

1677-198

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

Subject: **Multi-Quat**
EPA Registration Number 1677-198
Application Dated June 15, 2010
EPA Received Date June 16, 2010

Dear Ms. Schulz:

The following amendment submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable with comments.

Proposed Amendment:

- Modify the label to delete organisms
- Update test data

Product Chemistry Review:

1. The concentrations of the active ingredients on the Confidential Statement of Formula (CSF dated 1/13/04 for the basic formulation) are consistent with the label declaration.
2. All ingredients are cleared for use in food-contact sanitizers.
3. The joint study for storage stability and corrosion characteristics is ongoing.

CONCURRENCES								
SYMBOL								
SURNAME								
DATE								

Efficacy Review:

1. The proposed label claims that a 1:128 dilution of the product, Multi-Quat, is an effective disinfectant against the following microorganisms on hard, non-porous surfaces in the presence of 5% organic soil for a 10-minute contact time:

Newcastle's disease virus
 Canine distemper virus
 Avian influenza virus

Efficacy testing was conducted against Oasis 146 Multi-Quat Sanitizer, while the product in question is identified as Multi-Quat (supporting disinfectant and virucidal claims). A letter (dated October 20, 2010) provided by you stated that "the two names are alternates for the same registration (EPA Reg. 1677-198)".

2. The proposed label claims that a 1:376.5 dilution of the product, Multi-Quat, is an effective sanitizer against *Staphylococcus aureus* and *Enterobacter aerogenes* on [pre-cleaned], hard, non-porous, non-food contact surfaces for a 5-minute contact time. Efficacy testing was conducted against Oasis 146 Multi-Quat Sanitizer, while the product in question is identified as Multi-Quat (supporting disinfectant and virucidal claims). A letter (dated October 20, 2010) provided by you stated that "the two names are alternates for the same registration (EPA Reg. 1677-198)".

3. The proposed label claims that a 1:492.3 dilution of the product, Multi-Quat, is an effective sanitizing rinse against *Escherichia coli* and *Staphylococcus aureus* on pre-cleaned, hard, non-porous, food contact surfaces for a 1-minute contact time. These claims are acceptable as they are supported by the submitted data. Efficacy testing was conducted against Oasis 146 Multi-Quat Sanitizer, while the product in question is identified as Multi-Quat (supporting disinfectant and virucidal claims). A letter (dated October 20, 2010) provided by you stated that "the two names are alternates for the same registration (EPA Reg. 1677-198)".

4. The proposed label claims that a 1:376.5 dilution of the product, Multi-Quat, is an effective sanitizing rinse against the following microorganisms on pre-cleaned, hard, non-porous, food contact surfaces in the presence of 500 ppm hard water for a 1-minute contact time:

Escherichia coli
Staphylococcus aureus
Yersinia enterocolitica
Klebsiella pneumoniae
Listeria monocytogenes

Efficacy testing was conducted against Oasis 146 Multi-Quat Sanitizer, while the product in question is identified as Multi-Quat (supporting disinfectant and virucidal claims). A letter (dated October 20, 2010) provided by you stated that "the two names are alternates for the same registration (EPA Reg. 1677-198)".

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5. The following revision must be made to the proposed label:

- On page 5 of the proposed label under the "Non-Food Contact Surface Sanitizing" section, change "to sanitize hard, nonporous non-food contact surfaces" to read "to sanitize pre-cleaned, hard, non-porous, non-food contact surfaces."

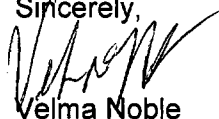
6. The following revisions to the proposed label are recommended:

- Under the "Precautionary Statements" section of the proposed label, change "after handling" to read "after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet."
- On pages 3 and 4 of the proposed label, re-number the steps under the "Poultry and Swine Premise Disinfection" section. There are two Step 6s.
- On page 5 of the proposed label, change "*Staphylococcus aureus*" to read "*Staphylococcus aureus*."
- Add ATCC numbers for all listed microorganisms.
- On the proposed label, 0.34 oz in 1 gallon is equivalent to 200 ppm active quat, 1.36 oz in 4 gallons is equivalent to 200 ppm active quat. According to Agency calculation the amount of active ppm in these situations is 199.2188. The appropriate value consistent with 200 ppm active quat is required.

