# 64/37-8 02/01/2002 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

FEB - 1 2002

Ms. Kim Davis Kemira Agro Oy c/o RegWest Company P.O. Box 2220 Greeley, CO 80632-2220

# Subject: Label Amendment Application Dated November 9, 2001 Addition of Outdoor and Turf Use Sites EPA Registration No.64137-8

Dear Ms. Davis:

The amendment referred to above, submitted in connection with registration under FIFRA section 3(c)(7)(A), is acceptable provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) and section 4 when the Agency requires all registrants of similar products to submit such data.

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2. Submit five (5) copies of your final printed labeling before you release the product for shipment. Final printed labeling means the label or labeling of the product when distributed or sold. Clearly legible reproductions or photo reductions will be accepted for unusual labels, such as those silk-screened directly onto glass or metal containers or large bags or drum labels.

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 bearing the amended labeling constitutes acceptance of these conditions.

A stamped copy of the label, a copy of the ecological risk assessment dated August 21, 2001 and the updated Biopesticides Registration Action document are enclosed for your records.

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DATE	11/01/01	1/25/00				

EPA Form 1320-1A (1/90)

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## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

For any questions that you may have concerning this action or enclosed materials, please contact Susanne Cerrelli at 703/308-8077.

Sincerely,

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Janet L. Andersen, Ph.D., Director Biopesticides and Pollution Prevention Division

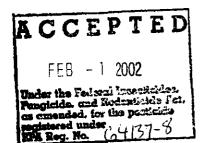
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Enclosures

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PRIMASTOP BIOFUNGICIDE POWDER



Active Ingredient:

Gliocladium catenulatum Strain J14	46*	37.0%
Other Ingredients		63.0%
*Contains 1.0 x 10 <sup>8</sup> cfu/gram	Total	

# Keep Out of Reach of Children CAUTION READ ALL DIRECTIONS BEFORE USING PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Harmful if swallowed, inhaled or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

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 by a poison control center or doctor.         Do not give anything by mouth to an unconscious person.       Do not give anything by mouth to an unconscious person.         If on Skin or Clothing:       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.		T HOLEIN
<ul> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> <li>If on Skin         <ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul> </li> </ul>	f Swallowed:	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> </ul>
Do not give anything by mouth to an unconscious person.     Take off contaminated clothing.     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.		<ul> <li>Have person sip a glass of water if able to swallow.</li> </ul>
If on Skin <ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>		<ul> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> </ul>
or Clothing:   Rinse skin immediately with plenty of water for 15-20 minutes.  Call a poison control center or doctor for treatment advice.		<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
Call a poison control center or doctor for treatment advice.	f on Skin	Take off contaminated clothing.
	or Clothing:	<ul> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> </ul>
If in Eves:		<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
a minutes. I • Hold eye open and finse slowly and gently with water for 15-20 minutes.	f in Eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.
<ul> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>		
<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>		<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If Inhaled:   Move person to fresh air.	f Inhaled:	Move person to fresh air.
If person is not breathing, call 911 or an ambulance, then give artificial respiration, prefer		• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by
mouth-to-mouth, if possible.		
Call a poison control center or doctor for further treatment advice.		Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment		
may also contact 1-800-424-9300 for emergency medical treatment information.]	nay also contac	t 1-800-424-9300 for emergency medical treatment information.]

(Note: The First Aid statements' grid format will be used if market label space permits; otherwise a paragraph format will be used.)

## Personal Protective Equipment

Applicators and other handlers must wear: Long-sleeved shirt and long pants. Waterproof gloves. Shoes plus socks, and a NIOSH approved respirator with any N, P, R or HE filter.

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.

#### **Emergency Information**

For spill, leak, fire, exposure or accident call CHEMTREC at 1-800-424-9300.

## 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 washwaters.

Not for Sale or Use After {Insert Date}

Net Contents: \_\_\_\_ ounces (\_\_\_\_ grams)

Kemira Agro Oy Porkkalankatu 3 P.O. Box 330 00101 Helsinki, FINLAND EPA Reg. No. 64137-8 EPA Est. 64137-FI-1 Made in Finland Revision

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# **DIRECTIONS FOR USE**

THE RULE OF COUCOUSE

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.

