

228-688

8/12/2010

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

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

AUG 12 2010

Mr. Nathan P. Ehresman  
Product Registration  
Nufarm Americas, Inc.,  
150 Harvester Drive, Suite 200  
Burr Ridge, IL 60527

Subject: Notification for Label Revisions under PRN 98-10 and 2007-4  
New Use Site, Directions for Use and General Label Changes

Dear Registrant:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notices (PRN) 98-10 and 2007-4 Storage & Disposal and Other Changes dated July 14, 2010 for:

**EPA Registration 228-688 "Nufarm Chlormequat SPC Plant Growth Regulator"**

The Registration Division (RD) has conducted a review of the request(s) for applicability under PRN 98-10 and 2007-4 and finds that the label changes requested fall within the scope of 98-10 and 2007-4. The label has been date-stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on non-refillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

If you have any questions, please call me directly at 703-305-5335 or Owen F. Beeder of my staff at 703-308-8899.

Sincerely,

*Rachel C. Halloman*  
for

Paul J. Mastradone, Ph.D., Acting  
Notifications & Minor Formulations Team Leader  
Registration Division (7505P)  
Office of Pesticide Programs

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United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☒ Amendment  
☐ Other:

OPP Identifier Number

## Application for Pesticide - Section I

1. Company/Product Number <b>Nufarm Americas Inc.</b> <b>EPA Reg. No. 228-688</b>	2. EPA Product Manager <b>Tony Kish</b>	3. Proposed Classification  <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) <b>Nufarm Chlormequat SPC Plant Growth Regulator</b>	PM# <b>22</b>	
5. Name and Address of Applicant (Include ZIP Code) <b>Nufarm Americas Inc.</b> <b>150 Harvester Drive, Suite 200</b> <b>Burr Ridge, IL 60527</b>  <input type="checkbox"/> Check if this is a new address	6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to: EPA Reg. No.: <b>241-74</b> Product Name: <b>Cycloce</b>	

## Section - II

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

NOTIFICATION

AUG 12 2010

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

**Label Amendment** (non-PRIA) - Addition of Hibiscus use, Revision of Crop-specific use directions from paragraph style to table format, and update of container disposal statements per PRN2007-4

## Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	
*Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container
				<input checked="" type="checkbox"/> Plastic	
				<input type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify)	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container <b>1, 2.5, 30, 220, 250 gallons</b>		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled				<input type="checkbox"/> Other	

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)		
Name <b>Nathan P. Ehresman</b>	Title <b>Director, Regulatory Affairs</b>	Telephone No. (Include Area Code) <b>919-655-0018</b>
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received <b>(Stamped)</b>
2. Signature 	3. Title <b>Director, Regulatory Affairs</b>	
4. Typed Name <b>Nathan P. Ehresman</b>	4. Date <b>July 14, 2010</b>	

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NUFARM AMERICAS, INC.  
150 Harvester Drive, Suite 200  
Burr Ridge, IL 60527  
Phone: 630-455-2000 ■ Fax: 630-455-2001

July 14, 2010

Mr. Tony Kish  
Registration Division  
Document Processing Desk (AMEND)  
Office of Pesticide Programs (7504P)  
U. S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 S. Crystal Drive  
Arlington, VA 22202-4501

Subject: Nufarm Chloromequat SPC Plant Growth Regulator  
EPA Reg. No.: 228-688  
Label Amendment

Dear Mr. Kish:

Nufarm is proposing a revised label for EPA approval with changes that consist of the following: the addition of the use on Hibiscus; a reformatted label that uses a tabular format to display areas treated, application instructions, and remarks rather than the paragraph style that was previously used; and container disposal statements are updated according to PRN2007-4.

In support of the revised label, the following is submitted:

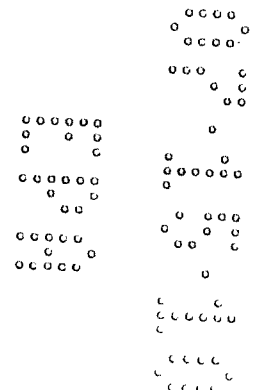
- Application for Pesticide Registration (8570-1)
- Certification with Respect to Citation of Data (8570-34)
- Data matrix (Agency & Public copies) (8570-35)
- Five (5) copies of revised label (4 clean & 1 highlighted)
- Electronic copy of label on enclosed CD & label integrity certification.

