

67690-34

09-15-2011

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF  
CHEMICAL SAFETY AND  
POLLUTION PREVENTION

SEP 15 2011

SePRO Corporation  
Laurent C. Mézin  
11550 N. Meridian Street, Suite 600  
Carmel, IN 46032

Subject: Application for Pesticide Notification (PRN 98-10)  
Submission Date: 8/10/11  
Product Name: Flurprimidol Solution  
EPA Reg. No.: 67690-34  
EPA Decision Number: 453738

Dear Mr. Mézin,

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10.

The Agency acknowledges the revisions to the *Container Handling* language.

The label referred to above has been stamped "Notification" and added to your regulatory file. If you have any questions, you may contact Erin Malone at 703-347-0253 or via email at [Malone.Erin@epa.gov](mailto:Malone.Erin@epa.gov).

Sincerely,

A handwritten signature in cursive script that reads "Shaja B. Joyner".

Shaja B. Joyner  
Product Manager 20  
Fungicide Branch  
Registration Division (7504P)

Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060



United States  
Environmental Protection Agency  
Washington, DC 20460

<input type="checkbox"/>	Registration	SEP 15 2011
<input type="checkbox"/>	Amendment	
<input checked="" type="checkbox"/>	Other	

Application for Pesticide - Section I

1. Company/Product Number 67690-34	2. EPA Product Manager Shaja Brothers-Joyner	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) SePRO / Flurprimidol Solution	PM# 20	
5. Name and Address of Applicant (Include ZIP Code) SePRO Corporation 11550 N. Meridian Street, Suite 600 Carmel, IN 46032 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of label change per PR Notice 2007-4. See additional page.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Metal	<input type="checkbox"/> Plastic
				<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
* Certification must be submitted	If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container	Other (Specify) _____
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1-275 gal		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled				<input type="checkbox"/> Other Adhesive _____	

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Laurent Mezin	Title Mgr, Regulatory Affairs	Telephone No. (Include Area Code) 317-580-8286
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		Date Application Received (Stamped)
2. Signature 	3. Title Mgr, Regulatory Affairs	
4. Typed Name Laurent Mezin	5. Date 10 August 2011	





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SePRO Corporation • 11550 North Meridian Street • Suite 600 • Carmel, Indiana 46032-4565  
Phone: (317) 580-8282 Fax: (317) 428-4577

10 August, 2011

Shaja Brothers-Joyner  
Product Manager 20  
Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Rooms S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202-4501

**RE: Flurprimidol Solutions (EPA Reg. No. 67690-34)  
Notification – PR Notice 2007-4**

Dear Ms. Brothers-Joyner,

SePRO Corporation (SePRO, EPA Company Number 67690) is submitting a notification to amend the product label for Flurprimidol Solution, EPA Registration No. 67690-34. This notification is in response to EPA PR Notice 2007-4 "Labeling Revisions Required by the Final Rule "Pesticide Management and Disposal; Standards for Pesticide Containers and Containment".

Please find enclosed the following information:

- Transmittal document (this letter)
- Application for Pesticide Registration, EPA Form 8570-1
- 1 highlighted and 1 clean copy of the label.

Notification of label change per PR Notice 2007-4. This notification is consistent with the guidance in PR Notice 2007-4 and the requirements of EPA's regulations at 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amended label is not consistent with the requirements of 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

If you have any questions, please do not hesitate to contact me at (317) 580-8286 or at LaurentM@sepro.com.

Best Regards,

Laurent Mézin  
Regulatory Affairs Manager

Enclosures

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# Flurprimidol Solution

EPA Reg. No. 67690-34

FPL20110914 Clean

S: 903274

**Registration Notes:** Based on EPA-stamped label with FPL012209, notification with FPL20110809 and EPA comments of 14 September 2011.

**Label Notes:** The final package label will contain this text but may be formatted differently (i.e., bolded text where not bolded here; center alignment rather than left as here).

Throughout this label:

- a. [ ] Denotes alternate/optional language
- b. { } Denotes language that does not appear on market labeling

## Label changes:

1. Updated FPL date
2. Deleted references to the SePRO website
3. Changed 'General information' to 'Product information'
4. Changed 'Container disposal' to 'container handling'
5. Renumbered the sections under limitation of remedies

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{4 fl. oz – Booklet, Front Panel}



# NOTIFICATION

SEP 15 2011

## Flurprimidol Solution

A SePRO Direct-Inject™ Chemical

FOR MANAGEMENT, REDUCTION OR REGULATION OF SHOOT GROWTH AND OVERALL CANOPY GROWTH OF A WIDE VARIETY OF ORNAMENTAL TREES IN UTILITY RIGHTS-OF-WAY, URBAN ENVIRONMENTS, RESIDENTIAL AREAS AND INTERIOR PLANTSCAPES.