## AGRIGULTURAL 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 0 hours.

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses. Do not enter treated area without protecting clothing until sprays have dried.

### USER SAFETY RECOMMENDATIONS

- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protection equipment immediately after handling this product. If gloves are worn, wash the
  outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### GENERAL

PRIMASTOP controls damping-off, seed rot, root and stem rot, wilt and certain foliar diseases caused by Rhizoctonia, Pythium, Phytophthora, Fusarium, Didymella, Botrytis, Verticillium, Alternaria, Cladosporium, Helminthosporium, Penicillium and Plicaria on greenhouse or field grown vegetables, herbs, ornamentals, tree and forest seedlings and turf.

PRIMASTOP may be incorporated in the growth substrate as either a dry powder or aqueous suspension, applied by drenching or applied as a foliar or field spray.

Use PRIMASTOP on turf and the following greenhouse or field-grown vegetables, herbs, spices, ornamentals, trees and shrubs grown in greenhouses or outdoors:

## VEGETABLES (Including Fruiting, Leafy, Root Crop and Seed/Pod Vegetables such as)

Artichokes	Cucumbers	Parsnips
Asparagus	Eggplant	Peas
Beans	Endive	Peppers
Beets	Garlic	Potatoes
Braccoli	Horseradish	Pumpkins
Brussels Sprouts	Kale	Radishes
Cabbage	Kohlrabi	Rutabagas
Carrots	Leeks	Spinach
Cauliflower	Lentils	Squash
Celery	Lettuce	Strawberries
Chicory	Melons	Tomatoes
Chinese Cabbage	New Zealand Spinach	Turnips
Corn	Onions	Watermelons

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Aniseed	HERBS AND SPICES Fernel	_
Basil		Rosemary
	Lavender	Sage
Caraway	Marjoram	Savory
Chives	Oregano	Thyme
וויט	Parsiey	Watercress
	ORNAMENTALS	
(Including Flow	ers, Follage and Potted, Bedding and Seedling	g Plants such as)
Achillea	Daisy	Matthiola
African Violet	Delphinium	Monarda
Ageratum	Dianthus	Nigella
Alyssum	Dieffenbachia	Pansey
Amaryllis	Freesia	Pelargonium
Anemone	Fuchsia	Petunias
Anthurium	Gaillardia	Phlox
Aster	Gazania	Poinsettia
Azalea	Geraniums	🖕 Рорру
Bedding Plants	Gerbera	Primrose
Begonias	Gladiolus	Rhododendron
Calceolaria	Gloxinia	Rose
Campanula	Gypsophila	Rudbeckia
Carnation	Hedera	Salvia
Centaurea	Hyacinth	Senecio
Cerastium	Impatiens	Sinningia
Chrysanthemum	Iris	Statice
Cineraria	Kalanchoe	Sweet Pea
Coleus	Liatris	Tulips
Cyclamen	Lilies	Verbena
Daffodils	Lobelia	Vinca
Dahlia	Marigolds	Zinnia
	TREES AND SHRUB SEEDLINGS	
Birch	Juniper	Spruce
Forest Trees	Pine	Vine Crops
Fruit Trees	Shrubs	Woody Ornamentals

## OTHERS

Home Ornamentals, grown indoors or outdoors and Turf

## PREPARING AN AQUEOUS SUSPENSION OF PRIMASTOP

To prepare an aqueous suspension of PRIMASTOP, mix product with water and agitate sufficiently to evenly disperse product. Agitate during use to avoid settling. Use the aqueous suspension within one (1) day of preparation. Examples of mixing ratios of PRIMASTOP with water are as follows:

Concentration of PRIMASTOP Suspension	Ounces of PRIMASTOP	Gallons of Water	Grams of PRIMASTOP	Liters of Water
0.2%	3.5 oz.	13	100 grams	50 liters
0.5%	3.5 oz.	5	100 grams	20 liters
1.0%	3.5 oz.	2.5	100 grams	10 liters
2.5%	3.5 oz.	1.0	100 grams	4 liters
5.0%	3.5 oz.	0.5	100 grams	2 liters

## INCORPORATION IN POTTING MEDIA

Incorporation of PRIMASTOP in potting media is recommended for vegetables, herbs, ornamentals and tree or forest seedlings grown in greenhouses or indoors. PRIMASTOP may be mixed in potting mixture at sowing or potting or transplanting as an aqueous suspension or as a dry powder.

