

74779-7

3/27/2008

1/13



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505C)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

74779-7

Date of Issuance:

MAR 27 2008

NOTICE OF PESTICIDE:

- Registration
- Reregistration

(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

RTSA Shrub Growth Regulator

Name and Address of Registrant (include ZIP Code):

*Rainbow Treecare Scientific Advancements
2239 Edgewood Avenue South
Minneapolis, Minnesota 55426*

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA Section 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA Section 4.
2. Make the following label changes before you release the product for shipment:
 - a. Revise the EPA Registration Number to read, "EPA Reg. No. 74779-7."
 - b. Move the "AGRICULTURAL USE REQUIREMENTS" section (still in a box) down into the "DIRECTIONS FOR USE" section, positioning it immediately after the one-sentence paragraph which reads "It is a violation of Federal law to use this product in a manner inconsistent with its labeling."

Signature of Approving Official:

Date:

MAR 27 2008

Tony Kish, Product Manager (Team 22)
Fungicide Branch, Registration Division (7505P)

c. Change the first part of the first sentence in the second paragraph after the sentence that reads: "FAILURE TO FOLLOW THE USE...POOR PRODUCT PERFORMANCE." on page 4 from "RTSA Shrub Growth Regulator is a growth regulator that provides vegetative growth suppression of woody plants or shrubs in non-crop areas, such as residential areas,..." to "RTSA Shrub Growth Regulator is a growth regulator that provides vegetative growth suppression of woody plants or shrubs in outdoor non-crop areas, including residential areas,..."

d. The second bulleted item following "NOTE:" on page 5 indicates that caution should be used when treating relatively small maples, lindens, and elms. Add a brief description as to why this is so (if the next bulleted item is the reason, simply state this).

e. Change the sentence following the "Basal Drench" subheading on page 6 from "(Recommended for upright growing woody ornamental shrubs and trees less than 3" DBH)." to "(Recommended for the following upright growing woody ornamental shrubs and trees less than 3" DBH)."

f. In the paragraph that directly precedes the "Norway Maple, Red Maple, Sweet Gum, Japanese Maple, Crabapple:" item in the "Basal Drench" subsection on page 6 add a sentence that reads "Fill furrow with excavated dirt." before the sentence that reads "Applications can be made when soils are not frozen or saturated with water."

g. The sentence in the "Norway Maple, Red Maple, Sweet Gum, Japanese Maple, Crabapple:" item in the "Basal Drench" subsection on page 6 reads "Apply 2.5 fl. oz (75 ml) of diluted solution per cumulative diameter inch (0.5 gram a.i. cumulative diameter inch)". Give an example of this in the form similar to the following: "For a 3" DBH tree, apply 7.5 fl oz of the solution."

h. Following the heading "Growth Suppression of Low Maintenance Woody Plants" on page 6 list the woody plants that you are providing use directions for.

i. Change the first sentence in the "Growth Suppression of Low Maintenance Woody Plants" on page 6 from "To minimize regrowth after pruning, make applications no more than 2 weeks following pruning." to "To minimize regrowth after pruning, make foliar applications no more than 2 weeks following pruning."

j. After the first paragraph in the "Growth Suppression of Low Maintenance Woody Plants" on page 6 add a paragraph that reads "Spray solution until material begins to drip from all plant surfaces. Ensure that the foliage, canopy and all stems are thoroughly covered."

k. In the first paragraph in the "Control and Suppression of Annual and Broadleaf Perennial Grasses, and Annual and Broadleaf Weeds, Woody Plants and Vines" section on page 7 is a list of herbicides that the subject product can be tank mixed with. Delete dikegulac from this list because dikegulac is not a herbicide (it's a plant growth regulator).

l. In the first paragraph in the "Control and Suppression of Annual and Broadleaf Perennial Grasses, and Annual and Broadleaf Weeds, Woody Plants and Vines" section on page 7 change "...growing around commercial, residential and right of way areas." to "...growing around commercial and right of way areas." Not all of the listed herbicides are cleared for residential use.

m. At the end of the third paragraph in the "Control and Suppression of Annual and Broadleaf Perennial Grasses, and Annual and Broadleaf Weeds, Woody Plants and Vines" section on page 7 add "The most restrictive label requirements must be used for tank mixes. Do not use tank mixes on use sites which are not allowed on each label.

n. Among the bulleted items in the "GENERAL PRECAUTIONS" section on page 7 some apply to all uses and some apply only to uses on page 7. The range of uses each applies to must be specified. We believe that the first, second, third, and fourth items (starting at the top) apply to all uses while the fifth, seventh, and eighth items apply only to uses that are on page 7. We are not certain what array of uses the sixth and ninth items cover.

