be at intervals not to exceed 16 inches. Many states have shorter intervals so check state regulations which may apply. If termite activity is neither along the perimeter wall nor on a pier within the inaccessible crawl space, to prevent subterranean termites from constructing mud tubes between soil in the crawl space and wooden elements in the structure, an overall soil treatment of this product may be applied. Remove all cellulose debris before application. Apply 1 gallon of solution (see **APPLICATION VOLUME**) per 10 square feet to provide a uniform chemical treated zone.

- 4. ACCESSIBLE CRAWL SPACES:** If termite activity is found within an accessible crawl space, the area(s) where termite activity exist must be treated by trenching, or trenching and rodding from the bottom of the trench, along the interior foundation walls, around piers, interior supports in contact with the soil, plumbing, or utility services. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet, per foot of depth, to create a vertical treated zone, which must extend a minimum of 3 feet on both sides of the infested site. Rodding may be done from the bottom of a shallow trench to the top of the footing or to a minimum depth of 4 feet. When rodding, rod holes must be spaced in a manner that will allow for a continuous treated zone, not to exceed 12 inches, to be deposited along the treated area. Rod holes must not extend below the footing. When trenching, dig a narrow trench about 6 inches wide and 6 inches deep. Use a low-pressure spray to treat soil which will be placed in the trench, mixing the spray solution with soil as it is being placed in the trench.

**RESTRICTION:** Do not allow people or pets to contact or to reoccupy the contaminated areas of the structure until the clean up is completed.

## INTERIOR SPOT TREATMENT

Targeted applications must be made to all known infested sites inside the structure. One or more of the following application



methods must be used to make interior spot treatments:

- Sub-slab injections made through the slab at or near areas where termites are known to be penetrating the slab to reach wood in the structure and/or at or near sites of active infestations. Apply 4 gallons per 10 linear feet per foot of depth. Sub-slab injections must extend to a minimum of 3 feet on either side of every known infested site at expansion joints or cracks in slabs.
- Void treatments using injection of sprays, mists or foams into above ground structural voids, termite carton nests, and other infested locations.
- Wood treatments using injection techniques and/or surface applications, to treat active infestations in structural timbers.

To maximize dispersion of treatment solution in soil and in above ground locations, the use of foam and directional dispersion tips is encouraged for all interior spot treatments. Consult section(s) of this label appropriate to the element of construction, **FOAM APPLICATIONS** or **CONTROL OF WOOD INFESTING PESTS** for detailed directions on any of these treatment procedures.

**1. INTERIOR SLABS:** When termite activity is located within an interior wall or structural member, the soil beneath the slab and the wall void at this site of activity must be treated. The source of infestation at an expansion joint, crack, through a utility penetration, or similar access point in the slab, must be treated by drilling and injecting through the slab. Drill holes in the slab must be spaced in a manner that will allow for application of a continuous chemical treated zone, which must extend a minimum of 3 feet on either side of the infested site. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet. To maximize dispersion of treatment solution in soil, the use of foam and directional dispersion tips is encouraged. To treat the wall void, consult section(s) of this label appropriate to the element of construction, **FOAM APPLICATIONS** or **CONTROL OF WOOD INFESTING PESTS** for detailed directions on any of these treatment procedures.

DO NOT MAKE TREATMENT UNTIL LOCATION OF HEAT OR AIR CONDITIONING DUCTS AND VENTS ARE KNOWN AND IDENTIFIED. USE EXTREME CAUTION TO NOT CONTAMINATE DUCTS AND VENTS. Plug and fill all drilled holes in commonly occupied areas with suitable sealant. Plugs must be of non-cellulose material or covered by an impervious, non-cellulose material.