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When incorporating PRIMASTOP as a dry powder use 1.4 - 32 oz. of PRIMASTOP per cubic yard of growth substrate (i.e. 0.05 - 1.2 gram of PRIMASTOP per 1 liter of growth substrate). When incorporating PRIMASTOP as an aqueous suspension, mix 3.5 oz. of the product per 1 gallon of water (2.5% suspension). Use 0.4 - 9 gallons per cubic yard of growth substrate (i.e. 0.05 - 1.2 gram of PRIMASTOP suspension per liter of growth substrate).

Use the higher rate for higher disease pressure. It is important to incorporate PRIMASTOP evenly to assure best performance. Store potting media containing PRIMASTOP below 77°F (25°C) and use within 3 weeks after preparation. Incorporation of PRIMASTOP may be followed with a drench application within 2-6 weeks as described below under soil drench applications.

## SOIL DRENCH APPLICATIONS

Use a 0.2 - 0.5% PRIMASTOP suspension (27 - 70 oz. PRIMASTOP per 100 gals, of water) for soll drench applications.

Seedling Trays or Beds (Recommended Rate per Area): Seedling trays or beds may be drenched with PRIMASTOP. Recommended rate is  $2 - 10 \text{ oz.}/100 \text{ sq. ft.} (5 - 25 \text{ g/m}^2)$ . For example, use 0.5% suspension at 0.2 - 1 pint/sq. ft. Use the higher rate for higher crop density or higher disease pressure.

Pots, Plugs or Rockwool Cubes (Recommended Rate per 100 Plants): Crops grown in pots or rockwool cubes may be drenched with PRIMASTOP. Use a 0.2 – 0.5% suspension. Dose rate depends on the root plug/ball size and disease pressure. Use the higher rate for bigger root volume and higher disease pressure. Refer to the following table for application rates on different pot or root plug sizes:

·	Fluid Ounces/100 Plants		
Pot Size (Root Volume)	0.2% Suspension	0.5% Suspension	
1 inch (16 ml)	5 - 30	3 – 10	
1.5 inch (55 ml)	10 - 40	4 - 20	
2 inches (125 ml)	50 - 250	20 - 80	
3 inches (420 ml)	150 - 650	60 - 300	
5 inches (2 L)	650 - 3000	250 - 1300	

In Drenching Treatments Use the Following PRIMASTOP Water Suspension: 2.5 – 14 oz. PRIMASTOP per 10 gallons of water (0.2 – 1.0% suspension).

- Dose rate depends on the root plug/ball size and disease pressure.
- Use the highest rates of PRIMASTOP (14 oz /10 gallons) for the biggest pots or under high disease pressure.
- Seedling Trays, Beds or Pots less than 4 inches deep (recommended rate per area): Use 20 40 gallons of PRIMASTOP suspension per 800 sq. ft. (2 – 20 g of PRIMASTOP per m<sup>2</sup>).
- Pots, Plugs or Rockwool Cubes 4 to 6 inches deep (recommended rate per area): Use 40 80 gallons of PRIMASTOP suspension per 800 sq. ft. (2 – 20 g of PRIMASTOP per m<sup>2</sup>).
- Pot Volumes Around 150 to 250 cubic inches or 2.5 to 4 liter (recommended rate per pot): Use 0.5 1.0 pints of PRIMASTOP suspension per pot (0.2 – 1.0 g of PRIMASTOP per liter of growing substrate).

Timing of Treatments: Drenching at sowing is recommended for vegetables (except for tomato and leek), herbs and ornamentals (except pansy) grown in peat or soil mixture. Drenching after emergence is recommended for tomato, leek, pansy and all seedlings grown in rockwool, e.g. cucumbers. Repeat treatment at transplanting.

