

64014-9

09/18/2006

1/6

RESTRICTED USE PESTICIDE

Due to Reproductive Effects

For sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification. Direct supervision for this product is defined as the certified applicator being physically present during application, mixing, loading, equipment repair, and equipment cleaning. Certified applicators must ensure that all persons involved in these activities under their direct supervision are informed of the precautionary statements.

HARPOON®

FOREST, ORNAMENTAL, NON-CROP-BEARING AND CHRISTMAS TREE INSECTICIDE

Containing META SYSTOX®-R Insecticide for Effective Systemic Protection

This product is an organophosphate insecticide

ACTIVE INGREDIENT	By Wt.
Oxydemeton methyl (S-(2-(Ethysulfinyl) ethyl) 0,0 dimethyl phosphorothioate).....	50%
OTHER INGREDIENTS	50%
	<u>100%</u>

Contains aromatic petroleum distillate
Meta Systox-R is a Reg. TM of the Gowan Co.

EPA REG. 64014-9

EPA EST. NO. 64014-FL-001

STOP: READ THE ENTIRE LABEL BEFORE USE

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

KEEP OUT OF REACH OF CHILDREN

DANGER



POISON

ACCEPTED
SEP 18 2006

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide Registered under EPA Reg. No. 64014-9

FIRST AID	
If inhaled	<ul style="list-style-type: none"> •Move person to fresh air. •If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. •Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> •Take off contaminated clothing. •Rinse skin immediately with plenty of water for 15-20 minutes. •Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> •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	<ul style="list-style-type: none"> •Call poison control center or doctor immediately 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.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Also, contact 1-800-457-2022 for emergency treatment information.	
NOTE TO PHYSICIAN	
<p>Oxydemeton methyl is a cholinesterase inhibitor. Signs of poisoning include a sense of tightness in the chest, sweating, contracted pupils, stomach pains, vomiting and diarrhea. If signs of cholinesterase inhibition appear, atropine is antidotal. Administer atropine sulfate in large therapeutic doses. Repeat as necessary to the point of tolerance. Compound inhibits cholinesterase resulting in stimulation of the central nervous system, the parasympathetic nervous system and the somatic motor nerves. Do not give morphine. Watch for pulmonary edema that may develop in serious cases of poisoning even after 12 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically. 2-PAM also may be used in conjunction with atropine but should not be used alone. The solvent, methyl isobutyl ketone (MIBK), contains petroleum distillate and vomiting may cause aspiration pneumonia. Probable mucosal damage may contraindicate the use of gastric lavage.</p>	

SEE REAR PANEL FOR PRECAUTIONARY STATEMENTS

NET CONTENTS: Each microinjection unit contains 3 mL (0.1 oz.) of Meta Systox-R 50% Specialty Concentrate. There are 100 microinjection units per case.

Manufactured and Sold by
FLORIDA SILVICS, INC.
 (dba Tree Tech® Microinjection Systems)
 950 SE 215th Avenue
 Morriston, FL 32668
 352-528-5335

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Corrosive. Causes irreversible eye damage. May be fatal if swallowed, inhaled or absorbed through the skin. Do not get in eyes, on skin or on clothing. Do not breathe vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. Wear the appropriate Personal Protective Equipment (PPE).

PERSONAL PROTECTIVE EQUIPMENT (PPE):

REPEATED EXPOSURE TO CHOLINESTERASE INHIBITOR SUCH AS THOSE CONTAINED IN THIS PRODUCT MAY, WITHOUT WARNING, CAUSE PROLONGED SUSCEPTIBILITY TO VERY SMALL DOSES OF ANY CHOLINESTERASE INHIBITOR.

Do not rub eyes or mouth with hands. If you feel sick in any way, STOP WORK, and get help right away.

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.

Applicators and handlers must wear:

- Long-sleeved shirt and long-legged pants
- Chemical-resistant shoes or boots plus socks
- Chemical-resistant gloves such as barrier laminate or viton ≥ 14 mL
- Goggles, safety glasses or face shield
- If used in areas of limited ventilation, wear a respirator with either an organic vapor-removing cartridge with a pre-filter approved for pesticides (MSHA/NIOSH approved number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approved number prefix TC-14G)
- If product is handled indoors provide adequate mechanical ventilation

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. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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.

PHYSICAL AND CHEMICAL HAZARDS

Flammable. Keep away from heat and open flame.

ENVIRONMENTAL HAZARDS

This pesticide is highly toxic to fish. 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 cleaning equipment or disposing of equipment wash waters.

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. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible.

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), restricted-entry interval, and notification to workers. Workers must follow the PPE instructions as described in this label when installing or removing HARPOON microinjection units.

The requirements in this box only apply to the 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.

Since HARPOON is only applied directly into individual tree stems, there is no restricted worker re-entry interval associated with the use of this product. **THE RESTRICTED-ENTRY INTERVAL (REI) FOR THIS PRODUCT IS "0" HOURS.**

IMPORTANT: Read these entire **DIRECTIONS FOR USE** and **CONDITIONS OF SALE** before using HARPOON insecticide.

GENERAL DIRECTIONS

Applying HARPOON using the Tree Tech microinjection system:

HARPOON 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 HARPOON insecticide.

