



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

June 22, 2015

Ms. Ana Rodriguez-Koster
Agent for
Pace Chemicals Ltd.
Lewis and Harris, LLC
122 C Street, N.W. Suite 740
Washington, D.C. 20001

Subject: Label Amendment – Add residential greenhouse use directions
Product Name: **KleenGrow**
EPA Registration Number: 81820-2
Application Date: April 2, 2015
Decision Number: 503455

Dear Ms. Koster:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

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

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EPA Reg. No. 81820-2
Decision No. 503455

with FIFRA section 6. If you have any questions, please contact Drusilla Copeland by phone at 703-308-6224, or via email at copeland.drusilla@epa.gov.

Sincerely,

 for

Velma Noble
Product Manager 31
Regulatory Management Branch I
Antimicrobials Division (7510P)
Office of Pesticide Programs

Enclosure

ACCEPTED

06/22/2015

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 81820-2

KleenGrow

**Algicide • Fungicide • Bactericide
Disinfectant • Cleaner • Virucide**

**For controlling Fungal and Bacterial plant pathogens on Ornamentals, Potted Plants,
Cut Flowers, Nursery Stock in Greenhouses and in Irrigation Lines**

**For Use as a Cleaner, General Disinfectant and for Microbial Control on
Hard, Non-Porous Surfaces in Greenhouses, Storage Barns and Coolers, Livestock Facilities
including Poultry, Swine, Alligator, Crocodile, Cattle and Industrial Facilities, on Farms, and
Residential Greenhouses**

Active Ingredient:

Didecyl dimethyl ammonium chloride

7.5%

Other Ingredients:

92.5%

TOTAL:

100.0%

**KEEP OUT OF REACH OF CHILDREN
DANGER**

EPA Registration No. 81820-2

EPA Establishment No. 49292-WA-1

NET CONTENTS: [1 qt (0.946 liter)] [1 gallon (3.78 liters)], [5 gallons (18.9 liters)] or [30 gallons
(114 liters)], [55 gallons (207.9)], [275 gallon (1040 litres)]

[Peel from Corner of Booklet]

[See (Back Panel) (Attached Label Brochure) for Directions for Use and Precautionary Statements]

[PACE CHEMICALS LTD.]

[D/B/A] Pace 49, Inc

8321 Willard Street,

Burnaby, B.C.

V3N 2X3

CANADA

1-800-799-6211

www.pacechem.com

FIRST AID	
If in Eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes, then continue rinsing eye. • Remove contact lenses, if present after the first 5 minutes, then Continue rinsing the eye. • Call a poison control center or doctor for treatment advice.
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 Swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Do not induce vomiting unless told so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
NOTE TO PHYSICIAN: Probably mucosal damage may contraindicate the use of gastric lavage.	

STORAGE AND DISPOSAL

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

Pesticide Storage: Do not store on side. Avoid creasing or impacting of side walls.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes 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.

Note to reviewer: Following language would be used for containers equal to or less than 5 gallons

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

Note to reviewer: Following language would be used for containers greater than 5 gallons

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

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

DANGER. Corrosive. Causes irreversible eye damage. Causes skin burns. Do not get in eyes, on skin or on clothing. Harmful if swallowed or absorbed through the skin. Wear protective eyewear (goggles, face shield or safety glasses), protective clothing and rubber gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear protective eyewear, long pants and long-sleeved shirt, shoes plus socks and chemical resistant gloves. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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 Requirements

- Wash hands before drinking, eating, chewing gum, using tobacco or using the toilet.
- Remove PPE clothing immediately if the 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

This product is toxic to fish and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and the Worker Protection Standard, 40 CFR 170. This standard contains requirements for the protection of agricultural workers on farms, forest, nurseries and greenhouses, and the handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted-entry interval and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. (Note: The REI does not apply to hard surface disinfection.)

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours. The REI is not required when using the product for end of season irrigation line cleaning and microbial control.

For early entry into treated area permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, workers must wear coveralls, chemical resistant gloves, shoes plus socks and protective eyewear.

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

DIRECTIONS FOR USE

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

Do not use in greenhouses where food crops are grown. For treatment of ornamentals in greenhouses only. 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 requirement specific to your State or Tribe, consult the agency responsible for pesticide regulation.

NOTE: KleenGrow may be phytotoxic to some ornamental plants and phytotoxicity may develop after repeated applications in a short time interval. A test spray or drench is recommended before treating the entire crop, especially when using the higher recommended concentration. Use with caution on young seedlings or tender young growth.

GENERAL CLEANING AND MICROBAL CONTROL:

Pythium Control in Irrigation Systems – “End of Season”

1. Rinse irrigation lines of debris prior to cleaning by filling them with a 1.25 fl. oz. of **STRIP-IT** per gallon of water.
2. Allow **STRIP-IT** to sit for up to 12 hours before flushing with clean water.
3. Fill irrigation system with **KleenGrow** at 0.5 fl. oz. per gallon of water and allow solution to sit for at least 10 minutes.
4. Drain lines thoroughly, allow to air dry and then recharge with nutrient solution.