**2. HOLLOW BLOCK FOUNDATION OR MASONRY VOIDS:** Termite activity located within hollow-block foundations or masonry voids must be treated. Spot treatment at the site(s) of termite activity must extend a minimum of 3 feet on both sides. Treat masonry voids by applying 2 gallons of solution per 10 linear feet to the lower part of the void so that it reaches the top of the footing or soil. Drill spacing in masonry voids must be at intervals not to exceed 16 inches; states may have shorter intervals so check state regulations which may apply. To maximize dispersion of treatment solution in voids, the use of foam and directional dispersion tips is encouraged. To treat structural voids above sites of termite activity in masonry, consult section(s) of this label appropriate to the element of construction, **FOAM APPLICATIONS** or **CONTROL OF WOOD INFESTING PESTS** for detailed directions on any of these treatment procedures. Treatment of voids in block or rubble foundation walls must be closely examined. Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not

be treatable or may require mechanical alteration prior to treatment. All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site (refer to **Precautionary Statements**).

**RESTRICTION:** Do not allow people or pets to contact or to reoccupy the contaminated areas of the structure until the clean up is completed.

**3. BATH TRAPS:** If termite activity is observed within 2 feet of the bath trap, then exposed soil or soil covered with tar or a similar type of sealant around plumbing and/or drain pipe entry areas must be treated. Tar or sealant may have to be removed to allow for adequate soil treatment. An access door or inspection portal should be installed if one is not present. After inspection and removal of any wood or cellulose debris, the soil can be treated by rodding or drenching the soil at a volume of no less than 3 gallons of solution per square foot.

**4. SHOWER OR FLOOR DRAINS:** If termite activity is observed within 2 feet of a shower or floor drain in the slab, then soil beneath the drain must be treated. Drill through the slab adjacent to the drain and use sub-slab injection to apply solution to the soil. Multiple access points may be drilled adjacent to the drain. Treat soil at a volume of 1 gallon of solution per square foot.

## FOAM APPLICATIONS

Construction practices, soil subsidence and other factors may create situations in which a continuous chemical treated zone cannot be achieved using conventional treatment alone. In situations where necessary, conventional application methods can be supplemented through use of foam generating equipment, or similar devices, to provide a continuous treated zone.

Make foam application alone or in combination with conventional application methods, provided that the labeled amount of active ingredient per unit area is used.

**Foam Application Use Directions:** Mix appropriate concentration of this product in water and add the manufacturer's specified quantity of foam agent to the product solution (see table for foaming recommendations). Apply a sufficient volume of this product foam alone or in combination with liquid solution to provide a continuous treated zone at the labeled rate for specific application sites.

**NOTE:** Add the manufacturer's specified quantity of foam agent to the product solution.

MIXING TABLE – FOAM			
PRODUCT (fl oz)	GALLONS OF WATER	FOAM EXPANSION RATIO	FINISHED FOAM (0.05% ai)
6.9	1	25:1	25 gal
	2.5	10:1	
	5	5:1	
13.8	1	50:1	50 gal
	2.5	20:1	
	5	10:1	

Depending on the circumstances, use foam applications alone or in combination with liquid solution applications. Make

applications behind veneers, piers, chimney bases, into rubble foundations, into block voids or structural voids, wall voids, under slabs, stoops, porches, or to the soil in crawl spaces, and other similar voids.

**Foam and liquid applications must be consistent with volume and active ingredient instructions in order to ensure proper application has been made. The volume and amount of active ingredient are essential to an effective treatment. At least 75% of the gallons of this product must be applied as a typical liquid treatment. The remaining 25% or fewer gallons are delivered to appropriate locations using a foam application.**

When foam is used solely to kill subterranean termites in above ground locations (including feeding galleries in wooden framing, or in voids with framed walls), and whenever the target pest is other than subterranean termites (drywood termites, beetles, ants), expand dilute solutions of this product by foaming without concentrating the product solution as previously described for soil applications. Add the manufacturers' specified volume of foaming agent to produce foam of the desired expansion ratio. Use application tips and methods suitable to the site and pest.

