### TreeMec<sup>®</sup> Inject

### **DIRECTIONS FOR USE**

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

IMPORTANT: Read the entire label before using this product. Failure to follow label instructions may result in poor control or tree injury and may cause injury to people, animals and the environment.

#### PRODUCT INFORMATION

TreeMec® Inject is for the control of mature and immature insect and mite pests of deciduous up to two years.

TreeMec® Inject is designed to be used with tree injection devices that meet the label and

Dosages are based on the Diameter (in inches) of the tree at Breast Height ("DBH"). DBH is the outside bark diameter of the trunk at 4.5 feet (1.37 m) above the ground on the uphill side of the tree. For the purposes of determining breast height, the ground includes the duff layer that may be present, but does not include unincorporated woody debris that may rise above the ground line. The diameter is determined by measuring the circumference of the tree at DBH and dividing the circumference (in inches) by three (3). To determine DBH for multi-stemmed woody ornamentals, measure the DBH for each stem or branch and add together for the total DBH per tree.

Placement of Application/Injection Sites: Inject at the base of the tree. Inject into the stem

Number of Injection Sites: Work around the tree, spacing injection sites approximately every

**Drill Depth:** Drill through the bark, then 5/8" to 1-5/8" (hardwoods) or 1-5/8" to 2" (conifers) into the sapwood with the appropriate sized drill bit. Use clean, sharp drill bits. Take precautions to avoid diseased areas and transferring infected tissues to other injection sites.

**Resinous Conifers:** In resinous conifers, such as pine and spruce, start the injection immediately after drilling into the sapwood. A prolonged delay may reduce uptake due to resin flow into the opening.

When to Treat: TreeMec® Inject contains the active ingredient Emamectin Benzoate which is a glycoside insecticide. It is active against immature and adult stages of arthropods. The primary route of toxicity is through ingestion.

**Environmental Conditions:** Uptake of TreeMec® Inject is dependent upon the tree's transpiration which is dependent upon a number of abiotic and biotic factors such as soil moisture/temperature, ambient temperature and time of day. For uptake, apply when soil is moist, soil temperature is 45° to 90°F and during the 24-hour period when transpiration is greatest (typically before 2:00 p.m.). Applications to drought- or heat-stressed trees may result in injury to tree tissue, poor treatment and subsequent control. Avoid treating trees that are moisture stressed or suffering from herbicide damage.

Monitor Tree Health and Pest Infestations: Effective injection treatment is favored by a full canopy (i.e., leaves) and healthy vascular system. Once these tissues are compromised by pest damage (larval galleries, defoliation, leaf mining, etc.) an effective and uniform application of TreeMec® Inject may be difficult to achieve and subsequent control may be poor. For optimum results, treat at least 2 to 3 weeks before pests historically infest the host tree. As a result of systemic movement and longevity of TreeMec® Inject in trees, this interval may be extended much earlier to 6 months should tree dormancy, adverse weather, management, asynchronous life cycle of pests, etc. allow earlier application timing.

TreeMec® Inject may also be effective as a remedial treatment against some pests, such as those with slower development or if multiple life stages are susceptible to Emamectin Benzoate. Pests that attack the stem and branches, such as bark beetles and clearwing borers, may disrupt vascular tissue resulting in poor distribution in an infested tree. This includes the initial larval stages of pests, such as flat-headed borers and clearwing borers, which attack the stem and branch, which may disrupt vascular tissue resulting in poor distribution of the product in an infested tree. However, control may be achieved if larvae come into contact with or feed on Emamectin Benzoate-treated tissues.

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**Use Rates** Use as formulated or dilute with equivalent 1 to 3 volumes of water or more, as necessary.

Tree Diameter (DBH) (Inches)	Low (mL product/tree)	Medium (mL product/tree)	Medium-High (mL product/tree)	High (mL product/tree)
4 to 6	15	25	50	-
7 to 9	20	40	80	-
10 to 12	30	55	110	165
13 to 15	35	70	140	210
16 to 18	42	85	170	225
19 to 21	50	100	200	300
22 to 24	-	115	230	345
25 to 27	-	130	260	390
28 to 30	-	145	290	435
31 to 33	-	160	320	480
34 to 36	-	175	350	525
37 to 39	-	190	380	570
40 to 42	-	205	410	615
43 to 45	-	220	440	660
46 to 48	-	235	470	705
49 to 51	-	250	500	750
52 to 54	-	265	530	795
55 to 57	-	280	560	840
58 to 60	-	295	590	885
61 to 63	-	310	620	930
64 to 66	-	325	650	975
67 to 69	-	340	680	1020
70 to 72	_	355	710	1065

The use of low, medium, medium-high and high rates is based on the professional judgement of the applicator as to what constitutes a low, medium or high infestation. Higher rates tend to provide a longer residual and control of more difficult-to-control insects. See Target Pests table for additional information in choosing the amount of product to apply.







