

10324-67

01/15/2008

1/12



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Washington, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

JAN 15 2008

Elizabeth Tannehill  
Mason Chemical Company  
721 W. Algonquin Rd.  
Arlington Heights, IL 60005

Subject: Maquat MQ615-AS  
EPA Registration No. 10324-67  
Amendment Dated: Oct 15, 2007  
EPA Received Date: Oct 17, 2007

Dear Elizabeth Tannehill

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**

- Revise Label to change the ppm's to be used on surfaces in public eating places and dairy processing areas.

**Label Comments**

Revise the label as follows:

1. Revise the first claim/bullet in the left column on page 4 by revising the 40 CFR citation to read "40 CFR 180.940 (c)."
2. On page eight, revise the section of the directions "For Continuous Treatment of Meat and Poultry or Fruit and Vegetables Conveyors" by revising the statement "remove gross food particles and excel soil ..." to read "Remove gross food particles and excess soil..."

**General Comments**

A stamped copy of the accepted label with conditions is enclosed for your records. Submit (3) copies of your final printed label before distributing or selling the product bearing the revised labeling.

**CONCURRENCES**

SYMBOL	75104						
SURNAME							
DATE	1-10-08						

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

Sincerely,



Velma Noble  
Product Manager (31)  
Regulatory Management Branch I  
Antimicrobial Division (7510C)  
Enclosure: Stamped Label

CONCURRENCES

SYMBOL							
SURNAME							
DATE							



**MASON CHEMICAL COMPANY**  
 "The Quaternary Specialists"

721 W. Algonquin Road | Arlington Heights, IL 60005 | 847-290-1621 or 800-362-1855

E.P.A. Reg. No. 10324-67  
 E.P.A. Est. No. 10324-IL-1

**MAQUAT® MQ615-AS**

Net Contents:

Batch No:

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

**DANGER. KEEP OUT OF REACH OF CHILDREN.** Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed or absorbed through skin. Harmful if inhaled. Avoid breathing spray mist. Do not get into eyes, on skin or on clothing. Wear goggles or face shield and rubber gloves and protective clothing when handling. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

*(If container is 5 gallons or larger the following statement must appear on the label.)*

**ENVIRONMENTAL HAZARD**

This pesticide is toxic to fish. 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 into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not use or store near heat or open flame.  
 Do not mix with oxidizers, anionic soaps and detergents.

*(If the container is greater than one gallon use the following storage and disposal statements.)*

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Open dumping is prohibited. Store only in original container. Do not reuse empty container. Keep this product under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use.

**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.

**CONTAINER DISPOSAL (Larger than 1 gal.):** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. In addition, plastic containers may be disposed of by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**TOTE CONTAINER DISPOSAL:** Verify that the tote is empty. Do not rinse or clean. Seal tote and contact supplier for return.

*(If container is one gallon or less use the following storage and disposal statements.)*

**STORAGE AND DISPOSAL**

Store in original container in areas inaccessible to small children. Do not store on side. Avoid creasing or impacting of side walls. Do not reuse empty container. Wrap and discard in trash (or recycle).

**PELIGRO: SI NO PUEDE LEER EN INGLES, PREGUNTE A SU SUPERVISOR SOBRE LAS INSTRUCCIONES DE USO APROPIADAS ANTES DE TRABAJAR CON ESTE PRODUCTO.**

Effective Disinfectant in hard water up to 400 ppm hardness (Calculated as CaCO<sub>3</sub>) in the presence of 5% serum contamination Whirlpool, Industrial, School, Dairy, Equine, Poultry/Turkey, Farm, Veterinary. Multi-Purpose No-Rinse Acid Cleaner Food Contact Sanitizer. For Dairies, Dairy Barns, Cheese Factory, Brewery, Farm, Wineries, Breweries, Beverage, Food Handling and Process Areas, Restaurants, Bar and Institutional Kitchen Use. For Non-Food Contact Sanitation in: Schools, Colleges, Churches, Athletic Facilities, Health Facilities and Salons.

**ACTIVE INGREDIENTS:**

Octyl Decyl Dimethyl Ammonium Chloride	3.075%
Didecyl Dimethyl Ammonium Chloride	1.5375%
Diocetyl Dimethyl Ammonium Chloride	1.5375%
Alkyl (C <sub>14</sub> , 50%; C <sub>12</sub> , 40%; C <sub>10</sub> , 10%) dimethyl benzyl ammonium chloride	4.1000%
<b>INERT INGREDIENTS:</b>	<b>89.7500%</b>
<b>TOTAL</b>	<b>100.0000%</b>

DO NOT MIX WITH DISINFECTANTS  
 With Disinfectants  
 Keep out of reach of children  
 in EPA Registered Disinfectant/Beerstone

JAN 15 2008

EPA Reg. No. 10324-67

**KEEP OUT OF REACH OF CHILDREN  
 DANGER PELIGRO**  
 See left panel for additional precautionary statements

**First Aid**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.  
**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 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 SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.  
**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.  
**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

*(Note to Reviewer: This information has been verified per DOT regulations. It is NOT required to be on the label but is being requested by a customer.)*

**Transportation Information**  
 DOT Hazard Class: 8 Corrosive  
 DOT Proper Shipping Name: Disinfectant Liquid Corrosive, NOS (Quaternary Ammonium Compound), 8, UN1903, PG III

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(Note to reviewer: The Table of Contents will not be on any label. This is for our customer's reference only. The page numbers will change as the label changes.)

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### Organism List

(Note: For reference use only. This is a list of all organisms covered by this label. Please see appropriate Directions for Use for proper use dilution.)

