

ACCEPTED  
FOR REGISTRATION

Feb 7, 2014

New York State Department  
of Environmental Conservation  
Division of Materials Management  
Pesticide Product Registration

Classified for  
"RESTRICTED USE"  
in New York State  
under 6NYCRR Part 326  
Doc id: 537670

# ALSA PROPICONAZOLE 14.3 EC

**A SYSTEMIC FUNGICIDE FOR CONTROL OF SELECTED DISEASES IN ANNUAL AND ORNAMENTAL PLANTS AND FLARE  
ROOT INJECTION TREATMENTS FOR CERTAIN TREE DISEASES**

(FLARE ROOT INJECTION TREATMENTS NOT REGISTERED FOR USE IN CA)

**ACTIVE INGREDIENT:**

Propiconazole 1-[[2-(2, 4-dichlorophenyl)- 4-propyl-1, 3-dioxolan-2-yl] Methyl]-1H-1, 2, 4-triazole .....	14.3%
OTHER INGREDIENTS .....	.85.7%
TOTAL .....	100.0%

EPA REG. NO. 64014-14      EPA EST. NO. 64014-FL-1

**STOP: READ THE LABEL BEFORE USE**

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

**PRECAUCION AL USUARIO:** 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.)

<b>FIRST AID</b>	
<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>• <b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• <b>DO NOT</b> 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 to 20 minutes.</li> <li>• Call a poison control center 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-to-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes; continue to rinse eyes.</li> <li>• Call a poison control center or doctor for further treatment.</li> </ul>
<b>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For medical emergencies involving this product call 1-800-308-5391.</b>	
<b>NOTE TO PHYSICIAN:</b> There is no specific antidote for this product. Induce emesis or lavage stomach, taking care to avoid aspiration of stomach contents into lungs. Give a saline laxative and supportive therapy.	

**Manufactured by:** FLORIDA SILVICS, INC.  
(dba Tree Tech Microinjection Systems)  
950 SE 215th Avenue, Morriston, FL 32668 U.S.A.  
(352) 528-5335

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

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**CAUTION:** Harmful if swallowed. Harmful if absorbed through skin. Harmed if inhaled. Avoid breathing spray mist. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing.

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category **C** on an EPA chemical-resistance category selection chart.

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride (PVC) or Viton®
- Shoes plus socks
- Protective eye wear

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

**Engineering Control Statements**

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

**USER SAFETY RECOMMENDATIONS**

**Users should:**

1. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. Remove and wash contaminated clothing before use.

**ENVIRONMENTAL HAZARDS**

This pesticide is 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 disposing of equipment washwater or rinsate.

**PHYSICAL OR CHEMICAL HAZARDS**

**DO NOT** use or store near heat or open flame.

**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 using the Tree Tech Microinjection Systems' microinjection unit.

**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. For requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

## 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) and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

### THE RESTRICTED-ENTRY INTERVAL (REI) FOR THIS PRODUCT IS "12" HOURS.

PPE required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water) is:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride (PVC) or Viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

### FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR INEFFECTIVE DISEASE CONTROL.

ALSA® Propiconazole 14.3 EC is a systemic fungicide used to control numerous diseases on ornamentals and other landscape and nursery plantings. It controls powdery mildews, rusts, leaf spots, scabs, and blights. Refer to the appropriate section for specified diseases and plants.

The active ingredient in ALSA Propiconazole 14.3 EC has been shown to be safe on a wide range of plant species. Before using ALSA Propiconazole 14.3 EC on ornamental plants or for diseases that are not listed in Tables 1 and 2, test this fungicide on a small-scale basis and evaluate for phytotoxicity and disease control prior to widespread use.

When an adjuvant is to be used with this product refer to the Chemical Producers and Distributors Association for suggested certified adjuvants.

