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

NOV - 2 2010

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OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Dr. Tyler Koschnick Director, Research and Regulatory Affairs SePRO Corporation 11550 North Meridian Street, Suite 600 Carmel, Indiana 46032

Profile 2SC Subject: EPA Registration Number 67690-22 Decision D432502: Your label amendment application dated October 28, 2010, superseding labels submitted on April 5, August 31, and October 22, 2010

Dear Dr. Koschnick,

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. A stamped copy is enclosed for your records. Submit one copy of your final printed labeling before you release the product for shipment.

If you have any questions about this letter, please contact John Bazuin at (703)305-7381 or bazuin.john@epa.gov.

Sincerely yours Tony Kish

Product Manager 22 Fungicide Branch Registration Division (7504P)

Attachments: Label stamped "ACCEPTED"

# Profile 2SC Tree and Turf Growth Regulator EPA Reg. No. 67690-22

**Registration Notes:** Label amendment adding turf grass as a site where the product can be applied.

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# Label Notes:

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# General Label changes:

- 1. Added turfgrass as a use site: updated sale copy to reflect.
- 2. As allowed by PRN 1998-10, reformatted the label to comply with PRN 2007-4.
- 3. Corrected minor typographical errors and flow, throughout label.
- 4. Added PPE and User Safety Recommendations to the label.
- 5. Added Agricultural use Requirements Statements.

Profile 2SC, 67690-22

[Base label for Nonrefillable, Rigid containers 5 gal or less]



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# **Profile 2SC**

ACCEPTED NOV - 2 2010 Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under BPA Reg. No. 67690-22

Tree and Turf Growth Regulator

A GROWTH REGULATOR FOR THE REDUCTION OF TERMINAL GROWTH IN TREES AND SHOOT GROWTH IN TURFGRASSES.

## **Active Ingredient**

paclobutrazol: $(\pm)-(R^*,R^*)-\beta-[(4-chlorophenyl)methyl]-\alpha-(1,1-$	
dimethylethyl)-1H-1,2,4-triazole-1-ethanol	21.8%
Other Ingredients	. 78. <u>2%</u>
TOTAL	
Contains 2 pounds of active ingredient per one (1) U.S. gallon.	

# Keep Out of Reach of Children **CAUTION / PRECAUCIÓN**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted no detalle. (If you do not understand this label, find someone to explain it to you in detail).

# **PRECAUTIONARY STATEMENTS**

Hazards to Humans and Domestic Animals

Harmful if swallowed, inhaled, or absorbed through the skin. Avoid contact with eyes, skin or clothing. Avoid breathing spray mist.

	FIRSTAID
lf	Call a poison control center or doctor immediately for treatment advice.
swallowed	<ul> <li>Have person sip a glass of water if able to swallow.</li> </ul>
	Do not induce vomiting unless told to do so by a poison control center or
	doctor.
	<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
lf on skin	Take off contaminated clothing.
or	<ul> <li>Rinse skin immediately with plenty of water for 15 - 20 minutes.</li> </ul>
clothing	Call a poison control center or doctor for treatment advice.
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 inhaled	Move person to fresh air.
	If person is not breathing, call 911 or an ambulance, then give artificial
	respiration, preferably mouth-to-mouth if possible.
L	<ul> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of emergency endangering health or the environment involving this product, call **INFOTRAC** at **1-800-535-5053**.

## ENVIRONMENTAL HAZARDS

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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.

#### PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

#### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Keep container closed when not in use. Do not store near food or feed. Protect from freezing. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these cannot be used according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA Regional Office for guidance.

**Nonrefillable Container Disposal (rigid, 5 gallons or less):** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat the procedure two more times. Then offer the container for recycling (if available) or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Refer to label booklet for additional precautionary information and Directions for Use.

**Notice:** Read the entire label before using. Use only according to label directions. **Before** buying or using this product, read *Terms and Conditions of Use, Warranty Disclaimer, Inherent Risks of Use* and *Limitation of Remedies* at the end of the label booklet. If terms are unacceptable, return at once unopened.

Specialty Chemical: Do not ship or store with food, feeds, drugs or clothing.