## **CONTROL OF WOOD INFESTING PESTS**

For control of above ground termites and carpenter ants in localized areas, apply a 0.05% to 0.10% solution of sufficient volume of this product foam to voids and galleries in damaged wood, and in spaces between wooden structural members and between the sill plate and foundation where wood is vulnerable. Make applications to inaccessible areas by drilling, and then injecting the suspension or foam with a suitable directional injector into the damaged wood or wall voids. Inject termite carton nests in building voids with a 0.05% to 0.10% suspension or foam. Multiple injection points to varying depths may be necessary. It is desirable to physically remove carton nest material from building voids when such nests are found. Make application, to attics, crawl spaces, unfinished basements, or manmade voids with a coarse fan spray of 0.05% to 0.10% solution or foam to control exposed worker and winged reproductive forms of termites or carpenter ants. This type of application is intended to be a supplemental treatment for control of above ground subterranean termites and carpenter ants.

Remove or prune away any shrubbery, bushes, and tree branches touching the structure. Vegetation touching the structure may offer a route of entry for ants into the structure. This may allow ants to inhabit the structure without coming in contact with the treatment. If nests are found, direct treatment of this product can be made to these nests.

Use a 0.05% to 0.10% solution to control existing infestations of, or to prevent infestation by termites or carpenter ants in trees, utility poles, fencing and decking materials, landscape timbers and similar non-structural wood-to-soil contacts. If possible, locate the interior infested cavity and inject a 0.05% to 0.10% solution or sufficient volume of the foam of this product using an appropriate treatment tool with a splashback guard. Also treat these non-structural wood-to-soil contacts by applying a solution to the soil as a spot application or continuous treated zone applied as a drench or by rodding around the base of the point(s) of soil contact(s). Place rod holes approximately 3 inches away from the soil contact point(s) and spaced no more than 12 inches along the perimeter of the soil contact(s). For small poles or posts (< 6 inches in diameter), apply 1 gallon per foot of depth. For larger

constructions, apply 4 gallons per 10 linear feet per foot of depth. Retreat as needed to maintain protection.

Inject termite carton nests in trees with a 0.05% to 0.10% solution or sufficient volume of foam using a pointed injection tool. Multiple injection points to varying depths may be necessary. Removal of carton material from trees is desirable but may not be necessary when foam application is used. In some instances, a perimeter application of a 0.05% to 0.10% solution applied to soil around the root flare of the tree may be necessary to prevent reinfestation by termites in the soil. For small trees (< 6 inches in diameter), apply 1 gallon of solution. For larger trees, apply 4 gallons per 10 linear feet (measured as the circumference at the root flare).

For protection of firewood or other wood products stored in contact with soil from carpenter ants and termites, treat soil prior to stacking with a 0.05% to 0.10% solution at 1 gallon per 10 square feet to prevent infestation. Make curative application to the soil around firewood or other wood products stored in contact with soil as described for non-structural wood-to-soil contacts (above).

**Restriction:** Do not apply this product, by any application method, to linden, basswood or other *Tilia* species in the State of Oregon.

**Drywood termites and wood-infesting beetles or borers** (including, powder post beetles, anobiid or deathwatch beetles, false powder post beetles, old house borers, wharf borers, or ambrosia or bark beetles). **Galleries and structure voids** can be treated with sprays, mists, or foams of a 0.05% to 0.10% solution of this product. 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. Do not drill where electrical wiring, plumbing lines, etc. are located. Apply solutions of this product as a low pressure (about 20 psi) spray or by misting or, where appropriate, by foaming. It is not necessary to treat to the point where runoff is detected from adjacent holes. Do not apply where electrical shock hazards exist. Seal drill holes after treatment. Also, **wood surfaces** can be sprayed or misted with a 0.05% to 0.10% solution or, where appropriate, use a sufficient volume of foam. For inaccessible surfaces, drill and treat the interior of structural voids. Surfaces treated may include exposed wooden surfaces in crawl spaces, basements, or attics, wooden exterior surfaces including 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 (about 20 psi) 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. When spraying overhead in living areas, cover surfaces below the treated area with plastic sheeting or similar material, do not allow contact with treated surfaces until spray deposits have dried. Retreat as needed to maintain protection.