Please contact me at 919-655-0018 or [nathan.ehresman@us.nufarm.com](mailto:nathan.ehresman@us.nufarm.com) for additional information or questions.

Sincerely,

A handwritten signature in black ink, appearing to read "N. P. Ehresman", written over a horizontal line.

Nathan P. Ehresman  
Director, Regulatory Affairs  
Nufarm Americas Inc.



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# Nufarm Chlormequat SPC

## Plant Growth Regulator

A PLANT GROWTH REGULATOR FOR USE ON ORNAMENTALS IN GREEN HOUSES

**NOTIFICATION**

**AUG 12 2010**

**ACTIVE INGREDIENT:**

Chlormequat chloride: (2-chloroethyl)trimethylammonium chloride..... 11.8%

**OTHER INGREDIENTS:**..... 88.2%

**TOTAL:**..... 100.0%

1 gallon contains 1 pound (2-chloroethyl)trimethylammonium chloride

### KEEP OUT OF REACH OF CHILDREN

### CAUTION / PRECAUCION

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 INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS**

**For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300**

**For Medical Emergencies Only, Call (877) 325-1840**

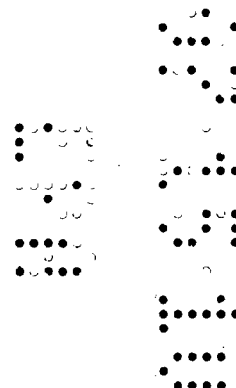
EPA REG. NO. 228-688

EPA EST. NO. \_\_\_\_\_

MANUFACTURED FOR  
NUFARM AMERICAS INC.  
150 HARVESTER DRIVE  
BURR RIDGE, IL 60527  
800-455-2000



**NET CONTENTS:** \_\_\_\_\_ (Gal.) ( \_\_\_\_\_ liters)



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

**CAUTION**

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical resistant gloves, such as butyl rubber  $\geq 14$  mils, or natural rubber  $\geq 14$  mils, or neoprene rubber  $\geq 14$  mils, or nitrile rubber  $\geq 14$  mils.
- 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 PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**FIRST AID**

**IF SWALLOWED:**

- 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 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.

**HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

**NOTE TO PHYSICIAN**

The use of Atropine is contraindicated.

**ENVIRONMENTAL HAZARDS**

This product is toxic to wildlife. Keep out of lakes, streams and ponds. **DO NOT** contaminate water when disposing of equipment washwaters.

**DIRECTIONS FOR USE**

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

**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. Observe all precautionary statements, limitations, and application instructions on this label.

**DO NOT** apply this product through any type of irrigation system.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40CFR 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 level 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 area during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, chemical-resistant gloves made of any waterproof material, shoes plus socks.

## GENERAL INFORMATION

**Before using this product, read all sections of this label.**

This product is a plant growth regulator that enhances the aesthetic appeal and improves postproduction shipping and handling durability of ornamentals grown in greenhouses. Treated plants have shorter internodes, stronger stems and greener leaves resulting in a more compact, attractive and hardy plant.

Depending on crop culture, environmental conditions and plant growth habit, this product will typically reduce internode elongation for a period of 1 to 3 weeks following spray treatment. Multiple applications may be made as needed. This product has maximum effect on final plant height when applied at the beginning of a rapid stem elongation period and has less effect if applied when shoots are not elongating vigorously or the plant is at the end of an elongation phase. Individual grower preferences for crop development will dictate application rates, timing and frequency of this product.

## USE PRECAUTIONS

This product is not a replacement for good cultural practices and should be used only on healthy plants grown under proper conditions.

Because this product contains a wetting agent, additional wetting agents are not necessary.

If adjuvants or other chemicals will be used with this product, test areas should be treated first to ensure that no crop injury will occur. The suggested initial application rate for small-scale trials of this product is 1,250 ppm chlormequat chloride (the active ingredient in this product).

Because plants treated with this product may require less water, irrigation schedules may need to be modified in order to prevent over-irrigation.

## FACTORS AFFECTING ACTIVITY

Plant growth and response to this product is altered by several factors. The optimum rate and frequency of application will vary depending on how the crop is grown.

