3/20/2009

67690-34





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

> OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Ms. Amy Dugger-Ronyak Regulatory Affairs Specialist SePRO Corporation 11550 N. Meridian St., Ste 600 Carmel, IN 46032-4565

MAR 2 D 2009

RE: Notification to Revise Label to include the Storage and Disposal Statement and to correct Warranty Statement updates and to correct typographical error EPA Registration Number: 67690-34 Date of Submission: January 27, 2009

Dear Ms. Dugger-Ronyak:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated January 27, 2009, for the product Flurprimidol Solution. 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 label submitted with the application has been stamped "Notification" and will be placed in our records.

Please note that the Agency has issued a Pesticide Registration Notice (PR) 2007-4: Labeling Revisions Required by the Final Rule "Pesticide Management and Disposal; Standards for Pesticide Containers and Containment Statements. All labeling must be updated by August 17, 2010.

If you have any questions, please call me directly at 703-305-6249 or Joyce Edwards of my staff at 703-308-5479.

Sincerely,

Con

Linda Arrington Notifications & Minor Formulations Team Leader Registration Division (7505P) Office of Pesticide Programs

	2
1	\mathcal{L}

lesse read instructions on reverse before complet	ting form.	Form Approv	ved. OMB No. 20	70-0060	Print Form
Environmental	nited States Protection Age ngton, DC 20460	ncy	Registra Amendm Other		OPP Identifier Number
	Application for I	Pesticide - Secti	on I		
. Company/Product Number 57690-34		2. EPA Product Manag Shaja Joyner	je r		posed Classification
• Company/Product (Name) Flurprimidol Solution		PM# - 20			None Kestricte
5. Name and Address of Applicant (Include ZIP Con SePRO Corporation 11550 N. Meridian Street, Suite 600 Carmel, IN 46032 Check if this is a new address	de) 3	(b)(i), my product is to:	similar or ider	otipi	FIFRA Section 3(c)(3) CATION nd labeling 0 2009
	Sec	tion - II			
Resubmission in response to Agency letter Notification - Explain below. Explanation: Use additional page(s) if necessary	y, (For section I and Se	Agency lette "Me Too" Ag Other - Expla ction II.)	oplication.		
1. Material This Product Will Be Packaged In:	Sect	tion - III			
Child-Resistant Packaging Unit Packaging	Water	Soluble Packaging Yes	2. Type of	Container Metal Plastic Glass	
No Certification must be submitted	No. per container Packag			Paper Other (S	pecify)
No No Submitted No No If "Yes" Unit Packaging wgt.	No. per container If "Yes Packag 4. Size(s) Retail Contai 4 oz &1qt. 2oz	s" No. per ge wgt container I	5. Location of Lab	Paper Other (S el Directio	
No Certification must be submitted Label No	container Packag 4. Size(s) Retail Contai	s" No. per ge wgt container I	On Label	Paper Other (S el Directio	ns
No Certification must be submitted Label No	container Packag 4. Size(s) Retail Contai 4 oz &1qt. 2oz Lithograph Paper glued Stenciled	ge wgt container	On Label	Paper Other (S el Directio	ns
No Certification must be submitted No Contact Point (Complete items directly below for	container Packag 4. Size(s) Retail Contai 4 oz &1qt. 2oz Lithograph Paper glued Stenciled Sect	ion - IV	On Label	Paper Other (S el Directio	ns panying product
No * Certification must be submitted 3. Locetion of Net Contents Information	container Packag 4. Size(s) Retail Contai 4 oz & 1qt. 2oz Lithograph Paper glued Stenciled Sect for identification of indiv	ion - IV	On Label	Paper Other (S el Directio ing accom	ns panying product epplication.) e No. (Include Area Code
No Certification must be submitted No Contents Information Label Container Container Contact Point (Complete items directly below for Name	container Packag 4. Size(s) Retail Contai 4 oz &1qt. 2oz Lithograph Paper glued Stenciled Sect Tor identification of indiv Title Regul. A Certification	No. per container	f necessary, to pro	Paper Other (S el Directio ing accom ocess this Telephone 317-580	ns panying product epplication.) e No. (Include Area Code
No Certification must be submitted No Certification must be submitted No Container Label Container Label Container Label Container Contact Point (Complete items directly below for Name Amy Dugger-Ronyak I certify that the statements I have made on I scknowledge that any knowingly false or m	container Packag 4. Size(s) Retail Contai 4 oz &1qt. 2oz Lithograph Paper glued Stenciled Sect for identification of indiv Title Regul. A Certification this form and all attach nisleading statement ma	No. per container	On Label on Label	Paper Other (S el Directio ing accom ocess this Telephone 317-580 nplete. of	ns panying product application.) e No. (Include Area Code -8286 6. Date Application Received



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

January 27, 2009

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

Subject: Notification per PR Notice 98-10 Flurprimidol Solution, EPA Reg. No. 67690-34

Dear Mş Joyner:

As permitted by PR Notice 98-10, SePRO Corporation here submits a revised label for Flurprimidol Solution, EPA Reg. No. 67690-34 to reflect textual changes necessary due to the reconfiguration of various packaging components. In addition, minor typographical errors have been corrected and the warranty statements updated. Please find enclosed the following information:

- Application for Pesticide, EPA Form 8570-1; and
- One (1) copy of the updated label.