**General Disinfection Performance Non-Medical (schools, restaurants, food services, beverage and food processing plants):** This product is bactericidal according to the AOAC Use Dilution Test method, Virucidal\* according to the virucidal qualification on hard inanimate surfaces modified in the presence of 5% organic serum and 400 ppm hard water as CaCO<sub>3</sub> against:

*Salmonella enterica* (ATCC 10708)                      *Staphylococcus aureus* (ATCC 6538)

**Virucidal Performance:** This product is Virucidal\* according to the virucidal qualification on hard inanimate surfaces against:

*Infectious Bronchitis Virus*

**Animal Premise Virucidal Performance:** This product is Virucidal\* according to the virucidal qualification on hard inanimate surfaces against:

*Avian Reovirus* (ATCC VR-2449)                      *Infectious Laryngotracheitis*  
*Avian Influenza A* (ATCC VR-2072)                      *Newcastle Disease Virus* (ATCC VR-108)

**Non-Food Contact Sanitizing Performance:** This product is an effective one-step non-food contact sanitizer against the following bacteria:

*Staphylococcus aureus* (ATCC 6538)                      *Enterococcus aerogenes* (ATCC 13048)

**Food Contact Sanitizing Performance:** According to the AOAC Germicidal and Detergent Sanitizing Action of Disinfectants test this product is effective against the following bacteria:

*Campylobacter jejuni*                      *Shigella dysenteriae*  
*Escherichia coli*                      *Shigella flexneri*  
*Escherichia coli* 0157:H7                      *Staphylococcus aureus*  
*Listeria monocytogenes*                      *Yersinia enterocolitica*  
*Salmonella enterica*

### Marketing Claims

Maquat MQ615-AS for use in:

- Restaurants, restaurants and bars, cafeterias, institutional kitchens, fast food operations and food storage areas, supermarkets.
- Food processing plants, USDA inspected food-processing facilities, dairy farms, egg processing plants, meat/poultry processing plants, meat/poultry producing establishments.
- Hog farms, equine farms, poultry and turkey farms.
- Mushroom farms.

- Dairy farms, dairies, cheese factories, milk storage and handling systems, bulk milk tanks.
- Milk pails inflations and tubing, dairy product dispensing equipment.
- Udders, flanks and teats of dairy cows.
- Beer fermentation and holding tanks, bottling or pre-mix dispensing equipment.
- Coffee urns, Coffee pots, hot water dispensers, tea dispensers, coffee pots and hot water dispensers, water dispensers, kitchen equipment.
- Bottle washing.
- Food establishments, coffee shops, donut shops, bagel stores, pizza parlors, liquor stores.
- Public restrooms, travel rest areas, shower rooms, shower stalls, bathrooms.
- Schools and colleges, churches, classrooms, community colleges, universities, athletic facilities and locker rooms, exercise rooms, gyms, gymnasiums.
- Veterinary clinics, animals life science laboratories, animal research centers, animal quarantine areas, animal breeding facilities, kennels, dog/cat animal kennels, breeding and grooming establishments, pet animal quarters, zoos, pet shops, tack shops and other animal care facilities.
- Cosmetic manufacturing facilities, medical device manufacturing facilities, biotechnology firms, pharmaceutical manufacturing facilities.
- Heath clubs, spas, tanning spas, massage/facial salons, hair/nail salons, barber/beauty shops, salons, tattoo parlors.
- Recycling centers.
- Humidifier water tanks.
- Fishery, Milk, Citrus, Wine, Fruit, Vegetable, Potato, Beverage, Ice Cream processing plants.

This product may be used on washable hard, non-porous surfaces such as:

- Food preparation, steam tables and storage areas.
- Refrigerated storage and display equipment.
- Food preparation, dishwashing and storage areas.
- Countertops (counters), Slurppy<sup>®</sup> machines, stovetops (stoves), sinks, appliances, refrigerators, ice machines, tables.
- Interior hard, non-porous surfaces of water softeners, reverse osmosis units, ice machines, water coolers, water holding tanks and pressure tanks.
- Glass, metal, stainless steel, glazed porcelain, glazed ceramic, granite, marble, plastic (such as polystyrene or polypropylene), sealed limestone, sealed slate, sealed stone, sealed terra cotta, sealed terrazzo, chrome and vinyl (test surfaces for compatibility first).
- Enameled surfaces, painted woodwork (finished), Formica<sup>®</sup>, vinyl and plastic upholstery (test surfaces for compatibility first).
- Exhaust fans, refrigerated storage and display equipment, coils and drain pans of air conditioning, refrigeration equipment and heat pumps.
- Beer fermentation and holding tanks, bottling or pre-mix dispensing equipment.

- Citrus processing equipment and holding tanks.
- Drinking fountains.
- Tub surfaces, Shower stalls, shower doors and curtains, bathtubs and glazed tiles, chrome plated intakes, toilets, toilet bowls, toilet bowl surfaces, urinals, portable and chemical toilets and latrine buckets, porcelain tile and restroom fixtures (test surfaces for compatibility first).
- Kennels, kennel runs, cages, kennel/cage floors, conductive flooring.
- Sealed concrete floors.
- Dishes, silverware, glasses, cooking utensils and other similar size food processing equipment can be sanitized by immersion. NO POTABLE WATER RINSE IS ALLOWED.

### **General**

Cross contamination is of major housekeeping concern. This product has been formulated to aid in the reduction of cross-contamination on treated surfaces.

This product is an economical concentrate that can be used with a mop and bucket, trigger sprayers, sponge or by soaking.

This product helps control bacteria that cause spoilage.

This product inhibits odor causing bacterial growth on moist surfaces and deodorizes by killing microorganisms that cause offensive odors.

This product meets AOAC Use – Dilution Test Standards for general disinfection.

This product meets AOAC efficacy standards for hard surface non-food contact sanitizers.

This product is easily and quickly dispersed in hot or cold water to form a completely uniform solution.

Kill avian influenza A on pre-cleaned environmental surfaces.

This product may be applied through immersion tanks, foaming apparatus and low-pressure sprayers.

This product is a versatile sanitizer and scale remover formulated for use in Ultrasonic Baths (Ultrasonic cleaning units).

### **Deodorizing**

This product is specially formulated to effectively eliminate offensive odors.

### **Restrooms**

This product will not leave a grit or soap scum.

This product is a versatile cleaner and scale remover formulated for use on bath and therapy equipment (Whirlpools).

### **Animal Premise**

This product is for use in Poultry Premise Sanitation (Hatcheries), Egg Receiving Area, Egg Holding Area, Setter Room, Tray Dumping Area, Trays, Buggies, Racks, Egg Flats, Chick Holding Room, Hatchery Room, Chick Processing Area, Chick Loading Area, Poultry Buildings, Ceilings, Side walls and Floors, Drinkers, and other hard, non-porous Poultry House related equipment, and surfaces in the Hatchery environment.