**Active Ingredient:**

Flurprimidol† (CAS No. 56425-91-3) .....48.1%

**Other Ingredients** .....51.9%

**Total** .....100.0%

†α-(1-methylethyl)-α-[4-(trifluoromethoxy)phenyl]-5-pyrimidinemethanol

Contains 2.3 oz. (65.6 grams) active ingredient per 4 fl. oz. (120 ml) pack.

Net Contents 4 fl. oz. (120 ml)

**Keep Out of Reach of Children**

### CAUTION

See inside for additional precautionary statements and complete Directions for Use.

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{4 fl. oz – Booklet, page 2 to 7}

# Flurprimidol Solution

A SePRO Direct-Inject™ Chemical

- Easy • No Drilling

For management, reduction or regulation of shoot growth and overall canopy growth of a wide variety of ornamental trees in utility rights-of-way, urban environments, residential areas and interior plantscapes (such as those in domestic landscape/garden areas, public display plantings, recreation areas, highway and other transportation rights-of-way, scenic corridors, storage areas, forest areas, campgrounds, and other uncultivated, nonagricultural areas).

**For use by professional arborists/applicators, foresters, grounds maintenance professionals and landscapers.**

To be used only with the SePRO Direct-Inject Tree Injection System.

**SePRO Corporation**

*The No-Drill Injection Solution*

Phone: (317) 580-8282

11550 N. Meridian Street, Suite 600 Carmel, IN 46032, U.S.A.

Net Contents 4 fl. oz. (120 ml)

EPA Reg. No. 67690-34

EPA Est. 69117-NE-1

FPL20110914

## PRECAUTIONARY STATEMENTS

### Hazards to Humans & Domestic Animals

**CAUTION:** Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove contaminated clothing and wash clothing before reuse.

FIRST AID	
<b>If Swallowed</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor 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 by mouth to an unconscious person.</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. 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>
<b>If on Skin or Clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Immediately rinse skin with plenty of water for 15 - 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p>	

{Note: The First Aid statements' grid format will be used if market label space permits; otherwise a paragraph format will be used.}

## ENVIRONMENTAL HAZARDS

Do not apply directly to water, 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 washwaters or rinsate.

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## DIRECTIONS FOR USE

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

For use by professional arborists/applicators, foresters, grounds maintenance professionals and landscapers.

## PRODUCT INFORMATION

**Do not inject food bearing trees.**

### SePRO Direct-Inject™ Tree Injection System

The SePRO Direct-Inject Tree Injection System is easy to use. Most trees are treated in as little as five minutes, allowing applicators to treat trees quickly. There is no need to wait for absorption (translocation) because the chemical is injected into the cambial area (the active vascular system) of the tree. Because the chemical is placed right where the tree can use it, effectiveness of the chemical is increased. Use in sunny or overcast conditions, rainy or dry, at any time of day. As no drilling or implants are required, you can treat trees every two years, with no threat of long-term or permanent damage to the tree.

### Indications

Flurprimidol Solution is a plant growth regulator (PGR) [tree growth regulator (TGR)] intended for the management, reduction or regulation of shoot growth and overall canopy growth of a wide variety of ornamental trees in utility rights-of-way, urban environments, residential areas and non-crop areas. Flurprimidol Solution has demonstrated desirable growth regulation in many woody ornamental plants and deciduous tree species, without phytotoxic effects. Use Flurprimidol Solution to control canopy growth, pruning volume/frequency and for the associated benefits of stimulated root development, increased drought tolerance, increased stress tolerance and stabilizing trees in mild decline.

Growth reduction is beneficial for trees planted under and near utility [power] lines, close to homes, decks, patios and sidewalks, in areas with restricted space for canopy and/or root development, or in areas where excessive growth may block a scenic view. Utility arborists look to growth reduction treatments to provide benefits such as reduced vegetation-related power outages, more efficient trimming operations, lengthened trim cycles and reduced biomass of tree trimmings. The shortening of internodal growth also results in increased density of the tree canopy, enhancing shade and screening benefits. Flurprimidol Solution may suppress "dbh" (diameter at breast height) growth which can benefit trees growing in municipal vaults and other confined areas.

**In commercial and residential areas,** Flurprimidol Solution is an option for trees planted too close together, close to homes, in tightly landscaped areas, near foundations, under power lines, in interior spaces or when a wrong tree for the site cannot be removed. Flurprimidol Solution applications result in a reduction of canopy growth and can increase the root-to-canopy ratio.