3. Submit, by no later than one year following the date of this letter, a study or studies that fulfill the requirements for Storage Stability (Guideline Requirement Number 830.6317) and Corrosion Characteristics (Guideline Requirement Number 830.6320) of the subject product.

4. Submit one copy of the revised final printed label for the Agency's records before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation, in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

Attachments: Product label stamped "ACCEPTED with COMMENTS"
Four Technical Review Branch reviews

4/3

RTSA Shrub Growth Regulator
EPA Reg #74779-T

3/14/2008

RTSA SHRUB GROWTH REGULATOR

Active Ingredient:

Paclobutrazol (R*, R*)-(±)-β-[(4-chlorophenyl) Methyl]-α-(1,1-dimethylethyl)- 1H-1,2,4-triazole-1-ethanol	8.0%
Other Ingredients:.....	92.0%
Total	100.0%

Contains 0.72 lbs. active ingredient per gallon

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

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

See Side/Back Panel for Additional Precautionary Statements, First Aid and Directions for Use

EPA Reg. No. 74779-7

EPA Est. No.

Net Contents:

Rainbow Treecare Scientific Advancements
2239 Edgewood Ave. South
Minneapolis, MN 55426
1-877-ARBORIST
1-877-272-6747
www.rainbowscivance.com

**ACCEPTED
with COMMENTS
In EPA Letter Dated
MAR 27 2008**

**Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.**

74779-7

FIRST AID	
IF SWALLOWED	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
IF IN EYES	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment.	
HOT LINE NUMBER	
For 24 hour medical emergency assistance (human or animal), or chemical emergency assistance (spill, leak or accident). Call CHEMTREC at 1-800-424-9300	

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

CAUTION: Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes, or clothing.

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 must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber, Nitrile rubber or Viton.
- 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 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

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 cleaning equipment or disposing of equipment wash water.

Physical or Chemical Hazards

Do not use or store near heat or open flame.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker I 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) and restricted-entry interval. 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.

Exception: If the product is applied by drenching, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

1. Long sleeved shirt and long pants
2. Chemical-resistant gloves such as barrier laminate, butyl rubber, Nitrile rubber or Viton.
3. Shoes plus socks

DIRECTIONS FOR USE

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

FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR PRODUCT PERFORMANCE.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

RTSA Shrub Growth Regulator is a growth regulator that provides vegetative growth suppression of woody plants or shrubs in non-crop areas, such as residential areas, nurseries, national and private wooded and forested areas, parks, industrial manufacturing and storage sites, commercial buildings, street medians, rights-of-way areas, such as electrical power lines, highway and transit medians, communication lines, pipe lines, roadsides, rail roads, fence rows, non-irrigation ditch banks, forests and in the establishment and maintenance of wild life openings.

GENERAL DIRECTIONS

RTSA Shrub Growth Regulator is absorbed into succulent new growth of woody ornamentals and ground covers.

Treated plants require less pruning and will exhibit a more compact growth habit. Treated plants have smaller leaves and can display darker foliage. RTSA Shrub Growth Regulator inhibits the production of gibberellin and subsequent cell elongation in terminal shoots. Timing of initial shoot growth reduction varies by species and location, but a response can be noted in most species within 30-90 days.

Duration of growth reduction response can last for up to 1-2 growing seasons depending on the application timing, amount of pruning performed, soil type, growing conditions and species of plant. Additional cultural practices, such as fertilizing and irrigation may influence the response time and level of growth reduction.

