



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

September 1, 2017

Nicole Listner
Regulatory Specialist I
Ecolab Inc.
1 Ecolab Place
St. Paul, MN 55102

Subject: Notification per PRN 98-10 – Revised referral statement, address correction and patent statement
Product Name: Quorum Green/Verde
EPA Registration Number: 1677-144
Application Date: August 9, 2017
Decision Number: 532707

Dear Ms. Listner:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Antimicrobials Division (AD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped “Notification” and will be placed in our records.

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.

If you have any questions, you may contact Ben Chambliss at (703) 308-8174 or via email at chambliss.ben@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Fuller".

Demson Fuller, Product Manager 32
Regulatory Management Branch II
Antimicrobials Division (7510P)
Office of Pesticide Programs

QUORUM GREEN/VERDE

CHLORINATING BACTERICIDE, DISINFECTANT & DEODORANT

LIQUID SANITIZER FOR UTENSILS, LAUNDRY, AND SHAKE/SOFT SERVE MACHINES

Active Ingredient:

Sodium Hypochlorite5.25%

Other Ingredients:94.75%

Total: 100.00%

Provides a minimum of 5% available chlorine

NOTIFICATION

1677-144

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

09/01/2017

KEEP OUT OF REACH OF CHILDREN

WARNING

FOR INDUSTRIAL AND INSTITUTIONAL USE
DO NOT SPILL Quorum Green/Verde ON CLOTHING

(See [back], [side], [inner] [other] [fold-out] [booklet] [product container] [label(s)] [panel(s)] [container] for [complete] [additional] [information] [directions for use] [precautionary statements] [and] [first aid] [and] [storage and disposal])

(Refer to the (MSDS)(SDS) for additional product hazard information.)

(Please [refer to] [see] reference sheet for [additional] [directions for use] [information])

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes eye and skin irritation. Do not get in eyes, on skin, or on clothing. Harmful if swallowed.

FIRST AID

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.

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.

IF SWALLOWED: Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

FOR EMERGENCY MEDICAL INFORMATION, CALL TOLL-FREE 1-800-328-0026

Have the product container or label with you when calling poison control center or doctor, or going for treatment.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PHYSICAL AND CHEMICAL HAZARDS:

Strong oxidizing agent: Mix only with water according to label directions. Mixing this product with gross filth such as feces, urine, etc., or with ammonia, acids, detergents or other chemicals may release hazardous gases irritating to eyes, lungs and mucous membranes.

ENVIRONMENTAL HAZARDS

(5 gallons and larger): This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public 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.

To sanitize using SmartShape™ dispenser for sink sanitizing and spray bottles, have dispenser adjusted to provide 100 ppm available chlorine. Sanitizing solution can be prepared by mixing a solution of ¼ fl. oz. Quorum Green/Verde per 1 gallon of water to provide 100 ppm available chlorine.

Note: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

SANITIZATION OF NONPOROUS FOOD CONTACT SURFACES (MEAT & FOOD PLANTS)

Before treating utensils and equipment, rinse thoroughly with cold water and then wash with warm solution of cleanser followed by a thorough potable water rinse. Apply Quorum Green/Verde to all utensils just before using. Allow 2 minutes exposure time.

FOOD PLANT EQUIPMENT: Flow Method: Prepare 100 ppm in weight vat and pump through filler. Drain solution through valves. Test solution to maintain strength above 50 ppm. Coarse Spray Method: Prepare 200 ppm solution and coarse spray surfaces.

BOTTLES: Hand Washed: Wash using hand or motor driven brush, rinse thoroughly with potable water, and then immerse in 200 ppm. Remove, invert in cases to drain and dry. Machine Washed: Use Quorum Green/Verde for chlorinating device and adjust dispensing mechanism so that the final rinse water contains greater than 50 ppm available chlorine. Test rinse water frequently to determine if this strength is maintained. Allow 2 minutes exposure time.