**In municipal applications,** Flurprimidol Solution regulates and reduces growth on trees planted under and near power lines or along rights-of-way, on trees near streetlights,



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intersections or municipal/commercial signage, in airport approach areas and in areas where vista control is desired. Applications of Flurprimidol Solution may result in extended pruning/trimming cycles and reduce the need for pruning in dangerous locations.

Tree Species	Application Rate
Alder (red), Ash, Aspen, Blackolive, Black Cherry, Black Locusts, Black Walnut, Boxelder, Cottonwood, Dogwood, Elms (American, Chinese, Siberian, Winged), Blue Gum Eucalyptus, Hackberry, Maples (Norway, Red, Silver, Sugar), Melaleuca, Oaks (Laurel, Live, Pin, Post, Red, Southern Red, Water, Willow), Pine (Australian), Sugarberry, Sweetgum, Sycamore, Tallowtree (Chinese) and Willow (Black)	<ul style="list-style-type: none"> <li>• 1 ml per 4" of trunk circumference measured within 12" of the ground.</li> <li>• Dosage may be increased to 2 ml per injection site for trees with diameters over 12".</li> <li>• Application rates vary by tree species and local conditions.</li> </ul>

**Note:** A single Flurprimidol Solution application provides tree growth regulation for 3 - 5 years. Do not inject this product more than once every 2 years as more frequent application is known to cause adverse effects on trees, such as stacking of leaves.

Shoot growth is most common between April and June. Flurprimidol Solution applications in the preceding fall or early spring provide more first-year growth control than applications made at other times. Inject Flurprimidol Solution at any time during the spring, summer or fall, as long as transpiration is occurring. [Inject Flurprimidol Solution any time between bud swell in the spring and the beginning of fall coloration.] Tree bark must be pliable enough to accept the injection; this depends on local weather conditions. Make treatments in the summer or fall, prior to dormancy for deciduous trees, to regulate growth the following spring. Regardless of application timing, growth reduction within the first year of treatment may not be as noticeable as in subsequent years.

The growth varies based on species, location, climatic factors, environmental conditions, etc. Before large-scale tree injection programs are pursued, establish by testing on a limited number of trees, the best rates to produce the desired results under local growing conditions. Treatment may cause bark damage; check bark before repeating treatments.

**Do not inject a tree showing one or more of the following conditions:**

1. The tree is hollow or decayed in an area equal to one-half or more of its diameter.
2. The tree is heavily decayed in the crown. Heavy decay is indicated by dead or decayed limbs and branches over most of the crown, or one or two major limbs over 6" in diameter showing signs of decay.
3. The tree is missing bark from the main trunk one-half way around or more.
4. The tree shows other signs of poor condition:
  - a) Heavy, deep cracking of the bark on a main branch showing interior wood.
  - b) Deformed or misshapen twigs and branches.
  - c) Size or color of leaves inappropriate for the season of the year.
  - d) Tree under stress from insect infestation.

**How to Use SePRO Direct-Inject Chemicals with SePRO Direct-Inject Tree Injection System**

1. Use only SePRO Direct-Inject chemicals with your unit as they have been formulated specifically for the Direct-Inject system. Use of other chemicals will invalidate warranty.
2. Attach the chemical pack to the Direct-Inject unit and prepare the unit to make injections.
3. Set the delivery volume on the unit.

4. Follow the label directions in this booklet to determine the amount of chemical and number of injection sites.
5. Determine where to make injections in the bark. Generally, the injection tip is inserted into the fissure (valley) of the tree bark. Inject thin-barked trees in the thicker part of the tree bark. Thick-barked trees require a longer injection tip.
6. Make injections working around the circumference of the tree. Make Wedgle® Tip injections within 12" of the ground. Portle® Tip injection height varies depending on type of tree and location.
7. With a smooth motion, firmly squeeze the injection unit handles. This releases a pre-measured chemical dose into the tree.
8. Continue making injections moving around the tree until the entire tree trunk has been treated.
9. During use, periodically clean the Direct-Inject unit to prevent clogging.

### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container in a cool, dry place.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Nonrefillable Container Handling (Non-Rigid, any size):** Do not reuse or refill this container. Completely empty pack into application equipment. Offer for recycling if available. If recycling not available, then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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### WARRANTY DISCLAIMER

SePRO Corporation warrants that the product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. SEPRO CORPORATION MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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### INHERENT RISKS OF USE

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of SePRO Corporation as the seller. To the extent consistent with applicable law, all such risks shall be assumed by buyer.

