

# SYSTREX®/NUTRIENT

A Systemic Fungicide/Nutrient Solution Administered by the Tree Tech Microinjection System  
For The Treatment of Tree Decline

Contains BAYLETON® SYSTEMIC FUNGICIDE

An Injection System Utilizing a Systemic Fungicide for the Suppression of *Fusarium* spp. and the Control of other Plant Diseases such as Anthracnose, Dutch Elm Disease, Oak Wilt, Rust, Powdery Mildew, Leaf Blight/Spot and Tip Blight which Attack Forest, Ornamental, Non-Crop-Bearing and Christmas Trees which display Decline Symptoms.

**ACTIVE INGREDIENT:**

Triadimefon 1-(4-Chlorophenoxy)-3,3-(dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanone . . . 00.88%

OTHER INGREDIENTS . . . . . 99.12%

TOTAL: 100.00%

EPA REG. NO. 64014-3    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**

**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.)

FIRST AID	
<b>If swallowed:</b>	<ul style="list-style-type: none"><li>• Call a 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>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control or doctor for treatment advice.</li></ul>
<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 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>
HOT LINE NUMBER	
Have the product container of label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-334-7577 for emergency medical treatment information.	
NOTE TO PHYSICIAN Causes moderate but reversible eye irritation. Treat symptomatically.	

**NET CONTENTS:** Each microinjection unit contains 14 mL of a solution containing 0.88% w/w triadimefon systemic fungicide.

**Sold by:** FLORIDA SILVICS, INC.  
(dba Tree Tech Microinjection Systems)  
950 SE 215<sup>th</sup> Ave  
Morrison, FL 32668 U.S.A.  
(352) 528-5335

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

**CAUTION:** Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Harmful if inhaled. Avoid breathing vapor or spray mist. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Protective eye wear and rubber or neoprene gloves must be worn while handling or installing injectors to prevent accidental contact with the eyes or skin. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash separately from household items before reuse.

**Personal Protective Equipment (PPE):**

Applicators and other handlers when installing or removing this product must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical resistant gloves, such as barrier laminate, or butyl rubber, or polyvinyl chloride, and
- Protective eye wear

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

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS**

**Users should:**

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. 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**

For terrestrial uses. Do not apply directly to water, or 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 wash water or rinsate.

**DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Use only as directed for tree injection.

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

**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 and restricted entry intervals.

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**

Valuable ornamental trees on golf courses, parks, and other urban recreational areas often decline in growth due to physiological changes due to by *Fusarium* spp., Rusts, Powdery Mildew, Leaf and Tip Blight or by nutrient deficiency. This decline may be successfully treated and many trees saved by initiating a cultural/chemical program to revitalize the trees.

SYSTREX/NUTRIENT has in most cases, been used successfully to suppress tree decline symptoms when used according to these label instructions on trees which exhibit early symptoms of decline, i.e. premature leaf or needle shedding, foliar yellowing, and branch or twig dieback. Due to the inherent difficulty of diagnosing the extent of biotic and abiotic injury incurred and expressed by declining trees, the responsibility of selecting trees for treatment is solely that of the buyer. Successful foliar response to microinjection treatments has been associated with treatment applied annually for at least two years.

SYSTREX/NUTRIENT can be used as a very important segment of a program to revitalize these weakened trees. It is a ready-to-use fungicidal/fertilizer injection for the treatment of trees in early to mid stages of decline, It contains a liquid fertilizer N-P-K

with chelated iron and zinc for immediate plant uptake and triadimefon systemic fungicide for control of Fusarium spp. which commonly attack weakened trees. Irrigate trees during treatment.

### HOW TO INSTALL MICROINJECTION UNITS

Use one 14 mL SYSTREX/NUTRIENT microinjection unit for each 6 inches of tree trunk circumference. Place microinjection units evenly around the circumference of the trunk 1/2 to 1 foot from the base of the tree since this area of the tree consistently is more receptive to the uptake of liquid treatment. Microinjection units may also be installed on root flares. In addition to the systemic fungicide, SYSTREX /NUTRIENT contains a chelated, water-soluble liquid fertilizer solution to assist the tree in nutrient recovery. Application on pines should be made from mid-November to mid-March in Florida. In other areas, applications should be made when sap or resin flow would not impede the injection and uptake of SYSTREX/NUTRIENT.