**Localized treatment for carpenter bees:** Apply a 0.05% to 0.10% solution as a spray or mist, or sufficient volume of foam, directly into gallery entrance holes. Following treatment, plug entrance holes with small pieces of steel wool or similar material.



## RETREATMENT

Retreatment for subterranean termites can only be performed if there is clear evidence of reinfestation or disruption of the treated zone due to construction, excavation, or landscaping and/or evidence of the breakdown of the termiticide treated zone in the soil. Re-treat the vulnerable or reinfested areas in accordance with application techniques described in this product's labeling. The timing and type of these retreatments will vary, depending on factors such as termite pressure, soil types, soil conditions and other factors which may reduce the effectiveness of the treated zone. Make retreatment as either a spot or residual treatment.

When a structure is not known to be reinfested and the treated zone is not disturbed, but where the structure was last treated five or more years ago, perform retreatment if, in the judgment of the applicator, it is necessary to ensure adequate protection of the structure. In determining the timing of any retreatment, the applicator must consider efficacy and/or degradation data and/or site-specific conditions and previous experience that indicate a vulnerability of the structure to termite attack.

**Annual retreatment of the structure is prohibited unless there is clear evidence that reinfestation or treated zone disruption has occurred.**

When another registered termite control product/system is used as the primary treatment for prevention or control of subterranean termites and is applied to all label-specified areas, apply this product as a spot application in a secondary treatment to critical areas of the structure including plumbing and utility entry sites, bath traps, expansion joints, foundation cracks, the outside foundation wall, and areas of known or suspected activity at either a pre-construction or post-construction timing. These secondary treatments must be made applied in amounts and concentration in accordance with label directions relevant to the treatment area(s) to receive the secondary treatment.

**For control of ants in houses and other structures**, apply a 0.05% to 0.10% solution as a general surface, spot, crack and crevice or wall void application. Apply to surfaces on buildings, porches, patios and other structures, around doors and windows, eaves and attic vents, utility entry points, soffit areas and other exterior openings (including foundation cracks or drilled holes) where the pests enter the structure or where they crawl or hide. Spray into cracks and crevices. Spray, mist or foam into voids where these ants or their nests are present. Apply the volume of spray mist or foam sufficient to cover the area, but do not allow excessive dripping or runoff to occur from vertical or overhead surfaces.

Treat soil, turf or ground cover adjacent to the structure where ants are trailing or may find food or harborage. Apply to flower, shrub or ornamental plant beds adjacent to the structure where ants may find food or forage. To control ants tunneling in soil, apply a 0.05% to 0.10% solution as a drench or soil injection at intervals to establish a continuous treated zone. Treat along the edge of walls, driveways or other hard surfaces where ants are tunneling beneath the surface.

**Aerial Nests:** If ant nests are located in tree hollows or non-structural wooden construction (e.g., posts, fences, decks), treat the interior cavity and/or the nest site by injecting a 0.05%-0.10% solution as a spray mist, or sufficient volume of foam.

Apply in sufficient water to cover the foliage and soil area being

treated. Maximum application is once per month to maintain control.

In instances of high pest pressures and quick knockdown or elimination at pest entry points is needed, make additional treatments using this product with targeted applications of a pyrethroid to doors and windows, utility entry points, and other places where these pests enter the structure. Read and follow all label directions for use of this companion product.

## RESTRICTIONS

- Do not use this product against native or imported fire ants, pharaoh or harvester ants.
- Do not apply solution until location of heat pipes, ducts, water and sewer lines and electrical conduits are known and identified. Caution must be taken to not puncture or inject into these structural elements. Do not plant for the purpose of consumption, edible plants into the treated areas of soil.
- Do not contaminate public and private water supplies.
- Do not apply at a lower dosage and/or concentration than specified on this label.
- Do not apply this product, by any application method, to linden, basswood or other *Tilia* species in the State of Oregon.
- Do not allow residents or pets into the immediate area during the application or contact with treated areas until spray has dried.
- Interior applications for ant control are limited to spot, crack and crevice, or wall void applications only.