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### LIMITATION OF REMEDIES

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories) shall be limited to, at SePRO Corporation's election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

To the extent consistent with applicable law, SePRO Corporation shall not be liable for losses or damages resulting from handling or use of this product unless SePRO Corporation is

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promptly notified of such losses or damages in writing. In no case shall SePRO Corporation be liable for consequential or incidental damages or losses.

The terms of the *Warranty Disclaimer* above and this *Limitation of Remedies* cannot be varied by any written or verbal statements or agreements. No employee or sales agent of SePRO Corporation or the seller is authorized to vary or exceed the terms of the *Warranty Disclaimer* or *Limitations of Remedies* in any manner.

Mastiff<sup>®</sup> PGR, Portle<sup>®</sup> and Wedgle<sup>®</sup> are registered trademarks of ArborSystems.  
ArborSystems<sup>™</sup>, Direct-Inject<sup>™</sup> and WedgeChek<sup>™</sup> are trademarks of ArborSystems.  
Direct-Inject<sup>™</sup> unit is protected by U.S. Patent #5,901,498  
Wedgle<sup>®</sup> Tip is protected by U.S. Patent #5,239,773  
WedgeChek<sup>™</sup> is protected by U.S. Patent #5,797,215  
Portle<sup>®</sup> Tip is protected by U.S. Patent #7,178,286

© Copyright \_\_\_\_ SePRO Corporation

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{4 fl. oz – Cylinder Label}



# Flurprimidol Solution

A SePRO Direct-Inject™ Chemical

For management, reduction or regulation of shoot growth and overall canopy growth of a wide variety of ornamental trees in utility rights-of-way, urban environments, residential areas and interior landscapes.

**Active Ingredient:**

Flurprimidol† (CAS No. 56425-91-3) .....48.1%

**Other Ingredients** .....51.9%

**Total** .....100.0%

†α-(1-methylethyl)-α-[4-(trifluoromethoxy)phenyl]-5-pyrimidinemethanol

Contains 2.3 oz. (65.6 grams) active ingredient per 4 fl. oz. (120 ml) pack.

**Keep Out of Reach of Children**  
**CAUTION**  
See booklet for additional precautionary statements and complete Directions for Use.

### DIRECTIONS FOR USE

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

The SePRO Direct-Inject units are designed to be used only with SePRO pre-packed chemicals. Tampering with packs or contents may cause non-warranted damage to your injection system.

**STORAGE AND DISPOSAL**  
Do not contaminate water, food or feed by storage or disposal.  
**Pesticide Storage:** Store in original container in a cool, dry place.  
**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.  
**Nonrefillable Container Handling (Non-Rigid, any size):** Do not reuse or refill this container. Completely empty pack into application equipment. Offer for recycling if available. If recycling not available, then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Net Contents 4 fl. oz. (120 ml)**

EPA Reg. No. 67690-34

EPA Est. 69117-NE-1

FPL20110914

SePRO Corporation

*The No-Drill Injection Solution*

Phone: (317) 580-8282

11550 N. Meridian Street, Suite 600 Carmel, IN 46032, U.S.A.

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{4 fl. oz – Outer Box Label}



# Flurprimidol Solution

A SePRO Direct-Inject™ Chemical

For management, reduction or regulation of shoot growth and overall canopy growth of a wide variety of ornamental trees in utility rights-of-way, urban environments, residential areas and interior landscapes.

For use by professional arborists/applicators, foresters, grounds maintenance professionals and landscapers.

**Active Ingredient:**

Flurprimidol† (CAS No. 56425-91-3) .....48.1%

**Other Ingredients** .....51.9%

**Total** .....100.0%

† $\alpha$ -(1-methylethyl)- $\alpha$ -[4-(trifluoromethoxy)phenyl]-5-pyrimidinemethanol

Contains 2.3 oz. (65.6 grams) active ingredient per 4 fl. oz. (120 ml) pack.

**Keep Out of Reach of Children**

**CAUTION**

See booklet for additional precautionary statements and complete Directions for Use.

**DIRECTIONS FOR USE**

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

The SePRO Direct-Inject units are designed to be used only with SePRO pre-packed chemicals. Tampering with packs or contents may cause non-warranted damage to your injection system.

**STORAGE AND DISPOSAL**

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

**Pesticide Storage:** Store in original container in a cool, dry place.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Nonrefillable Container Handling (Non-Rigid, any size):** Do not reuse or refill this container. Completely empty pack into application equipment. Offer for recycling if available. If recycling not available, then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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EPA Reg. No. 67690-34

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11550 N. Meridian Street, Suite 600 Carmel, IN 46032, U.S.A.