Emerald Ash Borer Winter Moth Japanese Beetle

### **Use Rates** Use as formulated or dilute with equivalent 1 to 3 volumes of water or more, as necessary.

Tree Diameter (DBH) (Inches)	Low (mL product/tree)	Medium (mL product/tree)	Medium-High (mL product/tree)	High (mL product/tree)
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16 to 18	42	85	170	225
19 to 21	50	100	200	300
22 to 24	-	115	230	345
25 to 27	-	130	260	390
28 to 30	-	145	290	435
31 to 33	-	160	320	480
34 to 36	-	175	350	525
37 to 39	-	190	380	570
40 to 42	-	205	410	615
43 to 45	-	220	440	660
46 to 48	-	235	470	705
49 to 51	-	250	500	750
52 to 54	-	265	530	795
55 to 57	-	280	560	840
58 to 60	-	295	590	885
61 to 63	-	310	620	930
64 to 66	-	325	650	975
67 to 69	-	340	680	1020
70 to 72	-	355	710	1065

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### **Additional Directions for Application in Trees**

Tree Tissue	Target Pest	Application Rate Range <sup>1</sup>	Comments
Seed and Cone	Cone Beetle <sup>2</sup> (Conopthora spp.) Pine Cone Seed Bug (suppression of Leptoglossus and Tetyra spp. in the year of treatment) Pine Coneworm (Dioryctria spp.)	Medium to High	For optimal control, apply in the fall for early season pests or at least 30 days before insect attack.
Bud and Leaf	Aphid <sup>2</sup> Bagworm Conifer Mites <sup>2</sup> Fall Webworm Gypsy Moth Honeylocust Plant Bug Japanese Beetle Leafminers (such as Coleoptera, Hymenoptera Lepidoptera) Mimosa Webworm Oak Worm Pine Needle Scale Red Palm Mite Sawfly (such as Elm, Pine) Tussock Moth	Low to High	Apply at least 2-3 weeks before the pest has historically been present. Consult with a local extension agent for when this will occur in your area.
Shoot, Stem Trunk and Branch	Flatheaded Borers (such as adult and larvae of Bronze Birch Borer <sup>2</sup> , Emerald Ash Boers and Two-lined Chesthut Borer <sup>2</sup> ) Font Caterpillars (such as Eastern, Forest, Pacific and Western) Western Spruce Budworm Winter Moth		For optimal control, apply at least 30 days before historical egg hatch or adult flight and to trees whose vascular tissue is not damaged.  If vascular tissue is damaged or plugged by insect galleries, nematodes or fungi, uniform treatment and control may not be achieved.
	Clearwing Borers (such as Ash and Sequoia Pine Pitch Tube Moth)		
	Ambrosia Beetles <sup>2</sup> Cynipid Gall Wasps <sup>2</sup> Pinewood Nematode Roundheaded Borers (excluding Asian Longhorn Beetles) / Ds Engraver Beetles, Mountain Pine Beetle, Scouthern Pine Beetle, Spruce Beetle, Western Pine Beetle	Medium to High	

<sup>2</sup>Not registered for use in California

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Seed and Cone	Cone Beetle <sup>2</sup> (Conopthora spp.) Pine Cone Seed Bug (suppression of Leptoglossus and Tetyra spp. in the year of treatment) Pine Coneworm (Dioryctria spp.)	Medium to High	For optimal control, apply in the fall for early season pests or at least 30 days before insect attack.
Bud and Leaf	Aphid <sup>2</sup> Bayworm Conifer Mites <sup>2</sup> Fall Webworm Gypsy Moth Honeylocust Plant Bug Japanese Beetle Leafminers (such as Coleoptera, Hymenoptera Lepidoptera) Mimosa Webworm Oak Worm Pine Needle Scale Red Palm Mite Sawfly (such as Elm, Pine) Tussock Moth	Low to High	Apply at least 2-3 weeks before the pest has historically been present. Consult with a local extension agent for when this will occur in your area.
Shoot, Stem Trunk and Branch	Flatheaded Borers (such as adult and larvae of Bronze Birch Borer2, Emerald Ash Borer and Two-lined Chestmut Borer2) Tent Caterpillars (such as Eastern, Forest, Pacific and Western) Western Spruce Budworm Winter Moth		For optimal control, apply at least 30 days before historical egg hatch or adult flight and to trees whose vascular tissue is not damaged.  If vascular tissue is damaged or plugged by insect galleries, nematodes or fungi, uniform treatment and control may not be achieved.
	Clearwing Borers (such as Ash and Sequoia Pine Pitch Tube Moth)		
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1 Use medium to high rates for remedial and longer residual control <sup>2</sup>Not registered for use in California

and coniferous trees and palms including, but not limited to, those growing in residential and commercial landscapes, parks, plantations, seed orchards and forested sites in private, municipal, state, tribal and national areas. TreeMec® Inject contains the active ingredient Emamectin Benzoate and is formulated to translocate in the tree's vascular system when injected. This product must be placed into active sapwood and will actively control pests for

dose requirements for the control of listed pests of trees. Follow manufacturer's directions for

within 12" of the soil, into the trunk flare or into tree roots exposing them by shallow excavation. Make applications into intact, healthy sapwood. Do not inject into injured areas or areas with decay.

