



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

JAN 25 1994

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mark Herbst
VALENT U.S.A. CORP
1333 N. CALIFORNIA BLVD BOX 8025
Walnut Creek, California 94596

Subject: Label Amendment Submission of 07/13/93 in Response to PR Notice 93-7
EPA Reg. No. 59639-37
SUMAGIC PLANT GROWTH REGULATOR

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled/Recyclable
Printed with Soy-Ceramic Ink
contains at least 50% recycled paper

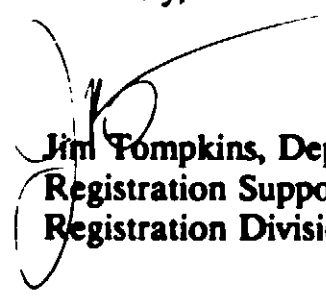
Submit the final printed labeling via the U.S. Postal Service to:

**Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs (7505C)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460-0001**

Hand or courier deliveries of final printed labeling may be made to:

**Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202**

Sincerely,



**Jim Tompkins, Deputy Chief
Registration Support Branch
Registration Division (7505W)**

Attachment



SUMAGIC •
Plant Growth Regulator

For Commercial Greenhouse Use Only

Active Ingredient	By Wt.
*Uniconazole-P.....	0.05%
Inert Ingredients	99.95%

**(E)-(+)-(S)-1-(4-chlorophenyl)-4,4-dimethyl-2-(1,2,4-triazol-1-yl)-pent-1-ene-3-*

Contains 0.064 oz. active ingredient per gallon (0.5 g/litre).

U.S. Pat. Nos. 4,203,995, 4,435,203 and 4,554,007

SUMAGIC® - Reg. TM of Sumitomo Chemical Co., Ltd. for uniconazole-P plant regulator

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

Manufactured for
Valent U.S.A. Corporation
Walnut Creek CA 94596-8025
Form 219-F Made in U.S.A.
EPA Reg. No. 59639-37

ACCEPTED
with COMMENTS
in EPA Letter Dated
JAN 25 1994

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

59639-37

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

CAUTION: Causes eye irritation. Avoid contact with eyes, skin and clothing.

STATEMENT OF PRACTICAL TREATMENT: If in eyes, flush eyes immediately with fresh water for 15 minutes. If irritation continues, see a doctor. If on skin, wash with plenty of soap and water. See a doctor if irritation persists.

Note to Physician: Emergency Information - call 1-800-892-0099.

PERSONAL PROTECTIVE EQUIPMENT:

Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, 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 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, or 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.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL AND PAMPHLET. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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.

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), 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.

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, waterproof gloves, and shoes plus socks.

DIRECTIONS

Do not apply this product through any type of irrigation system.

SUMAGIC[®] is an effective growth retardant on a wide variety of floriculture crops. Dilute with water according to the directions below. Make foliar applications with standard spray equipment. Effective dose is strongly dependent on application volume. Plant response can vary if a given rate is applied at different spray volumes. Uniformity of spray is equally important. Except where noted, rates expressed are based on a spray volume of 2 qts. applied uniformly to 100 sq. ft. of bench area and indicate amount of SUMAGIC per gallon of final spray solution.

Plant response to SUMAGIC is strongly influenced by cultural and environmental variables, such as growing media, water/fertilizer management, temperature, light, growing house composition, and other cultural practices. First time users of SUMAGIC should treat a limited number of plants at the lowest recommended rate. Further adjustments may then be made according to plant response. Sequential applications at low rates may be made as necessary.

FOR COMMERCIAL GREENHOUSE USE AND FOR LATHHOUSE AND SHADEHOUSE USE (WHERE PLANTS ARE GROWN IN CONTAINERS) ONLY.

This product has a potential to leach into groundwater or to runoff into surface water. In Greenhouses, Lathhouses or Shadehouses with soil flooring of high porosity and low organic content, do not apply directly to soil or to plants/pots in direct contact with soil.