This product is for Swine Premise disinfection; Waterers and Feeders, Hauling Equipment, Dressing Plants, Loading Equipment, Farrowing Barns and Areas, Nursery, Blocks, Creep Area, Chutes.

### **Food Contact Surfaces**

This product is quat and phosphoric acid food contact sanitizer.

Milkstone and scale can build up on pipelines, storage tanks, tank trucks, silos and processing equipment in the dairy industry. Use of this product will remove this material from dairy and cheese making equipment and help maintain the efficiency of the operation as well as eliminate bacterial growth.

Beerstone and scale can build up on pipelines, storage tanks, tank trucks, silos and processing equipment in the brewery industry. Use of this product will remove this material from equipment and help maintain the efficiency of the operation as well as eliminate bacterial growth.

This product is for use as a food contact sanitizer at a concentration of 200-400 ppm active. No potable water rinse is allowed when used as a sanitizer on food contact surfaces.

This product is for use as a sanitizer in bottling and beverage dispensing equipment.

This product is for use as a sanitizer in sanitary filling of bottles and cans.

This product is for use as a sanitizer in beer fermentation and holding tanks.

This product not only sanitizes but also removes lime and scale in breweries and bottle washing.

This product is for cleaning and sanitizing of stainless steel and other hard surfaces found in restaurant and cafeteria kitchens for the removal of smut, soil, scale and rust from these surfaces.

This product is for use as a sanitizer on dishes, glassware, steam tables and utensils (at 200 ppm active) on hard, non-porous surfaces. No potable water rinse is allowed when used as a sanitizer on food contact surfaces.

This product is for use in sanitizing bottles or cans in the final rinse application, and for external spraying of filling and closing machines.

This product is for use as a sanitizer in beer fermentation and holding tanks.

This product is for use as a sanitizer in wineries for use on holding tanks, floors and processing equipment.

This product is for use on pre-cleaned surfaces such as tableware, utensils, dishes, equipment, pipelines, tanks vats, fillers, evaporators, pasteurizers and aseptic equipment in restaurants, food service operations, dairies, breweries, wineries, beverage and food processing plants. This product is effective as a sanitizer when solution is prepared in water of up to 500 ppm harness as CaCO<sub>3</sub>.

Escherichia coli (E. coli) and Staphylococcus aureus (Staph) are common bacteria found where food is prepared and stored. This product kills these bacteria and helps prevent the spread of food borne contamination on treated kitchen surfaces listed on this label. A potable water rinse is required after application on food contact surfaces.

This product is for use as a Food Grade Egg Shell sanitizer, with the best results achieved in water temperatures ranging from 78°-100°F.

This product has been cleared by the EPA in 40 CFR Section 180.940 (c) for use on food processing equipment and utensils at a concentration of 200-400 ppm active in the presence of 500 ppm hard water (CaCO<sub>3</sub>).

This product has been cleared by the EPA in 40CFR180.940 for use on food contact surfaces in public eating places, dairy processing equipment and food processing equipment and utensils at a concentration of 200 ppm active in the presence of 500 ppm hard water (CaCO<sub>3</sub>).

This product meets AOAC Germicidal and Detergent Test Standards for food contact surfaces.

Regular, effective cleaning and sanitizing of equipment, utensils and work or dining surfaces which could harbor hazardous bacteria minimizes the probability of contaminating food during preparation, storage or service. Effective cleaning will remove soil and prevent the accumulation of food residues, which may decompose or support the rapid development of food poisoning organisms or toxins. Application of effective sanitizing procedures reduces the number of those food poisoning organisms that may be present on equipment and utensils after cleaning, and reduces the potential for the transfer, either directly through tableware such as glasses, cups and flatware or indirectly through food.

To prevent cross contamination, kitchenware and food contact surfaces of equipment must be washed, rinsed with potable water and sanitized after each use and following any interruption of operation during which time contamination may have occurred.

Where equipment and utensils are used for preparation of foods on a continuous or production line basis, utensils and the food contact surfaces of equipment must be washed, rinsed and sanitized at intervals throughout the day on a schedule based on food temperature, type of food and amount of food particle accumulation.

## General Use Directions

### DIRECTIONS FOR USE

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

**General Disinfectant-Non-medical (schools, restaurants, food services, dairies, farm, Equine, Poultry/Turkey veterinarian, beverage and food processing plants):**

For water hardness up to 400 ppm add 1 ounce per gallon of water (1:128) (or equivalent dilution) to disinfect hard non-porous surfaces. Treated surfaces must remain wet for 10 minutes.

At this use level, this product is bactericidal according to the AOAC Use Dilution Test method, Virucidal\* according to the virucidal qualification on hard inanimate surfaces on hard inanimate surfaces modified in the presence of 5% organic serum and 400 ppm hard water as CaCO<sub>3</sub> against

*Salmonella enterica* (ATCC 10708)  
*Avian Reovirus* (ATCC VR-2449)  
*Avian Influenza A* (ATCC VR-2072)  
*Infectious Bronchitis Virus*

*Staphylococcus aureus* (ATCC 6538)  
*Infectious Laryngotracheitis*  
*Newcastle Disease Virus* (ATCC VR-108)

**General Deodorization:** To deodorize, add 1.75 ounces of this product to 5 gallons of water (or equivalent use dilution) (260 ppm active quat). Let air dry.

**Ultrasonic Bath Disinfectant Directions:** Use this product to disinfect hard (inanimate) non-porous objects compatible with Ultrasonic cleaning units. Pour fresh solution of 1 ounce per gallon of water (or equivalent use dilution) directly into bath chamber. Preclean soiled objects. Place objects into unit and operate for a minimum of 10 minutes, according to manufacturers use directions. Remove objects and rinse with sterile water (sterile water for injection), or allow to air dry. Replace solution at least daily or when solution becomes visibly dirty or discolored.