4 to 8 inches of the tree's circumference or according to the manufacturer's recommendation for the application device.

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### PRODUCT INFORMATION

TreeMec® Inject is for the control of mature and immature insect and mite pests of deciduous and coniferous trees and palms including, but not limited to, those growing in residential and commercial landscapes, parks, plantations, seed orchards and forested sites in private, municipal, state, tribal and national areas. TreeMec® Inject contains the active ingredient Emamectin Benzoate and is formulated to translocate in the tree's vascular system when injected. This product must be placed into active sapwood and will actively control pests for up to two years.

TreeMec® Inject is designed to be used with tree injection devices that meet the label and dose requirements for the control of listed pests of trees. Follow manufacturer's directions for equipment use.

Dosages are based on the Diameter (in inches) of the tree at Breast Height ("DBH"). DBH is the outside bark diameter of the trunk at 4.5 feet (1.37 m) above the ground on the uphill side of the tree. For the purposes of determining breast height, the ground includes the duff layer that may be present, but does not include unincorporated woody debris that may rise above the ground line. The diameter is determined by measuring the circumference of the tree at DBH and dividing the circumference (in inches) by three (3). To determine DBH for multi-stemmed woody ornamentals, measure the DBH for each stem or branch and add together for the total DBH per tree.

Placement of Application/Injection Sites: Inject at the base of the tree. Inject into the stem within 12" of the soil, into the trunk flare or into tree roots exposing them by shallow excavation. Make applications into intact, healthy sapwood. Do not inject into injured areas

Number of Injection Sites: Work around the tree, spacing injection sites approximately every 4 to 8 inches of the tree's circumference or according to the manufacturer's recommendation for the application device.

**Compatibility:** Do not mix TreeMec® Inject before injection with other products such as insecticides, fungicides, plant growth regulators, surfactants, adjuvants and fertilizers with labels indicating that the other product should not be mixed with TreeMec® Inject. If there is no prior experience with a particular tank mix, check the physical compatibility by making a small clear jar test using correct proportions to be tank mixed.

**Restriction:** Do not apply to trees that may be harvested for food consumption by humans or used in animal feed

### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container in a cool, dry place away from children and pets. Keep from freezing.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Non-refillable container; do not reuse or refill this container. Offer for recycling if available. Promptly clean container after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds then pour rinsate into application equipment or a mix tank or store rinsate for use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times, then offer the container for recycling, if available; or puncture and dispose of in a sanitary landfill; or by incineration, if allowed by local and state authorities. Stay out of smoke from burning container.

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## **TreeMec® Inject**

### PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING:** Causes substantial but temporary eye injury. Harmful if swallowed. Do not get in eyes or on clothing. Wear protective eyewear such as goggles or safety glasses. Thoroughly wash with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

### **FIRST AID**

If in Eyes: 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 Swallowed:** Immediately call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants;
- Chemical-resistant gloves (Category C) such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils or neoprene rubber > 14 mils;
- Shoes and socks; and
- Protective eyewear.

### **ENVIRONMENTAL HAZARDS**

This product is highly toxic to fish, mammals and 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 or rinsate. This product is highly toxic to bees exposed to direct treatment or residues on blooming trees. Do not apply this product to blooming trees if bees are foraging the treatment area

### TreeMec® Inject

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#### NOTICE OF WARRANTY

ArborSystems warrants that this product conforms to the chemical description on the label and is reasonably fit for use under average conditions when used strictly in accordance with the directions on the labeling. ArborSystems does not make or authorize any agent or representative to make any other warranty, guarantee or representation, express or implied, concerning this product.

TreeMec® is a registered trademark of ArborSystems

ArborSystems<sup>™</sup> is a trademark of ArborSystems.



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 $\label{treeMecons} \mbox{TreeMec}{\mbox{$^\circ$}} \mbox{ is a registered trademark of ArborSystems}$ 

ArborSystems<sup>™</sup> is a trademark of ArborSystems.



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## TreeMec<sup>®</sup> Inject

Injected insecticide for two-year control of listed insect and mite pests in deciduous and coniferous trees and palms.





**Emerald Ash Borer** 

nter Moth Japanese

### **ACTIVE INGREDIENT:**

 Emamectin Benzoate
 4%

 (CAS No. 155569-91-8)
 4%

 OTHER INGREDIENTS
 96%

 Total
 100%

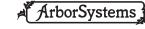
 Contains 0.36 lb Emamectin per gallon

Net Contents: 1 qt (946.35 ml)

EPA Reg. No. 69117-12 • EPA Est. 69117-NE-1

# Keep Out of Reach of Children WARNING

See inside for First Aid, additional Precautionary Statements and complete Directions for Use.



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## TreeMec® Inject

Injected insecticide for two-year control of listed insect and mite pests in deciduous and coniferous trees and palms.







Emerald Ash Borer

Winter Moth Japanese Beetle

### **ACTIVE INGREDIENT:**

**Net Contents: 1 qt (946.35 ml)** 

EPA Reg. No. 69117-12 • EPA Est. 69117-NE-1

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