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{4 oz and 1qt. 2 fl. oz – Collapsible Pouch Label}



# Flurprimidol Solution

**Active Ingredient:**

Flurprimidol† (CAS No. 56425-91-3) .....	48.1%
<b>Other Ingredients</b> .....	<u>51.9%</u>
<b>Total</b> .....	100.0%

**Keep Out of Reach of Children**

## CAUTION

See booklet or box for First Aid, additional precautionary statements and complete Directions for Use.

EPA Reg. No. 67690-34  
{1qt. 2 fl. oz – Outer Box Label}

EPA Est. 69117-NE-1

FPL20110914



# Flurprimidol Solution

A SePRO Direct-Inject™ Chemical

FOR MANAGEMENT, REDUCTION OR REGULATION OF SHOOT GROWTH AND OVERALL CANOPY GROWTH OF A WIDE VARIETY OF ORNAMENTAL TREES IN UTILITY RIGHTS-OF-WAY, URBAN ENVIRONMENTS, RESIDENTIAL AREAS AND INTERIOR PLANTSCAPES.

**Active Ingredient:**

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<b>Other Ingredients</b> .....	<u>51.9%</u>
<b>Total</b> .....	100.0%

†α-(1-methylethyl)-α-[4-(trifluoromethoxy)phenyl]-5-pyrimidinemethanol

Contains 19.4 oz. (547 grams) active ingredient per 1 qt. 2 fl. oz. (1000 ml) pack

**Keep Out of Reach of Children**

## CAUTION

See box label for additional precautionary statements and complete Directions for Use.

### DIRECTIONS FOR USE

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

The SePRO Direct-Inject units are designed to be used only with SePRO pre-packed chemicals. Tampering with packs or contents may cause non-warranted damage to your injection system.

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**STORAGE AND DISPOSAL**

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

**Pesticide Storage:** Store in original container in a cool, dry place.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Nonrefillable Container Handling (non-rigid, any size):** Do not reuse or refill this container. Completely empty pack into application equipment. Offer for recycling if available. If recycling not available, then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Net Contents 1 qt. 2 fl. oz. (1000 ml)**

**EPA Reg. No. 67690-34**

**EPA Est. 69117-NE-1**

**FPL20110914**

**SePRO Corporation**

***The No-Drill Injection Solution***

**Phone: (317) 580-8282**

**11550 N. Meridian Street, Suite 600 Carmel, IN 46032, U.S.A.**

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{1qt. 2 fl. oz -Box Label}

# Flurprimidol Solution

A SePRO Direct-Inject™ Chemical

- Easy • No Drilling

For management, reduction or regulation of shoot growth and overall canopy growth of a wide variety of ornamental trees in utility rights-of-way, urban environments, residential areas and interior plantscapes (such as those in domestic landscape/garden areas, public display plantings, recreation areas, highway and other transportation rights-of-way, scenic corridors, storage areas, forest areas, campgrounds, and other uncultivated, nonagricultural areas).

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**CAUTION**  
 See below for additional precautionary statements.

SePRO Corporation

*The No-Drill Injection Solution*

Phone: (317) 580-8282

11550 N. Meridian Street, Suite 600 Carmel, IN 46032, U.S.A.

Net Contents 1 qt. 2 fl. oz. (1000 ml)

EPA Reg. No. 67690-34

EPA Est. 69117-NE-1

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**PRECAUTIONARY STATEMENTS**

**Hazards to Humans & Domestic Animals**

**CAUTION:** Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove contaminated clothing and wash clothing before reuse.



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<b>FIRST AID</b>	
<b>If Swallowed</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor 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 by mouth to an unconscious person.</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. 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>
<b>If on Skin or Clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Immediately rinse skin with plenty of water for 15 - 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p>	

{Note: The First Aid statements' grid format will be used if market label space permits; otherwise a paragraph format will be used.}

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, 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 washwaters or rinsate.

**DIRECTIONS FOR USE**

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

For use by professional arborists/applicators, foresters, grounds maintenance professionals and landscapers.

**PRODUCT INFORMATION**

**Do not inject food bearing trees.**

**SePRO Direct-Inject™ Tree Injection System**

The SePRO Direct-Inject Tree Injection System is easy to use. Most trees are treated in as little as five minutes, allowing applicators to treat trees quickly. There is no need to wait for absorption (translocation) because the chemical is injected into the cambial area (the active vascular system) of the tree. Because the chemical is placed right where the tree can use it, effectiveness of the chemical is increased. Use in sunny or overcast conditions, rainy or dry, at any time of day. As no drilling or implants are required, you can treat trees every two years, with no threat of long-term or permanent damage to the tree.

