



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

June 6, 2012

Rhonda Schulz
Ecolab Inc
370 N Wabasha Street
St Paul, MN 55102

Subject Quorum Green/Verde
EPA Registration Number 1677-144
Letter Date April 5, 2012
EPA Receipt Date April 10, 2012

Dear Ms Schulz

The label and CSF amendments, submitted in connection with registration under section of the federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, are acceptable

Proposed amendments

- Addition of potable water rinse to warewashing directions and a marketing graphic
- Addition of an alternate formula (Alternate CSF #5)

General comments

A stamped accepted copy of the label is enclosed for your record. This amendment, the alternate CSF, and a copy of this letter have been placed in this product's file for future reference. Should you have any questions or comments concerning this letter, please contact Eliza Blair via email at blair_eliza@epa.gov or by telephone at (703) 308-7279.

Sincerely,

A handwritten signature in black ink, appearing to read "Monisha Harris".

Monisha Harris
Product Manager (32)
Regulatory Management Branch II
Antimicrobials Division (7510P)

QUORUM GREEN/VERDE

CHLORINATING BACTERICIDE, DISINFECTANT & DEODORANT

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

Active Ingredient

Sodium Hypochlorite 5.25%

Other Ingredients

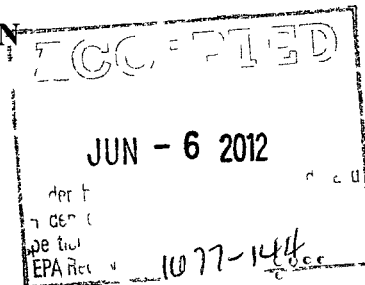
94.75%

Total

100.00%

Provides a minimum of 5% available chlorine

KEEP OUT OF REACH OF CHILDREN WARNING



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

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 a 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 1/4 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 should 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 should 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

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 1/4 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	1/2 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, 1/2 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 Destamer 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 FOR MECHANICAL OPERATIONS prepared use solutions may not be re-used for sanitizing but may be re-used for other purposes such as cleaning.

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 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 Disposal

(≤ 55-gallons rigid) Nonrefillable container Do not reuse or refill this container Completely empty container into application equipment Then offer for recycling if available or dispose of empty container in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning If burned, stay out of smoke

(Totes) Nonrefillable container Do not reuse or refill this container Completely empty bag into application equipment Then offer for recycling if available or 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

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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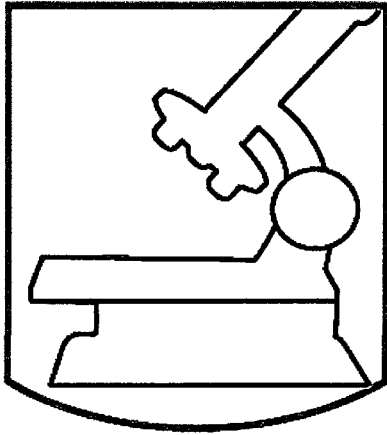
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EPA Reg No 1677-144
EPA Est 1677-IL-2 (J), 1677-TX-1 (D), 1677-GA-1 (M), 1677-CA-1 (S), 1677-MN-1 (P),
11321-CA-1 (C), 1677-CA-2 (R), 1677-WV-1 (V)
Superscript refers to first letter of date code

Manufactured by
Ecolab Inc
370 N Wabasha Street
St Paul, MN 55102

Optional marketing language

See side/back panel for First Aid



Sanitizer
Desinfectante