Shake Well Before Use. Product Must be Diluted Before Use

EPA Reg. No. 67690-22 FPL082510

EPA Est. No.	
SPC -	

SePRO Corporation 11550 N. Meridian St., Ste. 600, Carmel, IN 46032 U.S.A.

Tree and Turf Growth Regulator

Net Contents \_\_\_\_\_

[Base label for <u>Nonrefillable Rigid</u> containers <u>greater than 5 gal</u>]



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# Profile 2SC

Tree and Turf Growth Regulator

A GROWTH REGULATOR FOR THE REDUCTION OF TERMINAL GROWTH IN TREES AND SHOOT GROWTH IN TURFGRASSES.

# Active Ingredient

paclobutrazol: $(\pm)$ - $(R^*, R^*)$ - $\beta$ -[(4-chlorophenyl)methyl]- $\alpha$ -(1,1-	
dimethylethyl)-1H-1,2,4-triazole-1-ethanol	21.8%
Other Ingredients	. 78.2%
TOTAL	
Contains 2 pounds of active ingredient per one (1) U.S. gallon.	

# Keep Out of Reach of Children CAUTION / PRECAUCIÓN

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# PRECAUTIONARY STATEMENTS

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lf swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
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Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of emergency endangering health or the environment involving this product, call **INFOTRAC** at **1-800-535-5053**.

## 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.

## PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

#### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Keep container closed when not in use. Do not store near food or feed. Protect from freezing. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these cannot be used according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA Regional Office for guidance.

**Nonrefillable Container Disposal (rigid, larger than 5 gal):** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, treatment area, or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling (if available) or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Refer to label booklet for additional precautionary information and Directions for Use.

**Notice:** Read the entire label before using. Use only according to label directions. **Before** buying or using this product, read *Terms and Conditions of Use, Warranty Disclaimer, Inherent Risks of Use* and *Limitation of Remedies* at the end of the label booklet. If terms are unacceptable, return at once unopened.

Specialty Chemical: Do not ship or store with food, feeds, drugs or clothing.

Shake Well Before Use. Product Must be Diluted Before Use

EPA Reg. No. 67690-22 FPL082510

EPA Est. No.	
SPC -	

SePRO Corporation 11550 N. Meridian St., Ste. 600, Carmel, IN 46032 U.S.A.

Tree and Turf Growth Regulator

Net Contents \_\_\_\_\_

[Front booklet panel/label for Non-refillable, Rigid containers, any size]



# Profile 2SC

Tree and Turf Growth Regulator

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#### **Active Ingredient**

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TOTAL	
Contains 2 pounds of active ingredient per one (1) U.S. gallon.	

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Refer to inside of label booklet for additional precautionary information and directions for use, including storage and disposal.

**Notice:** Read the entire label before using. Use only according to label directions. **Before** buying or using this product, read *Terms and Conditions of Use, Warranty Disclaimer, Inherent Risks of Use* and *Limitation of Remedies* at the end of the label booklet. If terms are unacceptable, return at once unopened.

**Specialty Chemical:** Do not ship or store with food, feeds, drugs or clothing.

Shake Well Before Use. Product Must be Diluted Before Use

EPA Reg. No. 67690-22 FPL082510 EPA Est. No. \_\_\_\_\_ SPC -

SePRO Corporation 11550 N. Meridian St., Ste. 600, Carmel, IN 46032 U.S.A.

Tree and Turf Growth Regulator

Net Contents

80£19

[Label booklet text, <u>ALL</u> containers]

# PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

# Keep Out of Reach of Children CAUTION / PRECAUCIÓN

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	FIRST AID
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If on skin	Take off contaminated clothing.
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If inhaled	Move person to fresh air.
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	Call a poison control center or doctor for further treatment advice.
Have the pro	duct container or label with you when calling a poison control center or doctor,
	reatment. In case of emergency endangering health or the environment
involving this	product, call INFOTRAC at 1-800-535-5053.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

#### Applicators and other handlers wear:

- Long-sleeved shirt and long pants;
- Chemical-resistant gloves made of any waterproof material (such as barrier laminate, butyl rubber, nitrile rubber, or Viton<sup>®</sup> ≥14 mils); and
- Shoes plus socks.

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

# USER SAFETY RECOMMENDATIONS

#### Users should:

• Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## **ENVIRONMENTAL HAZARDS**

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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.

## PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

# DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all directions for use carefully before applying this product. Use only according to label directions.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted-entry interval, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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

- Long-sleeved shirt and long pants;
- Chemical-resistant gloves made of any waterproof material (such as barrier laminate, butyl rubber, nitrile rubber, or Viton<sup>®</sup> ≥14 mils); and
- Shoes plus socks.

# Use Information for Growth Regulation of Trees

Profile 2SC growth regulator is a xylem mobile plant growth regulator that slows vegetative growth by inhibiting gibberellin biosynthesis. Profile 2SC reduces vegetative growth thereby reducing the volume of woody growth that must be removed from trees when trimming occurs and may extend the trimming cycle. Profile 2SC is equally effective when applied as a basal soil drench or by soil injection.

Profile 2SC can be used on listed trees found in areas to include utility rights-of-way (i.e. trees below transmission lines, and railroad and highway rights-of-ways); urban environments (i.e. trees in parks and parking lot areas, storage areas, street medians and easements, commercial/municipal building or office sites, plazas, around walkways and sidewalks, above ground planters, and around schools, hospitals, and other buildings); residential areas; and other non-crop areas (i.e. industrial sites, athletic fields and other recreational areas, naturalized areas and other uncultivated non-agricultural areas, fence and property lines, and airports).

**Symptoms of Growth Regulation:** Profile 2SC demonstrates little or no phloem mobility. Activity occurs following root uptake and xylem translocation throughout the tree canopy. Symptoms of growth regulation may not be visible for up to 18 months following application of Profile 2SC. Initial effects of Profile 2SC may be observed as intense greening of foliage with no resulting phytotoxicity. At the time when normal vegetative growth extension should occur, trees treated with Profile 2SC will exhibit shortened internodes which may be somewhat thickened. Smaller leaf size and increased flowering may also be observed in some species.

#### General Use Precautions for Applications to Trees

- Trees not used for food production that are not specifically listed on this label may be treated if all other label directions are followed.
- Do not treat sugar maple trees or any other trees that are or could be tapped for sugar within one year of application.
- Do not treat nut or fruit trees that will be harvested within one year of application.
- Soil type and environmental conditions can affect the degree and longevity of growth regulation following application of Profile 2SC. Follow label instructions to increase effectiveness depending on these factors.
- Trees which are severely stressed or rapidly declining due to moisture, temperature, low soil fertility, or exhibit mechanical or chemical injury should not be treated.
- Do not reapply Profile 2SC until symptoms from previous applications begin to subside, or within 3 years of the last application, whichever comes first.
- For soils that are hard-to-wet, Profile 2SC mobility can be enhanced by using a nonionic, organosilicone surfactant.
- If soil around tree is heavily compacted or a high water table exists, use of a registered trunk-injectable tree growth regulator such as Mastiff™ PGR may be more satisfactory.
- Basal drench and soil injection application of Profile 2SC may result in localized, temporary discoloration of turfgrass immediately adjacent to the treatment site.
- Avoid basal drench applications on slopes or other areas where Profile 2SC or treated soil may be washed away from the base of the tree by rainfall or irrigation.
- Treatment of trees bordered by shrubs and/or herbaceous ornamentals may cause these plants to be affected if their roots extend into the treatment zone.
- Chemigation: Do not apply this product through any type of irrigation system.

#### Application Information

#### Application Timing

Applications can be made throughout the year, weather permitting, except when soil is frozen or saturated with water. NOTE: Profile 2SC is absorbed by plant roots and translocated to the growing tissues in response to evaporative water loss (transpiration). If applications are made after fall leaf drop, uptake of Profile 2SC will not occur until development of new leaves in the spring and resumption of evaporative water loss.

#### **Mixing Directions**

Mix 317 ml (10.7 fl. oz.) of Profile 2SC with water to make one gallon of diluted mixture. One gallon of Profile 2SC will make 12 gallons of diluted mixture. To improve the handling characteristics of the diluted mixture, the addition of a suspension aid is recommended. Follow all label directions and precautions on the product label of the suspension aid.

