

# DENDREX<sup>®</sup>

## SYSTEMIC INSECTICIDE APPLIED INTERNALLY BY TREE TECH<sup>®</sup> MICROINJECTION SYSTEMS FOR CONTROL OF CERTAIN INSECTS ON NON-CROP TREES AND SHRUBS

ACTIVE INGREDIENT	By Wt.
Acephate (O,S-Dimethyl acetylphosphoramidothioate) . . . . .	98%
OTHER INGREDIENTS. . . . .	2%
	<hr/> 100%

EPA Reg. No. 64014-1  
EPA Est. No. 64014-FL-001

**STOP - READ THE LABEL BEFORE USE**

**FOR USE BY COMMERCIAL ARBORISTS  
(APPLICATORS)**

**KEEP OUT OF REACH OF CHILDREN**

### CAUTION

FIRST AID	
Organophosphate	
<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.</li></ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"><li>• Take off contaminate clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 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 swallowed:</b>	<ul style="list-style-type: none"><li>• Call 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 the poison control center or doctor.</li><li>• Do not give anything to an unconscious person</li></ul>
HOT LINE NUMBER	
Organophosphate	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact <b>1-800-457-2022</b> for emergency medical treatment information.	
NOTE TO PHYSICIAN	
Acephate is a cholinesterase inhibitor. If signs of cholinesterase inhibition appear, atropine is antidotal. 2-PAM also may be used in conjunction with atropine but should not be used alone.	

SEE REAR PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

**NET CONTENTS:** Each microinjection unit contains 5 mL (1.5 gm a.i.) acephate systemic insecticide solution. There are 100 microinjection units (500 mL total) per case.

**Sold by:**  
Florida Silvics, Inc.  
(dba Tree Tech Microinjection Systems).  
950 SE 215<sup>th</sup> Avenue  
MORRISTON, FL 32668 USA  
**(352) 528-5335**

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber or polyvinyl chloride. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

Handlers must wear:

- long-sleeved shirt and long pants
- shoes plus socks
- chemical resistant gloves

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**

Users should:

1. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
2. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination Systems (NDPES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your Water Board or Regional Office of the EPA.

This pesticide is highly toxic to birds.

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

AVISO:

**PRECAUCION AL USARIO:** 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.)

**DIRECTIONS FOR USE**

**IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.**

Read entire label. Use strictly in accordance with **Precautionary Statements** and **Directions**, and with applicable state and federal regulations.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and the Worker Protection Standard, 40 CFR 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE).

The requirements in this box only apply to uses of this product that are covered by the Workers Protection Standard (WPS).

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.

THE RESTRICTED-ENTRY INTERVAL (REI) FOR THIS PRODUCT IS "0" HOURS.

## **USE DIRECTIONS**

Applying DENDREX using the Tree Tech microinjection system:

DENDREX label and injection instructions must be read and understood prior to use or installation of Tree Tech Microinjection Systems' microinjection units. Failure to follow these instructions may lead to injury to the installer or other persons as well as mechanical or phytotoxic damage to treated trees. The following instructions must be heeded to ensure safe and effective use of the injectors containing DENDREX insecticide.

1. Protective eye wear and rubber or neoprene gloves must be worn while handling or installing the microinjection unit to prevent accidental contact with the eyes or skin.
2. When properly installed, the microinjection unit generates internal pressure resulting in the flow of DENDREX solution through the dispenser tube. The microinjection unit must never be activated unless installed correctly and securely in the tree to be treated.
3. Microinjection units containing DENDREX may require up to several hours or more to empty depending on the health of the treated tree and local weather conditions. Never assume that microinjection units have depressurized completely because they appear nearly empty or empty. When removing injectors, individuals must wear proper eye protection and rubber or neoprene gloves. The individual should then cover the microinjection unit with one hand near the point of insertion into the stem while grasping the barrel end of the microinjection unit with the other hand. The injector should be turned slightly as it is slowly withdrawn from the tree. Careful removal of microinjection units should prevent accidental spillage of DENDREX and subsequent exposure to the installer.
4. After microinjection units are removed from treated trees they must be discarded into the heavy-duty plastic disposal bag included in each case of microinjection units. The bag should be properly sealed and placed in the original carton. Sealed cartons should be returned freight prepaid to Tree Tech Microinjection Systems, 950 SE 215<sup>th</sup> Ave, Morriston, FL 32668.

### **Installing Microinjection Units**

1. Determine the number of microinjection units to be installed based upon 1) the target insect pest(s), and 2) the registered dosage rate as administered by proper spacing of microinjection units around the stem circumference. Unless otherwise noted, microinjection units should be installed in the stem and root flares every 6 inches around the trunk near the ground line, i.e., 6.0-to-8.0 inches (15-to-20 cm) from the soil surface.
2. Using a portable electric drill (600-800 rpm capacity is preferred) with a sharp, clean 11/64-in. (0.4-cm) bit, the installer should drill a hole at the correct stem circumference spacing to a depth of 1/4-to-1/2 in. (0.60-to-1.3 cm) into the wood (xylem) under the bark. A slight downwardly angle is recommended for more complete drainage of the microinjection unit.
3. After reaching the proper depth range, the drill bit should be withdrawn carefully to avoid dislodging bark fragments around the exterior opening of the hole. The rear barrel portion of the microinjection unit should be compressed partially (about 1/2 in. or 1/3 cm.) The microinjection unit should be inserted into the hole and the rear barrel portion compressed further without engaging the locking mechanism and barrel segments. Placing the plastic installation cap over the rear barrel end, strike the cap with a plastic hammer to seat the microinjection unit firmly in the hole. If the microinjection unit is not properly positioned in the hole, strike the cap again until correctly seated. By striking the microinjection unit, the back end of the feeder tip is forced back into the funnel-shaped section dislodging a septum that allows the DENDREX solution to flow from the microinjection unit into the tree. Alternatively, the septum may be dislodged from the funnel-shaped section by supporting the unit on a flat surface and drilling the septum out, then inserting the unit over the back of the feeder tip.
4. When the microinjection unit is positioned correctly in the tree and the internal septum is dislodged to permit the flow of DENDREX, remove the cap and, if necessary, push the rear barrel portion of the unit further downwardly until it is flush with the edge of the locking mechanism. This engages the locking mechanism that pressurizes the microinjection unit and assists in the evacuation of DENDREX from the microinjection unit and movement into the vascular system of the tree.
5. Each hole should be drilled and a microinjection unit installed without delay. After the unit is properly seated, it should be activated. This sequence minimizes the flow of tree sap or resin into the hole prior to DENDREX injection.