**For Disinfecting Hard, non-porous Bath and Therapy Equipment:** To remove body oils, dead tissue, soil and all other buildups or organic matter on inanimate surfaces after using the unit, drain the water and refill with fresh water to just cover the intake valve. Add 1 ounce of this product for each gallon of water (or equivalent use dilution) in the unit at this point. Briefly start the pump to circulate the solution. Turn off pump. Wash down the unit sides, seat of the chair lift, and any/all related equipment with a clean swab, brush or sponge. Product to surface contact time must be at least 10 minutes for proper disinfection. After the unit has been thoroughly disinfected, drain solutions from the unit and rinse any/all cleaned surfaces with fresh water. The unit is ready for reuse.

**For Cleaning Hard, non-porous Fiberglass Bath and Therapy Equipment:** To remove body oils, dead tissue, soil and all other buildups or organic matter on inanimate surfaces after using the unit, drain the water and refill with fresh water to just cover the intake valve. Add 2.5 ounces of this product for each 10 gallons (0.25 ounces per gallon) of water (or equivalent use dilution) (200 ppm active quat) in the unit at this point. Briefly start the pump to circulate the solutions. Turn off pump. Wash down unit sides, seat of the chair lift, and any/all related equipment with a clean swab, brush or sponge. After the unit has been thoroughly cleaned, drain solutions from the unit and rinse any/all cleaned surfaces with fresh water. The unit is ready for reuse.

## Animal Premise Use Directions

### DIRECTIONS FOR USE

#### POULTRY (AND SWINE) PREMISE SANITATION SITE PREPARATION

The first step in any on-going sanitation program should be the removal of gross contamination and debris. This may be accomplished using a shovel, broom, or vacuum depending on the area to be disinfected. The efficacy of even the most efficient germicidal cleaner is reduced in the presence of heavy organic matter. Once the heavy debris is eliminated thoroughly clean all surfaces with soap or detergent and rinse with water.

**Disinfection/Virucide of Poultry/Turkey Equipment, Swine Quarters, Equine Quarters, Animal Quarters and Kennels 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, and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Use 1 ounce of this product per gallon of water (or equivalent use dilution). 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:** For disinfection/virucide use 1 ounce of this product per gallon of water. Apply to hatchers, setters, trays, racks, carts, sexing tables, delivery trucks and other hard surfaces. Leave all treated surfaces exposed to solution for 10 minutes or more and allow to air dry.

**VEHICLES:** Clean all vehicles including mats, crates, cabs, and wheels with high-pressure water and this product. For spray applications use a coarse spray device. Use

1 ounce of this product per gallon of water for disinfection/virucide. Leave all treated surfaces exposed to solution for 10 minutes or more and allow to air dry.

#### DRESSING PLANT DISINFECTANT/VIRUCIDE DIRECTIONS

Apply to walls and floors in poultry and animal dressing plants with a solution of 1 ounce of this product per gallon of water (or equivalent use dilution). Surfaces must remain wet for 10 minutes then thoroughly rinsed with potable water before operations are resumed. Disinfect all rooms, exterior walls and loading platforms of dressing plants.

#### FARM PREMISE DISINFECTION DIRECTIONS

##### For use in Equine, Dairy and Hog Farms:

1. Remove all animals and feed from premises, vehicles and enclosures.
2. Remove all litter and manure from floors, walls and surfaces of barn, pens, 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 soap or detergent and rinse with water.
5. Saturate all surfaces with the recommended disinfecting and virucidal 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, scrappers used in removing litter and manure.
7. Ventilate buildings, cars, trucks, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set and dried.
8. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

##### For Use For Treatment of Animal Housing Facilities:

1. Remove all animals and feed from premises, vehicles and enclosures.
2. Remove all litter and manure from floors, walls and surfaces of barn, pens, stalls, stables, chutes and other facilities and fixtures occupied or transversed by animals.
3. Empty all troughs, racks and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate all surfaces (floors, walls, cages and other washable hard, non-porous environmental surfaces) with the disinfecting and virucidal solution (1 ounce per gallon of water or equivalent use dilution) for a period of 10 minutes. For smaller surfaces, use a trigger spray bottle to spray all surfaces with solution until wet.
6. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels, scrappers used in removing litter and manure.
7. Ventilate buildings, cars, trucks, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set and dried.
8. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

**Terrarium and Small Animal Cage and Cage Furniture Disinfection:** Animals frequently defecate on hot rocks and other cage furniture items inside your terrarium. This can result in high bacteria and ammonia levels that can lead to possible infection/disease in your animals. When used regularly this product can eliminate these high bacteria/ammonia levels in your cage and on your cage furniture items.

1. Remove all animals.
2. Thoroughly clean all surfaces and objects (hot rocks, caves, cage furniture, feeding and watering dishes, and appliances) including the substrate in the terrarium or cage with soap or detergent and rinse with water.
3. Saturate all surfaces (floors, walls, cages and other washable hard, non-porous environmental surfaces) with the disinfecting and virucidal solution (1 ounce per gallon of water or equivalent use dilution) for a period of 10 minutes. For smaller surfaces, use a trigger spray bottle to spray all surfaces with solution until wet. Then wipe surfaces dry.
4. Saturate gravel as above and let stand for 10 minutes. Place in bucket of clean water and swirl for 15-30 seconds. Thoroughly air dry before returning to terrarium.
5. Do not return animals to the habitat until it is dry and ventilated.
6. Thoroughly scrub all treated surfaces with soap or detergent and rinse with potable water before reuse.
7. Clean terrarium at least once weekly or more as needed.

**Note:** Substrates for desert terrariums (i.e. gravel) must be completely dry before returning to terrarium to avoid high humidity levels. Always replace substrate if a foul odor persists. (Not for use on rocks or gravel in California.)

#### Veterinary Clinics/Animal Life Science Laboratory/Zoos/Pet Shop/Kennels/Breeding and Grooming Establishment/Tack Shops Disinfection

**Directions:** For cleaning and disinfecting the following hard, non-porous surfaces: equipment, utensils, instruments, cages, kennels, stables, stalls and catteries. Remove all animals and feeds from premises, animal transportation vehicles, crates etc. Remove all litter, droppings and manure from floors, walls and surfaces of facilities occupied or traversed by animals. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of 1 ounce 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, scrappers used in removing litter and manure. Ventilate buildings 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, automatic feeders, waterers and other equipment that dispenses food or water with soap or detergent, and rinse with potable water before reuse.