Do not apply this product through any type of irrigation system. Do not apply more than 5.4 gallons of ALSA/acre/calendar year. Do not use in greenhouses

This product is a systemic fungicide also for use on turf grasses for the control of:

- Anthracnose (*Colletotrichum graminicola*)
- Brown patch (*Rhizoctonia solani*)
- Dollar spot (*Sclerotinia homoeocarpa*)
- Fusarium patch (*Fusarium nivale*)
- Gray leaf spot (*Pyricularia grisea*)
- Gray snow mold (*Typhula spp.*)
- Leaf spot (*Bipolaris spp.*, *Drechslera spp.*)
- Necrotic ring spot (*Leptosphaeria korrae*)
- Pink patch (*Limonomyces roseipellis*)
- Pink snow mold (*Microdochium nivale*)
- Powdery mildew (*Erysiphe graminis*)
- Red thread (*Laetisaria fuciformis*)
- Rust (*Puccinia graminis*)
- Spring dead spot (*Leptosphaeria korrae*, *L. narmari*, *Ophiosphaerella herpotricha*, *Gaeumannomyces graminis*)
- Stripe smut (*Ustilago striiformis* and *Urocystis agropyri*)
- Summer patch (*Magnaporthe poae*)
- Take-all patch (*Gaeumannomyces graminis*)
- Yellow patch (*Rhizoctonia cerealis*)
- Zoysia patch (*Rhizoctonia solani*)

## MIXING INSTRUCTIONS

Fill the spray tank 1/2-to-3/4 full with water. Add the proper amount of ALSA Propiconazole 14.3 EC and then add the rest of the water. Provide sufficient agitation during mixing and application to maintain a uniform emulsion. If ALSA Propiconazole 14.3 EC is tank mixed with other products, use the following sequence:

1. Always check the compatibility of the tank mix using a jar test with proportionate amounts of ALSA Propiconazole 14.3 EC, other chemicals to be used, and the water, before mixing in the spray tank.
2. Provide sufficient jet or mechanical agitation during filling and application to keep the tank mix uniformly suspended.
3. Fill tank at least 1/2 full of clean water.
4. Add wettable powders to the tank first, allowing them to completely suspend in the tank before proceeding. This process can be hastened by premixing the product in water before adding to the tank.
5. Add flowables or suspensions next.
6. Add ALSA Propiconazole 14.3 EC next.
7. Add emulsifiable concentrates last.
8. Do not leave tank mix combinations in the spray tank for prolonged periods without agitation. Mix and apply them the same day.

## TANK MIXES

For broader spectrum control, ALSA Propiconazole 14.3 EC can be tank-mixed with other fungicides. ALSA Propiconazole 14.3 EC is also compatible with numerous herbicides and insecticides. Check compatibility before tank mixing. Add Unite® (3 pts per 100 gals) to tank mixes which are incompatible. Follow the directions under **MIXING INSTRUCTIONS** for tank mixes. Observe all directions, precautions, and limitations on labeling of all products used in tank mixes. Tank mixtures or other applications of products referenced on this label are permitted only in these states in which the referenced products are registered.

## TURFGRASS AND DICHONDRA DISEASE CONTROL

1. Use ALSA Propiconazole 14.3 EC in a preventative disease control program.
2. Apply in sufficient water to ensure thorough coverage.
3. Apply after mowing or allow sprayed area to completely dry before mowing.
4. For control of foliar diseases, allow sprayed area to completely dry before irrigation.
5. For control of soil-borne diseases, ALSA Propiconazole 14.3 EC can be watered in after application.
6. Under conditions optimum for high disease pressure, use the higher rate and the shorter interval.
7. For optimum turf quality and disease control, use ALSA Propiconazole 14.3 EC in conjunction with turf management practices that promote good plant health and optimum disease control.
8. Evaluate spray additives prior to use. Label directions are based on data obtained with no additives.
9. Before use of any fungicide, proper diagnosis of the organism causing the disease is important. Use of diagnostic kits or other means of identification of the disease organism is essential to determine the best control measures.
10. Do not apply more than 16 fl oz per 1,000 ft<sup>2</sup>/calendar year nor apply more than 5.4 gals of product per acre per calendar year.
11. Do not graze animals on treated areas. Do not feed clippings from treated areas to livestock or poultry. Do not graze animals on treated areas.
12. Bermudagrass can be sensitive to ALSA Propiconazole 14.3 EC. Do not exceed 4 fl oz per 1,000 sq ft every 30 days on any variety of bermudagrass. In Florida, do not apply ALSA Propiconazole 14.3 EC to bermudagrass golf course greens when temperatures exceed 90°F.