General Comments:

Should you have any questions or comments concerning this letter, please contact Drusilla Copeland at (703) 308-6224 or Velma Noble at (703) 308-6233.

Sincerely,



Velma Noble
Product Manager (31)
Regulatory Management Branch I
Antimicrobials Division (7510P)

Enclosure: Product Chemistry review approval dated 8/21/10, Efficacy review approval dated 10/26/10 and stamped label

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Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide,
registered under EPA Reg. No. 1677-198

Multi-Quat

(Disinfectant - Sanitizer - Deodorizer - One-Step Cleaner/Disinfectant)
(For Institutional and Industrial and Commercial Use)

(Schools - Restaurants - Food Services - Dairies - Beverage and Food Processing
Plants - Farm Premises - Poultry Premises - Poultry Hatcheries - Animal Housing
Facilities)

ACTIVE INGREDIENTS:

Alkyl (C ₁₄ , 50% C ₁₂ , 40% C ₁₆ , 10%)	
Dimethyl benzyl ammonium chloride.....	3.00%
Octyl decyl dimethyl ammonium chloride.....	2.25%
Didecyl dimethyl ammonium chloride.....	1.35%
Diocetyl dimethyl ammonium chloride.....	0.90%
OTHER INGREDIENTS:	92.50%
TOTAL:	100.00%

KEEP OUT OF REACH OF CHILDREN
DANGER

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: CORROSIVE: Causes irreversible eye damage and skin burns. Do not get in eyes, on skin or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses) protective clothing and rubber gloves. Harmful if swallowed. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

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 a poison control center or doctor, or going for treatment.

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

ENVIRONMENTAL HAZARDS (5 gallons or greater):

This pesticide 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.

Apply *Multi-Quat* with a cloth, mop or mechanical spray device. When applied with a mechanical spray device, surface must be sprayed until thoroughly wetted. For sprayer applications, use a coarse spray device. Spray 6-8 inches from surface; rub with brush, sponge or cloth. Do not breathe spray. Fresh solution must be prepared daily or when the use solution becomes visibly dirty.

GENERAL DISINFECTION/VIRUCIDAL*/FUNGICIDAL DIRECTIONS:

At 1 oz. per 1 gallon of water, this product is an effective general disinfectant that can be used to disinfect floors, walls, finished woodwork, sink tops, garbage pails, telephones, rest rooms, bathroom fixtures, and other hard, nonporous surfaces. For heavily soiled areas, a pre-cleaning step is required. Apply disinfecting solution to surface by flushing, mopping, sponging or hand pump spraying so as to thoroughly wet surface. Allow surface to remain wet for 10 minutes. Remove solution with a clean mop, cloth, or wet vacuum pickup or allow to air dry. Prepare fresh solution at least daily or when use becomes visibly dirty. Any food contact surfaces that have been disinfected must be thoroughly rinsed with potable water. Do not use this product as a disinfectant on glasses, dishes or utensils.

(Note to reviewer: The following are options for presenting the organism information on the label in the General Disinfection/Virucidal*/Fungicidal Directions section of the label)

Multi-Quat is a disinfectant at 1:128 dilution (1 oz per gallon of water). *Multi-Quat* is bactericidal according to the current AOAC Disinfectant Use-Dilution Method in the presence of 5% organic soil against:

(or)

Multi-Quat kills:

(Bacteria)

- Staphylococcus aureus*
- Salmonella enterica*
- Campylobacter jejuni*
- Escherichia coli* O157:H7
- Listeria monocytogenes*
- Salmonella typhi*

- Brevibacterium ammoniagenes*
- Escherichia coli*
- Klebsiella pneumoniae*
- Pseudomonas cepacia*
- Yersinia enterocolitica*

Multi-Quat is virucidal at 1:128 dilution (1 oz per gallon of water) in the presence of 5% organic soil against:

- *Herpes Simplex Type I Virus
- *Avian Influenza Virus
- *Marek's Disease Virus
- *Influenza A2 / Hong Kong Virus

- *Herpes Simplex Type 2 Virus
- *Canine Distemper Virus
- *Newcastle's Disease Virus
- *Vaccinia Virus

(or)

Multi-Quat is effective against: ~~Avian Infectious Bronchitis Virus~~, Avian Influenza Virus, Canine Distemper Virus, Marek's Disease Virus, Newcastle's Disease Virus, ~~Pseudorabies Virus and Arkansas '99 Infectious Bronchitis Virus~~, Herpes Simplex Type 1 Virus, Herpes Simplex Type 2 Virus, Vaccinia Virus

(Fungi)

Multi-Quat is effective against *Trichophyton mentagrophytes* (Athlete's Foot Fungus)

Before use in federally inspected meat and poultry food processing plants and dairies, food products and packaging materials must be removed from the room or carefully protected.