### Environmental Factors

The following conditions will tend to cause less compact growth and generally require higher application rates of this product:

- Crops produced under low light levels
- Crops produced under high humidity conditions
- Crops produced under higher temperatures
- Crops produced under higher DIF (difference between day and night temperatures)

### Cultural Factors

The following cultural factors may cause plants to be more lush and taller, requiring the use of higher rates or more frequent applications at lower rates of this product:

- Crops grown with greater amounts of irrigation
- Crops grown with higher fertilization rates
- Crops grown with high amounts of ammoniacal nitrogen
- Plants that are spaced closely together causing leaves to overlap

The amount of chemical needed to achieve the desired final plant height for photoperiodic crops and varieties (such as poinsettias and chrysanthemums) will vary with the production schedule. Crops that are grown under long schedules with more time between planting and start of flower initiation or between final pinch and flower initiation will be taller than crops grown using short production schedules and will therefore require applications at higher rates or more frequent applications at lower rates of this product.

### Varietal Differences

Varieties within a species can vary greatly in their growth habits and the amount of this product required for optimum final height with taller, more vigorous varieties requiring greater amounts of this product than do shorter, less vigorous varieties. When applying to unfamiliar varieties, users should consult with plant and seed suppliers and breeder companies for information on growth habit.

In addition to natural height and vigor, colors within a bedding plant series may vary in sensitivity to this product as well.

## MIXTURE PREPARATION

Optimum application rates of this product vary depending on the crop, the specific production situation and the final plant height and appearance desired. Users should determine optimum application rate, timing, and frequency for their specific production situations by conducting small-scale trials under the different conditions that this product is to be used before application to an entire crop. The rates specified in this label are general guidelines to be used by growers in the trials used to determine specific, optimum application rates appropriate for their operations.

Concentration (ppm) chlormequat chloride active ingredient	Mixing Ratio of Product for Spray or Drench Applications		
	Fl. Oz. / Gal.	mL / Gal.	mL / L
200	0.22	6.4	1.7
460	0.50	14.7	3.9
800	0.87	25.7	6.8
1000	1.08	32.1	8.4
1250	1.36	40.1	10.6
1500	1.63	48.1	12.7
2000	2.17	64.2	16.9
3000	3.25	94.2	25.4
4000	4.34	128.0	33.9

## NUFARM CHLORMEQUAT SPC PLANT GROWTH REGULATOR / B-NINE (EPA REG. NO. 400-69) TANK MIXES

**NOTE: A tank mix of this product and B Nine is more active than using either chemical alone.**

On plants that are not sensitive to this product or when an excessive number of applications are required, a tank mix of this product and B-Nine can be applied (being sure to follow the guidelines given on the labels of both products). The tank mix is to be applied as a foliar spray ONLY. As described above when using this product alone, the optimum application rates for each product will vary depending on the crop, the user's preference for height control, and the individual production situation. Test the tank mix with a small-scale trial before general use.

### Application Rates

In general, the highest rate of this product that does not cause excessive leaf yellowing should be used, with the rate of B-Nine then raised or lowered to adjust the activity of the tank mix.

The following table provides a range of application rates to use when establishing this product and B-Nine trials:

Desired Activity	ppm Chlormequat chloride	ppm Daminozide (B-Nine active ingredient)
Very High	1500	5000
High	1500	2500
Medium	1250	1250
Low	1000	800

## Tank Mix Considerations

Bedding Plants and General Crops: A tank mix of this product and B-Nine is effective on a wide range of crops and users must evaluate its use under their individual production situation. The tank mix may be used with low risk of excessive reduction in size on bedding plant plugs such as pansy and vinca. At higher rates, it may be used on plug crops that require stronger chemical activity to produce the desired height control such as salvia, marigold, and dahlia.

Geraniums: The addition of B-Nine to this product does not greatly enhance the height control achieved on geraniums.

Impatiens: A tank mix of this product and B-Nine provides height control on impatiens plugs but is less efficacious on mature impatiens crops.

Poinsettias: Because poinsettias are more sensitive than other crops to the combination of this product and B-Nine, use of tank mix application rates that are too high or application late in the crop growth cycle may cause reduced bract size and/or delayed bract coloring. **The "very high" activity rates of this product at 1,500 ppm chlormequat chloride (active ingredient in this product) and B-Nine at 5,000 ppm daminozide (B-Nine active ingredient) should NOT be used on poinsettias.** The high rates of 1,500 ppm chlormequat chloride (active ingredient in this product) and 2,500 ppm daminozide (B-Nine active ingredient) can be used on stock plants during the summer or on crops for flowering in the warmest regions. Outside of the warmest regions, growers should use the medium or low activity rates on crops for flowering. Applications to cuttings in propagation should be at low or medium rates in all regions. **A tank mix of this product and B-Nine should not be applied to natural season poinsettias after September 25<sup>th</sup> or after the start of short-days in photoperiod-controlled crops. After that date, the B-Nine should be omitted and this product used alone as described in this label.**