**TURF GRASS-SPECIFIC DISEASES, RATES, AND APPLICATION TIMING**

<b>Disease</b>	<b>Fl. Oz. per 1,000 sq. ft.</b>	<b>Fl. Oz. per Acre</b>	<b>Application Interval/Timing</b>	<b>Instructions</b>
<b>Dollar Spot</b> <i>(Sclerotinia homoeocarpa)</i>	0.5	22	7 days	Apply when conditions are favorable for disease development.
	0.5	22	14 days	Tank mix with low label rate of one of the following fungicides: Daconil 2787 F [Manicure® 6FL] Daconil Ultrex® [Manicure® Ultra].
	1	44	21-28 days	Tank mix with low label rate of one of the following fungicides: Daconil 2787 F [Manicure® 6FL] Daconil Ultrex® [Manicure Ultra] Iprodione 2SE [LESCO®18 Plus™]
	1-2	44-88	14-28 days	If using the 1-2 fl. oz./1,000 sq. ft. rate without tank mixing, make no more than 3 consecutive applications for dollar spot control before rotating to an alternate EPA- registered fungicide having a different mode of action.
<b>Anthracnose</b> <i>(Colletotrichum graminicola)</i>	1-2	44-88	14-28 days	Apply when conditions are favorable for disease development. Use higher rates of this product and shorter intervals when disease pressure is high. For broad-spectrum control, tank mix with a registered contact fungicide at the label rate. If disease is present, mix 2 fl. oz. of this product per 1,000 sq. ft. with the label rate of the above mentioned contact fungicides.
<b>Brown Patch</b> <i>(Rhizoctonia solani)</i>	1-2	44-88	14-21 days	Tank mix with a registered contact fungicide labeled for brown patch control at the label rate. Begin applications in May or June before the disease is present. Use the higher rates of this product and shorter intervals under conditions of high temperatures and high humidity,
<b>Powdery Mildew</b> <i>(Erysiphe graminis)</i>	1-2	44-88	14-28 days	Make applications when conditions are favorable for disease development. If disease is present, use 2 fl. oz. of this product per 1,000 sq. ft.