## PRECAUTIONS FOR APPLICATIONS

- After treatment, plug and fill all holes drilled in concrete slab areas of the building with a suitable sealant.
- Use anti-backflow equipment or an air gap on filling hoses.
- Consult state, federal, or local authorities for information regarding the approved treatment practices for areas in close proximity to potable water supplies.

## APPLICATION ON TURFGRASS

Use this product to control insect pests on turfgrass in residential lawns, business and office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playgrounds, and athletic fields.

This product controls soil inhabiting pests including Northern & Southern masked chafers, *Cyclocephala borealis*, *C. immaculata*, and/or *C. lurida*; Asiatic garden beetle, *Maladera castanea*; European chafer, *Rhizotroqus majalis*; Green June beetle, *Cotinis nitida*; May or June beetle, *Phyllophaga* spp.; Japanese beetle, *Popillia japonica*; Oriental beetle, *Anomala orientalis*; Billbugs, *Spherophorus* spp.; Annual bluegrass weevil, *Hyperodes* spp.; Black turfgrass ataenius, *Ataenius spretulus* and *Aphodius* spp., European Crane Fly, *Tipula paludosa*, and Mole crickets, *Scapteriscus* spp. This product can also be used for suppression of cutworms and chinch bugs.

For optimum control, make applications preceding or during the egg laying period of the target pest. The active ingredient in this product has enough residual activity so that applications can be made preceding the egg laying activity. Application timing can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Most favorable control will be achieved when applications are made prior to egg hatch of the target pests, followed by sufficient

irrigation or rainfall to move the active ingredient through the thatch.

**RESTRICTIONS**

- Do not make applications when turfgrass areas are waterlogged or the soil is saturated with water. Sufficient distribution of the active ingredient cannot be achieved under these conditions. The treated turf area must be in such a condition that the rainfall or irrigation will penetrate vertically in the soil profile.
- Do not exceed a total of 25.6 fl. oz. (0.4 lb of active ingredient) per acre per year.
- Keep people and pets off treated areas until dry.
- Do not allow runoff or puddling of irrigation water following application.
- Do not use on sod farms.
- Do not allow this product to contact plants in bloom if bees are foraging in the treatment area.
- Do not graze treated areas or use clippings from treated areas for feed or forage.

**APPLICATION EQUIPMENT FOR USE ON TURFGRASS**

Apply this product in sufficient water to provide adequate distribution in the treated area. The use of accurately calibrated equipment normally used for the application of turfgrass insecticides is required. Use equipment which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly.

**RESTRICTION** - Do not apply through any irrigation system.

**APPLICATIONS-TURF GRASSES**

PEST	RATE	APPLICATION INSTRUCTIONS
<u>Larvae of:</u> Annual bluegrass weevil Asiatic garden beetle Billbug Black turfgrass ataenius Cutworm (suppression) European chafer European crane fly Green June beetle Japanese beetle Oriental beetle <i>Phyllophaga</i> spp. Southern masked chafer	20 – 25.6 fl. oz. /A or 0.46 to 0.60 fl. oz. (14 to 17 mL) per 1,000 sq. ft.	For best control of grubs, billbugs, annual bluegrass weevil, and European crane fly, apply prior to egg hatch of the target pest. Read <b>APPLICATION EQUIPMENT</b> section of this label.
Chinch bug (suppression) Mole cricket	25.6 fl. oz. /A or 0.6 fl. oz. (17 mL) per 1,000 sq. ft.	For suppression of chinch bugs, apply before hatching of the first instar nymphs. To control mole crickets, apply before or during the peak egg hatch period. Follow label instructions for other insecticides if tank-mixing.

Consult your local turf, state Agricultural Experiment Station, or State Extension Service Specialists for more specific information regarding timing of application.

Irrigation or rainfall must occur within 24 hours after application to move the active ingredient through the thatch.