NON-ACID TOILET BOWL DISINFECTANT / CLEANER DIRECTIONS:

Remove gross filth prior to disinfection.

From Concentrate:

Add ½ oz. to the bowl and mix. Brush over exposed surfaces and under the rim, allow to stand for 10 minutes and flush.

From Use Solution:

Empty toilet bowl or urinal and apply 1oz. per gallon use-solution to exposed surfaces and under the rim with a cloth, mop, sponge or mechanical spray. Brush or swab thoroughly. Let stand for 10 minutes and flush.

For Heavy Duty Use:

Empty toilet bowl or urinal and apply 4 oz. per gallon use-solution to exposed surfaces including under the rim with a cloth, mop, sponge or sprayer. Brush or swab thoroughly. Let stand for 10 minutes and flush.

SALON (BARBER) INSTRUMENTS AND TOOLS DISINFECTION (BACTERICIDE) / VIRUCIDE* / FUNGICIDE DIRECTIONS:

Mix 1 oz of *Multi-Quat* per 1 gallon of water (or equivalent dilution) to disinfect hard, nonporous instruments and tools. Completely immerse combs, brushes, rollers, razors, scissors, blades, manicure and other salon instruments and tools for 10 minutes. For heavily soiled instruments and tools, a preliminary cleaning is required. Rinse thoroughly and dry before use. Prepare a fresh solution daily or more often if the solution becomes visibly diluted, cloudy or soiled.

Note: Plastics may remain immersed until ready to use. Stainless steel shears and instruments must be removed after 10 minutes, rinsed, dried and kept in a clean, non-contaminated receptacle. Prolonged soaking may cause damage to metal instruments.

ULTRASONIC BATH DISINFECTANT DIRECTIONS:

Use *Multi-Quat* to disinfect hard nonporous objects compatible with Ultrasonic cleaning units.

Pour fresh use-solution of 1 oz. of *Multi-Quat* per 1 gallon of water (or equivalent dilution) directly into bath chamber. Preclean soiled objects. Place objects into unit and operate for a minimum of 10 minutes, according to manufacturer's use directions. Remove objects and rinse with sterile water (sterile water for injection), or allow to air dry. Prepare a fresh solution for each use.

WHIRLPOOL BATH DISINFECTION DIRECTIONS:

After using whirlpool unit, drain and fill with a use solution of 1 oz. of *Multi-Quat* per 1 gallon of water to just cover the intake valve. Start the pump to circulate the solution. Wash down the unit sides, seat of the chair lift, and any related equipment with a clean swab, brush or sponge. Treated surfaces must remain wet for 10 minutes. After the unit has been thoroughly disinfected, drain the solution from the unit and rinse disinfected surfaces with fresh water.

Repeat for heavily soiled units.

POULTRY AND SWINE PREMISE DISINFECTION:

1. Remove all poultry and feeds from premises, vehicles and enclosures such as coops and crates.
2. 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.
3. Empty all troughs, racks and other feeding and watering appliances.
4. Thoroughly clean all surfaces with a detergent and rinse with water.
5. Saturate surfaces with 4.0 oz. per 4 gallons of water *Multi-Quat* solution for a period of 10 minutes.
6. 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.
6. Ventilate buildings, cars, trucks coops and other closed spaces. Do not house poultry or employ

(Note to Reviewer: Language in () is considered optional or interchangeable.)

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equipment until treatment has been absorbed, set or dried.

- 7. Thoroughly scrub treated feed racks, troughs, automatic feeders, fountains and waterers with a detergent and rinse with potable water before reuse.

See your Ecolab representative for specific recommendations for all cleaning and rinsing requirements.