**Special Instructions for Inactivating Avian influenza A:** Remove all poultry and feeds from premises, trucks, coops, and crates. Remove all litter and droppings from floors, walls, and surfaces of facilities occupied or traversed by poultry. Empty all troughs, racks, and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with the disinfecting solution for a period of 10 minutes. Ventilate buildings, coops, and other closed spaces. Do not house poultry or employ equipment until treatment has been absorbed, set, or dried. Thoroughly scrub treated feed racks, troughs, automatic feeders, fountains, and waterers with soap or detergent, and rinse with potable water before reuse.

**Dairy Cow Application Directions:** The udders, flanks and teats of dairy cows can be washed with a solution of 0.75 ounces of this product in 4 gallons of warm water. Use a fresh towel for each cow. Avoid contamination of wash solution by dirt and soil. Do not dip used towel back into wash solution. When solution becomes visibly dirty, discard and provide fresh solution.

#### Non-Food Contact Use Directions

## DIRECTIONS FOR USE

### SANITIZER DIRECTIONS FOR NON-FOOD CONTACT SURFACES

Preparation of sanitizer use solution: Add 1 ounce of this product to 4 gallons (0.25 ounces per gallon) of water (or equivalent use dilution) (200 ppm active) to sanitize hard, non-porous surfaces. At 200 ppm active, this product is an effective one-step sanitizer against *Staphylococcus aureus* and *Enterobacter aerogenes* in 500-ppm hard water as CaCO<sub>3</sub>.

Apply sanitizer use solution to precleaned, hard, non-porous surfaces with a cloth, mop, sponge, sprayer or by immersion.

For sprayer applications, use a coarse spray pump or trigger sprayer. Spray 6-8 inches from surface, rub with brush, sponge or cloth. Do not breathe spray.

**NOTE:** With spray applications, cover or remove all food products.

Treated surfaces must remain wet for a minimum of 5 minutes, then wipe with sponge, mop or cloth or allow to air dry. A final rinse is suggested.

**Humidifier Directions:** Thoroughly clean water tank and filters. Add 0.25 ounces of this product per gallon of refill water (or equivalent use dilution). Not for use in heat or atomizing type humidifiers.

**Ultrasonic Bath Sanitizing Directions:** Use this product to sanitize hard (inanimate) non-porous objects compatible with Ultrasonic cleaning units. Pour fresh solution of 0.25 ounces per gallon of water (or equivalent use dilution) (200 ppm active quat) directly into bath chamber. Preclean soiled objects. Place objects into unit and operate for a minimum of 1 minute, according to manufacturers use directions. Remove objects and rinse with sterile water (sterile water for injection), or allow to air dry. Replace solution at least daily or when solution becomes visible dirty or discolored.

**NOTE:** This product in its use solution is compatible with stainless steel, aluminum and most other surfaces. Before product use, it is recommended that you apply product to a smaller test area to determine compatibility before proceeding with its use.

**Salon/Barber Instruments and Tools Sanitizer Directions:** Preclean soiled instruments and tools. Completely immerse water safe non-porous instruments and tools in a solution of 0.25 ounces per gallon (or equivalent use dilution) (200 ppm) of water for at least 60 seconds. Rinse thoroughly and dry before use. Prepare fresh solution at least daily or more often if solution becomes 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.

### Food Contact Surface Use Directions

#### DIRECTIONS FOR USE

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

Apply this product with a cloth, mop or mechanical spray device. When applied with a mechanical spray device, surfaces must be sprayed until thoroughly wetted. Treated surfaces must remain wet for 1 minute. For sprayer applications, use a coarse spray pump or trigger sprayer. Spray 6-8 inches from surface. Rub with brush, sponge or cloth. Do not breathe spray.

Prior to application, remove gross food particles and soil by a pre-flush or pre-scrape and when necessary, presoak. Then thoroughly wash or flush objects with a good

detergent or compatible cleaner, followed by a potable water rinse before applications of the sanitizing solution.

**NOTE:** With spray applications cover or remove all food products. Prepare a fresh solution at least daily or when use solution becomes visibly dirty. For heavily soiled areas, a preliminary cleaning is required.

**To disinfect food-processing premises:** Before using this product, food products and packaging materials must be removed from area or carefully protected. For floors, walls and storage areas, add 1 ounce of this product to one gallon of water (or equivalent use dilution). For heavily soiled areas, a pre-cleaning step is required. Apply solution with a mop, cloth, sponge or hand pump trigger sprayer so as to wet all surfaces thoroughly. For sprayer application use a coarse spray. Allow to remain wet for 10 minutes, then remove excess liquid. After use, all surfaces in the area must be thoroughly rinsed with potable water.

**To disinfect food service establishment food contact surfaces:** For countertops, appliances, and tables. Before using this product food products and packaging materials must be removed from area or carefully protected. Add 1 ounce of this product to one gallon of water (or equivalent use dilution). For heavily soiled areas, a pre-cleaning step is required. Apply solution with a mop, cloth, sponge or hand pump trigger sprayer so as to wet all surfaces thoroughly. For sprayer application use a coarse spray. Allow to remain wet for 10 minutes, then remove excess liquid and rinse the surface with potable water.

**For use on non-food contact surfaces as a general disinfectant in the brewery and wine industry:** Use 1 ounce of this product per one gallon (or equivalent use dilution) of water. Follow the general disinfectant directions above.

**SHOE (BOOT) BATH SANITIZER DIRECTIONS:** To prevent cross contamination from area to area in animal areas, and the packaging and storage areas of food plants, shoe baths containing one inch of freshly made sanitizing solution must be placed at all entrances to buildings, hatcheries and at all the entrances to the production and packaging rooms. Scrape waterproof shoes and place in a 1-ounce of this product per 4 gallons of water (or equivalent use dilution) (200 ppm active) solution for 60 seconds prior to entering area. Change the sanitizing solution in the bath at least daily or sooner if solution appears dirty.

**SHOE FOAM DIRECTIONS:** To prevent cross contamination from area to area in animal areas, and the packaging and storage areas of food plants. Apply a foam layer approximately 0.5 to 2 inches thick made from a solution of 1 to 1.5 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 manufacture 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 at least daily or when it appears dirty.