**RESTRICTIONS**

- Do not apply more than 25.6 fl. oz. (0.4 lb of active ingredient) per acre per year.
- Do not mow turf or lawn area until after sufficient irrigation or rainfall has occurred so that uniformity of application will not be affected.

**APPLICATION TO ORNAMENTALS**

Use this product on ornamentals in commercial and residential landscapes and interior plantscapes. This product is a systemic product and will be taken up into the plant system from root uptake. To assure optimum effectiveness, the product must be placed where the growing portion of the target plant can absorb the active ingredient. The addition of a nitrogen containing fertilizer, where applicable, into the solution may enhance the uptake of the active ingredient. Application can be made by foliar application or soil applications; including soil injection, drenches, and broadcast sprays. Foliar applications offer locally systemic activity against insect pests.

When making soil applications to plants with woody stems, systemic activity will be delayed until the active ingredient is taken up throughout the plant. In some cases, this translocation delay could take 60 days or longer. For this reason, treat prior to anticipated pest infestation to achieve optimum levels of control.

**RESTRICTIONS**

- Do not exceed a total of 25.6 fl. oz. (0.4 lb of active ingredient) per acre per year.
- Not for use in commercial greenhouses, nurseries, sod farms, or on grass grown for seed, or on commercial fruit and nut trees.
- Do not apply this product, by any application method, to linden, basswood or other *Tilia* species in the State of Oregon.
- Do not graze treated areas or use clippings from treated areas for feed or forage.

**Ant Management Programs**

Use this product to control aphids, scale insects, mealybugs and other listed sucking pests on ornamentals to limit the honeydew available as a food source for ant populations. Applications of this product can then be supplemented with residual sprays, bait placements or other ant control tactics to further reduce the pest population.

**APPLICATION EQUIPMENT FOR FOLIAR APPLICATIONS**

This product mixes readily with water and may be used in many types of application equipment. Mix product with the required amount of water and apply as desired dependent upon the selected use pattern.

When making foliar applications on hard-to-wet foliage including holly, pine, or ivy, add a spreader/sticker, if needed. If concentrate or mist type spray equipment is used, an equivalent amount of product must be used on the area sprayed, as would be used in a dilute application.

This product has been found to be compatible with commonly used fungicides, miticides, liquid fertilizers, and other commonly used insecticides. Check physical compatibility using the correct proportion of products in a small jar test if local experience is unavailable.

**RESTRICTION** - Do not apply through any irrigation system.

## APPLICATIONS FOR USE ONLY IN AND ON INDUSTRIAL AND COMMERCIAL BUILDING SITES AND RESIDENTIAL AREAS

SITE	PEST	RATE	APPLICATION INSTRUCTIONS
Trees Shrubs Evergreens Flowers Foliage plants Groundcovers Interior plantscapes	Adelgids, Aphids, Japanese beetles, Lace bugs, Leaf beetles (including elm and viburnum leaf beetles), Leafhoppers (including glassy-winged sharpshooters), Mealybugs, Psyllids, Sawfly Larvae, Thrips (suppression), Whiteflies	1.5 fl. oz. (45 mL) per 100 gal of water	<b>Foliar Applications:</b> Begin applications before the onset of high pest populations and reapply as needed. Follow application restrictions indicated by bee protection icon on pages 3 & 4 in Directions for Use to protect bees and other insect pollinators.
	White grub larvae (including Japanese beetle larvae, Chafers, <i>Phyllophaga</i> spp., Asiatic garden beetles, Oriental beetles)	0.46 to 0.60 fl. oz. (14 to 17 mL) per 1,000 sq. ft.	<b>Broadcast Applications:</b> Use enough water to mix the product and thoroughly apply to the treatment area. Do not use less than 2 gallons of water per 1,000 sq ft. Irrigate after application to incorporate this product into the upper soil layer. For additional use directions, refer to the <b>FLOWERS and GROUND COVERS</b> section of this label.

### RESTRICTIONS:

- Do not apply more than 25.6 fl. oz. (0.4 lb of active ingredient) per acre per year.
- Do not apply this product, by any application method, to linden, basswood or other *Tilia* species in the State of Oregon.