POULTRY HATCHERY DISINFECTION:

Use to treat hatchers, setters, trays, racks, carts, sexing tables, delivery trucks and other hard surfaces. Clean out any remaining eggs and chicks. Remove gross soils, such as litter, down, shell fragments or other hatching related debris. Empty all racks and other equipment. Thoroughly wash all surfaces, including floors, walls, conveyors, trays and water systems with a detergent. Rinse thoroughly with water. Apply 4.0 oz. per 4 gallons of water solution of *Multi-Quat* with a mop, cloth, brush or coarse spray. Apply to hatchers, setters, trays, racks, sexing tables, delivery trucks and other hard surfaces. Wet surfaces and allow to remain wet for 10 minutes. Ventilate buildings and other closed spaces. Allow to dry before reintroducing eggs.

(VETERINARY PRACTICE / ANIMAL CARE / ANIMAL LABORATORY / ZOOS / PET SHOP / KENNELS DISINFECTION DIRECTIONS:)

For cleaning and disinfecting hard nonporous surfaces of equipment used for animal food or water; utensils, instruments, cages, crates kennels, stables and catteries.

OR

(FARM PREMISE DISINFECTION DIRECTIONS:)

- 1. Remove all animals and feed from premises, vehicles, and enclosures.
- 2. Remove all litter, droppings and manure from floors, walls and surfaces of facilities occupied or traversed by animals.
- 3. [For "Veterinary Practice..." :Empty all feeding and watering appliances.] [For "Farm Premise Use" Empty all troughs, racks and other feeding and watering appliances.]
- 4. Thoroughly clean surfaces with soap or detergent by manual, foam, or spray application and rinse with water.
- 5. Saturate surfaces with a use-solution of 4 oz. of *Multi-Quat* per 4 gallons of water (or equivalent dilution) and allow to remain wet for a period of 10 minutes.
- 6. 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. Wipe or allow to air dry.
- 7. Ventilate buildings and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried.
- 8. [For "Veterinary Practice..." Thoroughly scrub all treated feeding and watering appliances with soap or detergent, and rinse with potable water before reuse. [For "Farm Premise Use", Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent, and rinse with potable water before reuse.]

MUSHROOM FARM PREMISE USE:

Site Preparation: The first step in any on-going sanitation program should be the removal of gross contamination and debris. This may be accomplished by using a shovel, broom or vacuum, depending on the area to be disinfected.

Cleaning and Disinfection: For general cleaning and disinfection, use 4.0 oz. per 4 gallons of water. Apply use solution with a cloth, mop, sponge, sprayer or by immersion to thoroughly wet the surfaces. Treated surfaces must remain wet for 10 minutes. Wipe or allow to air dry. For heavily soiled surfaces, preclean first. Prepare a fresh solution for each use of more often if solution becomes visibly diluted, clouded or soiled.

For Heavy Duty Cleaning: When greater cleaning is desired, use 7 oz. of *Multi-Quat* per 4½ gallons water. Heavily soiled areas may require repeated cleaning before treatment.

DO NOT APPLY THE USE-SOLUTION TO THE MUSHROOM CROP, COMPOST OR CASING. Rinse treated surfaces with potable water before they contact the crop, compost or casing.

VEHICLES: Clean all vehicles including mats, crates, cabs and wheels with water and *Multi-Quat*. Use 4

(Note to Reviewer: Language in () is considered optional or interchangeable.)

oz. per 4 gallons of water. Apply use solution to treat all vehicles. Leave treated surfaces wet for 10 minutes. Allow to air dry.

DEODORIZING DIRECTIONS:

This product deodorizes garbage storage areas, garbage bins, toilet bowls and any other hard non-porous surfaces in odor causing areas. Mix 1/2 oz. per gallon of water and apply solution to surfaces. Thoroughly wet surfaces, allow to air dry.

CLEANING AND DISINFECTION: For general cleaning and disinfection, use 4.0 oz. per 4 gallons of water. Apply use solution with a cloth, mop, sponge, sprayer or by immersion to thoroughly wet the surfaces. Treated surfaces must remain wet for 10 minutes. Wipe or allow to air dry. For heavily soiled surfaces, preclean first. Prepare a fresh solution for each use of more often if solution becomes visibly diluted, clouded or soiled.