*(For food processing or other facilities that have installed entryway sanitizing systems.)*

**ENTRYWAY SANITIZING SYSTEMS:** To prevent cross contamination from area to area, set the system to deliver (0.5 to 1 ounce per gallon of water) (400 - 800 ppm active) of sanitizing solution. The (spray) (foam) 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.

### MUSHROOM FARM INDUSTRY USE DIRECTIONS



**Site Preparation:** The first step in any ongoing sanitation program must 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.

**Disinfection:** Use 1 ounce of this product per gallon of water (or equivalent dilution). Wet all surfaces thoroughly. Treated surfaces must be allowed to remain wet for 10 minutes. Let air-dry. For heavily soiled areas, preclean first. Prepare a fresh solution for each use.

**For Heavy Duty Cleaning:** When greater cleaning is desired, use 2 ounces of this product per gallon of water (or equivalent dilution). Heavily soiled areas may require repeated cleaning before treatment.

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

#### FOOD CONTACT SANITIZER

**Sanitizing of Food Processing Equipment and Other Hard, non-porous Surfaces in Food Processing Locations, Dairies, Restaurants and Bars Directions:** For sanitizing food processing equipment, dairy equipment, sink tops, countertops, refrigerated storage and display equipment and other hard non-porous surfaces. **NO POTABLE WATER RINSE IS ALLOWED.**

Prior to application, remove gross food particles and soil by a pre-flush or pre-scrape and when necessary, presoak. Then thoroughly wash or flush objects with a good detergent or compatible cleaner, followed by a potable water rinse before applications of the sanitizing solution. A potable water rinse is not allowed following use of the product as a sanitizer on previously cleaned hard surfaces. Surfaces are to be adequately drained before contact with food so that little or no residue remains.

Apply a solution of 1 to 2 ounces of this product in 4 gallons of water, (200 - 400 ppm active) to precleaned, hard surfaces thoroughly wetting surfaces with a cloth, mop, sponge, sprayer or by immersion. For spray applications, use a coarse spray, pump or trigger sprayer. Spray 6 to 8 inches from surface, rub with brush, sponge, or cloth. Do not breathe spray. With spray applications cover or remove all food products. Surfaces must remain wet for at least 1 minute followed by adequate draining and air-drying. A fresh solution must be prepared at least daily or when use solution becomes visibly dirty. For mechanical application use solution may not be reused for sanitizing applications. No potable water rinse is allowed after application of the sanitizing solution. Do not apply this product at a rate greater than 200 ppm to food contact surfaces in dairies, restaurants and bars.

Apply to sink tops, countertops, refrigerated storage and display equipment and other stationary hard surfaces by cloth or brush or mechanical spray device. **NO POTABLE WATER RINSE IS ALLOWED.**

Dishes, silverware, glasses, cooking utensils and other similar size food processing equipment can be sanitized by immersion in 1 to 2 ounces of this product per 4 gallons of water (200-400 ppm active). **NO POTABLE WATER RINSE IS ALLOWED.**

At a minimum of 1 to 2 ounce per 4 gallons (200-400 ppm) this product eliminates 99.999% of the following bacteria in 60 seconds in 500 ppm hard water (calculated as CaCO<sub>3</sub>) according to the AOAC Germicidal and Detergent Sanitizing Action of Disinfectants test.

*Campylobacter jejuni*  
*Escherichia coli*  
*Escherichia coli* 0157:H7  
*Listeria monocytogenes*  
*Salmonella enterica*

*Shigella dysenteriae*  
*Shigella flexneri*  
*Staphylococcus aureus*  
*Yersinia enterocolitica*

#### Sanitizing Dilution Guide

To prepare a 200, 300 or 400 ppm active quaternary solution use the following dilution table. Prepare correct dilution rate based upon the directions below associated with the appropriate use site.

#### Public Eating Places (restaurant, bars) and Dairies

Active quat solution	4 gallons	10 gallons	20 gallons
200 ppm	1.0 ounce	2.5 ounces	5.0 ounces
300 ppm	1.5 ounces	3.75 ounces	7.5 ounces
400 ppm	2.0 ounces	5.0 ounces	10.0 ounces

#### Food Processing Equipment & Utensils

Active quat solution	4 gallons	10 gallons	20 gallons
200 ppm	1.0 ounce	2.5 ounces	5.0 ounces
300 ppm	1.5 ounces	3.75 ounces	7.5 ounces
400 ppm	2.0 ounces	5.0 ounces	10.0 ounces

**For Dairy Processing Equipment, Food Processing Equipment and Utensils:** Prior to application, remove gross food particles and soil by pre-flush, or pre-scrape, and when necessary, pre-soak. Then thoroughly wash or flush objects with a compatible detergent followed by a potable water rinse before applications of sanitizing solutions. Apply a solution of 1 to 2 ounces of this product in 4 gallons of water (or equivalent use dilution) (200-400 ppm active) OR mix a 1-ounce packet with 4 gallons of water to precleaned, hard surfaces, thoroughly wetting surfaces with a cloth, mop, sponge, sprayer or by immersion. For spray applications, use a coarse pump or trigger sprayer. Spray 6 to 8 inches from surface. Rub with brush, sponge, or cloth. Do not breathe spray. With spray applications cover or remove all food products. From a Closed Loop Dilution Center, apply 200-400 ppm active solution to the surface to be sanitized. Surfaces must remain wet for at least 1 minute followed by adequate draining (and air drying). (Alternate statement: Surfaces must remain wet for at least 1 minute, then allow sanitized surfaces to adequately drain before contact with food). A fresh solution must be prepared at least daily or when use solution becomes visibly dirty. For mechanical application Use solution may not be reused for sanitizing applications. **NO POTABLE WATER RINSE IS ALLOWED** (after use as a sanitizer) (after application of the sanitizing solution).