## SOIL INJECTION\* AND SOIL DRENCH APPLICATIONS IN AND ON INDUSTRIAL AND COMMERCIAL BUILDING SITES, RESIDENTIAL AREAS, AND STATE, NATIONAL AND PRIVATE WOODED AND FORESTED AREAS

\*No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York.

PEST	SITE/RATE	APPLICATION INSTRUCTIONS	REMARKS
Adelgids, Aphids, Armored scales (suppression), Black vine weevil larvae, Eucalyptus longhorned borers, Flatheaded borers (including bronze birch and alder borers), Japanese beetles, Lace bugs, Leaf beetles (including elm and viburnum leaf beetles)	<b>TREES</b> 0.1 to 0.2 fl. oz. (3 to 6 mL) per inch of trunk diameter (D.B.H.)	<b>SOIL INJECTION:</b> <b>Grid System:</b> Space holes in a grid pattern on 2.5 foot centers, extending to the drip line of the tree. <b>Circle System:</b> Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line of the tree extending in from that line. <b>Basal System:</b> Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base. <b>Soil Drench:</b> Apply uniformly as a drench around the base of the tree in not less than 10 gallons of water per 1,000 square feet. Direct application to the root area. Remove plastic or any other barrier that will stop solution from reaching the root zone.	Use enough water to mix the product and inject an equal amount of solution in each hole. Use low pressure and sufficient solution for distribution of the liquid into the treatment area. Keep the treated area moist for 7 to 10 days. <b>For Control of Specified Borers:</b> Trees with existing insect damage and stress may not recover after treatment with this product. <b>RESTRICTIONS</b> • Do not use less than 4 holes per tree. • Do not apply to areas that are waterlogged or saturated. • Do not apply this product by any application method, to linden, basswood or other <i>Tilia</i> species in the State of Oregon
Leafhoppers (including glassy-winged sharpshooters), Leafminers, Mealybugs, Pine tip moth larvae, Psyllids, Royal palm bugs, Sawfly larvae, Soft scales, Thrips (suppression), White grub larvae, Whiteflies	<b>SHRUBS</b> 0.1 to 0.2 fl. oz. (3 to 6 mL) per foot of shrub height  <b>FLOWERS AND GROUND-COVERS</b> 0.46 to 0.60 fl. oz. (14 to 17 mL) per 1,000 sq ft	<b>Soil Injection:</b> Apply at the labeled dosage to each plant. <b>Soil Drench:</b> Apply uniformly as a drench around the base of the tree in not less than 10 gallons of water per 1,000 square feet. Direct application to the root area. Remove plastic or any other barrier that will stop solution from reaching the root zone.  Apply as a broadcast treatment before or after planting, or apply after plants are established. Apply prior to bloom or after all the petals have fallen off. Mix into soil. Irrigate thoroughly after application. Do not apply to areas that are waterlogged or saturated.	Use enough water to mix the product and inject an equal amount of solution in each hole. Use low pressure and sufficient solution for distribution of the liquid into the treatment area. Keep the treated area moist for 7 to 10 days. <b>RESTRICTIONS</b> • Do not use less than 4 holes per shrub. • Do not apply to areas that are waterlogged or saturated.

**RESTRICTION:** Do not apply more than 25.6 fl. oz. (0.4 lb of active



ingredient) per acre per year.