#### **Application Methods**

Profile 2SC may be applied as a basal drench or by soil injection. Treat only trees that are well established in their final location. Treatment of trees less than 4 inches in diameter is not recommended.

#### Basal Drench

Based on tree size and species, apply the required dose uniformly around the base of the tree at the point of contact between the soil and the tree trunk (refer to Table 1 and Figure 1). The diluted mixture of Profile 2SC may be carefully poured around the tree or an applicator which provides a controlled rate of flow may be used. If there is potential for rainfall or irrigation to move surface applied product to non-target plants, apply Profile 2SC diluted mixture to the bottom of a shallow furrow around the base of the tree. After applying, refill the furrow with untreated soil.

#### Soil Injection

The diluted mixture of Profile 2SC should be injected approximately 6 inches deep. Use soil injection equipment capable of delivery at 100 to 200 psi. Injection orifices should be oriented to release the diluted product horizontally at the point of injection. The required dose should be divided evenly among injection sites spaced as uniformly as possible around the tree trunk. The injection sites should be positioned to release Profile 2SC diluted mixture as close as possible to the point of contact between soil and unthickened bark beneath the soil so that the active ingredient may be readily absorbed by the tree. Injection sites should also be located next to butress roots (refer to Figure 2). For trees less than 6 inches in diameter at breast height (DBH), use at least 4 evenly spaced injection sites per tree.

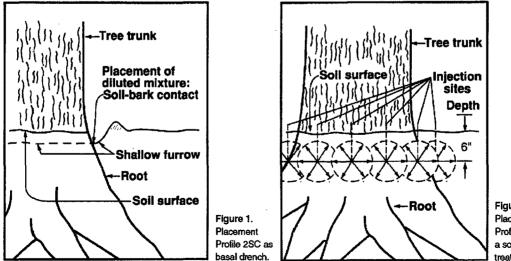


Figure 2. Placement of Profile 2SC as a soil injected treatment.

# **Application Rates**

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TABLE 1 Application Rate Ranges for Diluted Mitature of Profile 2SC for Treatment of Various Tree Species <sup>†</sup>				
50 to 100 ml (1 to 2 grams a.i.)	100 to 150 ml (2 to 3 grams a.i.)	150 to 200 ml (3 to 4 grams a.i.)		
per inch DBH <sup>tt</sup>	per inch DBH <sup>tt</sup>	per inch DBH <sup>tt</sup>		
Sweetgum	American	Ash		
Australian Pine	Basswood	Bradford Pear		
	Boxelder	Sycamore		
	Elm(s)	Tuliptree		
	Eucalyptus	Weeping Willow		
	Hackberry	Ficustt		
	Littleleaf Linden			
	Locust			
	Maple(s)			
	Oak(s)			
	Sassafrass			

<sup>†</sup>For acidic soils (low pH), soils with high organic matter content or soils with high clay content, use the higher rate, not to exceed 4 grams per inch DBH. <sup>11</sup>diameter at breast height <sup>111</sup>Not for use in California

TABLE 2 Amount Of Profile 2SC Diluted Mixture Reguliced For Specific Application Rates And Tree Sizes				
DBH <sup>†</sup>	50 ml per inch DBH <sup>1</sup>	100 ml per inch DBH <sup>†</sup>	and the second	200 ml per inch DBH <sup>1</sup>
, (inches)	Total ml Required	Total ml Required	Total ml Required	Total ml Required
4	200	400	600	800
5	250	500	750	1,000
6	300	600	900	1,200
7	350	700	1,050	1,400
8	400	800	1,200	1,600
9	450	900	1,350	1,800
10	500	1,000	1,500	2,000
11	550	1,100	1,650	2,200
12	600	1,200	1,800	2,400
13	650	1,300	1,950	2,600
14	700	1,400	2,100	2,800
15	750	1,500	2,250	3,000
16	800	1,600	2,400	3,200
17	850	1,700	2,550	3,400
18	900	1,800	2,700	3,600
19	950	1,900	2,850	3,800
20	1,000	2,000	3,000	4,000
21	1,050	2,100	3,150	4,200
22	1,100	2,200	3,300	4,400