FOR HEAVY DUTY CLEANING: When greater cleaning is desired, use 7 oz. of *Multi-Quat* per 4½ gallons water. Heavily soiled areas may require repeated cleaning.

NON-FOOD CONTACT SURFACE SANITIZING:

Add 0.34 oz. of *Multi-Quat* per 1 gallon of water (200 ppm active quat) to sanitize hard, nonporous non-food contact surfaces against *Staphylococcus aureus* and *Enterobacter aerogenes*. Apply sanitizer use-solution with a cloth, mop, sponge, sprayer or by immersion. For sprayer applications, use a coarse spray device. Spray 6-8 inches from surface. Do not breathe spray. Treated surfaces must remain wet for 5 minutes ~~60 seconds~~. Wipe dry with a sponge, mop, or cloth or allow to air dry.

TO SANITIZE BARBER / SALON INSTRUMENTS AND TOOLS:

Immerse pre-cleaned barber / salon instruments and tools (such as combs, brushes, razors, scissors, blades and manicure instruments) in a use-solution of 0.34 oz. of *Multi-Quat* per 1 gallon of water (or equivalent dilution) for at least 5 minutes ~~60 seconds (one minute)~~. Rinse thoroughly and dry before use. Prepare a fresh solution daily or more often if solution becomes visibly diluted, cloudy or soiled.

NOTE: Plastics may remain immersed until ready to use. Stainless steel shears and instruments must be removed after 10 minutes, rinsed, dried, and kept in a clean non-contaminated receptacle. Prolonged soaking may cause damage to metal instruments.

TO SANITIZE LAUNDRY (AGAINST ODOR CAUSING BACTERIA):

Use 4 ounces per 100 pounds of dry weight fabric. Dilute the appropriate amount of *Multi-Quat* in one to two gallons of water then add to the washwheel in the final rinse. Re-treat fabric after each washing. For residual bacteriostatic activity against odor causing bacteria, conditions of high relative humidity or wet contamination are required. Laundered fabric may also be treated by soaking.

ENTRYWAY SANITIZING SYSTEMS:

To prevent cross contamination from area to area, set the system to deliver sanitizing solution at 0.68 – 2.04 oz. per gallon of water (400-1200 ppm active quat). The foam (or spray) must cover the entire path of the doorway. Set the system so that a continuous wet blanket of sanitizer solution is delivered to the floor. Do not mix other foam additives to the sanitizing solution.

SHOE BATH SANITIZER DIRECTIONS:

To prevent cross contamination (into animal areas) (and the packaging and storage areas of food plants), shoe baths containing one inch of freshly made solution must be placed at all entrances to buildings and hatcheries. Scrape waterproof work boots (shoes) and place in solution of 0.34 oz. of *Multi-Quat* per 1 gallon of water (200 ppm)(or equivalent dilution) for 60 seconds prior to entering area. (If there is a heavy soil load or excessive traffic place work (boots) (shoes) in a use-solution of 0.68 – 1.4 oz. per 1 gallon of water (400 – 800 ppm active quat)(or equivalent dilution) for 60 seconds prior to entering area). Change the solution in the bath daily or more often if solution appears diluted or soiled.

SHOE FOAM SANITIZER DIRECTIONS:

Multi-Quat can be used to prevent cross contamination into animal areas and packaging and storage areas of food plants. Apply a foam layer approximately 0.5 to 2 inches thick made from a solution of

1.36 to 2 ounces per gallon of water (or equivalent use dilution) (800 to 1200 ppm active) at all entrances to buildings, hatcheries, production and packaging rooms by using a foam generating machine or aerator to apply foam layer. Follow the foaming directions as specified by the manufacturer of the foam generator/aerator. Scrape waterproof shoes. Stand and/or walk through foamed area for 60 seconds prior to entering area. Foam area must be washed and replaced daily or when it appears dirty.

(Note to reviewer: The following are options for presenting the organism information on the label in the subsequent Food Contact Surface Sanitizing section of the label)

Multi-Quat can be used to sanitize hard, non-porous food contact surfaces such as tables, counters, utensils and food processing equipment.