**Indications**

Flurprimidol Solution is a plant growth regulator (PGR) [tree growth regulator (TGR)] intended for the management, reduction or regulation of shoot growth and overall canopy growth of a wide variety of ornamental trees in utility rights-of-way, urban environments, residential areas and non-crop areas. Flurprimidol Solution has demonstrated desirable growth regulation in many woody ornamental plants and deciduous tree species, without phytotoxic effects. Use Flurprimidol Solution to control canopy growth, pruning volume/frequency and for the associated benefits of stimulated root development, increased drought tolerance, increased stress tolerance and stabilizing trees in mild decline.

Growth reduction is beneficial for trees planted under and near utility [power] lines, close to homes, decks, patios and sidewalks, in areas with restricted space for canopy and/or root development, or in areas where excessive growth may block a scenic view. Utility arborists look to growth reduction treatments to provide benefits such as reduced vegetation-related power outages, more efficient trimming operations, lengthened trim cycles and reduced biomass of tree trimmings. The shortening of internodal growth also results in increased density of the tree canopy, enhancing shade and screening benefits. Flurprimidol Solution may suppress "dbh" (diameter at breast height) growth which can benefit trees growing in municipal vaults and other confined areas.

**In commercial and residential areas,** Flurprimidol Solution is an option for trees planted too close together, close to homes, in tightly landscaped areas, near foundations, under power lines, in interior spaces or when a wrong tree for the site cannot be removed. Flurprimidol Solution applications result in a reduction of canopy growth and can increase the root-to-canopy ratio.

**In municipal applications,** Flurprimidol Solution regulates and reduces growth on trees planted under and near power lines or along rights-of-way, on trees near streetlights, intersections or municipal/commercial signage, in airport approach areas and in areas where vista control is desired. Applications of Flurprimidol Solution may result in extended pruning/trimming cycles and reduce the need for pruning in dangerous locations.

Shoot growth is most common between April and June. Flurprimidol Solution applications in the preceding fall or early spring provide more first-year growth control than applications made at other times. Inject Flurprimidol Solution at any time during the spring, summer or fall, as long as transpiration is occurring. [Inject Flurprimidol Solution any time between bud swell in the spring and the beginning of fall coloration.] Tree bark must be pliable enough to accept the injection; this depends on local weather conditions. Make treatments in the summer or fall, prior to dormancy for deciduous trees, to regulate growth the following spring. Regardless of application timing, growth reduction within the first year of treatment may not be as noticeable as in subsequent years.

The growth varies based on species, location, climatic factors, environmental conditions, etc. Before large-scale tree injection programs are pursued, establish by testing on a limited number of trees, the best rates to produce the desired results under local growing conditions. Treatment may cause bark damage; check bark before repeating treatments.

**Do not inject a tree showing one or more of the following conditions:**

1. The tree is hollow or decayed in an area equal to one-half or more of its diameter.
2. The tree is heavily decayed in the crown. Heavy decay is indicated by dead or decayed limbs and branches over most of the crown, or one or two major limbs over 6" in diameter showing signs of decay.
3. The tree is missing bark from the main trunk one-half way around or more.
4. The tree shows other signs of poor condition:
  - a) Heavy, deep cracking of the bark on a main branch showing interior wood.
  - b) Deformed or misshapen twigs and branches.
  - c) Size or color of leaves inappropriate for the season of the year.
  - d) Tree under stress from insect infestation.

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Tree Species	Application Rate
Alder (red), Ash, Aspen, Blackolive, Black Cherry, Black Locusts, Black Walnut, Boxelder, Cottonwood, Dogwood, Elms (American, Chinese, Siberian, Winged), Blue Gum Eucalyptus, Hackberry, Maples (Norway, Red, Silver, Sugar), Melaleuca, Oaks (Laurel, Live, Pin, Post, Red, Southern Red, Water, Willow), Pine (Australian), Sugarberry, Sweetgum, Sycamore, Tallowtree (Chinese) and Willow (Black)	<ul style="list-style-type: none"> <li>• 1 ml per 4" of trunk circumference measured within 12" of the ground.</li> <li>• Dosage may be increased to 2 ml per injection site for trees with diameters over 12".</li> <li>• Application rates vary by tree species and local conditions.</li> </ul>

**Note:** A single Flurprimidol Solution application provides tree growth regulation for 3 - 5 years. Do not inject this product more than once every 2 years as more frequent application is known to cause adverse effects on trees, such as stacking of leaves.

