

US ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF PESTICIDES PROGRAMS  
REGISTRATION DIVISION (75-767)  
WASHINGTON, DC 20460

EPA REGISTRATION NO.

64014-1

DATE OF ISSUANCE  
APR 2 1992

TERM OF ISSUANCE

NOTICE OF PESTICIDE:  REGISTRATION  
 REREGISTRATION  
(Under the Federal Insecticide, Fungicide,  
and Rodenticide Act, as amended)

NAME OF PESTICIDE PRODUCT

Arbor x there

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Tree Technology Systems, Inc.  
1014 Rein Road  
Cheektowaga, NY 14225

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:

1. Submit/cite all data or other material required for registration/reregistration of your product under FIFRA section 3(c)(5) or FIFRA section 4 when the Agency requires all registrants of similar products to submit such data.
2. Make the labeling changes listed below before you release the product for shipment:
  - a. Add the phrase "EPA Registration No. 64014-1."
  - b. Add the following statement under the "Storage" heading:

Store in a locked storage area.
  - c. Both the "Active Ingredient" and "Inert Ingredients" headings must be aligned to the same margin.

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DATE  
APR 2 1992

- d. Revise the environmental hazards statement,

Do not apply directly to water or wetlands  
(swamp, bogs, marshes, and potholes)

to read as follows:

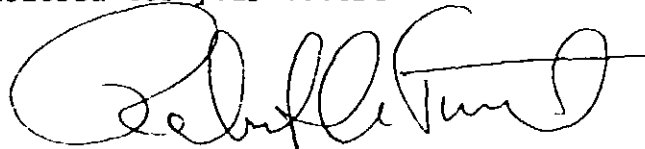
Do not apply directly to water, to areas  
where surface water is present or to  
intertidal areas below the mean high water  
mark.

- e. Item 5 of your application form dated January 23, 1992 indicates that the label directions which now appear on your basic product label will be located on ". . . labeling accompanying product." If your directions for use are to be removed from your basic product label and located on separate labeling accompanying this product, your basic label must include a reference to the location of the directions for use.

3. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.



Robert A. Forrest  
Product Manager (14)  
Insecticide-Rodenticide Branch  
Registration Division (H7505C)

Enclosures

ARBOR,THENE<sup>®</sup>

SYSTEMIC INSECTICIDE APPLIED INTERNALLY BY ARBOR,<sup>™</sup> MICROINJECTION  
SYSTEM FOR CONTROL OF CERTAIN INSECTS ON TREES AND SHRUBS

Active ingredient	By Wt.
Acephate (O,S-dimethyl acetylphosphoramidothioate)....	97%
Inert ingredients .....	<u>3%</u>
	100%

Each injector contains 1.5 grams active ingredient.

STOP -- READ THE LABEL BEFORE USE  
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ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

APR 2 1992

KEEP OUT OF REACH OF CHILDREN

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.

CAUTION

64014-1

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

NET CONTENTS: [ ] 300 grams of active ingredient in a case of 200  
injectors.

TREE TECHNOLOGY SYSTEMS, INC.  
1014 REIN RD.  
CHEEKTOWAGA, NY 14225

EPA Reg. No. 64014-New

EPA Est. No. 64014-NY-001

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Avoid contact with eyes, skin and clothing.  
Avoid breathing vapors. Wash thoroughly with soap and water after  
handling. Remove and launder contaminated clothing separately from

household articles before reuse.

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Statement of Practical Treatment:

If swallowed, drink one or two glasses of water (or milk) and induce vomiting by touching the back of the throat with the finger. If possible, contact a physician, poison control center, or emergency center before inducing vomiting. Do not induce vomiting or give anything by mouth to an unconscious person. Take the person and product container to the nearest emergency treatment center. In case of eye contact, flush eyes immediately with fresh water for at least fifteen minutes. If irritation persists, get medical attention. If inhaled, remove the person from the exposure area. For skin contact, wash skin with plenty of soap and water.

Note to Physicians: Emergency information call: 1-800-457-2022.

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.

Environmental Hazards:

This pesticide is toxic to birds. Do not apply directly to water or wetlands (swamp, bogs, marshes and potholes). Do not contaminate water when disposing of equipment wash waters.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

Applying ARBOR,THENE<sup>®</sup> with Tree Technology Systems, Inc. ARBOR,™ Injectors:

ARBOR,THENE<sup>®</sup> label and injection instructions must be read and understood prior to use or installation of Tree Technology Systems, Inc. ARBOR,™ microinjection units. Failure to follow these directions 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 ARBOR,THENE<sup>®</sup> 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 ARBOR,THENE<sup>®</sup> 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 ARBOR,THENE<sup>®</sup> 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 ARBOR,THENE<sup>®</sup> 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 Technology Systems, Inc., 1014 Rein Rd., Cheektowaga, NY 14225 for disposal.