This notification is consistent with the provisions of the PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 USC Sec. 1001 to willfully make any false statement to the EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

If you have any questions regarding this submission, please contact me at (317) 580-8286 or amyd@sepro.com.

Sincerely,

Unig Digger-Rongak

Amy Dugger-Ronyak Regulatory Affairs Specialist SePRO Corporation

Enclosures (2)

Flurprimidol Solution

EPA Reg. No. 67690-34

Registration Notes: Based on EPA-stamped label dated 12/20/05 and EPA-stamped notification dated 3/14/06. This label notification is made per PRN 98-10 to change packaging and related labeling statements.

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 then left as here).

General Label changes:

- 1. Throughout this label:
 - a. [] Denotes alternate/optional language
 - b. { } Denotes language that does not appear on market labeling
- 2. As allowed by PRN 98-10, reformatted the label to allow for the following new package configurations:
 - a. <u>4 fl. oz. container</u> this is a collapsible pouch sealed in a closed plastic cylinder/canister ("pack"), which is then put in an outer box. The cylinder/canister has a booklet containing the full label text affixed to the back and reduced text on the front of the cylinder/canister. The outer box has reduced text.
 - b. <u>1 qt. 2 fl. oz. container</u> this is a collapsible pouch in sealed box ("pack"), which is then put in an outer box. The sealed box/pack is labeled with the full label text. The outer box has reduced text.
- 3. Deleted the marketing text "No Posting".
- 4. In the sentence "For use by professional...", revised marketing text "city foresters, electric utility foresters/contractors" to just "foresters".
- 5. Added the marketing text "The No-Drill Injection Solution".
- 6. Throughout, revised information relating to patent name and numbers, as well as trademark names.
- 7. Revised Storage and Disposal statement per PRN 83-3 and 98-10.
- 8. Updated Warranty Statement per PRN 98-10.
- 9. Deleted repetitive text throughout.
- 10. Corrected minor typographical errors and formatting throughout label.

NOTIFICATION

MAR 20 2009

5/2

{4 fl. oz ~ Booklet, Front Panel}



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	. <u>51.9%</u>
Total	
$\frac{1}{\alpha}$ -(1-methylethyl)- α -[4-(trifluromethoxy)phenyl]-5-pyrimidinemeth	nanol
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.

.....

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 www.sepro.com Phone: (317) 580-8282 Carmel, IN 46032 USA

Net Contents 4 fl. oz. (120 ml) EPA Reg. No. 67690-34

EPA Est.

FPL012209

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
lf Swallowed	 Immediately call a poison control center or doctor 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.
If in Eyes	• 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 on Skin	Take off contaminated clothing.
or Clothing	Immediately rinse skin with plenty of water for 15 - 20 minutes.
	 Call a poison control center or doctor for treatment advice.
going for trea	duct container or label with you when calling a poison control center or doctor, or tment.
{Note: The First Aid	statements' grid format will be used if market label space permits; otherwise a paragraph format will be used.}

.

ろう

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.

GENERAL 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 roots 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, Edited

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	• 1 ml per 4" of trunk circumference
Cherry, Black Locusts, Black Walnut,	measured within 12" of the ground.
Boxelder, Cottonwood, Dogwood, Elms	
(American, Chinese, Siberian, Winged), Blue	• Dosage may be increased to 2 ml per
Gum Eucalyptus, Hackberry, Maples (Norway,	injection site for trees with diameters
Red, Silver, Sugar), Melaleuca, Oaks (Laurel,	over 12".
Live, Pin, Post, Red, Southern Red, Water,	·
Willow), Pine (Australian), Sugarberry,	Application rates vary by tree species
Sweetgum, Sycamore, Tallowtree (Chinese)	and local conditions.
and Willow (Black)	

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 premeasured 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 may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Completely empty pack into application equipment, then dispose of empty pack in a sanitary landfill 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.

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.

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 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

[©] Copyright _____ SePRO Corporation

{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 plantscapes.