Profile 2SC, 67690-22

23	1,150	2,300	3,450	4,600
24	1,200	2,400	3,600	4,800
25	1,250	2,500	3,750	5,000
26	1,300	2,600	3,900	5,200
27	1,350	2,700	4,050	5,400
28	1,400	2,800	4,200	5,600
29	1,450	2,900	4,350	5,800
30	1,500	3,000	4,500	6,000
31	1,550	3,100	4,650	6,200
32	1,600	3,200	4,800	6,400
33	1,650	3,300	4,950	6,600
34	1,700	3,400	5,100	6,800
35	1,750	3,500	5,250	7,000
36	1,800	3,600	5,400	7,200
+				

<sup>†</sup>diameter at breast height

# Use Information for Growth Regulation of Turfgrass

Profile 2SC growth regulator is a plant growth regulator (PGR) which reduces leaf blade length and stem internode elongation in turfgrasses resulting in a more compact growth form for up to two (2) months after application. Growth regulation results from suppression of gibberellic acid biosynthesis. Under normal growing conditions root growth and lateral expansion of turf are not affected. An appropriate fertility program for the desired turf species should be followed in conjunction with Profile 2SC applications to provide best turfgrass enhancement and reduce potential for discoloration. Broadcast treatments should be made on medium to high quality turfgrass areas of uniform species composition. Turf containing significant amounts of coarse textured species such as tall fescue, orchardgrass, timothy, dallisgrass, etc., may respond unevenly to Profile 2SC treatment.

Profile 2SC can be used on turfgrass grown in the following areas: golf courses (tees, fairways, greens, and rough), athletic fields, commercial and industrial areas, parks, and boulevards.

**NOTICE TO USER:** The rates indicated may need to be adjusted within the approved rate ranges on this label to achieve the desired level of growth regulation on turfgrass species. Turfgrass response to Profile 2SC may vary within turfgrass species due to the large number of cultivars and varieties available. The specified rate ranges permit the users to adjust the application rate to best address the growth conditions of the turfgrass being treated. Total applications cannot exceed 2.0 lbs a.i./acre/year or 128 fl. oz./acre/year of Profile 2SC. Neither the manufacturer nor seller has determined if Profile 2SC can be used safely or effectively on turfgrass species not mentioned on this label. For turfgrass species not listed on this label the user should apply Profile 2SC to a small test area to determine growth response and desired level of growth regulation prior to large scale applications.

#### **General Use Precautions**

- Do not use on residential turf.
- Do not apply to putting greens other than predominantly bentgrass.
- Do not apply to overseeded bermudagrass putting greens.
- Do not apply this product to sod farms, turfgrasses grown for seed, including plants or plant materials grown for sale or research purposes.

- Do not use on areas to be cultivated for food or food crops or to be resown with grasses within two years of treatment.
- Do not apply to shrubs or bedding plants.
- Do not apply during prolonged periods of temperature (heat or cold) or moisture stress. Also avoid applications during periods of extreme disease and insect pressure.
- Applications of Profile 2SC to newly seeded turfgrasses should be delayed until turf is well established and actively growing.
- Delay Profile 2SC applications for 4 weeks after treatment of a preemergence herbicide.
- Profile 2SC should not be applied until 4 weeks after turfgrass sprigging or laying sod. Turfgrass should be well established and actively growing prior to application.
- Do not apply to saturated soils or when a significant moisture event is anticipated. Profile 2SC may accumulate in low lying areas and cause prolonged and excessive growth regulation in those areas.
- Do not apply to areas where *Poa annua* is the desired turfgrass species or areas that contain >70% *Poa annua*.
- Additional turfgrass growth regulation may occur when Profile 2SC is tank mixed or used in conjunction with demethylation inhibitor (DMI) or sterol inhibiting fungicides.
- Do not apply to turf used for livestock production.
- Do not graze treated areas or harvest for forage or hay.
- Do not apply more than 2.0 lbs a.i./acre/year or 128 fl. oz./acre/year of Profile 2SC.
- Chemigation: <u>Do not</u> apply Profile 2SC through any type of irrigation system.

#### **Application Timing**

Spring applications should be made after resumption of active seasonal growth of turfgrass. The final application of the season should be timed at least 4 weeks before the onset of inactive grass growth or winter dormancy. Applications to overseeded turfgrasses in dormant bermudagrass stands should be completed 4 weeks prior to expected bermudagrass green-up.