Disease	Fl. Oz. per 1,000 sq. ft.	Fl. Oz. per Acre	Application Interval/Timing	Instructions
<b>Rust</b> ( <i>Puccinia graminis</i> )	1-2	44-88		Apply when conditions are favorable disease development. If disease is present, use 2 fl. oz. of this product per 1,000 sq. ft.
<b>Pink Patch</b> ( <i>Limonomyces roseipellis</i> ) <b>Red Thread</b> ( <i>Laetisaria fuciformis</i> )	2	88	14-21 days	Apply when conditions are favorable disease development.
<b>Stripe Smut</b> ( <i>Ustilago striiformis</i> ) ( <i>Urocystis agropyri</i> )	1-2	44-88	Fall or Spring	Apply once in the fall after grass becomes dormant or in the early spring before grass starts to grow.
<b>Gray Leafspot</b> ( <i>Pyricularia grisea</i> )	1-2	44-88	14 days	Make applications when conditions are favorable for disease development. If using the 1 fl. oz. /1,000 sq. ft. rate, tank mix with a registered contact fungicide at the label rate.
<b>Melting Out, Leaf Spot</b> ( <i>Bipolaris spp.</i> ) ( <i>Drechslera spp.</i> )	1-4	44-176	14 days	Under light to moderate pressure, apply this product to reduce the severity of leaf spot and melting out caused by Helminthosporium-type pathogens. For broad spectrum disease control, tank mix the 1 fl. oz. product rate with a registered contact fungicide at the label rate. Tank mix the 1-4 fl. oz./1,000 sq. ft. product rate with a registered contact fungicide at the labeled rate.
<b>Summer Patch, Poa Patch</b> ( <i>Magnaporthe poae</i> )	2 4	88 176	14 days 28 days	Apply this product beginning in April. Use the 2 fl. oz./1,000 sq. ft. rate on a 14 day schedule and the 4 fl. oz. /1,000 sq. ft. rate on a 28-day schedule.
<b>Take-All Patch</b> ( <i>Gaeumannomyces graminis</i> )	2-4	88-176	Spring and Fall	Apply this product to reduce the severity of take-all patch. Make 1-2 fall applications in September and October or when night temperatures drop to 55° F, and 1-2 spring applications in April and May, depending on local specifications.
<b>Spring Dead Spot</b> ( <i>Leptosphaeria korrae</i> , <i>Leptosphaeria narmari</i> , <i>Ophiosphaerella herpotricha</i> , <i>Gaeumannomyces graminis</i> )	4	176	30 days	Make 1-3 applications of this product. For one application, apply in September or October. For multiple applications, begin sprays in August.

Disease	Fl. Oz. per 1,000 sq. ft.	Fl. Oz. per Acre	Application Interval/Timing	Instructions
<b>Necrotic Ring Spot</b> ( <i>Leptosphaeria korrae</i> )	4	176	Fall or Spring	Apply in the fall and/or the early spring depending on local specifications.
<b>Gray Snow mold</b> ( <i>Typhula spp.</i> )  <b>Pink Snow mold</b> ( <i>Microdochium nivale</i> )	2-4	88-176	Late Fall	Make one application of this product in the late fall before snow cover. Do not apply on top of snow. For optimum disease control, the 2 and 3 fl. oz. product rates should be tank-mixed with either PCNB or chlorothalonil at label rates.
<b>Fusarium Patch</b> ( <i>Fusarium nivale</i> )	2-4	88-176	Fall-Early Spring	Apply when conditions are favorable for disease development.
<b>Yellow Patch</b> ( <i>Rhizoctonia cerealis</i> )	3-4	130-176	Late Fall	Make one application of this product in the late fall before snow cover. Do not apply on top of snow. If using a 3 fl. oz. /1,000 sq. ft. rate, tank mix with a registered contact fungicide at the label rate.
<b>Zoysia Patch</b> , large patch of zoysia ( <i>Rhizoctonia solani</i> )	3-4	130-176	Early Fall	Make one application in the early fall (mid-September to mid-October) prior to development of disease symptoms. Consult local turf grass extension experts to determine the optimum application timing for your area.

#### DICHONDRA-SPECIFIC DISEASE, RATE, AND APPLICATION TIMING

Disease	Fl. Oz./Per 1,000 ft <sup>2</sup> .	Fl. Oz. per Acre	Application Interval/Timing	Instructions
<b>Dichondra Rust</b> ( <i>Puccinia dichondrae</i> )	2	88	14-21 days	Apply when conditions are favorable for disease development.

#### ESTABLISHMENT OF COOL SEASON TURFGRASS

The primary use of this product is as a fungicide for use against the diseases listed on this label. As an additional benefit, this product will improve the establishment rate when it is applied to cool season grass seedlings or sod.

New Seedlings: Apply 1 fl.oz. / 1,000 sq. ft. at the 2-to-3-leaf stage of growth for faster root development and top growth.

Sod: Apply 1 fl. oz./1,000 sq. ft. 2-to-6 weeks before cutting for increased sod knitting and faster establishment after laying.