#### DIRECTIONS FOR SANITIZING FOOD PROCESSING EQUIPMENT AND UTENSILS REGULATED BY 40CFR sec 180.940 (c):

1. Scrape, flush or presoak articles (whether mobile or stationary) to remove gross food particles and soil.
2. Thoroughly wash articles with an appropriate detergent or cleaner.
3. Rinse articles thoroughly with potable water.
4. Sanitize articles using a solution of 0.25 to 0.5 ounces of this product per gallon of water (200-400 ppm active). Articles that can be immersed in solution must remain in solution for 60 seconds. Articles too large for immersing must be thoroughly wetted by rinsing, spraying or swabbing.
5. Remove immersed items from solution to drain and then air dry. Non-immersed item must be allowed to air dry also.

#### U.S. PUBLIC HEALTH SERVICE FOOD SERVICE SANITIZATION RECOMMENDATIONS

**CLEANING AND SANITIZING:** Equipment and utensils shall be thoroughly preflushed or prescraped, and when necessary, presoaked to remove gross food particles and soil.

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1. Thoroughly wash equipment and utensils in a hot detergent solution.
2. Rinse utensils and equipment thoroughly with potable water.
3. Sanitize equipment and utensils by immersion in 1 ounce of this product per 4 gallons of water for at least 60 seconds at a temperature of 75°F. This dilution is equivalent to a solution containing 50 ppm available chlorine.
4. For equipment and utensils too large to sanitize by immersion, apply 1.0 to 2 ounces to 4 gallons of water (200-400 ppm active) by rinsing, spraying or swabbing until thoroughly wetted.
5. Allow sanitized surfaces to drain and air dry. No potable water rinse is allowed.

**Sanitizing Milking Equipment:** Preflush, presoak, or prescrape then clean and rinse with potable water all milking equipment, pails, inflations, lines and tubing. Sanitize prior to milking operations by preparing a 200-400 ppm solution of active quaternary by mixing 1 to 2 ounces of this product in 4 gallons of water. Scrub or dip equipment into the solution for a minimum of 60 seconds and allow to drain prior to the beginning of the milking operation. For pipelines and tubing circulate solution through system for a minimum of 60 seconds. Allow to drain thoroughly and allow to air dry before use. Do not rinse equipment with water after treatment.

**Sanitizing Bulk Milk Tanks:** To sanitize hard non-porous food contact surfaces, preflush, presoak, or prescrape then clean with a good detergent and rinse with potable water. Dilute 1 to 2 ounces of this product in 4 gallons of water (200-400 ppm active) and apply with a cloth, brush, mechanical spray device or by immersion. For spray applications, use a coarse spray, pump or trigger sprayer. Spray 6 to 8 inches from surface, rub with brush, sponge, or cloth. Do not breathe spray. With spray applications cover or remove all food products. Surfaces must remain wet for at least 1 minute followed by adequate draining and air-drying. Prepare a fresh solution at least daily or when use solution becomes visibly dirty. For mechanical application use solution may not be reused for sanitizing applications. No potable water rinse is allowed after application of the sanitizing solution.

**Sanitizing Dairy Product Dispensing Equipment:** Preflush, presoak, or prescrape then clean and rinse with potable water dairy product dispensing equipment. Sanitize by preparing a 200-400 ppm active solution by mixing 1 to 2 ounces per 4 gallons of water. Run this solution through the equipment for a minimum of 60 seconds and allow to drain before use. For removable parts, clean and dip in 200-400 ppm solution. Let them air dry. To sanitize immobile items, flood them with a 200 ppm-400 active quat by sponging or spraying for at least 60 seconds and let air dry. (Alternate statement: Surfaces must remain wet for at a least 1 minute, then allow sanitized surfaces to adequately drain before contact with food). Do not rinse equipment with water after treatment.

At 1 oz. per 4 gallons this sanitizer fulfills the criteria of Appendix F of the Grade A Pasteurized Milk Ordinance 1978 Recommendations of the U.S. Public Health Services in waters up to 500 ppm of hardness calculated as CaCO<sub>3</sub> when evaluated by the AOAC Germicide and Detergent Sanitizer Method against Escherichia coli and Staphylococcus aureus.

#### **DIRECTIONS FOR FOOD PROCESSING EQUIPMENT, BREWERIES AND DAIRIES**

Equipment and utensils must be thoroughly preflushed, presoaked and when necessary prescraped to remove gross food particles. Clean and rinse equipment thoroughly with potable water, then apply sanitizing solution containing 1 to 2 ounces of this product per 4 gallons of water. Surfaces must remain wet for at least 1 minute. (Alternate statement: Surfaces must remain wet for at a least 1 minute, then allow sanitized surfaces to adequately drain before contact with food). No potable water rinse is allowed.

#### **BEVERAGE DISPENSING EQUIPMENT SANITIZER DIRECTIONS**

For sanitizing of bottle or pre-mix dispensing equipment, after cleaning thoroughly rinse equipment with a potable water rinse. Fill equipment with a solution of 1 to 2 ounces of this product per 4 gallons of water (200-400 ppm active). Allow solution to remain in equipment for at least 60 seconds or until operations resume at which time the sanitizing solution must be drained from the system. To insure the removal of flavors, it is suggested that during the changeover between products the system should be cleaned, rinsed and flushed with the sanitizing solution for at least 1 minute. Drain thoroughly and allow to air dry before reuse. (Alternate statement: Surfaces must remain wet for at a least 1 minute, then allow sanitized surfaces to adequately drain before contact with food). No potable water rinse is allowed.

#### **SANITARY FILLING EQUIPMENT SANITIZER DIRECTIONS**

For use in sanitizing bottles or cans in the final rinse application. The product is to be proportioned into the final rinse water line of the container washer or rinser in the concentration of 200-400 ppm active quat. Prepare a solution of 1 to 2 ounces of this product per 4 gallons of water (200-400 ppm active) for final washer and rinse applications. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly, allow to air dry before reuse. (Alternate statement: Surfaces must remain wet for at a least 1 minute, then allow sanitized surfaces to adequately drain before contact with food). No potable water rinse is allowed.

#### **STORAGE TANK SANITIZER DIRECTIONS**

To sanitize hard non-porous food contact surfaces preflush, presoak, or prescraped then clean with a good detergent and follow with a potable water rinse. Prepare a solution of 1 to 2 ounces of this product per 4 gallons of water (200-400 ppm active) for mechanical or automated systems. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly and allow to air dry before reuse. No potable water rinse is allowed.