## SPRAY APPLICATIONS

When sprayed, this product enters the plant through both leaves (both developing and mature) and stems with maximum effect occurring when it thoroughly covers all plant surfaces. The spray volume necessary for thorough plant coverage varies with plant size and foliage cover, but generally is between 2 and 3 quarts of spray solution per 100 square feet of bench space. Applicators should avoid spray volumes that result in heavy runoff of spray solution from the plant. To reduce the growth of upper lateral shoots and have less effect on lower shoots, this product may be applied in light spray volumes of approximately 1 quart per 100 square feet.

Because this product enters the plant while the spray solution stays wet, to provide maximum effect, spray when conditions that support slow drying of spray solutions exist. For best results, time applications of this product so that overhead irrigation or rain will not occur for a period of 6 hours after application.

Depending on the crop and individual user's desired results, and unless otherwise stated in the sections for specific crops below, spray application rates of this product range from 800–4,000 ppm chlormequat chloride (active ingredient in this product). All references to ppm are based on chlormequat chloride (active ingredient in this product).

### Spray Application Phytotoxicity

Slight yellowing near leaf margins or at the tip of leaves that are small and rapidly enlarging at the time of application often result from foliar spray applications of this product, however, leaves that are mature when sprayed and leaves formed after application are not affected. Discoloration appears approximately 3 to 5 days after application and discolored areas usually regain most or all of their green color by the end of the crop cycle. The degree of yellowing is proportional to the application rate with the lowest specified rates causing no temporary discoloration or phytotoxicity. Brown necrotic areas that will not recover their green color may result from application rates of this product that are too high.

Trials should be conducted prior to using application rates of 1,500 ppm chlormequat chloride (active ingredient in this product) or greater in order to ensure that the amount of leaf spotting is acceptable to the user. If the amount of yellowing is determined to be unacceptable, the effects of phytotoxicity and temporary discoloration may be reduced by lowering application rates of this product and making more frequent applications at the lower rates.

NOTE: Users should *not* apply this product near the end of a crop cycle unless adequate trials have been conducted to ensure that the rate is low enough to avoid an undesirable appearance during the sales period.

## DRENCH APPLICATIONS

This product may be applied to the growing medium as a drench that is taken up through the roots and transported to the stem tips where it is active. In addition to providing longer and more uniform control of stem elongation, drench applications do not cause leaf yellowing. Because the total amount of the active ingredient in this product applied to each container determines the reduction in stem elongation, users *must* ensure that both the amount of solution applied to each container and the concentration of this product in ppm are correct.

To prevent multiple plants in the same container from developing non-uniform heights, uniformly saturate all the potting medium with the drench. The drench should be applied to moist medium and not when crops need irrigation. For best results irrigate crops one day prior to applying the drench of this product.



Application rates for drench treatments of this product range from 2,000 to 4,000 ppm chlormequat chloride (active ingredient in this product). To determine the optimum rates under your particular conditions trials should be conducted. The following table provides suggested volumes of dilute product solution for different size containers however; these volumes should be modified if the user has established an optimal volume through their own small-scale trials.

Pot Diameter (inches)	Fluid ounces of dilute solution per pot	Number of pots treated with 1 gallon of solution
2 ¼ to 3	2	64.0
4	3	42.5
5	4	32.0
6	6	21.5
8	8	16.0

### FACTORS AFFECTING ACTIVITY

Plant growth and response to this product is altered by several factors. The optimum rate and frequency of application will vary depending on how the crop is grown.

#### Environmental Factors

The following conditions will tend to cause less compact growth and generally require higher application rates of this product:

- Crops produced under low light levels
- Crops produced under high humidity conditions
- Crops produced under higher temperatures
- Crops produced under higher DIF (difference between day and night temperatures)

#### Cultural Factors

The following cultural factors may cause plants to be more lush and taller, requiring the use of higher rates or more frequent applications at lower rates of this product:

- Crops grown with greater amounts of irrigation
- Crops grown with higher fertilization rates
- Crops grown with high amounts of ammoniacal nitrogen
- Plants that are spaced closely together causing leaves to overlap

The amount of chemical needed to achieve the desired final plant height for photoperiodic crops and varieties (such as poinsettias and chrysanthemums) will vary with the production schedule. Crops that are grown under long schedules with more time between planting and start of flower initiation or between final pinch and flower initiation will be taller than crops grown using short production schedules and will therefore require higher application rates or more frequent applications at lower rates.