1. Protective eye wear (goggles, safety glasses or face shield) and chemical-resistant gloves such as barrier laminate or viton \geq 14 mLs must be worn while handling or installing the microinjection units. See sections dealing with protective clothing.
2. When properly installed, the microinjection unit generates internal pressure resulting in the flow of HARPOON 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 HARPOON 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 chemical-resistant gloves such as barrier laminate or viton \geq 14 mLs. 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.
4. Discard used microinjection units according to **INJECTOR (CONTAINER) DISPOSAL** in **STORAGE AND DISPOSAL** statement.
5. Disinfect drill bit between the injection of each tree with a mixture of 1 part household bleach to 4 parts of water.

USE RESTRICTIONS

Do not inject trees that are less than two inches in diameter.
 Do not apply this product through any type of irrigation system.
 Do not inject trees within two weeks of any other spray or soil chemical treatment. Do not treat trees that are suffering from stress such as lack of moisture or herbicide damage.

Do not use on trees that will produce food within the year following treatment (such as nuts, berries, maple syrup, etc.).

SITES, PESTS AND APPLICATION TIMING

Plant	Insect/Pest	Remarks
Ash	Lecanium scale	Treat any time from early spring through October. Repeat after new invasion.
Cedars	Bark beetles	Treat any time from early spring through October. Repeat after new invasion.
Cherry	Eastern tent caterpillar	Treat as soon as caterpillars appear.
Conifers	Borers Bagworm	Treat as soon as insects appear. Treat as soon as caterpillars appear.
Cottonwoods	Aphids	Apply when wingless forms appear.
Douglas-fir	Cone moths Engraver beetles	Apply to heavy, current cone crop trees during or shortly after eggs are laid. Treat any time from early spring through October. Repeat after new invasion.
Elms	Elm leaf beetle Lecanium scale Obscure scale Tea scale Cankerworm	Apply after eggs are present or during early larval stage. Treat any time from early spring through October. Repeat after new invasion. Treat as soon as caterpillars appear.
Hemlock	Hemlock woolly adelgid	Apply in early spring (April/May) after the crawler stage appears. Treat again in mid-summer if the infestation is still present.
Hardwoods	Borers	Treat as soon as insects appear.
Juniper	Bark beetles	Treat any time from early spring through October. Repeat after new invasion.
Magnolia	Lecanium scale Obscure scale Oyster scale Tea scale Cottony scale	Treat any time from early spring through October. Repeat after new invasion.

Plant	Insect/Pest	Remarks
	Japanese beetle	Treat as soon as beetles appear
Maple	Lecanium scale Obscure scale Tea scale Cottony scale	Treat any time from early spring through October. Repeat after new invasion.
Oaks	Lecanium scale Obscure scale Tea scale Cottony scale Cankerworm Striped oak worm	Treat any time from early spring through October. Repeat after new invasion. Treat as soon as caterpillars appear.
Pines (Except pinon pines)	Bark beetles Engraver beetles (6 spined) Engraver beetles (Monterey) Flathead borer Mountain pine beetle Red turpentine beetle Black turpentine beetle Jeffrey pine needle miner Mites Nantucket pine tip moth Pine needle aphid Pine needle scale	Treat any time from early spring through October. Repeat after new invasion.
Redwood	Bark beetles Mites Needle scale	When active infestation sites are present. Apply after mite eggs hatch Apply when crawlers appear.
Spruce	Adelgids Mites	Apply in May-June. After mite eggs hatch.

Installing Microinjection Units

- Determine the number of microinjection units to be installed based upon a) the target insect pest(s), b) stem circumference at breast height, and c) 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.
- 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 downward angle is recommended for more complete drainage of the microinjection unit.
- 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.) and the microinjection unit should be inserted 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 back end of the feeder tip is forced back into the funnel-shaped section dislodging a septum that allows the HARPOON 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 to permit the flow of HARPOON, 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 HARPOON from the microinjection unit and movement into the vascular system of the tree.
- Each hole should be drilled and a microinjection unit installed without undue delay. After the microinjection unit is partially seated, it should be activated. This sequence minimizes the flow of tree sap or resin into the hole prior to injection.
- Disinfect the drill bit between the injection of each tree with a mixture of 1 part household bleach to 4 parts water.

RECOMMENDED APPLICATIONS

Install one (1) Tree Tech microinjection unit containing HARPOON insecticide for every 6 inches of tree trunk circumference.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store microinjection units at room temperature (45 -to- 74 degrees F) away from heat and open flame. Do not freeze. Store microinjection units in a locked, cool, dry storage area out of the reach of children. In spill or leak incidents, keep unauthorized people away. Wash down with large amounts of water.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

INJECTOR (CONTAINER DISPOSAL):

IF EMPTY: Do not reuse this container. Place in trash or offer for recycling if available.

IF PARTLY EMPTY: 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 215th Ave., Morriston, FL 32668.

WARRANTY AND DISCLAIMER STATEMENT

To the extent consistent with applicable 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 the label instructions. Buyer and user assume all risk from use of this product when such use is contrary to label instructions. Read and follow label directions carefully.*

HARPOON is a registered trademark of Florida Silvics, Inc.
Label revised 09/2006