## FOLIAR APPLICATIONS FOR USE ONLY IN AND ON RESIDENTIAL AREAS AND INDUSTRIAL AND COMMERCIAL BUILDING SITES

CROP	PEST	RATE	APPLICATION INSTRUCTIONS
<b>POME FRUITS</b> Apple  Crabapple Loquat Mayhaw Pear Pear  (Oriental) Quince	Aphids (except Woolly apple aphids), Leafhoppers (including glassy-winged sharpshooters), Leafminers, Mealybugs*, San Jose scales*	1.5 fl oz (45 mL) per 100 gal or 6 fl oz/A <sup>1</sup>	<p>Apply labeled dosage as foliar spray as needed after petal-fall is complete.</p> <p>For control of Rosy apple aphids, apply prior to leafrolling caused by the pest.</p> <p>For first generation Leafminer control, make first application as soon as petal-fall is complete. Greatest Leafminer control will result from the earliest possible application. For second and succeeding generations of Leafminers, optimal control is obtained from applications made early in the adult flight against egg and early instar larvae. A second application may be required 10 days later, if severe pressure continues or if generations are overlapping. A single application may result in suppression only. This product will not control late stage larvae.</p> <p>For San Jose scales, time applications to the crawler stage. Treat each generation.</p> <p>For late season (pre-harvest) control of Leafhopper species, apply this product while most Leafhoppers are in the nymphal stage.</p> <p>For control of Mealybugs, ensure good spray coverage of the trunk and scaffolding limbs or other resting sites of the Mealybug.</p> <p><b>RESTRICTIONS</b></p> <ul style="list-style-type: none"> <li>Do not apply more than 6 fluid ounces per acre in a single application.</li> <li>Do not make more than 5 applications per year.</li> <li>Allow 10 or more days between applications.</li> <li>Allow at least 7 days between last application and harvest.</li> <li>Do not apply more than 25.6 fluid ounces (0.4 lb of active ingredient) per acre per year.</li> </ul> <p>* Not for use in California for control on pears.</p>

CROP	PEST	RATE	APPLICATION INSTRUCTIONS
<b>PECAN*</b>	Yellow pecan aphids, Black margined aphids, Pecan leaf phylloxera, Pecan spittlebugs, Pecan stem phylloxera	1.5 fl. oz. (45 mL) per 100 gal or 6 fl. oz./A <sup>1</sup>	<p>Make foliar applications as pests begin to build before populations become extreme. Two applications at a 10 to 14 day interval may be required to achieve control. Scout and retreat if needed.</p> <p>Thorough uniform coverage of foliage is necessary for optimal control. Addition of an organosilicone-based spray adjuvant at a rate not to exceed the adjuvant manufacturer's specified use rate may improve coverage.</p> <p><b>RESTRICTIONS</b></p> <ul style="list-style-type: none"> <li>Do not apply more than a total of 18 fluid ounces of this product per acre per year.</li> <li>Do not make more than 3 applications per year.</li> <li>Allow 6 or more days between applications.</li> <li>Allow 7 days between last application and harvest.</li> </ul> <p>* Use on pecans not permitted in California unless directed by specific supplemental labeling.</p>
<b>GRAPES</b>	Leafhoppers (including glassy-winged sharpshooters), Mealybugs	1.5 fl. oz. (45 mL) per 100 gal or 3 fl. oz/A (90 mL/A)	<p>Apply specified dosage as a foliar spray using 200 gallons of water per acre. Make applications up to and including day of harvest.</p> <p><b>RESTRICTIONS</b></p> <ul style="list-style-type: none"> <li>Do not apply more than a total of 6 fluid ounces of this product per acre per year.</li> <li>Allow at least 14 days between applications.</li> </ul> <p>Allow 0 days between last application and harvest.</p>

<sup>1</sup> The amount of this product required per acre will depend on tree size and volume of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees.

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. **PESTICIDE STORAGE AND SPILL PROCEDURES:** Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spillage or leakages, soak up with an absorbent material such as sand, sawdust, earth, Fuller's earth, etc. Dispose of with chemical waste. **PESTICIDE DISPOSAL:** Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility. **CONTAINER DISPOSAL:** 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this Product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Central Garden & Pet Company or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Central Garden & Pet Company and Seller harmless for any claims relating to such factors.

Central Garden & Pet Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Central Garden & Pet Company, and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, CENTRAL GARDEN & PET COMPANY MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.



Manufactured for: **Central Garden & Pet Company**, 1501 East Woodfield Road, 200W, Schaumburg, Illinois 60173

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