POINSETTIA

FOLIAR SPRAY: Growth Retardation: Apply SUMAGIC as a foliar spray when the breaks are 1.5 to 2.0 inches (about 10 to 14 days after pinching). Use rates listed below and apply uniformly at a spray volume of 2 qts. per 100 sq. ft. of bench area. Multiple applications of the lower rate may be applied as necessary. First time users of SUMAGIC should make single or sequential applications at the lowest recommended rate to determine optimum dose for specific cultivars under local conditions. Late season application (after short-day initiation) may have negative effects on bract size, plant quality, and marketability.

DO NOT APPLY SUMAGIC TO POINSETTIAS AFTER THE INITIATION OF SHORT DAYS.

NOTE: Certain varieties such as Supjibi and Freedom are more sensitive to SUMAGIC than others and should be treated with the lowest recommended rates for each growing region.

FLORIDA ONLY: DO NOT APPLY SUMAGIC TO POINSETTIAS AFTER OCTOBER 25.

Growing Region	Recommended Spray Concentration Rate Range
All States except Florida	0.64 to 2.56 oz./gal. (Repeat as necessary) (19* to 76 ml/gal., 2.5 to 10 ppm) *In most locations multiple applications at this rate will be necessary.
Florida	2.56 to 3.84 oz./gal. (Repeat as necessary) (76 to 114 ml/gal., 10 to 15 ppm)

POINSETTIA TREES

For use in Florida only:

Apply SUMAGIC as a drench at a solution concentration of 0.51 to 0.77 oz./gal. (15 to 23 ml/gal., 2 to 3 ppm) when breaks are 1.5 to 2.0 inches (about 10 to 14 days after the second pinching). Apply 8 fl. oz. of diluted solution to each pot.

Do not apply SUMAGIC to Poinsettia Trees after October 25.

BEDDING PLANTS

FOLIAR SPRAY

Growth Rotation: Apply SUMAGIC as a foliar spray as plant elongation begins (plant height approximately 2 to 4 inches). See exceptions for Periwinkle (Vinca), Pansy and Geranium. Timing may vary with species and the user should determine the appropriate growth stage for specific cultivars and environmental conditions. When applying to plants at the shortest growth stage (2 inches), use the lowest recommended rate. Use rates listed below and apply uniformly at a spray volume of 2 qts. per 100 sq. ft. of bench area. Multiple applications of lower rate may be applied as necessary. Cultivars within the same species may respond differently to a given rate of SUMAGIC.

First time users of SUMAGIC should make single or sequential applications at the lowest recommended rate to determine optimum dose for specific cultivars under local conditions.

Plant	Recommended Spray (oz./gal.)	Concentration (ml/gal.)	Rate Range (ppm)
Ageratum	5.12 to 7.68	151 to 227	20 to 30
Celosia	2.56 to 5.12	76 to 151	10 to 20
Coleus	2.56 to 5.12	76 to 151	10 to 20
Dahlia	2.56 to 5.12	76 to 151	10 to 20
Impatiens*	1.28 to 2.56	38 to 76	5 to 10
Marigold**	2.56 to 5.12	76 to 151	10 to 20
Pansy	0.26 to 1.52	8 to 46	1 to 6
Periwinkle (Vinca)	0.26 to 0.77	8 to 23	1 to 3
Petunia**	6.4 to 12.79	189 to 379	25 to 50
Salvia	1.28 to 2.56	38 to 76	5 to 10
Snapdragon***	6.49 to 12.79	189 to 379	25 to 50
Viola	0.26 to 1.28	8 to 38	1 to 5

* Seed Propagated

** Multiple application may be necessary

*** Multiple applications necessary

NOTE: Begonias are exceptionally sensitive to SUMAGIC. Extreme care should be exercised to avoid spray drift onto Begonia cultivars. For optimum results on Periwinkle (Vinca) and Pansy, it is recommended that SUMAGIC not be applied until plants reach a height of 4 inches.