#### DISEASE CONTROL IN NURSERIES (FIELD) AND LANDSCAPE PLANTINGS

1. Use this product in a preventative disease control program. To determine the use directions for controlling a disease on an ornamental plant species, select the plant species in Table 1. The number in parenthesis following the plant species refers you to the disease(s) controlled in Table 2. Find the disease in Table 2. The number in brackets following the disease refers you to the application regime in Table 3.
2. Allow spray to dry before overhead irrigation is applied.
3. Optimum benefit of this product is obtained when used in conjunction with sound disease management practices.

## USE INSTRUCTIONS

Use this product at rates of 2-to-24 fl. oz./100 gallons of water for control of diseases of ornamental plant species (Refer to Tables 1, 2, and 3). For outdoor uses, apply up to 5.4 gallons of this product / acre / crop / calendar/year.

For general disease control in landscapes, apply 6-to-8 fl. oz./100 gallons of water every 21 days. For best control, begin applications of this product before disease development.

Note: Plant tolerances to this product have been found to be acceptable for the specific genera and species of plants listed in Tables 1 and 2 of this label. Other plant species can be sensitive to this product and diseases other than those listed may not be controlled. Before using this product on plants or for diseases that are not listed in Tables 1 and 2 of this label, test this product on a small scale basis first. Do not apply this product to African violets, begonias, Boston fern, or geraniums. Apply the specified rates for a particular type of disease, i.e., rust, powdery mildew, etc., and evaluate for phytotoxicity and disease control prior to widespread use.

**Table 1. Ornamentals- Plant Species**

Numbers in parenthesis refer to diseases controlled. See Table 2.

Herbaceous Ornamental	Woody Ornamental	Nonbearing Fruits and Nuts (Nurseries and Landscape Plantings)
Calendula (4a) Carnation (5f) Chrysanthemum (2a) Delphinium (4a) English Ivy (3e) Gomphrena (3a) Impatiens (3a, 3b, 4a) Iris (5d) Marigold (3a) Monarda (4c) Phlox (4c) Snapdragon (5d) Sweet William ( <i>Dianthus barbatus</i> ) (3k) Zinnia (4c)	Amelanchier (4d) Ash (4c) Azalea (2c, 4b) Bayberry (3n) Camellia (3e) Cotoneaster (3i) Crabapple (3c, 3q, 4c, 5a) Crape myrtle (4a) Dogwood (3h, 4c) Douglas fir (5b) Elm (4c) Euonymus (3e, 4c) Hawthorn (5a) Holly (3r) Juniper (1a) Lilac (4c) Linden (3e, 3b, 4b) Magnolia (3e, 4b) Maple (3e, 4f) Oaks (3p) Pines (1b, 1c) Poplars (5b) Pyracantha (3o) Red Tip Photinia (3i) Rhapsiolepis (3e, 3i) Rhododendron (2c, 3n) Roses (3g, 4e, 5c) (Outdoor use only) Shasta fir (5e) Sweet gum (3b, 3c, 3n) Sycamore (3e) Tulip tree (3e, 4a) Wax myrtle (3n)	Apple (3g, 4d, 5a) Bartlett pear (3q, 4c, 5a) Cherry (2b, 3d) Citrus (3m) Nectarine (2b) Peach (2b) Pecan (3b, 3c, 3f, 3l, 3n, 4e) Plum (2b) Walnut (3j)



## Table 2. Diseases

Numbers in brackets refer to application regimes. Refer to Table 3.