#### Irrigation

Profile 2SC is primarily root absorbed. To maximize growth regulator activity, treated areas should receive 0.25 to 0.5 inch of rain or supplemental irrigation within 24 hours following application and prior to the first mowing after treatment.

#### Turf Color and Post-Treatment Turf Management:

Turfgrass treated with Profile 2SC may appear darker green in color. This color change, which appears 1 to 2 weeks after treatment, may persist an additional 3 to 8 weeks depending upon rate used and species treated. Treated areas should be managed to encourage the growth of a healthy vigorous turf.

#### Poa annua (Annual Bluegrass) Conversion to Perennial Turfgrasses:

Applications of Profile 2SC followed by management practices designed to encourage vigorous growth of perennial turfgrasses can reduce the *Poa annua* (annual bluegrass) competition in cool season turf and increase the cover of more desirable perennial species. *Poa annua* is more sensitive to Profile 2SC treatments and is therefore more strongly suppressed than perennial turfgrass species. Discoloration of *Poa annua* can be expected from treatments that provide a desired level of growth regulator activity in perennial grass species. This effect becomes visible 7 to 10 days after treatment and lasts 3 to 6 weeks. The degree of discoloration will be proportional to the *Poa annua* composition of the turf. Application of Profile 2SC in conjunction with soluble nitrogen fertilizers will also minimize discoloration. Application timing, rate recommendations, and precautions for perennial grass

conversion through selective reduction of *Poa annua* are provided in the *Poa annua* (*Annual Bluegrass*) Conversion to Perennial Turfgrasses section of this label. Total applications cannot exceed 2.0 lbs a.i./acre/year or 128 fl. oz./acre/year of Profile 2SC.

#### Application Directions

#### Mixing Directions

Add Profile 2SC a spray tank half filled with clean water. Allow sufficient mixing time to ensure complete dispersion and mixing of Profile 2SC. Finish filling the spray tank. Continue vigorous agitation throughout the spraying operation to ensure uniform application while avoiding overlaps and skips. Profile 2SC should be applied using a boom-type sprayer with bypass and/or mechanical agitation calibrated to deliver 40 to 200 gallons/acre of spray solution (1 to 4.6 gallons/1,000 ft<sup>2</sup>). In-line strainers and nozzle screens should be 50 mesh or larger. The use of a coloring agent to mark areas already sprayed is suggested for uniform application without skips and overlaps. Performance may be improved with the addition to the spray mix of a readily available nitrogen (N) source at 0.125 to 0.5 lb N/1,000 ft<sup>2</sup> or iron (Fe) at suggested label rates.

# PROFILE 2SC RATE RECOMMENDATIONS FOR GROWTH REDUCTION OF PERENNIAL TURFGRASS SPECIES – MULTIPLE APPLICATION PROGRAM

# Cool Season Turfgrasses Golf courses

<u>Bentgrass (Golf Course Fairway Type Turf)</u>

**Multiple application program:** Apply Profile 2SC to fairway height bentgrass at a rate of 16 to 32 fl. oz./acre in early spring following resumption of active growth. Repeat applications of 8 to 32 fl. oz./acre of Profile 2SC should be made at 2 to 6 week intervals until late summer or early fall; <u>or</u> repeat applications of 8 to 32 fl. oz./acre can be made within the same growing season as long as the turf is actively growing. Turfgrass species, growth rate, and use rate will dictate the timing of repeat applications – not to exceed 2.0 lbs a.i./acre/year or 128 fl. oz./acre/year of Profile 2SC.

Bentgrass Putting Greens

**Multiple application program:** Apply Profile 2SC to bentgrass as part of an overall greens management program. An initial application of Profile 2SC should be made after bentgrass greens are growing vigorously and have been mowed 3 or 4 times. Apply Profile 2SC at a rate of 4 to 16 fl. oz./acre. Repeat applications of 4 to 16 fl. oz./acre should be made at 2 to 4 week intervals. Total applications cannot exceed 2.0 lbs a.i./acre/year or 128 fl. oz./acre/year of Profile 2SC.