Certain species may require light pruning during the treatment period to maintain the desired shape and form. Avoid heavy pruning of trees and shrubs following application, as this will remove the RTSA Shrub Growth Regulator from the terminal shoots of the treated plant.

RTSA Shrub Growth Regulator is also absorbed by the root system when applied as a basal drench. Basal drench treatments of RTSA Shrub Growth Regulator are effective in

RTSA Shrub Growth Regulator
EPA Reg #74779-T

3/14/2008

inhibiting the growth of upright growing woody ornamentals, such as shrubs and small trees less than 3 inches in DBH.

The dosage rates listed below are guidelines. Certain species respond more or less to RTSA Shrub Growth Regulator. In addition, efficacy may vary depending on weather conditions, geographic conditions, and other biological factors, applicators should treat small-scale numbers of plants prior to determining specific application rates for different species under actual use conditions. To optimize dosage rates for a user's specific location, cultural practices, and growing conditions, users should vary the rate of RTSA Shrub Growth Regulator on a small number of plants for each species.

NOTE:

- Do not treat flowering dogwood, red bud, or sweet gum.
- Use caution when treating maples, lindens, and elms less than 10 inches in diameter.
- Applications at higher dosage rates may leave a white residue on the plant foliage. Take precaution when treating around sidewalks, driveways, buildings, decks, fences, vehicles, or other structural surfaces as staining may occur. Wash immediately with water if product lands on these surfaces.
- Take extra precaution to minimize application to non-target plants as growth regulation may occur on non-target plants that come into contact with RTSA Shrub Growth Regulator.

Foliar Treatment

Applications can be made throughout the growing season to plants. To minimize regrowth after pruning, make applications no more than 2 weeks following pruning. Applications can also be made immediately after pruning. NOTE: Pruning after applications have been made will remove the RTSA Shrub Growth Regulator from the plant and can decrease the amount of growth reduction.

The use of a commercial spreader sticker may provide more thorough coverage on hard to wet plant tissue.

For plants listed in group A, mix 1.6 fl. oz. (47 ml) of RTSA Shrub Growth Regulator in 1 gallon (3.8 L) of water.

For plants listed in group B, mix 3.2 oz. (95 ml) of RTSA Shrub Growth Regulator in 1 gallon (3.8 L) of water.

For more difficult plants listed in group C, mix 6.4 fl. oz. (190 ml) in 1 gallon (3.8 L) of water.

Spray solution until material begins to drip from all plant surfaces. Ensure that the foliage, canopy and all stems are thoroughly covered.

Group A	Group B	Group C			
Azalea	Barberry	Alpine Currant	Euonymous	Ixora	Rhaphiolepis
Itea	Cherry Laurel	Ash	Ficus	Maple	Viburnum
Ninebark	Ice Plant	Bougainvillea	Firebush	Oak	
Rose of Sharon	Lilac	Callistemon	Forsythia	Orange	
	Rhododendron	Cotoneaster	Hibiscus	Jasmine	
	Spirea	Crabapple	Holly	Plumbago	
		English Ivy	Honeylocust	Privet	
				Redbud	

Basal Drench (Recommended for upright growing woody ornamental shrubs and trees less than 3" DBH).

Mix 1 part RTSA Shrub Growth Regulator with 11 parts water. Dig a shallow furrow that is 2" deep x 5" wide at the base of the stem cluster and apply uniformly to each stem within the cluster. Applications can be made when soils are not frozen or saturated with water.

Norway Maple, Red Maple, Sweet Gum, Japanese Maple, Crabapple:

Apply 2.5 fl. oz (75 ml) of diluted solution per cumulative diameter inch (0.5 gram a.i. cumulative diameter inch)

Bur Oak, White Oak, and Live Oak: Apply 5 fl oz (150 ml) of diluted solution per cumulative diameter inch (1.0 gram a.i. cumulative diameter inch)

Red Oak and Honeylocust: Apply 10.1 fl oz (300 ml) of diluted solution per cumulative diameter inch (2.0 grams a.i. cumulative diameter inch)

Pine, Spruce, Ash, Cedar, Arborvitae, Upright Yew, Ornamental Pear, Palm:

Apply 15.2 fl oz (450 ml) of diluted solution per cumulative diameter inch (3.0 grams a.i. cumulative diameter inch)

Growth Suppression of Low Maintenance Woody Plants

To minimize regrowth after pruning, make applications no more than 2 weeks following pruning. Applications can also be made immediately after pruning. NOTE: Pruning after applications have been made will remove the RTSA Shrub Growth Regulator from the plants and can decrease the amount of growth reduction.

