

Reg # 64014-5

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161,547,068  
160,547,210  
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (H7505C)  
401 "M" St., S.W.  
Washington, D.C. 20460

EPA Reg. Number:

Date of Issuance:

NOTICE OF PESTICIDE:  
 X  Registration  
    Reregistration

64014-5

DEC 14 1994

Term of Issuance:

Unconditional

Name of Pesticide Product:

VIVID

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Arbor Tree Technology Services, Inc.  
1014 Rein Road  
Cheektowaga, NY 14225

Note: Changes in labeling 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 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.

Registration is in no way to be construed as an endorsement or recommendation of this product by the 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 unconditionally registered in accordance with FIFRA sec. 3(c)(5) provided that you:

1. Make the following label changes:
  - a. Revise the EPA Registration Number to read, "EPA Reg. No. 64014-5".
  - b. Based on your products use pattern add the following statement to your front panel, "For Use by Commercial Arborists (Applicators)."
  - c. Delete reference to abamection being a systemic insecticide. Abamectin is not a systemic pesticide but is applied internally using a micro-injection system.
  - d. Replace the second and third sentences under Environmental Hazards with the following: "Do not contaminate water by cleaning of equipment or disposal of wastes."

Signature of Approving Official

Date:

EPA Form 8570-5

CONCURRENCES

SYMBOL							
SURNAME	<i>Selbert</i>						
DATE	<i>12-14-94</i>						

- e. On page 5 revise the site trees under the column heading Plant to read as follows:
- "Ornamental Trees (including non-crop bearing trees and woody shrubs). Likewise under general information add the qualifying statement ornamental preceding woody shrubs i.e., "ornamental woody shrubs."
- f. Delete "Do not use in citrus nurseries." The product is not for use on food crops.
- g. Delete the word "safe" on pg. 3. Words or phrases stating or implying safe use of a pesticide are not allowed on pesticide labels.
- h. Submit labeling for the individual microinjector unit. This unit must bear the minimum following information:
1. Product Name
  2. Signal Word and Keep Out of Reach of Children
  3. Ingredient Statement
  4. EPA Registration Number
  5. Referral statement to carton label for complete precautions and directions.
- i. On the front panel change "insects" to elm leaf beetle since that is the only pest claimed to be controlled.
- j. You may delete Pesticide disposal under Storage and Disposal since the only wastes are empty microinjection units which is covered under microinjection unit container disposal.
- k. Under General Information on page 5 add the following exclusionary statement to remove this product from the scope of Worker Protection Standard:

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in interior landscapes, ornamental gardens or parks, or on golf courses or lawns or grounds.

2. Submit two copies of the revised final printed label prior to release for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 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.

George T. LaRocca  
Product Manager 13  
Insecticide-Rodenticide Branch  
Registration Division (7505C)

enclosure

RECEIVED  
 with COMMENTS  
 by EPA Letter Board  
 DEC 14 1994  
 Under the Federal Insecticide,  
 Fungicide, and Rodenticide Act  
 registered for the pesticide  
 64014-5

**VIVID™**

CONTAINS ABAMECTIN SYSTEMIC INSECTICIDE APPLIED INTERNALLY BY  
 ARBOR<sub>x</sub>™ MICROINJECTION SYSTEM FOR CONTROL OF INSECTS IN ORNAMENTAL  
 AND NON-CROP-BEARING TREES, AND WOODY SHRUBS

ACTIVE INGREDIENT:	By Wt.
Abamectin [A mixture of avermectins containing a minimum of 80% avermectin B <sub>1a</sub> (5-0-demethyl aver- mectin A <sub>1a</sub> ) and a maximum of 20% avermectin B <sub>1b</sub> (5- 0-demethyl-25-de(1-methylpropyl)-25-(1-methylethyl) avermectin A <sub>1a</sub> )].....	1.9%
INERT INGREDIENTS.....	98.1%
	100.0%

NET CONTENTS: Each microinjection unit contains 0.018 grams a.i. abamectin systemic insecticide (VIVID).

U.S. Patent No. 4,310,519 VIVID is a Reg. TM of Tree Technology Systems, Inc., Cheektowaga, NY

EPA Reg. No. 64014-XXX EPA Est. No. 64014-NY-001

STOP -- READ THE LABEL BEFORE USE

KEEP OUT OF REACH OF CHILDREN

**WARNING**

SEE REAR PANEL FOR STATEMENTS OF PRACTICAL TREATMENT AND OTHER PRECAUTIONARY STATEMENTS

NET CONTENTS: 1 mL per microinjection unit  
 100 microinjection units (100 mL total) per  
 carton

Manufactured and sold by: TREE TECHNOLOGY SYSTEMS, INC.  
 1014 REIN RD.  
 CHEEKTOWAGA, NY 14225

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## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### WARNING

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Prolonged or frequently repeated exposure may cause allergic skin reactions in some individuals. Harmful if inhaled or absorbed through the skin. Avoid contact with skin. May be fatal if swallowed. Wear rubber gloves and protective eyewear. Remove any contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling, before eating, drinking or using tobacco.

#### STATEMENT OF PRACTICAL TREATMENT

**Inhalation:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth.

**Ingestion:** Immediately give one or two glasses of water and induce vomiting by gently touching back of the throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**Skin:** Wash with plenty of water.

**Eyes:** Flush with plenty of water.

Get medical attention in all cases.

**Recommendations for Medical Treatment for Abamectin B<sub>1</sub> Acute Toxicity:** Early signs of intoxication include mydriasis (dilated pupils), ataxia (unsteadiness), and muscle tremors. Toxicity following accidental ingestion of the concentrate can be minimized by inducing vomiting within one half hour of exposure.

If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels) as indicated by clinical signs, symptoms and measurements.