1. Conifer Blights
  - a. *Phomopsis juniperovora* (Phomopsis Blight) [2]
  - b. *Sirococcus strobolinus* (Tip Blight) [4]
  - c. *Sphaeropsis sapinea* (Diplodia Tip Blight) [2]
2. Flower Blight
  - a. *Ascochyta chrysanthemi* (Ray Blight) [3]
  - b. *Monilinia spp.* [1]
  - c. *Ovulinia spp.* [2]
3. Leaf Blights/Spots
  - a. *Alternaria spp.* [2]
  - b. *Cercospora spp.* (Brown Leaf Spot) [3]
  - c. *Cladosporium spp.* (Scab) [3]
  - d. *Coccomyces hiemalis* [1]
  - e. *Colletotrichum spp.* [2]
  - f. *Cristulariella spp.* (Zonate Leaf Spot) [3]
  - g. *Diplocarpon rosae* (Blackspot) [2]
  - h. *Discula spp.* (Anthracnose) [1]
  - i. *Fabraea maculate* (syn. *Entomosporium maculatum*) [2]
  - j. *Gnomonia leptostyla* (Anthracnose) [3]
  - k. *Heterosporium echinulatum* [2]
  - l. *Mycosphaerella caryigena* (Downy Spot) [3]
  - m. *Mycosphaerella fructicola* (Greasy Spot) [5]
  - n. *Septaria spp.* (Leaf Scorch) [3]
  - o. *Spilocaea pyracanthae* [2]
  - p. *Tubakia dryina* [4]
  - q. *Venturia inaequalis* (Scab) [1]
  - r. *Rhizoctonia* Web Blight\* [2]
4. Powdery Mildew
  - a. *Erysiphe spp.* [2]
  - b. *Microsphaera spp.* [3]
  - c. *Oidium spp.* [2]
  - d. *Podosphaera spp.* [2]
  - e. *Sphaerotheca pannosa* [2]
  - f. *Phyllactinia spp.\** [2]
5. Rust
  - a. *Gymnosporangium juniperi-virginianae* [1]
  - b. *Melampsora occidentalis* [4]
  - c. *Phragmidium spp.* [2]
  - d. *Puccinia spp.* [2]
  - e. *Pucciniastrum goeppertianum* [4]
  - f. *Uromyces dianthi* [2]

**\*Not registered for this use in CA**

**Table 3. Application Regimes**

- [1] Mix 2-to-4 fl. oz. of this product in 100 gallons of water and apply as a full coverage spray to the point of drip. Apply every 14-to-21 days during the period of primary infection. If disease is present, tank mix with an EPA-registered contact fungicide. For flower blight, apply this product when there is 5-to-10% bloom and again at 70-to-100% bloom. For dogwoods, apply the 2-to-4 fl. oz. rate every 4 days or apply 8 fl. oz. of this product every 28 days.
- [2] Mix 5-to-8 fl. oz. of this product in 100 gallons of water and apply as a full coverage spray to the point of drip. Begin applying when conditions are favorable for disease development and apply as necessary. For black spot, apply with a registered and labeled contact fungicide. For Calendula, apply every 30 days. For diplodia tip blight, make 3 applications every 14 days prior to major period of infection. For juniper phomopsis blight, make the first application as soon as junipers start to grow, and repeat every 14-to-21 days during periods of active growth.
- [3] Mix 8-to-12 fl. oz. of this product in 100 gallons of water and apply as a full coverage spray to the point of drip. Apply every 30 days, beginning when conditions are favorable for the disease development. For pecans, apply the 12 fl. oz. rate beginning at bud break. Apply 3 times at 14-day intervals. For walnuts, apply 8.5 fl. oz. at 14-to-21 day intervals. For ray blight, apply 12 fl. oz. at 7-day intervals or 20 fl. oz. at 14-day intervals. For impatiens, bayberry, linden, magnolia, sweet gum and wax myrtle, the maximum use rate is 8 fl. oz.
- [4] Mix 16 fl. oz. of this product in 100 gallons of water and apply as a full coverage spray to the point of drip. Apply every 14-to-28 days, beginning when conditions are favorable for disease development. For Douglas-fir needle rust, apply once in May. For tip blight, start applications in mid-to-late winter and apply 3 times at 2-month intervals.
- [5] Mix 20-to-24 fl. oz. of this product in 100 gallons of water and apply as a full coverage spray to the point of drip. Apply during June to August time period.