Botrytis, Powdery Mildew, Downy Mildew, Fusarium, Xanthomonas, Thielaviopsis, Fungal and Bacterial Leaf Spots and Blights for Ornamental Plants, Nursery Stock, and Bare Root Cuttings - Foliar Spray

Apply **KleenGrow** starting at Week 3 or earlier if conditions are favorable for disease. Use a watering device to drench the top and bottom of the leaves and stems, avoiding flowers in full bloom, at a rate of 0.06 to 0.38 fl. oz. per gallon of water (35-230 ppm a.i.) every 14 days. Apply **KleenGrow** with a direct spray every 14 days to prevent the spread of spores and the build-up of organic material. Remove severely infected plants and disinfect the area with 1.0 fl. oz. **KleenGrow** per 1 gallon of water.

Botrytis Control for Ornamental Plants, Nursery Stock, and Bare Root - Fogging in Coolers (Not to be used on food crops within coolers or vegetable greenhouse applications)

Use fogging equipment to control botrytis on cut flowers and potted plants in coolers with a rate of 0.25 - 0.5 oz per gallon of water.

Root Rots - Preventative Drench - Thielaviopsis, Pythium, Rhizoctonia, Phytophthora

Apply **KleenGrow** by injecting 0.06 to 0.5 fl. oz. per gallon of water (35 to 300 ppm a.i.) once each 14 days, making sure that the root zone is completely wet with solution. **KleenGrow** drench can be done with fertilizer injector pumps, automatic dosing pumps or for smaller operations, by hand using protective gloves.

Seed, Bulb and Corm Rots Dip (pre planting) - Botrytis, Rhizoctonia, Fusarium, Penicillium, Erwinia, Pseudomonas

For control of Botrytis, Rhizoctonia, Fusarium and Penicillium bulb rots and other fungal and bacterial diseases of tulip, narcissus, gladiolus, crocus, dahlia, freesia, iris, lily, daylily, amaryllis, hyacinth, iris, scilla and ornamental onion. Immerse both crate and bulbs in a solution of 0.15 to 1.5 fl. oz. **KleenGrow** per 1 gallon of water (90 to 900 ppm a.i.) for 30 sec. Remove from solution and allow to drain prior to planting or storage. Test solution regularly using QAC test strips, (La Motte #2949-BJ or equivalent). Add **KleenGrow** when necessary, to maintain an a.i. concentration between 90 and 900 ppm.

Broccoli and Flower Seed - Botrytis, Rhizoctonia, Fusarium, Penicillium, Erwinia, Pseudomonas, Xanthomonas

For control of Botrytis, Rhizoctonia, Fusarium, Penicillium and other fungal and bacterial diseases present in broccoli and flower seeds prior to planting. Add 0.15 to 2.0 fl. oz. of **KleenGrow** to 1 gallon of water then test the solution using QAC test strips (La Motte #2949-BJ or equivalent) to ensure an a.i. concentration between 90 and 1200 ppm. Immerse both crate and seeds in the solution for 10 minutes. Use no more than 1200 ppm a.i. per 100 g. of seed. Remove from solution and allow to drain. Prior to planting or storage, rinse treated seeds with water three times and allow to air dry. Prepare a fresh solution after each use. Do not use treated seed to grow broccoli sprouts for direct human consumption.

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ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

DIRECTIONS FOR USE

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

GREENHOUSE AND INDUSTRIAL USE

Disinfection of Hard, Non-Porous Surfaces

Use 1 fl. oz. of **KleenGrow** per gallon of water. Apply solution with a cloth, mop, sponge, coarse spray device or by immersion to previously cleaned hard nonporous surfaces until surfaces are thoroughly wet. Treated surfaces must remain wet for 10 minutes. Wipe dry with a clean cloth or sponge or allow to air dry. Prepare a fresh solution daily or more often if solution becomes visibly diluted or soiled.

Disinfection of Packing Facility and Equipment

Remove debris and thoroughly clean all surfaces of packing equipment with soap or detergent and rinse with water. Saturate all surfaces with a solution of 1 fl. oz. of **KleenGrow** per gallon of water for 10 minutes. Wipe dry with a clean cloth or sponge or allow to air dry. Ventilate closed spaces. If treated surfaces will come in contact with food, thoroughly rinse surfaces with potable water.

Disinfection of Trucks and Transportation Equipment

Remove debris and thoroughly clean all surfaces of trucks and other transportation equipment with soap or detergent and rinse with water. Saturate all surfaces with a solution of 1 fl. oz. of **KleenGrow** per gallon of water for 10 minutes. Wipe dry with a clean cloth or sponge or allow to air dry. Ventilate closed spaces. If treated surfaces will come in contact with food, thoroughly rinse surfaces with potable water.