#### Golf courses, athletic fields, commercial and industrial areas, parks, and boulevards

<u>Kentucky Bluegrass and Perennial Ryegrass</u>

**Multiple application program:** Apply Profile 2SC to Kentucky bluegrass and perennial ryegrass at a rate of 16 to 32 fl. oz./acre in early spring following resumption of active growth. Repeat applications of 16 to 32 fl oz/acre should be made at 4 to 6 week intervals until late summer or early fall. Total applications cannot exceed 2.0 lbs a.i./acre/year or 128 fl. oz./acre/year of Profile 2SC. NOTE: Certain varieties of Kentucky Bluegrass are very sensitive to Profile 2SC. It is recommended that end

users apply Profile 2SC to a small test area to determine growth response and desired level of growth regulation prior to large scale applications.

#### > Warm Season Grasses

Golf courses, athletic fields, commercial and industrial areas, parks, and boulevards

Tifway (419), TifSport, and GN-1 Bermudagrass

**Multiple application program:** Apply Profile 2SC to Tifway (419), TifSport, and GN-1 Bermudagrass at a rate of 32 to 48 fl. oz./acre when turfgrass has completely recovered from winter dormancy and is growing vigorously. Repeat applications of 32 to 48 fl. oz./acre of Profile 2SC should be made at 4 to 8 week intervals until late summer or early fall. Total applications cannot exceed 2.0 lbs a.i./acre/year or 128 fl. oz./acre/year of Profile 2SC.

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Turrgrass Species			Treatment
Cool Season Turfgrasses	<u>2350/A</u>		
Bentgrass (golf course fairway)	16 to 32	0.25 to 0.5	2 to 6 weeks
Bentgrass putting greens	4 to 16	0.063 to 0.25	2 to 4 weeks
Kentucky Bluegrass/ Perennial Ryegrass	16 to 32	0.25 to 0.5	4 to 6 weeks
Warm Season Turfgrasses			
Tifway, TifSport, and GN-1 Bermudagrass	32 to 48	0.5 to 0.75	4 to 8 weeks

<sup>†</sup>Repeat applications can be made within the same growing season – not to exceed 2.0 lbs a.i./acre/year or 128 fl. oz./acre/year of Profile 2SC. When conducting repeat applications, use shorter treatment intervals when making applications at the lower end of the rate range; use longer treatment intervals when making applications at the higher end of the rate range.

#### POA ANNUA (ANNUAL BLUEGRASS) CONVERSION TO PERENNIAL TURFGRASSES

#### > Multiple Application Program

A multiple application perennial grass conversion program using Profile 2SC provides *Poa annua* suppression and cool season turf conversion. This program provides a gradual perennial grass conversion reducing *Poa annua* populations over one to several growing seasons. To maximize seedling establishment, do not apply Profile 2SC six (6) weeks prior to and/or 2 weeks after interseeding or overseeding of perennial turfgrasses.

#### Golf courses

#### Bentgrass (Golf Course Fairway type turf)

Apply Profile 2SC to fairway height bentgrass at a rate of 16 to 32 fl. oz./acre in early spring following resumption of active growth of the grass. Repeat applications of 8 to 32 fl. oz./acre of Profile 2SC should be made at 2 to 6 week intervals until late summer or early fall. Total applications cannot exceed 2.0 lbs a.i./acre/year or 128 fl. oz./acre/year of Profile 2SC. Normal management practices such as fertilization, aeration and interseeding/overseeding will encourage growth of bentgrass.

Because annual turfgrass species such as *Poa annua* are more strongly regulated by Profile 2SC, careful use of Profile 2SC on putting greens with a high percentage of *Poa annua* can shift the competitive balance between bentgrass and *Poa annua* to favor bentgrass. Follow normal management practices such as fertilization, aeration and interseeding/overseeding that encourages growth of bentgrass. Use of Profile 2SC on bentgrass greens may increase putting speed without reducing the height of cut.