DISINFECTION OF EMERGENCY DRINKING WATER

Farms, Institutions, Camps, Home Water Supplies: To disinfect water whose source is from unprotected supplies, such as cisterns, wells, springs and lakes, add 1/4 ounce Quorum Green/Verde to each 100 gallons of water or two drops to each gallon of water and let it stand for 15 to 30 minutes. This is a strength of about 1 part available chlorine per million parts water. The water may be kept in the refrigerator for cooling at the same time if desired.

POULTRY USES

Drinking Water: For fountains, use 25 ppm. For open vessels, use 25 ppm. Change water daily. Place fountains where they will not be contaminated with droppings.

FOOD EGG SANITIZATION

Thoroughly clean all eggs. Thoroughly mix 5 ounces of this product with 10 gallons of warm water to produce 200 ppm available chlorine solution. The sanitizer temperature must not exceed 130°F. Coarse spray the warm sanitizer so that the eggs are thoroughly wetted. Allow the eggs to thoroughly dry before casing or breaking. Do not apply potable water rinse. The solution must not be re-used to sanitize eggs.

FRUIT AND VEGETABLE WASHING

Thoroughly clean all fruits and vegetables in a wash tank. Thoroughly mix 12.5 ounces of this product in 200 gallons of water to make a sanitizing solution of 25 ppm available chlorine. After draining the tank, submerge fruits or vegetables for 2 minutes in a second wash tank containing the recirculating sanitizing solution. Coarse spray rinse fruits or vegetables with the solution prior to packaging. Rinse fruit with potable water only prior to packaging.

ALTERNATE FRUIT AND VEGETABLE WASHING

- 1) Clean and sanitize sink compartment used for food preparation.
- 2) Ensure hands are clean before following procedure.
- 3) Thoroughly mix 0.625 ounces (18.48 mL) of this product in 10 gallons (37.8 Liters) of water (or equivalent dilution) to make a wash solution of 25ppm available chlorine. Maintain the wash solution temperature at 10°F (6°C) warmer than the temperature of produce being washed.
- 4) Submerge and gently stir produce in the wash solution.
- 5) Allow produce to soak in the wash solution for at least 2 minutes. Open sink drain and allow the solution to drain completely.
- 6) Rinse produce thoroughly with potable water.
- 7) Place produce on a pre-cleaned and sanitized surface or in a pre-cleaned and sanitized container.

SANITIZING CIP MILK LINES

After proper cleaning and in morning before use, circulate 200 ppm for at least 10 minutes. Use enough solution to completely fill all pipe lines in the circuit. Allow equipment to drain thoroughly. No potable water rinse required. Do not re-use solutions for sanitizing.

TREATMENT OF POTABLE WATER IN MEAT PROCESSING PLANTS

For processing water in meat plants, use chlorine level up to 5 ppm available chlorine (1/4 oz. product/25 gal. water) and for processing water in poultry plants, use chlorine level up to 20 ppm available chlorine (1/4 oz. product/7-1/2 gal. water).

BEVERAGE PLANT USES

Syrup System: First clean thoroughly as recommended, with warm water, then just before use, treat with Quorum Green/Verde. Prepare 200 ppm in syrup jars and flow through equipment to bottler for at least 1 minute. Allow equipment to drain thoroughly before use. No potable water rinse is required.

EQUIPMENT – CLEANING AND SANITIZING

Quorum Green/Verde can be used to sanitize hard surface food contact equipment such as beverage equipment, ice machines, dispensers, slicers, prep tables and display cases. Prepare a

sanitizing solution according to the dilution table to get a concentration of 100-200 ppm available chlorine. Do not exceed 200 ppm.

Refer to equipment manufacturer's instructions to determine how to clean and sanitize the equipment in place or to disassemble the equipment for cleaning and sanitizing by immersion.

Scrape or rinse all loose soils. Apply a cleaning solution to clean and remove food residue. Drain and thoroughly rinse with potable water. Drain. Then flood equipment surfaces or apply with a clean cloth or spray, including transfer lines, with sanitizing solution. Make sure to completely wet all surfaces for at least a 1 minute contact time. Allow equipment to drain thoroughly before use. No potable water rinse is required.

(NOTE: Consult local ordinances for possible variation in procedures.)