GERANIUMS

FOLIAR SPRAY

Growth Retardation: Seeded Geranium - Apply SUMAGIC as a foliar spray when plant height is approximately 4 inches. Apply 0.52 to 1.04 oz./gal. (16 to 32 ml/gal., 2 to 4 ppm) as a uniform spray at a volume of 2 qts. per 100 sq. ft. of bench area.

Vegetatively Propagated Geraniums - Apply SUMAGIC as a foliar spray on an as-needed basis once the growth of cuttings begins (dependent on growth rate and cultivar). Apply 0.77 to 1.54 oz./gal. (23 to 46 ml/gal., 3 to 6 ppm) as a uniform spray at a volume of 2 qts. per 100 sq. ft. of bench area. Choice of rate is dependent on growth rate.

EASTER LILIES

NOTE: Treatment with SUMAGIC may reduce the water requirement for Easter Lilies. The use recommendations for SUMAGIC PGR on Easter Lilies are intended for plants grown under positive DIF temperature conditions (higher day temperature than night temperature) only. Easter Lilies grown under negative or zero DIF temperature conditions should not be treated with SUMAGIC PGR.

FOLIAR SPRAY

All states except Florida: Treat Easter Lilies with 2.56 to 6.4 oz./gal. (76 to 189 ml/gal., 10 to 25 ppm) SUMAGIC when shoots average 3 inches tall. Use a uniform spray volume of 2 qts. per 100 sq. ft. of bench area. If a second application is made, it should be applied when shoots average 6 inches tall.

Florida only 2.56 to 3.84 oz./gal. (76 to 114 ml/gal.,
10 to 15 ppm)

SOIL DRENCH

All states except Florida: Apply SUMAGIC when shoots average 3 inches tall. Use a solution concentration of between 0.06 oz./gal. and 0.13 oz./gal. (1.9 ml/gal. to 3.8 ml/gal.). Apply 4 fl. oz. of diluted solution to each pot. Avoid late season applications.

Florida only 0.11-0.22 oz./gal. (3.22-6.43 ml/gal.)

CHRYSANTHEMUMS

FOLIAR SPRAY

Apply SUMAGIC as a foliar spray when the length of the breaks is 1.5 to 2.0 inches (about 7 to 14 days after pinching). Make a uniform spray application at a volume of 2 qts. per 100 sq. ft. of bench area (except in Florida on medium and tall cultivars where 3 qts. per 100 sq. ft. is recommended). Multiple applications should be applied as necessary.

NOTE: Chrysanthemum cultivars vary widely in their response to SUMAGIC. Treat a small number of plants to confirm appropriate rates for local conditions and specific cultivars.

Growing Region	Recommended Spray Concentration Rate Range
All States except Florida	0.64 to 2.56 oz./gal. (19* to 75 ml/gal., 2.5 to 10 ppm). * Cooler growing climates should utilize the lower rate and make a second application if necessary.
Florida	1.28 to 2.56 oz./gal. (38 to 76 ml/gal., 5 to 10 ppm). Apply at a 3 qts. per 100 sq. ft. volume for medium and tall cultivars. Repeat application as necessary.

AZALEAS

General Directions: Apply as a uniform spray at a volume of 1.5 qts. per 100 sq. ft. of bench area at approximately 4 to 6 weeks after final pinch. Azalea cultivars may vary in their response to SUMAGIC. Treat a small number of plants to confirm appropriate rates for local conditions and specific cultivars.

Shorter Growing Cultivars (Gloria, Solitarie): Apply SUMAGIC as a foliar spray at 2.56 oz./gal. (76 ml/gal., 10 ppm). If a second application is necessary, apply 1.28 to 2.56 oz./gal. (38 to 76 ml/gal., 5 to 10 ppm) approximately 2 to 3 weeks after the initial application.