### OBSERVE THESE 7 STEPS WHEN INSTALLING AND REMOVING THE TREE TECH MICROINJECTION SYSTEM

1. Determine the number of microinjection units to be installed based on trunk/stem circumference at 6-to-12 inches above the soil surface. Heavy thick or loose outer bark may be carefully shaved to form a smoother injection point and to assure the operator that the drill hole penetrates through the bark to the xylem tissue.
2. Using a portable electric drill (600-800 rpm range) with a sharp, clean 11/64 inch (0.4cm) bit, the installer should drill a hole at each 3-inch marked spacing to a depth of 1/4 to 1/2 inch (0.6 to 1.3 cm) through the bark into the wood (xylem). A slight downwardly drilling angle is recommended for more complete drainage of the Tree Tech microinjection unit. Wash the drill bit between trees with a solution of one (1) part household bleach to four (4) parts water. Rinse bit with clean water.
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 microinjection unit is inserted into the hole. The microinjection unit should be inserted into the hole and the rear barrel portion partially compressed without engaging the locking mechanism and barrel segments. Placing the plastic installation cap over the plunger 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 solution to flow from the microinjection unit into the tree. When the microinjection unit is positioned correctly in the tree and the internal septum is dislodged, 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 pressurizes the microinjection unit and assists in the evacuation of SYSTREX/NUTRIENT into the vascular system of 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. Each hole should be drilled and a microinjection unit installed without delay. After the microinjection unit is properly seated, it should be activated. This sequence minimizes the flow of tree sap or resin into the hole prior to SYSTREX/NUTRIENT microinjection.
5. When properly installed, the microinjection unit generates internal pressure resulting in the flow of SYSTREX/NUTRIENT solution through the dispenser tube. The microinjection unit must never be activated unless installed correctly and securely in the tree to be treated.
6. Microinjection units containing SYSTREX/NUTRIENT 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 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 microinjection unit should be turned slightly as it is slowly withdrawn from the tree.
7. After the microinjection units are removed from treated trees they must be discarded into the heavy-duty plastic disposal bag included in each case of injector 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.

### SYSTREX/NUTRIENT CONTROLS DISEASES THAT ATTACK FOREST AND ORNAMENTAL TREES

Following is a partial list of common forest and ornamental trees and shrubs that may be attacked by the diseases as listed below. The plant disease is referenced below by the number(s) appearing in parentheses after the plant name.

#### SHADE TREES

Ash (2,5)  
 Aspen (1,2)  
 Birch (1,2)  
 Buckeye (2)  
 Chestnut (2)  
 Cottonwood (1,2)  
 Elm (2,6)  
 Fir (1)  
 Locust (2)  
 Maple(2,5)  
 Oak (2,5,6)  
 Pine (1,4)  
 Poplar (1,2)  
 Russian olive (1,3)  
 Sycamore (2)  
 Walnut (2)  
 Willow (1,2)

#### FLOWERS FOLIAGE AND WOODY SHRUBS

Amelanchier (1)  
 Crabapple (flowering) (1,2,3)  
 Crape myrtle (2)  
 Dogwood (2,5)  
 Euonymus (2)  
 Hawthorn (1,2)  
 Hemlock (1)  
 Holly (2)  
 Juniper (1)  
 Lilac (2)  
 Mock orange (1,2)  
 Pear (flowering) (2)  
 Rose (2)  
 Viburnum (1,2)

As the Directions For Use are closely followed, SYSTREX/NUTRIENT will control the following list of diseases which may attack the above ornamental trees and shrubs:

**(1) Rust**

*Coleosporium* spp.  
*Cronartium* spp. (fusiform)  
*Gymnosporangium* spp.  
*Melampsora* spp.  
*Melampsorium* spp.  
*Peridermium* spp. (gall)  
*Phragmidium* spp. (endosori)  
*Puccinia* spp.  
*Ophiostoma* spp.  
*Uredinopsis mirabilis*

**(2) Powdery Mildew**

*Erysiphe* spp.  
*Microsphaera* spp.  
*Oidium* spp.  
*Podosphaera* spp.  
*Phyllactinia* spp.  
*Sphaerotheca* spp.  
*Uncinula* spp.

**(3) Leaf Blight/Spot**

*Cercospora* spp.

**(4) Tip Blight**

*Sirococcus strobilinus*

**(5) Anthracnose**

*Gnomonia* spp.

**(6) Vascular Wilt**

*Ceratocystis* spp. *Uromyces* spp.

**FERTILIZER GUARANTEED ANALYSIS**

Nitrogen (N)	0.60%
Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )	0.20%
Potassium (K <sub>2</sub> O)	0.15%

Derived from urea, ammoniated and potassium phosphates

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store product in the closed, original container in a cool, dry, locked place out of the reach of children. Store microinjection units in a cool, dry place. Do not expose to temperatures below 32 degrees F (0 degrees C).

**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 facility. For help with any spill, call day or night (415) 233-3737.

**MICROINJECTION UNIT CONTAINER DISPOSAL:**

Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Open dumping is prohibited.

**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 must 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.

**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 this 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 label directions carefully.

SYSTREX and TREE TECH are Reg. TM of Florida Silvics, Inc., Morriston, FL 32668  
BAYLETON is a Reg. TM of Bayer AG, Germany

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