TAVERNS AND RESTAURANTS

1. Scrape and pre-wash utensils and glasses.
 2. Wash with good detergent or compatible cleaner.
 3. Rinse with clean water.
 4. Sanitize in a solution of 1 oz. of this product per 2 gallons water (200 ppm). Immerse all utensils for at least 2 minutes or for contact time specified by governing sanitary code.
 5. Place sanitized utensils on a rack or drainboard to air dry.
- Approved under the regulation of Wisconsin State Board of Health.

GLOVE DIP SANITIZER DIRECTIONS: To prevent cross contamination from area to area in animal areas and packaging and storage areas of food plants, dip pre-washed (plastic, latex, or other synthetic rubber) non-porous gloved hands into a suitable clean container that contains enough freshly made sanitizing solution to cover the gloved area. **Do not let sanitizing solution come into contact with the exposed skin.** Make up the sanitizing solution by adding 1/2 ounce of this product per 2 gallons of water (or equivalent use dilution) (100 ppm active). Dip (soak) in solution for 60 seconds. No potable water rinse is allowed. Change the sanitizing solution in the bath at least daily, when chlorine concentration reaches 50 ppm, or when solution appears dirty.

LIQUID SANITIZER FOR UTENSILS

Sanitizing solution can be prepared by mixing a solution of ¼ fl. oz. Quorum Green/Verde per 1 gallon of water to provide 100 ppm available chlorine.

DILUTION TABLE

| PPM AVAILABLE CHLORINE | AMOUNT OF Quorum Green/Verde |
|---------------------------|--|
| 100 | ½ ounce Quorum Green/Verde per 2 gallons water |
| 200 | 1 ounce Quorum Green/Verde per 2 gallons water |

KITCHEN UTENSILS AND EQUIPMENT

Scrape or rinse all loose food soils, then brush wash with a suitable detergent. Rinse thoroughly with clean, hot water. Fill a clean sink approximately half full with sanitizing solution. Immerse utensils or equipment for 1-2 minutes. Remove and drain. **DO NOT RINSE.** Place on a clean surface to dry. Follow local health ordinances.

Note: To sanitize previously cleaned stationary equipment and other hard, non-porous food-contact surfaces, flood surface with sanitizing solution, or apply with a clean cloth, sponge or spray, making sure to completely wet all surfaces for at least 1 minute. Let air dry. Follow local health ordinances.

Note: Store clean wiping cloths in a freshly made Quorum Green/Verde solution to keep them in a sanitary condition between uses.

LAUNDRY:

To bleach and sanitize white and colorfast fabrics in washing machine: 1 cup Quorum Green/Verde per load for conventional washing machine; ½ cup for front-load automatic. Add to pre-soak, wash water or first rinse. If clothes are in machine, dilute Quorum Green/Verde in 1 quart water before adding.

CHEMICAL SANITIZING WAREWASHING:

Utensil Sanitizer and Destainer for Mechanical Warewash Machines

For sanitizing in low-temperature warewashing machines, inject Quorum Green/Verde into the final rinse water at a concentration of 100 ppm available chlorine. Do not exceed 200 ppm. Air dry. To insure that available chlorine concentration does not fall below 50 ppm, periodically test the rinse solution with a suitable test kit and adjust the dispensing rate accordingly.

TABLE WARE SANITIZER AND DESTAINER FOR MECHANICAL SPRAY WAREWASHING MACHINES:

For sanitizing tableware in low-temperature warewashing machines, inject Quorum Green/Verde into the final rinse water at a concentration of 100 ppm available chlorine. Do not exceed 200 ppm. Air dry or follow with a potable water rinse.

To insure that available chlorine concentration does not fall below 50 ppm, periodically test the rinse solution with a suitable test kit and adjust the dispensing rate accordingly. Consult your local Ecolab Specialist for technical assistance and further information on sanitizing tableware in warewashing machines.

FORMULATED FOR USE WITH ECOLAB AUTOMATIC DISPENSING SYSTEMS.
DO NOT USE ON SILVER AND SILVER PLATE.