**How to Use SePRO Direct-Inject Chemicals with SePRO Direct-Inject Tree Injection System**

1. Use only SePRO Direct-Inject chemicals with your unit as they have been formulated specifically for the Direct-Inject system. Use of other chemicals will invalidate warranty.
2. Attach the chemical pack to the Direct-Inject unit and prepare the unit to make injections.
3. Set the delivery volume on the unit.
4. Follow the label directions in this booklet to determine the amount of chemical and number of injection sites.
5. Determine where to make injections in the bark. Generally, the injection tip is inserted into the fissure (valley) of the tree bark. Inject thin-barked trees in the thicker part of the tree bark. Thick-barked trees require a longer injection tip.
6. Make injections working around the circumference of the tree. Make Wedgle<sup>®</sup> Tip injections within 12" of the ground. Portle<sup>®</sup> Tip injection height varies depending on type of tree and location.
7. With a smooth motion, firmly squeeze the injection unit handles. This releases a pre-measured chemical dose into the tree.
8. Continue making injections moving around the tree until the entire tree trunk has been treated.
9. During use, periodically clean the Direct-Inject unit to prevent clogging.

**STORAGE AND DISPOSAL**

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

**Pesticide Storage:** Store in original container in a cool, dry place.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Nonrefillable Container Handling (non-rigid, any size):** Do not reuse or refill this container. Completely empty pack into application equipment. Offer for recycling if available. If recycling not available, then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**WARRANTY DISCLAIMER**

SePRO Corporation warrants that the product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. SEPRO CORPORATION MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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**INHERENT RISKS OF USE**

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It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of SePRO Corporation as the seller. To the extent consistent with applicable law, all such risks shall be assumed by buyer.

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**LIMITATION OF REMEDIES**

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To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories) shall be limited to, at SePRO Corporation's election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

To the extent consistent with applicable law, SePRO Corporation shall not be liable for losses or damages resulting from handling or use of this product unless SePRO Corporation is promptly notified of such losses or damages in writing. In no case shall SePRO Corporation be liable for consequential or incidental damages or losses.

The terms of the *Warranty Disclaimer* above and this *Limitation of Remedies* cannot be varied by any written or verbal statements or agreements. No employee or sales agent of SePRO Corporation or the seller is authorized to vary or exceed the terms of the *Warranty Disclaimer* or *Limitations of Remedies* in any manner.

Mastiff® PGR, Portle® and Wedgle® are registered trademarks of ArborSystems.  
ArborSystems™, Direct-Inject™ and WedgeChek™ are trademarks of ArborSystems.  
Direct-Inject™ unit is protected by U.S. Patent #5,901,498  
Wedgle® Tip is protected by U.S. Patent #5,239,773  
WedgeChek™ is protected by U.S. Patent #5,797,215  
Portle® Tip is protected by U.S. Patent #7,178,286

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*{Additional Selling/Marketing Copy for use in conjunction with other label elements; on the website; and in promotional materials, displays, etc.}*

## Product Information

Flurprimidol Solution is a plant growth regulator [PGR] [tree growth regulator (TGR)] developed for the management, reduction or regulation of shoot growth and pruning volume of a wide variety of ornamental trees in utility rights-of-way, urban environments, residential areas and non-crop areas. Flurprimidol Solution has been shown to effectively reduce the growth rate of trees which 1) reduces the frequency of maintenance pruning, saving on labor time and expenses [costs] and 2) reduces the biomass removed when treated trees are pruned, reducing pruning time and hauling/disposal expenses.

Flurprimidol Solution is a SePRO Direct-Inject™ chemical developed by SePRO for use with the SePRO Direct-Inject™ Tree Injection System. Flurprimidol Solution is intended for use by arborists, grounds maintenance professionals, city foresters, electric utility foresters/contractors and landscapers.

Flurprimidol, the active ingredient in Flurprimidol Solution, inhibits the production of the plant growth hormone [compound] gibberellin [gibberellic acid]. Gibberellin promotes cells' elongation within tree tissues. When gibberellin levels are lowered cells still divide but do not elongate as much as those in untreated trees. The reduction in gibberellin reduces shoot growth resulting in shorter, more compact internodes in shoots. Flurprimidol Solution reduces the production of gibberellin resulting in shorter, compact shoot growth.