Taller Growing Cultivars (Prize): Apply SUMAGIC as a foliar spray at 2.56 to 3.84 oz./gal. (76 to 114 ml/gal., 10 to 15 ppm). If a second application is necessary, apply 2.56 oz./gal. (76 ml/gal., 10 ppm) approximately 2 to 3 weeks after the initial application.

HIBISCUS

For use in Florida only:

General Directions: Use from 1.28 to 2.56 oz./gal. (38 to 76 ml/gal., 5 to 10 ppm) and apply as a uniform spray at a volume of 3 qts. per 100 sq. ft. of bench area. Multiple applications can be made as necessary.

IXORA

For use in Florida only:

Apply SUMAGIC as a foliar spray at 5.12 oz./gal. (151 ml/gal., 20 ppm) 4 to 8 weeks after the final pinch as a uniform spray at a volume of 1.5 qts. per 100 sq. ft. of bench area. If a second application is necessary, apply 2.56 to 3.84 oz./gal. (76 to 114 ml/gal., 10 to 15 ppm) approximately 3 to 4 weeks after the initial application.

NOTE: Timing of applications will depend on cultivar, time of year, and growing conditions. Treat a small number of plants to confirm appropriate rates for local conditions and cultivars.

IMPORTANT NOTES

IMPORTANT: SUMAGIC is an extremely active plant growth regulator. Extreme caution must be exercised in measuring, diluting, and applying SUMAGIC. Excessive doses will result in severe growth retardation and possible adverse effects on flowering, plant appearance and marketability. Avoid spray drift onto non-target species.

Apply to well-watered, vigorously growing plants. Do not mix with pesticides, fertilizers, or adjuvants.

Do not apply SUMAGIC to any food crops.

Do not reuse soil from plants treated with SUMAGIC.

SUMAGIC activity is reduced when applied to media containing pine bark.

It is recommended that SUMAGIC be applied during morning or late afternoon hours, or when plants are not under environmental stress.

SUMAGIC retards elongation almost immediately after application. Assessment of rate response for most species can be made within five to seven days after treatment. If desired results are not evident, reapplication or an increased rate may be warranted.

Differences in plant response to SUMAGIC due to plant surface area in relation to soil surface area are possible. Extreme temperatures can influence plant response to SUMAGIC.

Shake before using.

RATE CONVERSION TABLE
Conversion between ppm, ml/l, ml/gal., oz./gal.

PPM	ML/L	ML/GAL	FL. OZ./GAL
1	2	8	0.26
3	6	23	0.77
5	10	38	1.28
10	20	76	2.56
15	30	114	3.84
20	40	151	5.12
25	50	189	6.40
30	60	227	7.68
35	70	265	9.00
40	80	303	10.25
45	90	341	11.50
50	100	379	12.72
75	150	568	19.21

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Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.

STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited.

STORAGE: Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Store in cool, dry place. Protect from temperatures below 32°F. This product may freeze. If freezing should occur, thaw and shake gently to unify the product. Do not store diluted spray. For help with any spill, leak, fire or exposure involving this material, call day or night 1-800-892-0099, or Chemtrec 1-800-424-9300.

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

CONTAINER DISPOSAL: Triple rinse (or equivalent). Do not reuse container. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

IMPORTANT INFORMATION. READ BEFORE USING PRODUCT.

LIMITED WARRANTY: 1. Valent U.S.A Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for use under average conditions when used strictly in accordance with the directions on the labeling. Valent does not make nor authorizes any agent or representative to make, any other warranty, guarantee or representation, express or implied, concerning this product. Specifically, **NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE IS MADE.** 2. Critical and unforeseeable factors beyond Valent's control prevent it from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which product is applied, lack of complete control over the handling and application of this product, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit under average conditions for the uses stated on the labeling and even though label directions are followed. Buyer and user acknowledge and assume all risks and liability (except those assumed by Valent under 1 above) resulting from handling, storage, and use of the product. 3. Precautions stated on the labeling should be followed to avoid hazardous exposure to the product.

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