In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since abamectin is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that influence GABA activity (barbiturates, benzodiazapines, valproic acid) in patients with potentially toxic abamectin exposure.

For 24-hour emergency information, call (908) 756-2380.

## ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and wildlife. Do not apply directly to water or wetlands (swamps, marshes, or potholes). Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops. Use for tree microinjection only as a post-bloom application.

## PHYSICAL/CHEMICAL HAZARDS

Do not use or store near heat or open flame.

## DIRECTIONS FOR USE

It is a violation of Federal (U.S.A.) law to use this product in a manner inconsistent with its labelling. Do not use in citrus nurseries.

### 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).

IMPORTANT: Read these entire DIRECTIONS FOR USE, GENERAL INFORMATION, AND CONDITIONS OF SALE before using VIVID systemic insecticide, as they are written exclusively for using VIVID in the ARBOR<sub>x</sub> microinjection unit only.

Applying VIVID using the ArborX microinjection system: VIVID label and microinjection instructions must be read and understood prior to use or installation of Tree Technology Systems, Inc., ARBOR<sub>x</sub> 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 microinjection units containing VIVID systemic 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 and activated, the microinjection unit generates internal pressure resulting in the flow of VIVID solution through the dispenser tip. The microinjection unit must never be activated unless installed correctly and securely in the tree to be treated.

3. Microinjection units containing VIVID may require up to several minutes 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 microinjection units, 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.

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 the spacing of microinjection units at 6-inch intervals around the stem. Unless otherwise noted, microinjection units should be installed in the stem and root flares near the ground line, i.e., 2.0-to-8.0 in. or 5-to-20 cm, from the soil surface.

2. Using a cordless electric drill (600-800 rpm) 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 3/8-to-1/2 in. (1.0-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. Insert the microinjection unit into the hole. 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 frontal dispenser tip is forced into the funnel-shaped section dislodging an internal septum which allows the VIVID solution to flow from the microinjection unit into the tree.

4. When the microinjection unit is positioned correctly in the tree and the septum is dislodged, remove the cap. Push the rear barrel portion of the unit downwardly until the locking mechanism is engaged. This pressurizes the microinjection unit and assists in the movement of VIVID 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 uptake of VIVID during the microinjection process.

6. When properly installed and activated, the microinjection unit generates internal pressure resulting in the flow of VIVID solution through the dispenser tip. The microinjection unit must never be activated unless installed correctly and securely in the tree to be treated.

7. Microinjection units containing VIVID may require up to several minutes or more to empty depending on the health of the treated tree and local weather conditions. Microinjection units should be removed as soon as the evacuation of VIVID systemic insecticide solution is completed.

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 (including ornamental and non-crop-bearing trees, as well as woody shrubs	Elm leaf beetles	1 microinjection unit every 6 inches	Two weeks prior to anticipated occurrence, or as soon as insects appear

#### GENERAL INFORMATION

VIVID systemic insecticide is for use by applicators on all species of ornamental and non-crop-bearing trees, and woody shrubs, in commercial and residential landscapes, interior and exterior plantscapes, and other areas where trees and woody shrubs are growing.

#### CONDITIONS OF SALE

THE DIRECTIONS ON THIS LABEL WERE DETERMINED THROUGH RESEARCH TO BE APPROPRIATE FOR THE CORRECT USE OF THIS PRODUCT. THIS PRODUCT HAS BEEN TESTED UNDER DIFFERENT ENVIRONMENTAL CONDITIONS. BOTH INDOORS AND OUTDOORS UNDER CONDITIONS SIMILAR TO THOSE THAT ARE ORDINARY AND CUSTOMARY WHERE THE PRODUCT IS TO BE USED.

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INSUFFICIENT CONTROL OF PESTS OR PLANT INJURY MAY RESULT FROM THE OCCURRENCE OF EXTRAORDINARY OR UNUSUAL CONDITIONS, OR FROM FAILURE TO FOLLOW LABEL DIRECTIONS. IN ADDITION, FAILURE TO FOLLOW LABEL DIRECTIONS MAY CAUSE INJURY TO ANIMALS, MAN, AND DAMAGE TO THE ENVIRONMENT. TREE TECHNOLOGY SYSTEMS OFFERS, AND THE BUYER ACCEPTS AND USES, THIS PRODUCT SUBJECT TO THE CONDITIONS THAT EXTRAORDINARY OR UNUSUAL ENVIRONMENTAL CONDITIONS, OR FAILURE TO FOLLOW LABEL DIRECTIONS ARE BEYOND THE CONTROL OF TREE TECHNOLOGY SYSTEMS, INC. AND ARE, THEREFORE, THE RESPONSIBILITY OF THE BUYER.

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 or 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.

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 movement to other plants or crops or the development of tolerant strains of insects. 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. Tree Technology Systems shall not be liable to Buyer for any consequential, special or indirect damages alleged to arise from Tree Technology Systems performance or non performance of its obligations from the use, sales or handling of the Product, regardless of the legal theory asserted. Buyer's exclusive remedy in the event of any such claim is limited to a refund of the purchase price or replacement of any goods found by Tree Technology Systems to be defective. Any such claims shall be deemed waived unless made in writing fifteen (15) days of the Buyer's receipt of the Product or Buyer's discovery of defective Product, whichever date is later.

4. 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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STORAGE AND DISPOSAL

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

Open dumping is prohibited.

Store microinjection units at room temperature (45°-75°F). Do not freeze. Do not contaminate water, food, or feed by storage or disposal.

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.

) MICROINJECTION UNIT CONTAINER DISPOSAL: Do not re-use 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.

**VIVID**-TM of Tree Technology Systems, Inc.  
Abamectin insecticide manufactured by Merck AgVet, Division of Merck & Co., Inc.

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