**APPLICATION:** Apply in all cases when plant root systems are established and actively growing. Applications should be applied at recommended intervals to maintain insect control.

Plant	Insects	Microinjection Unit Spacing Interval Around Stem Circumference	Time of Injection
Trees (except Flowering Crabapple, see below) and Shrubs	Aphids Bagworms Birch leaf miner Tent caterpillar Lace bugs	1 microinjection unit every 6 inches	As the insects begin to appear.
	Tussock moth larvae Gypsy moth larvae	1 microinjection unit every 6 inches	As the insects begin to appear.
	Scales (crawlers)	1 microinjection unit every 6 inches	As crawlers begin to appear. Repeat applications at 4-week or more intervals. May be necessary where there is continuous crawler production.
	Grasshoppers	1 microinjection unit every 6 inches	As the grasshoppers begin to appear.
	California oak worm Cankerworms (Spring and Fall)	1 microinjection unit every 6 inches	As the insects begin to appear. Use the higher amount when the larger larvae are present.
	Nantucket pine tip moth larvae Zimmerman pine moths	1 microinjection unit every 6 inches	Time of application is important Consult your farm advisor or County Extension Agent. Repeat applications will be required for subsequent generations.

Plant	Insects	Microinjection Unit Spacing Interval Around Stem Circumference	Time of Injection
	Root weevil adults	1 microinjection unit every 6 inches	Apply when first feeding damage occurs. Repeat applications at 4-week intervals until the first heavy frost, maybe necessary for complete foliage protection.
Trees and Shrubs (continued)	Box elder bugs Thrips White flies Sawflies Budworms Grasshoppers Cone worms Casebearer Webworms Leaf miners Pine needle miner	1 microinjection unit every 6 inches	As the insects begin to appear.
	Bronze birch borer	1 microinjection unit every 6 inches	Mid-July through August
	Japanese beetle	1 microinjection unit every 4 inches	As the Japanese beetles begin to appear. Repeat applications at 4-week intervals may be necessary
	Elm leaf beetle (larvae)	1 microinjection unit every 4 inches	As the larvae begin to appear. DENDREX will not prevent elm leaf beetle eggs from hatching
Flowering crabapples	Aphids Tent caterpillars Leaf rollers	1 microinjection unit every 6 inches	As the insects begin to appear

**Caution:**

Phytotoxicity has occurred on the following crabapple varieties: 'Hopa', 'Ichonoski', 'Malus floribunda', 'Pink Perfection' 'Red Wine, and 'Snow Cloud'.

**MICROINJECTION UNIT DISPOSAL**

**If empty:** Do not reuse this container. Place in trash or offer for recycling if available.

**If partly filled:** Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

Used microinjection units may be placed in the heavy-duty plastic bag that accompanies each case of microinjection units. The bag should be properly sealed, placed into the original shipping carton and returned freight prepaid for disposal to Tree Tech Microinjection Systems, 950 SE 215<sup>th</sup> Ave, Morriston, FL 32668.

**STORAGE AND DISPOSAL**

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available.

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

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

Open dumping is prohibited.

Store microinjection units in a cool, dry place. Do not expose to temperatures below 32 F (0 C).

PESTICIDE STORAGE: Store product in the closed, original container in a cool, dry, locked place out of the reach of children.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site according to local regulations or at an approved waste disposal facility. For help with any spill, call day or night (415) 233-3737.

MICROINJECTION UNIT CONTAINER DISPOSAL:

IF EMPTY: DO NOT REUSE THIS CONTAINER. PLACE IN TRASH OR OFFER FOR RECYCLING IF AVAILABLE.

IF PARTLY FILLED: CALL YOUR LOCAL SOLID WASTE AGENCY OR 1-800-CLEANUP FOR DISPOSAL INSTRUCTIONS. NEVER PLACE UNUSED PRODUCT DOWN ANY INDOOR OR OUTDOOR DRAIN.

Used microinjection units may be placed in the heavy-duty plastic bag that accompanies each case of microinjection units. The bag should be properly sealed, placed into the original shipping carton and returned freight prepaid for disposal to Tree Tech Microinjection Systems, 950 S.E. 215<sup>th</sup> Ave., Morriston, FL 32668.

**WARRANTY AND DISCLAIMER STATEMENT**

To the fullest extent permitted by law, Tree Tech Microinjection Systems warrants that this product conforms to the description on the label and is reasonably fit for the purposes set forth on the label when used according to directions under normal use conditions. Neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of the product contrary to label instructions. The buyer and user acknowledge and assume all risk of use of this product when such use is contrary to label instructions. Read and follow the label directions carefully.