#### Varietal Differences

Varieties within a species can vary greatly in their growth habits and the amount of this product required for optimum final height with taller, more vigorous varieties requiring greater amounts of this product than do shorter, less vigorous varieties. When applying to unfamiliar varieties, users should consult with plant and seed suppliers and breeder companies for information on growth habit.

In addition to natural height and vigor, colors within a bedding plant series may vary in sensitivity to this product as well.

# APPLICATION INSTRUCTIONS FOR SPECIFIC SPECIES

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Plant Type	Application Instructions	Remarks
POINSETTIAS	<p><b>Spray Application:</b> Make spray applications at rates between 800 and 1,500 ppm chlormequat chloride (active ingredient in this product). If needed, repeat applications may be made at 3 to 14 day intervals. Frequent reapplication may be necessary if the lowest specified application rates are used. At rates of 1,000 to 1,500 ppm chlormequat chloride, less frequent reapplications will be needed. Higher rates (between 1,500 and 3,000 ppm chlormequat chloride) often result in significant leaf yellowing and are not frequently used, but may be applied if the user has adequately evaluated these rates.</p>	<p>This product may be applied as needed to all poinsettia varieties that are stock plants, cuttings during propagation, and before or after pinching plants grown for flowering to reduce stem elongation.</p> <p><b>Use Precautions</b></p> <ul style="list-style-type: none"> <li>Poinsettias respond to this product depending on variety and geographical region of the United States in which they are grown. For warmer production areas, higher rates and more frequent applications will be necessary.</li> <li>For natural-season crops in the Northern United States, this product must not be used after Oct. 15 with the exception that reduced rates may be used until Oct. 21 ONLY if conditions are warm and sunny.</li> <li>For poinsettias grown in the South, this product must not be used after Nov. 1.</li> </ul> <p>Making applications late in the season or using excessive rates may cause reduced bract size and / or delayed flowering.</p> <p>If the crop is being produced outside of its natural season, the last application should be no later than 6 weeks prior to flower maturity.</p>
	<p><b>Drench Application:</b> Make drench applications at a rate of 3,000 to 4,000 ppm chlormequat chloride, being sure to follow the procedures listed in the <b>Drench Applications</b> section of this label. When making drench applications, be sure to follow the critical cut off dates listed under Use Precautions above.</p>	
GERANIUMS	<p>Apply spray applications at rates between 800 to 1,500 ppm chlormequat chloride. First applications are typically made 2 to 4 weeks after planting plugs or rooted cuttings and after stems have started elongating. Make repeat applications as necessary to control growth.</p> <p>To promote earlier flowering of seed geraniums, make two spray applications at 35 and 42 days after seeding using a rate of 1,500 ppm chlormequat chloride.</p>	<p>This product controls plant size of seed geraniums and vegetatively propagated geranium types. It is also used inducing early flowering of seed geraniums, decreasing days to flowering and generating more compact growth and lateral breaks.</p>
<p><b>BEDDING PLANTS</b> Including:</p> <p>Ageratum, Celosia, Cleome, Coleus, Dahlia, Dianthus, Gomphrena, Hypoestes, Jerusalem cherry, Marigold, Nasturtium, Salvia, Sunflower, Verbena, Vinca, Zinnia</p>	<p><b>Transplanted Plugs:</b> Make spray applications at a rate of 800 to 1,500 ppm chlormequat chloride after transplanted plugs begin to grow and the amount of growth control required can be determined. Use an increased rate of 3,000 ppm chlormequat chloride after extensive trials are conducted to evaluate the effects of the higher rate.</p>	<p>This product controls stem elongation in the following (and other) bedding plant crops grown in packs, pots, hanging baskets, and plug trays.</p> <p>Because the growth rates of bedding plants vary greatly depending on the growers' cultural practices applications of this product must be specifically tailored to grower practices being used.</p>