Multi-Quat is an effective sanitizer against *Escherichia coli* and *Staphylococcus aureus* on food contact surfaces when used at 0.26 oz. – 0.68 oz. per 1 gallon of 400 ppm hard water (150 ppm to 400 ppm active quat).

Multi-Quat is an effective sanitizer against *Escherichia coli*, *Staphylococcus aureus*, *Campylobacter jejuni*, *Escherichia coli* O157:H7, *Klebsiella pneumoniae*, *Listeria monocytogenes*, *Salmonella enterica*, *Shigella sonnei*, *Yersinia enterocolitica* and *Enterobacter sakazakii* on food contact surfaces when used at 0.34 oz. – 0.68 oz. per 1 gallon of 500 ppm hard water (200 ppm to 400 ppm active quat).

TO SANITIZE FOOD CONTACT SURFACES, FOOD PROCESSING EQUIPMENT AND OTHER HARD SURFACES IN (FOOD PROCESSING LOCATIONS, DAIRIES, OR RESTAURANTS):

Use *Multi-Quat* to sanitize pre-cleaned hard non-porous surfaces of food processing equipment, dairy equipment, food utensils, dishes, silverware, glasses, sink tops, countertops, refrigerated storage areas and display equipment and other hard non-porous surfaces in federally inspected meat and poultry plants or restaurants. Prior to application, remove gross food particles and soil by a pre-flush, pre-scrape or when necessary, a pre-soak. Then thoroughly wash or flush objects with a good detergent or compatible cleaner followed by a potable water rinse before application of the sanitizing solution. Apply a use-solution of 1.04 oz. to 2.72 oz. of *Multi-Quat* per 4 gallons of 400 ppm hard water (150 - 400 ppm active quat) or 1.36 oz. to 2.72 oz. of *Multi-Quat* per 4 gallons of 500 ppm hard water (200 - 400 ppm active quat). Expose all surfaces to the sanitizing solution for a period of not less than 1 minute. Allow equipment to drain thoroughly and air dry.

In dairy processing facilities and restaurants in Wisconsin, clean equipment with a good detergent and follow with a potable water rinse, then rinse equipment with a sanitizing solution of 1.36 oz. to 2.72 oz. of *Multi-Quat* per 4 gallons of 500 ppm hard water (200 - 400 ppm active quat).

SANITIZING SANITARY FILLING EQUIPMENT:

Wash equipment with a compatible detergent and rinse with potable water prior to sanitizing. Prepare a use-solution of 1.04 oz. to 2.72 oz. of *Multi-Quat* per 4 gallons of 400 ppm hard water (150 - 400 ppm active quat) or 1.36 oz. to 2.72 oz. of *Multi-Quat* per 4 gallons of 500 ppm hard water (200 - 400 ppm active quat) for final washer and rinser applications. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly and allow to air dry before reuse. Do not rinse.

SANITIZING BEER FERMENTATION AND STORAGE TANKS:

Wash equipment with a compatible detergent and rinse with potable water prior to sanitizing. Prepare a use-solution of 1.04 oz. to 2.72 oz. of *Multi-Quat* per 4 gallons of 400 ppm hard water (150 - 400 ppm active quat) or 1.36 oz. to 2.72 oz. of *Multi-Quat* per 4 gallons of 500 ppm hard water (200 - 400 ppm active quat) for mechanical or automated systems. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly and allow to air dry before reuse. Do not rinse.

RESTAURANT AND BAR RINSE - SANITIZING EATING AND DRINKING UTENSILS

1. Scrape and pre-flush utensils to remove excess soil.
2. Wash with good detergent or compatible cleaner (see your Ecolab representative for a recommendation).
3. Rinse with potable water.

(Note to Reviewer: Language in () is considered optional or interchangeable.)

4. Sanitize in a solution of 0.26 oz. – 0.68 oz. of *Multi-Quat* to 1 gallon of 400 ppm water (150 - 400 ppm active quat). In Wisconsin sanitize in a solution of 0.34 oz. – 0.68 oz. of *Multi-Quat* to 1 gallon of 500 ppm water (200 - 400 ppm active quat). Immerse all utensils for at least 1 minute. Use 2 minutes exposure time if required by governing sanitary code.
5. Drain and air dry.

NOTE: A clean potable water rinse following sanitization is not permitted under Section HFS 196.13 of the Wisconsin Administrative Code.