Active Ingredient:	
Flurprimidol [†] (CAS No. 56425-91-3)	48.1%
Other Ingredients	<u>51.9%</u>
Total	100.0%
$^{\dagger}\alpha$ -(1-methylethyl)- α -[4-(trifluromethoxy)phenyl]-5-pyrimidinemeth	anol
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-warrantied 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 may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Completely empty pack into application equipment, then dispose of empty pack in a sanitary landfill 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.

FPL012209

SePRO Corporation *The No-Drill Injection Solution* www.sepro.com Phone: (317) 580-8282 Carmel, IN 46032 USA

{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 plantscapes.

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

Active Ingredient:

Flurprimidol [†] (CAS No. 56425-91-3)	48.1%
Other Ingredients	<u>51.9%</u>
Total	
$^{\dagger}\alpha$ -(1-methylethyl)- α -[4-(trifluromethoxy)phenyl]-5-pyrimidiner	nethanol
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-warrantied 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 may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Completely empty pack into application equipment, then dispose of empty pack in a sanitary landfill 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. _____

FPL012209

SePRO Corporation The No-Drill Injection Solution www.sepro.com Phone: (317) 580-8282 Carmel, IN 46032 USA

13/21

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



Flurprimidol Solution

Active Ingredient:	
Flurprimidol [†] (CAS No. 56425-91-3)	48.1%
Other Ingredients	<u>51.9%</u>
Total	

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

EPA Est.

FPL012209

{1qt. 2 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 PLANTSCAPES.

Active Ingredient:

Flurprimidol [†] (CAS No. 56425-91-3)	
Other Ingredients	
Total	
$^{\dagger}\alpha$ -(1-methylethyl)- α -[4-(trifluromethoxy)phenyl]-5-pyrim	
Contains 19.4 oz. (547 grams) active ingredient per 1 c	t. 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-warrantied 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 may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Completely empty pack into application equipment, then dispose of empty pack in a sanitary landfill 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.
 FPL012209

SePRO Corporation *The No-Drill Injection Solution* www.sepro.com Phone: (317) 580-8282 Carmel, IN 46032 USA

{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).

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

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

Active Ingredient:Flurprimidol[†] (CAS No. 56425-91-3)Other IngredientsTotal100.0% $^{t}\alpha$ -(1-methylethyl)- α -[4-(trifluromethoxy)phenyl]-5-pyrimidinemethanolContains 19.4 oz. (547 grams) active ingredient per 1 qt. 2 fl. oz. (1000 ml) pack

Keep Out of Reach of Children CAUTION

See below for additional precautionary statements.

SePRO Corporation *The No-Drill Injection Solution* www.sepro.com Phone: (317) 580-8282 Carmel, IN 46032 USA

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

 EPA Reg. No. 67690-34
 EPA Est.

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
lf Swallowed	 Immediately call a poison control center or doctor 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.
lf in Eyes	 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 on Skin or Clothing	 Take off contaminated clothing. Immediately rinse skin with plenty of water for 15 - 20 minutes. Call a poison control center or doctor for treatment advice.
Have the pro going for trea	duct container or label with you when calling a poison control center or doctor, or tment.

{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.

GENERAL 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.

Tree Species	Application Rate
Alder (red), Ash, Aspen, Blackolive, Black	• 1 ml per 4" of trunk circumference
Cherry, Black Locusts, Black Walnut,	measured within 12" of the ground.
Boxelder, Cottonwood, Dogwood, Elms	
(American, Chinese, Siberian, Winged), Blue	• Dosage may be increased to 2 ml per
Gum Eucalyptus, Hackberry, Maples (Norway,	injection site for trees with diameters
Red, Silver, Sugar), Melaleuca, Oaks (Laurel,	over 12".
Live, Pin, Post, Red, Southern Red, Water,	
Willow), Pine (Australian), Sugarberry,	Application rates vary by tree species
Sweetgum, Sycamore, Tallowtree (Chinese)	and local conditions.
and Willow (Black)	

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[®] 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 premeasured 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 may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Completely empty pack into application equipment, then dispose of empty pack in a sanitary landfill 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.

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.

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:

(3) Refund of purchase price paid by buyer or user for product bought, or

(4) 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

[©] Copyright _____ SePRO Corporation

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

General 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 flurprimidol¹ 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

2/22

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.

¹*Tree growth reduction following application of flurprimidol tree growth regulator*, by K.D. Redding, P.L. Burch and K.C. Miller, in <u>Down to Earth</u>, 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. See our website (www.sepro.com) for additional information.

22/22

<u>Flurprimidol Solution</u> Common name: Cutless[®] (Flurprimidol) Chemical: α-(1-methylethyl)-α-[4-(trifluromethoxy)phenyl]-5-pyrimidinemethanol

Cutless[®] is a registered trademark of Sepro Corporation.

۰.

NOTIFICATION

MAR 2 0 2009