Plant Type	Application Instructions	Remarks
	<p><b>Bedding Plants in Seedling Stage:</b> Users should evaluate use of this product starting at one-half of the rate used on finished bedding plants.</p>	<p>and the desired final plant size. Additionally, since plant growth after transplanting is affected by the amount of this product (or other) growth regulator that is applied to the plant during the plug stage, using this product during the plug stage will reduce the amount needed after transplanting.</p>
<p><b>OTHER HERBACEOUS CROPS</b> Including:            Achimenes, Aster, Astilbe,            Begonia, hiemalis,            Begonia, tuberous,            Calceolaria, Carnation,            Chrysanthemum,            Columbine, Easter Lily,            Gynura aurantica, Ivy,            Kalanchoe, <i>Lilium</i> spp.,            Morning glory,            Pachystachys, <i>Pilea</i> spp.,            Pentas, <i>Salvia</i> spp.,            Schefflera, <i>Sedum</i> spp.,            Sunflower</p>	<p>Apply this product as either a drench or foliar spray (such as flowering potted plants, tropical and temperate perennials, and foliage plants) to reduce stem elongation.</p>	<p>Optimum rate, timing and frequency of applications of this product will vary for different crops and amount of height control desired by individual users, and users should conduct trials with a small number of plants prior to using this product on entire crops.</p>
<p><b>HIBISCUS</b></p>	<p>Make applications of this product to plants of <i>Hibiscus</i> spp. at rates of 200 to 600 ppm chlormequat chloride (active ingredient in this product). It is suggested that users start conducting trials with a rate of 460 ppm chlormequat chloride. To produce the most compact flowering plants (height less than 18" in 6-inch pot), make 3 to 4 applications as needed after the final pinch, and first application should be made when laterals are 0.5 to 1 inch long. To produce most uniform growth, apply this product in multiple applications and once before first and second pinches to produce more compact plants before final pinch.</p>	<p>To improve flowering and to produce compact plants with uniform shoot growth.</p> <p>DO NOT USE ON FIELD GROWN HIBISCUS.</p> <p>USE IN PRODUCTION AREAS NOT UNDER COVER is restricted to containerized plants only in addition to glasshouse / shadehouse use.</p>
<p><b>AZALEAS</b></p>	<p>Optimum spray rates for this product generally range between 1,000 and 2,000 ppm chlormequat chloride in most situations, but range as high as 4,000 ppm chlormequat chloride in some cases since Azalea growth habit and response to this product varies with variety, geographical region and production system. Make two to six applications when laterals are about 2 inches long, approximately 3 to 5 weeks after last pinch. Plants treated with this product flower a few days later than non-treated plants.</p>	<p>Applications of this product generate earlier budded plants with multiple buds per shoot that have more compact, and symmetrical heads. It can also be used to induce flower bud set in crops produced out of season in a year-round production system.</p>
<p><b>OTHER WOODY FLOWERING CROPS</b> Including:            Barleria cristata, Bougainvillea, Camellia, Fuchsia,            Gardenia, Hollies,            Hydrangea, Lantana,            Potted rose,            Pseuderanthemum            lactifolia, Rhododendron</p>	<p>Optimum rate, timing and frequency of applications will vary for different crops and amount of height control desired by individual users, and users should conduct trials with a small number of plants prior to using this product on entire crops.</p>	<p>Treat other woody flowering crops not specifically listed with this product to produce more compact growth and earlier flower bud initiation by applying as needed prior to pinching or after the last pinch.</p>

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container. **DO NOT** store below freezing temperatures.

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

### **CONTAINER DISPOSAL [HANDLING]:**

#### **[Nonrefillable Containers 5 Gallons or Less:]**

**Nonrefillable container.** Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 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 this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration. Do not burn unless allowed by state and local ordinance. If burned stay out of smoke.

#### **[Nonrefillable containers larger than 5 Gallons:]**

**Nonrefillable container.** Do not reuse or refill this container. Offer for recycling if available. If recycling or reconditioning is not available, puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration. Do not burn unless allowed by state and local ordinance. If burned stay out of smoke. 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. Fill the container 1/4 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 or store rinsate for later use or disposal. Repeat this 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 pressure 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.

#### **[Refillable containers:]**

**Refillable container.** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

#### **[Refillable For return to Nufarm:]**

**Refillable container.** Refill this container with pesticide only. Do not reuse this container for any other purpose. Close all openings and replace all caps. Contact Nufarm's Customer Service Department at 1-800-345-3330 to arrange for return of the empty refillable container.

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## WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

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**If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.**

(RV071410)

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### LABEL HISTORY

File Name	Revision Mark	Comment
000228-00688.20100714.Nursery_Use	RV071410	Hibiscus Use, PRN2007-4