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- Bentgrass Greens with less than 50% Poa annua (annual bluegrass): Apply Profile 2SC to bentgrass as part of an overall greens management program. An initial application of Profile 2SC should be made in the spring months after bentgrass greens are growing vigorously and have been mowed 3 or 4 times. Apply Profile 2SC at a rate of 8 fl. oz./acre. Repeat applications of 8 to 16 fl. oz./acre of Profile 2SC should be made at 2 to 4 week intervals through early fall. Total applications cannot exceed 2.0 lbs a.i./acre/year or 128 fl. oz./acre/year of Profile 2SC.
- Bentgrass Greens with 50 to 70% Poa annua (annual bluegrass): Apply Profile 2SC to bentgrass greens at a rate of 4 to 8 fl. oz./acre in the spring months after bentgrass greens are growing vigorously and have been mowed 3 or 4 times. Repeat applications of 4 to 16 fl. oz./acre of Profile 2SC should be made at 2 to 4 week intervals through early fall. Total applications cannot exceed 2.0 lbs a.i./acre/year or 128 fl. oz./acre/year of Profile 2SC.

Golf courses, athletic fields, commercial and industrial areas, parks, and boulevards

#### • Kentucky bluegrass, Perennial ryegrass

Apply Profile 2SC to Kentucky bluegrass and perennial ryegrass at a rate of 16 to 32 fl. oz./acre in early spring following resumption of active growth of the grass. Repeat applications of 16 to 32 fl. oz./acre of Profile 2SC should be made at 4 to 6 week intervals until late summer or early fall. Total applications cannot exceed 2.0 lbs a.i./acre/year or 128 fl. oz./acre/year of Profile 2SC. Normal management practices such as fertilization, aeration and interseeding/overseeding will encourage growth of bluegrass and/or ryegrass. NOTE: Certain varieties of Kentucky Bluegrass are very sensitive to Profile 2SC. It is recommended that end users apply Profile 2SC to a small test area to determine growth response and desired level of growth regulation prior to large scale applications

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	%/Poa	appli	spring cation <sup>1</sup>	Repe	eat applica	tions†					
Turfgrass Species.	annua	AFL.oz. Profile	Lbs ali/A	Fl.oz. Profile	A REAL PROPERTY OF A REAL PROPERTY OF A REAL	Treatment Interval <sup>it</sup>					
		23C/A			dillA	miervar					
Bentgrass (golf course fairway)	0-70%	16 to 32	0.25 to 0.5	8 to 32	0.125 to 0.5	2 to 6 weeks					
Bentgrass Putting Greens	Less than 50%	8	0.125	8 to 16	0.125 to 0.25	2 to 4 weeks					

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Bentgrass Putting Greens	50% to 70%	4 to 8	0.063 to 0.125	4 to 16	0.063 to 0.25	2 to 4 weeks
Kentucky Bluegrass/ Perennial Ryegrass Fairways	0-70%	16 to 32	0.25 to 0.5	8 to 32	0.125 to 0.5	4 to 6 weeks

<sup>†</sup> Apply in early spring following resumption of active growth of the grass. Fall applications should be discontinued 4 weeks before the onset of inactive grass growth or winter dormancy. <sup>††</sup> Repeat applications can be made within the same growing season – not to exceed 2.0 lbs a.i./acre/year or 128 fl. oz./acre/year of Profile 2SC. *When conducting repeat applications, use shorter treatment intervals when making applications at the lower end of the rate range; use* 

longer treatment intervals when making applications at the higher end of the rate range.

# STORAGE AND DISPOSAL

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

**Pesticide Storage:** Keep container closed when not in use. Do not store near food or feed. Protect from freezing. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these cannot be used according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA Regional Office for guidance.

**Nonrefillable Container Disposal (rigid, 5 gallons or less):** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to the flow begins to drip. Repeat the procedure two more times. Then offer the container for recycling (if available) or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Nonrefillable Container Disposal (rigid, larger than 5 gal):** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, treatment area, or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling (if available) or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

# **TERMS AND CONDITIONS OF USE**

If terms of the following *Warranty Disclaimer*, *Inherent Risks of Use*, and *Limitation of Remedies* are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, to the extent consistent with applicable law, use by the buyer or any other user constitutes acceptance of the terms under *Warranty Disclaimer*, *Inherent Risks of Use* and *Limitations of Remedies*.

# WARRANTY DISCLAIMER

SePRO Corporation warrants that this 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. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 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. Crop 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 or the seller. To the extent consistent with applicable law, all such risks shall be assumed by buyer.

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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 Corporations' 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.

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