FOR CONTINUOUS TREATMENT OF CONVEYORS:

Remove gross food particles and excess soil by a pre-flush or pre-scrape. Wash with a good detergent or compatible cleaner. Rinse equipment thoroughly with potable water, then rinse equipment with a sanitizing solution. During processing, apply *Multi-Quat* at a 150 to 400 ppm quat level to conveyors with MIKRO MASTER or other suitable feeding equipment. Controlled volumes of sanitizer are applied to return portion of conveyor through nozzles so located as to permit maximum drainage of sanitizer from equipment and to prevent puddles on top of belt. During interruptions in operation, coarse spray equipment, peelers, collators, slicers and saws with MIKRO MASTER dispensed *Multi-Quat* solution of 150 to 400 ppm quat. Conveyors and other equipment must be free of product when applying this coarse spray. Use 200 ppm to 400 ppm quat level in Wisconsin dairy processing facilities.

SANITIZING SHELL EGGS INTENDED FOR FOOD:

To sanitize previously cleaned food-grade eggs in shell egg and egg product processing plants, spray with a solution of 1.04 oz. to 2.72 oz. of *Multi-Quat* in 4 gallons of warm water (150 to 400 ppm). The solution must be warmer than the eggs, but not to exceed 130°F. Wet eggs thoroughly and allow to drain. Eggs sanitized with *Multi-Quat* shall be subjected to a potable water rinse only if broken immediately for use in the manufacture of egg products. Eggs must be reasonably dry before casing or breaking. Do not reuse solution for sanitizing eggs.

Note: Only clean, whole eggs can be sanitized. Dirty, cracked or punctured eggs cannot be sanitized.

CITRUS CANKER DISEASE CONTROL:

For prevention of Citrus Canker Disease through treatment of pre-cleaned equipment. Effective against *Xanthomonas axonopodis* pv. Citri (Citrus Canker Disease) at 2000 ppm active quat. Treatments can be applied to trucks, attached trailers and field harvesting equipment including cargo area, wheels, tires, undercarriage, hood, roof, fenders and any other hard non-porous part of the equipment that can be taken into infested areas. Thoroughly clean all surfaces with soap or detergent and rinse with water. Then saturate surfaces with a 1:37 use-solution (6oz. *Multi-Quat* per 1 ¾ gallons of water (2000 ppm active quat) for a period of 10 minutes. Allow to air dry. All surfaces that come in contact with food or crop must be rinsed with potable water before reuse. To prevent the spread of Citrus Canker Disease by this artificial means of transportation, treatments are made by trigger spraying, dipping or brushing. Clothing must be either rinsed or laundered before reuse. Footwear must be rinsed before reuse.

SANITIZING – NON-POROUS GLOVED HANDS:

To prevent cross contamination into animal areas and the packaging and storage areas of food plants, dip, soak or spray pre-washed (plastic, latex or other synthetic rubber) gloved hands so that there is enough sanitizing solution to cover the gloved area. For sprayer applications, use a coarse spray device and spray the glove surfaces until thoroughly wetted. Do not breathe spray. **Do not let sanitizing solution come in contact with exposed skin.** Make up the sanitizing solution by adding 1.04 oz. to 2.72 ounces of product per 4 gallons of water (or equivalent use dilution)(150-400 ppm active quat). Dip, soak or spray in solution and allow gloved hands to remain wet for at least 60 seconds. Allow them to air dry. No potable water rinse is allowed. Change the sanitizing solution at least daily or when solution appears dirty.

DIRECTIONS FOR FOGGING:

To sanitize hard, non-porous room surfaces in dairies, beverage and food processing plants. Prior to fogging, food products and packaging material must be removed from the room or carefully protected. After cleaning, fog desired areas using one quart per 1000 cu. ft. of room area with a *Multi-Quat* solution containing 1.5 oz. *Multi-Quat* to 1 gallon of water (900 ppm). A dust mist respirator must be worn when applying the product to the fogging equipment. Vacate the area of all personnel for minimum of 2 hours after fogging. The facility must undergo a minimum of 4 air exchanges (ACH) per hour. All food contact

surfaces must be sanitized with a *Multi-Quat* solution of 150 to 400 ppm active quaternary (1 oz. to 2.67 oz. per 4 gallons) prior to reuse. Allow food contact surfaces to drain thoroughly before operations are resumed.