## FOLIAR SPRAY

An aqueous suspension of PRIMASTOP may be sprayed or spread on the plant stems or foliar parts for control of *Didymella* or *Botrytis*. Use a water suspension of 14 - 140 oz. PRIMASTOP per 100 gallons water (0.1% - 1.0%suspension). Treat plants to the point of run-off using a rate of 0.4 - 4 oz. of PRIMASTOP per 100 sq. ft. (or 1 - 10 grams of PRIMASTOP per square meter). Under high disease pressure concentrations up to 5% may be used. Repeat foliar spray every 2 - 8 weeks if necessary.

# FIELD SPRAYING APPLICATIONS

After planting, fields may be sprayed with an aqueous suspension of 14 - 140 oz. PRIMASTOP per 100 gallons of water (0.1% - 1.0% suspension) and applied at the rate of approximately 3 gallons of the suspension per 100 sq. ft. (i.e. 0.4 - 4 oz. of PRIMASTOP per 100 sq. ft.) Use approximately 1220 gallons of PRIMASTOP suspension (0.1 - 1.0%) per acre. Repeat spray applications, if necessary, every 2 to 8 weeks during the growing season.

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## TURF APPLICATIONS

Spray turf with an aqueous suspension of 14 - 140 oz. PRIMASTOP per 100 gallons of water (0.1% - 1.0% suspension) and apply at the rate of approximately 3 gallons of the suspension per 100 sq. ft. (i.e. 0.4 - 4 oz. of PRIMASTOP per 100 sq. ft.). Use approximately 1220 gallons of PRIMASTOP suspension (0.1 - 1.0%) per acre. Repeat spray applications, if necessary, every 2 to 8 weeks during the growing season.

#### TREATMENT OF CUTTINGS, BULBS OR TUBERS

Cuttings may be dipped in a suspension of 1 oz. PRIMASTOP per gallon water or sprayed with the suspension after planting (0.75% suspension). Bulbs or tubers may be dipped in or sprayed with a 0.2%-1% PRIMASTOP suspension before planting or storage. The product may also be incorporated in the storage mixture, such as sand or peat, at a rate up to 1 gram of PRIMASTOP per liter of storage mixture.

## IMPORTANT NOTES

Drench/Spray Treatment: If a spray treatment is used, pay attention to the large particle size (up to 0.5 mm) of the product and use screens and nozzles of appropriate size. Rinse the nozzles and screens as needed. Agitate the aqueous suspension before and during use to prevent settling.

Chemigation: Do not apply PRIMASTOP through any type of irrigation system.

Tank Mixes: Do not tank mix PRIMASTOP with any pesticide or concentrated fertilizer.

Integrated Pest Control Programs: PRIMASTOP may be used in integrated pest control programs. Always check the compatibility of PRIMASTOP with other biofungicides or chemical pesticides with the local distributor. Do not apply chemical pesticides within 1 to 4 days of PRIMASTOP application except for propamocarb hydrochloride, triadimeton, deitamethrin, malathion, metalaxyl, primicarb and pyrethrins which may be applied on the same day as PRIMASTOP.

# STORAGE AND DISPOSAL

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

Storage: PRIMASTOP consists of living microbes, which are packed in unit packages. Unopened packages can be stored up to one year in a cool (below 46°F, 8°C), dry place and for 3 weeks at room temperature (maximum 77°F, 25°C). Opened packages should be closed tightly and stored in a cool, dry place and used within one month. Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Container Disposal {Bags}: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. [Container Disposal {Plastic Cans:} Triple rinse (or equivalent) then 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.]

## NOTICE TO USER

Kemira Agro Oy warrants only that this product conforms to the product description on this label and is reasonably fit for the purposes set forth in the Directions for Use when used in accordance with them. However, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the use, storage or handling of the product contrary to the label instructions, all of which are beyond the control of Kemira Agro Oy. All such risks shall be assumed by the user. In no case shall Kemira Agro Oy be liable for indirect or consequential damages resulting from the use, storage or handling of this product. KEMIRA AGRO OY MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

[ ] Denotes alternate/optional language
 { } Denotes language that does not appear on the market labeling

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