Some growth regulators slow the rate of growth by inhibiting cell division. Flurprimidol Solution is a growth regulator with a different mode of action. Cell division is not suppressed, but individual cells will not elongate as much as untreated cells. By reducing the production of gibberellins, Flurprimidol Solution applications result in shortened internodal growth. Overall tree [plant] size is more condensed. Growth reduction within the first year of treatment may not be as noticeable as in subsequent years.

Growth reduction is beneficial for trees planted under and near utility [power] lines, close to homes, decks, patios and sidewalks, in restricted vaults, [municipal trees planted in restricted vaults,] or in areas where excessive growth may block a scenic view. Utility arborists cite Flurprimidol Solution [TGR] benefits such as reduced vegetation-related power outages, more efficient trimming operations, lengthened trim cycles and reduced biomass of tree trimmings. The shortening of internodal growth also results in the thickening of the tree canopy, enhancing shade and screening benefits. Leaves often exhibit a darker green color. The reduction in growth may allow extension of trim cycles.

A 1993 report on flurprimidol<sup>1</sup> concluded that "shoot regrowth suppression and biomass reduction averaged 63% and 75%, respectively, in the four species tested" (Silver Maple, Willow Oak, Water Oak and Norway Maple) and "the reduction in trim and chip time was directly related to these reductions in growth, averaging 55% for the four species tested."

Condensed vegetative growth results in a higher root-to-crown [root-to-shoot] [root-to-canopy] ratio. In locations where the root area is limited, a smaller canopy may be desirable enabling the root system to adequately support the canopy. Locations with limited root space include parking lots, urban commercial-area plantings, areas surrounded by sidewalks, container plantings and some urban yards. A high ratio between the root system and the canopy can benefit trees in dry locations by helping prevent dehydration stress. A high ratio between the

root system and the canopy offers potential for improved stress resistance or damage resulting from drought, air pollution and temperature extremes.

With a single Flurprimidol Solution application, vegetative growth can be reduced by 40% to 90% over a three-year period. Results vary depending upon tree species and local growing conditions.

Flurprimidol Solution reduces tree growth and has been associated with a variety of "pre-stress conditioning" benefits including: more tree tolerance to unfavorable conditions such as drought and high temperature, an increased tree tolerance to stress-related disease, stimulation of fibrous root systems in newly transplanted and established trees, and observed stabilization/regained health of overly mature trees and trees in mild decline.

<sup>1</sup>Tree growth reduction following application of flurprimidol tree growth regulator, by K.D. Redding, P.L. Burch and K.C. Miller, in Down to Earth, Vol. 48, No. 2, Fall/Winter 1993.

### SePRO Direct-Inject™ Tree Injection System

The SePRO Direct-Inject Tree Injection system is effective. Chemicals are injected directly into the tree. Because the chemical is placed right where the tree can use it, effectiveness of the chemical is increased. Also, because no chemical is lost in non-active wood, the Direct-Inject system allows you to use less chemical to achieve high levels of effectiveness; this saves money and reduces chemical waste. With no holes to drill, no air or pathogens are allowed to enter the tree, potential decay never starts and long term wounding is prevented. The tree's ability to move water and nutrients, and to store food, is not compromised.

Pre-mixed chemicals are supplied in self-sealing containers. After injections have been made, you have only one small container of which to dispose. Concerns you may have had when spraying will be eliminated. And with a closed system there is no mixing.

With no drilling required the SePRO Direct-Inject System:

- Minimizes wounding to keep out fungi, bacteria, and insects.
- Prevents air from getting into the tree. When air is allowed into a tree's vascular system, it cuts off the flow of water and nutrients.
- Requires no drills, power supply or other bulky equipment.

With this system and chemicals, tree care professionals effectively combat and manage many of the most devastating environmental plant threats.

The SePRO Direct-Inject System is designed to preserve and protect treated trees. Many trees can be treated in as little as five minutes. The Direct-Inject System is among the most efficient chemical delivery systems available. You achieve control with less chemical because chemical is placed precisely where the tree can best use it. No chemical is lost in dead wood.

SePRO Direct-Inject chemicals are integral parts of the Direct-Inject Tree Injection System. Use only SePRO's Direct-Inject chemicals with the Direct-Inject units. Using unauthorized chemicals with the SePRO Direct-Inject System constitutes a violation of Federal law.

#### Chemical Selection

Your distributor can advise you on the best chemical selections for trees in your area.

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Flurprimidol Solution

Common name: Cutless® (Flurprimidol)

Chemical:  $\alpha$ -(1-methylethyl)- $\alpha$ -[4-(trifluoromethoxy)phenyl]-5-pyrimidinemethanol

Cutless® is a registered trademark of Sepro Corporation.

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