Note: The fog generated is irritating to the eyes, skin and mucous membranes. Under no circumstances should a room or building be entered by anyone until the fog has settled. **Do not allow people or animals to contact or breathe this fog for a minimum of 2 hours.** If the building or room must be entered, then the individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long sleeves and long pants. Fogging is to be used as an adjunct to acceptable manual cleaning and disinfecting of room and machine surfaces.

SANITIZING HATCHERY ROOMS USING FOGGING DEVICES:

Remove all animals and feed from premises, vehicles and enclosures. Remove all litter and manure from floors, walls, and surfaces of the room to be treated. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Close room off so fog is confined to room to be treated. Mix 187 ounces of this product to 2.5 gallons water. A dust mist respirator must be worn when applying the product to the fogging equipment. Insert the nozzle of the fogger through a suitable opening into the room. With the setting in maximum output, fog for one minute for each 4000 cubic feet of space in the room. When fogging is completed ventilate buildings and other closed spaces. The facility must undergo a minimum of 4 air exchanges (ACH) per hour. Do not house livestock or employ equipment until treatment has been absorbed or dried. **Do not allow people or animals to contact or breathe this fog for a minimum of 2 hours.** Thoroughly clean all surfaces with soap or detergent and rinse with water. Fogging is to be used as an adjunct to acceptable manual cleaning and disinfecting of room and machine surfaces.

FOGGING DEVICE INCUBATOR AND HATCHER SANITIZER DIRECTIONS:

Mix 12 ounces *Multi-Quat* to 116 ounces water. Fog 3-8 ounces of this into setters and hatchers immediately after transfer. Repeat daily in setters and every 12 hours in hatchers. Discontinue hatcher treatments at least 24 hours prior to pulling the hatch. It is acceptable to fog setters and hatchers with a 1 ounce per gallon solution of *Multi-Quat* on an hourly or every other hour basis. If this is done, fog for 30-90 seconds once per hour or once every two hours. When fogging is completed, ventilate buildings and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed 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.

NOTE: The fog generated is irritating to the eyes, skin and mucous membranes. Under no circumstances should a room or building be entered by anyone until the fog has settled. **Do not allow people or animals to contact or breathe this fog for a minimum of 2 hours.** If the building must be entered, then the individuals must wear a self contained respirator approved by NIOSH/MSHA, goggles, long sleeves and long pants. Fogging is to be used as an adjunct to acceptable manual cleaning and disinfecting for room and machine surfaces.

NOTE:

FOR MECHANICAL OPERATIONS: A prepared use solution may not be reused for sanitizing, but may be reused for other purposes such as cleaning.

FOR MANUAL OPERATIONS: Prepare a fresh sanitizing solution as soon as it becomes diluted or soiled.

DO NOT MIX WITH ANYTHING BUT WATER

STORAGE & DISPOSAL

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

Pesticide Storage: Store in original container in areas inaccessible to children. 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

(Note to Reviewer: Language in () is considered optional or interchangeable.)

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. Clean container promptly after emptying. Then offer for recycling, if available, or dispose in sanitary landfill or via other procedures approved by state and local authorities. Triple rinse as follows: Fill container ¼ full with water and re-close the container. Agitate vigorously and dispose of rinsate with pesticide disposal instructions. Repeat two more times. If not triple rinsed, these containers are acutely hazardous wastes and must be disposed in accordance with local, state and federal regulations.

(Bulk containers/totes) Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Do not rinse residue from container. Return empty container to point of purchase for proper cleaning and disposal.

EPA Reg. No. 1677-198

EPA Est. 1677-IL-2 (J), 1677-TX-1 (D), 1677-GA-1 (M), 1677-MN-1 (P), 1677-CA-1 (S), 1677-OH-1 (H), 1677-WV-1 (V), 303-IL-1 (L), 1677-CA-2 (R)

The superscript refers to the first letter of the date code.

Ecolab Inc.
370 Wabasha Street N.
St. Paul, MN 55102

Net Contents: 1 gal (3.78 L)
2.5 gal (9.45 L)
5 gal (18.9 L)
55 gal (208.8 L)
300 gal tote