#### 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 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.) to puncture an inner seal allowing the separate compartments containing water and ARBOR,THENE<sup>®</sup> to readily mix forming a solution. 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

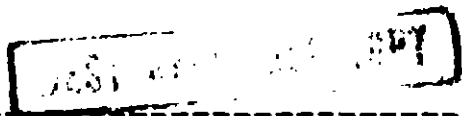
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into the funnel-shaped section dislodging a septum which allows the ARBOR,THENE<sup>®</sup> solution to flow from the microinjection unit into the tree.

4. When the microinjection unit is positioned correctly in the tree and the internal septum is dislodged to permit the flow of ARBOR,THENE<sup>®</sup>, 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 which pressurizes the microinjection unit and assists in the evacuation of ARBOR,THENE<sup>®</sup> 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 ARBOR,THENE<sup>®</sup> injection.

Plant	Insects	Microinjection Unit Spacing Interval Around Stem Circumference	Time of Injection
Trees (except Flowering Crabapple, see below) and Shrubs	Aphids Bagworms Birch leafminer Tent- caterpillar Lace bugs	1 microinjection unit every 10 inches	As the insects be- gin to ap- pear.
	Douglas-fir tussock moth larvae Gypsy moth larvae	1 microinjection unit every 8 inches	As the insects begin to appear.
	Scales (Crawlers)	1 microinjection unit every 8 inches	As crawlers begin to appear. Repeat ap- plications at 4-week or more inter- vals, may be necessary where there is contin- ous crawler production.



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Grasshoppers	1 microinjection unit every 8 inches	As the grasshoppers begin to appear.
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California oakworm Cankerworms (Spring and Fall)	1 microinjection unit every 8-to-10 inches	As the insects begin to appear. Use the higher amount when the larger larvae are present.
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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.
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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, may be necessary for complete foliage protection.
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Box elder bugs	1 microinjection unit every 6 inches	As the insects begin to appear.
Thrips		
White flies		
Sawflies		
Budworms		
Leafhoppers		
Caneworms		
Casebearer		
Webworms		
Leafrollers		
Pine needle miner		
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Bronze birch borer	1 microinjection unit every 6 inches	Mid-July through August
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Japanese beetle	1 microinjection unit every 4 inches	As the Japanese beetles begin to appear. Repeat applications at 4-week intervals may be necessary.
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Elm leaf beetle (larvae)	1 microinjection unit every 4 inches	As the larvae begin to appear. ARBOR-THENE <sup>®</sup> will not prevent elm leaf beetle eggs from hatching.
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Flowering Crabapples	Aphids Tent-caterpillars Leafrollers	1 microinjection unit every 10 inches As the insects begin to appear.

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

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## STORAGE AND DISPOSAL

### PROHIBITIONS

Do not contaminate water, food or feed by storage, or disposal of microinjection units.  
Open dumping is prohibited.

### STORAGE

Store microinjection units in a cool, dry place. Do not expose to temperatures below 32° F (0° C).  
Protect from excessive heat.  
Do not contaminate food or foodstuffs.  
Do not store or transport near feed or food.  
For help with any spill, leak, fire or exposure involving this material, call day or night (415) 233-3737.

### PESTICIDE DISPOSAL

Wastes resulting from use of this product must be disposed of according to local, state, and federal regulations at an approved waste facility.

### MICROINJECTION UNIT DISPOSAL

Do not reuse microinjection units. Used microinjection units should be placed in the heavy-duty plastic bag which 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 Technology Systems, Inc., 1014 Rein Rd., Cheektowaga, NY 14225.

ORTHENE and ARBOR,THENE<sup>®</sup>-TM of Chevron Chemical Company for acephate insecticide for use exclusively in the ARBOR,™ microinjection system.

IMPORTANT INFORMATION. READ BEFORE USING PRODUCT.

### LIMITED WARRANTY:

1. Tree Technology Systems, Inc. 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 labelling. Tree Technology Systems, Inc. does not make nor authorize any agent or representative to make any other warranty, guarantee or representation, express or implied, concerning this product. Specifically, NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE IS MADE.

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2. Critical and unforeseeable factors beyond the control of Tree Technology Systems, Inc. prevent it from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants to which the product is applied, lack of complete control over the handling and application of this product, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit under average conditions for the uses stated on the labelling and even though label directions are followed. Buyer and user acknowledge and assume all risks and liability (except those assumed by Tree Technology Systems, Inc. under 1 above) resulting from handling, storage and use of this product.

3. Precautions stated on the labelling should be followed to avoid hazardous exposure to the product. Neither Tree Technology Systems, Inc. nor its employees or distributors will be liable for any damages resulting from improper use of the microinjection units.

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