[Note to reviewer language in brackets is optional]

Note: FOR MECHANICAL OPERATIONS prepared use solutions may not be re-used for sanitizing but may be re-used for other purposes such as cleaning. [Spray bottles may be filled with the used solution for cleaning large articles. (Or) Spray bottles for cleaning large articles may be filled from fresh solution in a 3rd compartment sink. (Or) Spray bottles for cleaning large articles may be filled with fresh solution.]

SHAKE AND SOFT SERVE MACHINES CLEANING PROCEDURE:

1. Remove mix from the machine. If local health codes permit rerun, place mix in a sanitized rerun container and store in refrigerated cooler.

2. Rinse interior of machine by activating the “Wash” cycle and drawing through 2 gal. (7.6 L) of cool water. Repeat the rinsing procedure with lukewarm water until the water runs clear. Turn the machine to the “Off” position.
3. Prepare a suitable cleaning solution.
4. Clean the interior of the machine by activating the “Wash” cycle and filling the cylinder and feed tubes with the cleaning solution. Turn machine to the “Off” position. Brush clean the feed tube and inlet hole. With the cleaning solution in the cylinder, reactivate “Wash” cycle and allow to remain in for 5 minutes.
5. Drain the solution from the machine. Turn machine to the “Off” position.
6. Rinse by repeating Step #2 with Quorum Green/Verde solution.
7. Remove and completely disassemble all machine parts.
8. Brush wash all disassembled parts in a suitable detergent in a clean sink.
9. Rinse thoroughly under clean running water.
10. Sanitize parts by immersing in a fresh Quorum Green/Verde solution for 1-2 minutes.
11. Remove parts and allow to air dry.
12. Repeat the cleaning procedure for machines with two freezing cylinders.

SHAKE AND SOFT SERVE MACHINES SANITIZING PROCEDURE:

1. Following manufacturer’s instructions, reassemble the machine.
2. Sanitize the interior of the machine by activating the “Wash” cycle and filling the cylinder and feed tubes with Quorum Green/Verde solution. Allow the “Wash” cycle to run for 5 minutes.
3. Drain the solution from the machine. Turn machine to the “Off” position.
4. Repeat the sanitizing procedure for machines with two cylinders. **DO NOT RINSE.**

Note: Consult local ordinances for possible variation in procedures.

STORAGE & DISPOSAL

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL.

Pesticide Storage: Store this product in a cool, dry area, away from direct sunlight and heat to avoid deterioration. Keep this product in a tightly close container, when not in use. In case of spill, flood the area with large quantities of water. Product or rinsates that cannot be used must be diluted with water before disposal in a sanitary sewer.

Pesticide Disposal: Pesticide wastes may be 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.

Container Handling and Disposal:

(Totes) Verify that the tote is empty. Do not rinse or clean. Seal tote and contact Ecolab for return.

For containers 5 gallons or less. Non-refillable container. Do not reuse or refill this container. Triple rinse as follows: Fill container ¼ full with water and recap. Shake for 10 seconds. Drain for 10 seconds after the flow begins to drip. Follow Pesticide Disposal instructions for rinsate disposal. Repeat procedure two more times. Then offer for recycling or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

For containers >5-55 gallons. Non-refillable container. Do not reuse or refill this container. Triple rinse as follows: Empty 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat procedure two more times. Then offer for recycling or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

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|--|
| Net Contents: 1 U.S. Gal. (3.78 L) 5 U.S. Gals. (18.9 L) 50 U.S. Gals. (189 L) 300 U.S. Gals. (1134 L) - tote |
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EPA Reg. No. 1677-144

EPA Est.: 1677-IL-2 (J), 1677-TX-1 (D), 1677-GA-1 (M), 1677-CA-1 (S), 1677-MN-1 (P),
11321-CA-1 (C), 1677-CA-2 (R), 1677-WV-1 (V).

Superscript refers to first letter of date code

Manufactured by:

Ecolab Inc.

1 Ecolab Place

St. Paul, MN 55102

[Made in USA] [Made in United States of America]

This product may be patented | Ce produit peut être breveté | Este producto puede ser patentado:
www.ecolab.com/patents

Optional marketing language:



Sanitizer
Desinfectante