

# BOXER™ Insecticide-Miticide

An ArborSystems™ Direct-Inject™ Chemical  
• Easy • No Drilling • Saves Time and Money

For systemic two-year control of listed insect and mite pests in a variety of deciduous/coniferous ornamental trees and palms in utility rights-of-way, urban environments, residential areas and interior landscapes (such as those in domestic landscape/garden areas, public display plantings, recreation areas, highway and other transportation rights-of-way, scenic corridors, forest areas, campgrounds and other uncultivated, nonagricultural areas).

Intended for use by professional arborists/applifiers, foresters, grounds maintenance professionals and landscapers.

To be used only with the ArborSystems Direct-Inject Tree Injection System.



Tree Injection Solutions

800-698-4641 • Fax: 402-339-5011  
P.O. Box 34645 • Omaha, NE 68134

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

## 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.

### 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.

## 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.

**Keep Out of Reach of Children**  
**WARNING**  
See Inside for First Aid,  
Additional Precautionary Statements  
and complete Directions for Use.

For systemic two-year control of listed insect and mite pests in a variety of deciduous/coniferous ornamental trees and palms in utility rights-of-way, urban environments, residential areas and interior landscapes.  
**ACTIVE INGREDIENT:**  
Emamectin Benzoate  
(CAS No. 155569-91-8) ..... 4%  
**OTHER INGREDIENTS** ..... 96%  
Total ..... 100%  
Contains 0.36 lb Emamectin per gallon  
Net Contents: 4 fl oz (120 ml); Contains 0.18 oz (5 grams) active ingredient per 4 fl oz (120 ml) pack.  
1 qt 2 fl oz (1000 ml); Contains 1.54 oz (43.5 grams) active ingredient per 1 qt 2 fl oz (1000 ml) pack.

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Portle® and Wedgle® are registered trademarks of ArborSystems.

ArborSystems™, BOXER™ Insecticide-Miticide, Direct-Inject™ and WedgeChek™ are trademarks of ArborSystems.

Direct-Inject™ unit is protected by U.S. Patent #5,901,498  
Wedgle® Tip is protected by U.S. Patent #5,239,773  
WedgeChek™ is protected by U.S. Patent #5,797,215  
Portle® Tip is protected by U.S. Patent #7,178,286

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## DIRECTIONS FOR USE

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

**Intended for use by professional arborists/ applicators, foresters, grounds maintenance professionals and landscapers.**

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

## ARBORSYSTEMS™ DIRECT-INJECT™ TREE INJECTION SYSTEM

The ArborSystems Direct-Inject Tree Injection System is easy to use. Most trees are treated in as little as five minutes or less, allowing applicators to treat trees quickly. There is no need to wait for absorption (translocation). Chemical is injected into the cambial area (the active vascular system) of the tree. Because the chemical is placed right where the tree can use it, effectiveness of the chemical is increased. Use in sunny or over-cast conditions, rainy or dry, at any time of day. As no drilling or implants are required, you can treat trees year after year, with no threat of long-term or permanent damage to the tree. This system minimizes wounding and promotes long-term tree vigor.

### INDICATIONS

**As a preventative,** apply in the early spring prior to insect activity in the tree.

**As a remedial** (on trees already showing symptoms of infestation), apply as needed spring through fall, provided the bark is pliable enough to accept the chemical injections.

### DOSAGE

1 ml per 4" to 6" of trunk circumference measured within 12" of the ground.

Dosage may be increased to a maximum of 2 ml per injection site for trees with a circumference greater than 38" (diameter greater than 12"), for challenging insect infestations or for remedial or longer residual control.

### DOSAGE (continued)

**Note:** Younger or small trees with thinner bark may be less able to retain the full dose per injection site; in such cases, to obtain the appropriate per-tree dosage, reduce the dosage per injection site to 0.5 to 1 ml and increase the number of injection sites accordingly.

Do not exceed the maximum annual application rate of 192.5 ml of product (0.3 oz (8.5 g) active ingredient) per tree.

### PESTS CONTROLLED

- Ambrosia Beetles\*
- Aphids\*
- Bagworms
- Clearwing Borers (such as Ash and Sequoia Pine Pitch Tube Moth)
- Cone Beetles (*Conophthra* spp.)\*
- Conifer Mites\*
- Cynipid Gall Wasps\*
- Fall Webworms
- Flatheaded Borers (such as adult and larvae of Bronze Birch\* and Two-lined Chestnut\*)
- Gypsy Moths
- Honeylocust Plant Bugs
- Japanese Beetles
- Leafminers (such as *Lepidoptera*, *Coleoptera*, *Hymenoptera*)
- Mimosa Webworms
- Oak Worms
- Pine Cone Seed Bugs (suppression of *Leptoglossus* and *Tetyra* spp. in the year of treatment)
- Pine Coneworms (*Dioryctria* spp.)
- Pine Needle Scale
- Pinewood Nematodes
- Red Palm Mites
- Roundheaded Borers (excluding Asian Longhorned Beetles)
- Sawflies (such as Elm, Pine)
- Scolytids (Bark Beetles) *Ips* Engraver Beetles, Mountain Pine Beetles, Southern Pine Beetles, Spruce Beetles, Western Pine Beetles)
- Tent Caterpillars (such as Eastern, Forest, Pacific and Western)
- Tussock Moths
- Western Spruce Budworms
- Winter Moths

\*Not registered for use in California

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Use protective eyewear and gloves when handling ArborSystems Direct-Inject chemicals. Use chemical-resistant gloves made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, natural rubber  $\geq$  14 mils, polyethylene  $\geq$  14 mils, polyvinylchloride (PVC)  $\geq$  14 mils or viton  $\geq$  14 mils.

### HOW TO USE ARBORSYSTEMS DIRECT-INJECT CHEMICALS WITH ARBORSYSTEMS DIRECT-INJECT TREE INJECTION SYSTEM

1. Use only ArborSystems Direct-Inject chemicals with your unit as they have been formulated specifically for the Direct-Inject system. Use of other chemicals will invalidate warranty.
2. Attach the chemical pack to the Direct-Inject unit and prepare the unit to make injections.
3. Set the delivery volume on the unit.
4. Follow the label directions in this booklet to determine the amount of chemical and number of injection sites.
5. Determine where to make injections in the bark. Generally, the injection tip is inserted into the fissure (valley) of the tree bark. Inject thin-barked trees in the thicker part of the tree bark. Thick-barked trees require a longer injection tip.
6. Make injections working around the circumference of the tree. Make Wedgle® Tip injections within 12" of the ground. Portle® Tip injection height varies depending on type of tree and location.
7. When treating hardwoods, use Wedgle® Tips and make injections within 12" of the ground. Initially, use the shorter Wedgle Tip; if no resistance is met after this initial insertion past the bark (i.e., if the tip does not reach the outer xylem ring), withdraw the Tip. Replace the short Tip with the longer Tip to ensure the Tip fully penetrates the bark to reach the outer xylem ring. Use Portle® Tips when treating conifers and Palm Tips when treating palms.
8. When the Tip is correctly inserted, firmly squeeze the injection unit handles using a smooth, slow motion. This releases a pre-

measured chemical dose into the tree.

9. Continue making injections moving around the tree until the entire tree trunk has been treated.
10. During use, periodically clean the Direct-Inject unit to prevent clogging.

### 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. Completely empty pack into application equipment, then offer for recycling if available; otherwise, dispose of empty pack in a sanitary landfill.