Disinfection of Tools, Cutters and Equipment

Thoroughly wash all tools, cutters and small equipment with soap or detergent and rinse with water. Saturate all surfaces with a solution of 1 fl. oz. of **KleenGrow** per gallon of water for 10 minutes. Wipe dry with a clean cloth or sponge or allow to air dry.

GREENHOUSE USE

GENERAL CLEANING AND MICROBAL CONTROL (plant pathogens and algae)

Tools, Cutters and Equipment

Thoroughly wash all tools, cutters and small equipment with soap or detergent and rinse with water. Saturate all surfaces with a solution of 0.25 to 0.5 fl. oz. of **KleenGrow** per gallon of water for 10 minutes. Wipe dry with a clean cloth or sponge or allow to air dry.

Algae Removal from Walls, Benches, Floors, Walkways, Pens, and Workways

Thoroughly wash all walls, benches, or floors with soap or detergent and rinse with water. Saturate all surfaces with a solution of 0.125 – 0.25 fl. oz. of **KleenGrow** per gallon of water for 10 minutes. Wipe dry with a clean cloth or sponge or allow to air dry. Ventilate closed spaces. Re-apply **KleenGrow** every 14 days to keep algae from returning, soap or detergent is not necessary with reapplication of **KleenGrow** unless surfaces are heavily soiled.

Algae, Fungus and Odor Control in Evaporative Cooling Pads

Add 0.03 to 0.25 fl. oz. of **KleenGrow** per gallon of water to evaporative cooling pad system once a month to control disease (plant pathogens) and algae control.

Shoebaths

Prepare a solution of **KleenGrow** at a dilution of 1.0 – 2.0 fl. oz. per gallon of water. Pour this solution into a footbath to a depth of ½" to 1" or on a foot mat to the top of the ribs.

Check shoebath frequently with Quaternary Ammonium Chloride (QAC) test strips such as La Motte QAC test strips, to ensure rate is 600 ppm (1.0 fl. oz per gallon of water) or above. Add additional **KleenGrow** solution as necessary to keep a.i. at proper level or change the solution if it appears visibly soiled.

First clean shoes or boots of all debris by scraping.

To Wash Footwear: Place in shoebath for at least **30 seconds**.

FARMS AND LIVESTOCK PREMISES

Farm Premise Use

Remove all animals and feed from premises, vehicles and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate all surfaces with a use-solution of 1.0 fl. oz. of **Kleengrow** per gallon of water [*or equivalent dilution*] for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels and scrapers used for removing litter and manure. Ventilate buildings, cars, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent, and rinse with potable water before reuse.

Livestock Premise Disinfection directions:

Remove all animals and feeds from premises, vehicles and enclosures such as coops and crates. Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water 1.0 fl. oz. of **Kleengrow** per gallon of water. Saturate surfaces with the disinfecting solution for 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure. Ventilate buildings, coops and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent, and rinse with potable water before reuse.

Hatcheries

Use 1.0 fl. oz. of **Kleengrow** per gallon of water to treat hatchers, setters, trays, racks, carts, sexing tables, delivery trucks and other hard nonporous surfaces. Use 2 oz per gallon of water to kill Adenovirus Type 5 and type 7. Leave all treated surfaces wet for 10 minutes or more. Wipe dry with a clean cloth or sponge or allow to air dry.

Disinfecting Vehicles

Treat all vehicles including mats, crates, cabs and wheels with water and **Kleengrow**. Use 1.0 fl. oz. of **Kleengrow** per gallon of water to treat all vehicles. Leave all treated surfaces wet for 10 minutes or more. Wipe dry with a clean cloth or sponge or allow to air dry.

CONTROL OF FUNGAL AND BACTERIAL DISEASES ON ORNAMENTAL CROPS:

Do not apply to fruits or vegetables or other food crops. This product is to be used in greenhouses and not outdoors. Do not spray directly on fruits and vegetables. Do not apply to tools or equipment that will contact food.

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ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

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 use pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants from farms, nurseries, or greenhouses.

Keep children and pets away from treated area until area is completely dry.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. KleenGrow is a multi-purpose antimicrobial for the control of fungal, bacterial, and viral ornamental plant pathogens, slime-forming fungi and algae and the odors these organisms may cause.

NOTE: Treatment is restricted to indoor greenhouse uses.

Treatment of Home Greenhouse and Potted House Plants: To control disease problems on most greenhouse ornamentals and house plants, treat with a solution of 0.06 – 0.38 fl. oz. KleenGrow in one gallon of water at the first signs of disease. Observe good plant sanitation and remove all infected plant parts.

To control the growth of unwanted algae in or on pots containing ornamental plants grown indoors in greenhouses, use a solution of 0.06 – 0.38 fl. oz. KleenGrow in one gallon of water to cover about 40 sq. ft. of surface. Use a mechanical spray to thoroughly wet the algal growth. If spray contacts foliage or desirable plants, rinse off within 5 minutes. Repeat treatment whenever algal growth returns.