Note: To avoid possible illegal residues, do not apply to apple, cherry, citrus, nectarine, peach, pear, pecan, plum or walnut trees that will bear harvestable fruit within 12 months. Do not apply to maple trees that will be used for maple syrup production within 12 months.

## **DISEASE TREATMENT IN TREES USING THE TREE TECH MICROINJECTION SYSTEM**

### **INFORMATION**

ALSA Propiconazole 14.3 EC is a systemic fungicide for use as a flare root injection procedure using only the Tree Tech<sup>®</sup> microinjection unit for disease prevention and (re)treatment for (1) oak wilt (*Ceratocystis fagacearum*) of oaks (*Quercum* spp.), (2), Dutch elm disease (*Ophiostoma ulmi*) of elms (*Ulmus* spp.), (3) sycamore anthracnose (*Apiognomonia veneta*), and (4) leaf diseases (i.e., *Venturia inaequalis*, *Gymnosporangium juniperi-virginianae*, *Pucciniastrum goeppertianum*, etc.) of crabapple (*Malus* spp.). It is required that ALSA Propiconazole 14.3 EC be administered by certified arborists or commercial pesticide applicators trained in Tree Tech Microinjection Systems' microinjection technology and in the identification of tree diseases.

### **Re-treatment**

To determine the need for ALSA Propiconazole 14.3 EC re-treatment, record the level of disease in each tree at the time of initial injection. Re-evaluate disease levels in trees at 3-month intervals after initial treatment to determine the need for re-treatment. Consider preventive applications 12-to-36 months after the initial injection. Evaluate trees in high disease risk areas or high value trees for possible re-treatment 12 months after each treatment. Follow application procedures described above for repeat injection applications. New drill holes into previously undrilled stem and root tissue are required when repeating injections.

## INSTALLING AND REMOVING TREE TECH MICROINJECTION UNITS

1. 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. Individual ALSA Propiconazole 14.3 EC microinjection units should be installed at intervals not exceeding 5 inches apart on flare roots and around the trunk circumference at the base of the tree.

2. Using a portable electric drill (600-to-800 rpm range) with a sharp, clean 11/64 inch (0.4cm) bit, the installer should drill a hole at each selected 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 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 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 or rubber mallet 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 ALSA Propiconazole 14.3 EC 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 ALSA Propiconazole 14.3 EC microinjection.

5. When properly installed, the microinjection unit generates internal pressure resulting in the flow of ALSA Propiconazole 14.3 EC 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 ALSA Propiconazole 14.3 EC 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 microinjection units, individuals must wear proper eye protection and chemical-resistant 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 215th Avenue, Morriston, FL 32668.

## OAK WILT: OAKS

### Preventative and Therapeutic Treatment

In the upper Midwest, treat oaks after mid-June. Wounds in oaks in the upper Midwest between mid-May and mid-June may attract insects that transmit the oak wilt pathogen.

Oak trees exhibiting less than 20% crown loss from oak wilt have the best chance of responding to treatment by ALSA Propiconazole 14.3 EC. Preventative application is more effective than therapeutic treatment. Trees in advanced stages of disease development may not respond to treatment.

Uninfected trees will generally absorb the full amount of ALSA Propiconazole 14.3 EC within 2 hours when injected under pressure. Trees exhibiting specific symptoms or those symptomless trees immediately adjacent to a diseased tree should be considered infected. Symptomless trees separated by a primary plow line from diseased trees may be at less risk of infection. Infected trees will absorb the fungicide more slowly

due to the vascular plugging caused by the disease. If the ALSA Propiconazole 14.3 EC solution is not absorbed within 24 hours, the tree is considered high risk and has a poor chance of survival. See the **INFORMATION** section for details on re-treatment.

#### **LEAF DISEASES: CRABAPPLES**

##### **Preventative Treatment**

Make applications when the trees are in full leaf and actively growing for control of the next season's leaf disease development. Disease symptoms may not be reduced the year of application. **DO NOT** use fruit from treated trees for food and feed purposes.