The use of a commercial spreader sticker may provide more thorough coverage on hard to wet plant tissue.

Mix 6.4 fl. oz. (190 ml) in 1 gallon (3.8 L) of water

Control and Suppression of Annual and Broadleaf Perennial Grasses, and Annual and Broadleaf Weeds, Woody Plants and Vines

RTSA Shrub Growth Regulator can be tank mixed with commonly used herbicides such as triclopyr, imazapyr, picloram, dikegulac, ammonium salt of imazapic, MCPA, dicamba, and glyphosate to provide longer residual control of certain annual and perennial broadleaf weeds, woody plants, vines and woody invasive species such as Kudzu that are growing around commercial, residential and right of way areas.

RTSA Shrub Growth Regulator can also be tank mixed with herbicides to provide more persistent control for spot treatments around poles, road-way signs, utility boxes, fire hydrants, and when used in combination with herbicides as a chemical edger.

For best results apply when plants are actively growing. Difficult to control plants may require multiple treatments to achieve control. Consult all labels before using any tank mix.

Tank mix 1-4 parts RTSA Shrub Growth Regulator with 1 part herbicide. Make applications as a spray to drip, ensuring the foliage, canopy and all woody stems are thoroughly covered.

If tank mixing a product for the first time, check physical compatibility by using correct proportions of each product in a small jar test.

GENERAL PRECAUTIONS

- Do not use during periods of extreme dry or cold weather, or during heavy insect or disease activity
- Do not apply this product through any type of irrigation equipment
- Assure that dosage rates are measured accurately since rates greater than those recommended may cause undesirable growth regulation and may discolor areas temporarily.
- Shake container thoroughly before use.
- Do not mow treated turf for at least three days following application
- Do not use on areas to be cultivated for food or food crops or to be re-sown with grasses within two years of treatment.
- Do not apply more than (11 qts per acre per year (2 lbs. ai/A)
- Do not graze treated areas or harvest for forage or hay.
- Do not apply product to soil when soil is already saturated. Heavy rainfall or irrigation in treated areas may cause active ingredient to move laterally on slopes and collect in low areas. These areas may undergo more severe growth control for a longer period of time.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

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 disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse or pressure 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 procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

Notice: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

Follow the Directions for Use carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Tree injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or tree conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS or seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS and Seller harmless for any claims relating to such factors.

RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes

stated in the Directions For Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, and Buyer and User assume the risk of any such use. RAINBOW TREECARE MAKES NO WARRANTIES OF MERCHANABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF RAINBOW TREECARE OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and of Liability, which may not be modified except by written agreement signed by a duly authorized representative of RAINBOW TREECARE SCIENTIFIC ADVANCMENTS.

All TM property of RAINBOW Treecare Scientific Advancements.

© Copyright 2006 RAINBOW Treecare Scientific Advancements.

Patent Pending

The RAINBOW logo is a trademark of RAINBOW Treecare Scientific Advancements.

OPTIONAL MARKETING CLAIMS

- Reduce [mowing,] [trimming,] [pruning,] [cutting,] [spraying,] [chemical,] [labor,] [equipment] and [other] [maintenance] costs.
- Saves time and money.
- Reduces growth.
- Reduces biomass.
- Extends [trimming] [pruning] cycle time.
- Protect investment by controlling growth.
- Increase(s) pruning efficiency.
- Enhances plant appearance and quality.
- RTSA Plant Growth Regulator.
- Vegetation management of invasive species.
- Kudzu Control.
- Prune less
- Can be tank-mixed with commonly used herbicides to increase the duration and persistence of the control of weed and invasive species.