See the **INFORMATION** section for details on re-treatment.

#### **ANTHRACNOSE: SYCAMORE**

##### **Preventative Treatment**

Make applications when the trees are in full leaf and actively growing for control of the next season's anthracnose development. Disease symptoms may not be reduced the year of application. **DO NOT** use fruit from treated trees for food or feed purposes.

See the **INFORMATION** section for details on re-treatment.

#### **DUTCH ELM DISEASE IN ELMS**

##### **Preventative and Therapeutic Treatment**

Accurate diagnosis of Dutch elm disease is important since ALSA Propiconazole 14.3 EC only provides control of Dutch elm disease in elms. ALSA Propiconazole 14.3 EC will be most effective when used in conjunction with other cultural practices recommended for management of Dutch elm disease (removal of dead elm trees, pruning of diseased tree limbs and branches, control of bark beetles, etc.). Trees in advanced stages of disease development may not respond to treatment. For further information on the proper diagnosis and control of Dutch elm disease, consult your local extension agent.

See the **INFORMATION** section for details on re-treatment.

#### **STORAGE AND DISPOSAL**

**DO NOT** contaminate water, food or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in the closed, original container in a cool, dry, locked place out of reach of children. Store microinjection units at room temperature (45 degrees F-to-74 degrees F). Do not freeze.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, 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. Open dumping is prohibited.

##### **CONTAINER HANDLING (LESS THAN 5 GALLONS)**

Non-refillable container. Do not use or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities by burning. If burned, stay out of smoke.

For minor spills, leaks, etc. follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes

**CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER**

## **STORAGE AND DISPOSAL (CONT'D.)**

### **MICROINJECTION UNIT CONTAINER HANDLING:**

Nonrefillable container. Do not reuse or refill microinjection unit. Place in trash or offer for recycling, if available.

**IF EMPTY:** Do not reuse this container. Used microinjection units must 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.

**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.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call CHEMTREC at 800-424-9300 day or night.

## **WARRANTY DISCLAIMER**

The directions for use of this product must be followed carefully. To the extent consistent with applicable law, (1) the goods delivered to you are furnished "as is" by manufacturer or seller and (2) manufacturer and seller make no warranties, guarantees, or representations of any kind to buyer or user, either express or implied, or by usage of trade, statutory or otherwise, with regard to the product sold, including, but not limited to merchantability, fitness for a particular purpose, use, or eligibility of the product for any particular trade usage. Unintended consequences, including but not limited to ineffectiveness, may result because of such factors as the presence or absence of other materials used in combination with the goods, or the manner of use or application, including weather, all of which are beyond the control of manufacturer or seller and assumed by buyer or user. This writing contains all of the representations and agreements among buyer, manufacturer, and seller, and no person or agent of manufacturer or seller has any authority to make any representation or warranty or agreement relating in any way to these goods. Avoid contact with skin or clothing.

## **LIMITATION OF LIABILITY**

To the fullest extent consistent with applicable law, in no event shall manufacturer or seller be liable for special, incidental, or consequential damages, or for damages in the nature of penalties relating to the goods sold, including use, application, handling, and disposal. To the fullest extent consistent with applicable law, manufacturer or seller shall not be liable to buyer or user by way of indemnification to buyer or to customers of buyer, if any, or for any damages or sums of money, claims or demands whatsoever, resulting from or by reason of, or rising out of the misuse, or failure to, follow label warnings or instructions for use, of the goods sold, by manufacturer or seller to buyer. All such risks shall be assumed by the buyer, user, or its customers. To the extent consistent with applicable law, buyer's or user's exclusive remedy, and manufacturer's or seller's total liability shall be for damages not exceeding the cost of the product.

Read and follow label instructions carefully. If you do not agree with or do not accept any of the directions for use, the warranty disclaimers, or limitations on liability, do not use this product and return it unopened to the seller, and the purchase price will be refunded.

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