#### **FOR SANITIZING IN FISHERIES, MILK, CITRUS, POTATO & ICE CREAM**

**PROCESSING PLANTS:** For use on conveyors as directed under "For Continuous Treatment of Meat and Poultry or Fruit and Vegetable Conveyors" and equipment to reduce or eliminate odors in the processing area. Also, for use on filling equipment to reduce bacteria associated with condensation on equipment and pipes. Follow directions for "Sanitary Filling Equipment Sanitizer Directions".

#### **For Continuous Treatment of Meat and Poultry or Fruit and Vegetable Conveyors**

Remove gross food particles and excel soil by a pre-flush or pre-scrape. Wash with good detergent or compatible cleaner. Rinse equipment thoroughly with potable water, then rinse equipment with a sanitizing solution. To sanitize the best, apply this product at 200-400 ppm quat level (1-2 ounces per 4 gallons) (or equivalent use dilution) to conveyors with suitable feeding equipment. Do not allow this solution to be sprayed directly on food. 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 this product at a dilution of 200-400 ppm active quat. Conveyor equipment must be free of product when applying this coarse spray.

#### **Sanitizing of Food Processing Equipment (Ice Machines) and Utensils:**

For sanitizing food processing equipment, dairy equipment, refrigerated storage and display equipment and other hard non-porous surfaces. Equipment and utensils must be thoroughly preflushed or prescraped and when necessary presoaked to remove gross food particles. No potable water rinse is allowed.

1. Turn off refrigeration
2. Wash and rinse all surfaces thoroughly.

3. Apply a solution of 1 to 2 ounces this product in 4 gallons of water (or equivalent use dilution) (200-400 ppm active) by mechanical spray, direct pouring or by recirculating through the system. Surfaces must remain wet for at least one minute followed by complete draining and drying. Prepare a fresh solution for each cleaning. No potable water rinse is allowed when product is used as directed.
4. Return machine to service.

#### **SANITIZATION OF INTERIOR HARD, NON-POROUS SURFACES OF WATER SOFTENERS AND REVERSE OSMOSIS (RO) UNITS**

**Water Softeners** – Sanitization should occur after initial installation, after the system is serviced and periodically during its use.

1. Tank must be washed with a compatible detergent and rinsed with potable water before sanitizing. Backwash the softener and add 2 to 4 ounces of sanitizer per 8 gallons of water (or equivalent use dilution) (200-400 ppm active) to the brine tank well. (The brine tank should have water in it to permit the solution to be carried into the softener.) (NOTE: Standard system capacity is 48 gallons.)
2. Proceed with the normal regeneration or interrupt the cycle after the brining step and let the softener soak for a minimum of 60 seconds.
3. Backwash the softener with potable water to make sure all sanitizing solution is thoroughly rinsed from the unit before returning the system to service. Return system to service.

**Reverse Osmosis (RO) Units** – Sanitization should occur after initial installation, after the system is serviced and periodically during its use.

1. Turn off RO system, drain storage tank and remove membrane element and pre-filters. Put membrane element in a plastic bag so it remains wet. Do not use this product to sanitize the membrane element. Membrane element must be sterilized separately.
2. Unit must be washed with a compatible detergent and rinsed with potable water before sanitizing
3. Fill empty pre-filter housing with 2 to 4 ounces of sanitizer per 8 gallons of water (or equivalent use dilution) (200-400 ppm active) and turn on raw water. (NOTE: Standard system capacity is 1 to 2 gallons).
4. After holding tank is full, let system stand idle for a minimum of 60 seconds. Turn off water. Drain holding tank.
5. Before the system is put back into service, flush system with potable water to assure sanitizing solution is rinsed thoroughly from system. Return unit(s) to normal operation. Follow the manufacturer's directions for re-installation of new pre-filters, membrane element and post filter.

#### **SANITIZATION OF INTERIOR HARD, NON-POROUS SURFACES OF ICE MACHINES, WATER COOLERS, WATER HOLDING TANKS AND PRESSURE TANKS**

**Ice Machines** – Sanitization should occur after initial installation, after the machine is serviced and periodically during its use.

1. Shut off incoming water line to machine.
2. Unit must be washed with a compatible detergent and rinsed with potable water before sanitizing.
3. Prepare a solution of 2 to 4 ounces of sanitizer per 8 gallons of water (or equivalent use dilution) (200-400 ppm active).
4. Circulate solution through machine making sure to wet all surfaces and allow a minimum contact of 60 seconds.
5. Drain and complete flush machine twice with potable water.
6. Return machine to normal operation.

**Water Coolers, Water Holding Tanks and Pressure Tanks** – Sanitization should occur after initial installation, after the system is serviced and periodically during its use.

1. Shut off incoming water line.
2. Units/tanks must be washed with a compatible detergent and rinsed with potable water before sanitizing.
3. Prepare a solution of 2 to 4 ounces of sanitizer per 8 gallons of water (or equivalent use dilution) (200-400 ppm active).
4. Apply or circulate (if possible) to wet all surfaces and allow a minimum contact of 60 seconds.
5. Drain and completely flush system twice with potable water.
6. Return to service by opening incoming water lines.

#### **SANITIZING EGG SHELLS INTENDED FOR FOOD DIRECTIONS**

To sanitize previously cleaned food-grade eggs in shell egg and egg product processing plants, spray with a solution of 1 to 2 ounces of this product per 4 gallons of warm water (or equivalent use dilution) (200-400 ppm active). The solution should be warmer than the eggs, but not to exceed 130°F. Wet eggs thoroughly and allow to drain. Eggs sanitized with this product shall be subjected to a potable water rinse only if they are to be broken immediately for use in the manufacture of egg products. Eggs should be reasonably dry before casing or breaking. The solution should not be re-used for sanitizing eggs.

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

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**1.0 OUNCE PACKET LABEL TO BE USED WITH MASTER  
CONTAINER LABEL**

**FOR FOOD CONTACT SANITIZER**

MIX EACH PACKET WITH 4 GALLONS OF WATER

**MAQUAT MQ615-AS**

E.P.A. Reg. No. 10324-67 E.P.A. Est. No. 10324-IL-1

NET CONTENTS: 1.0 FLUID OZ.

**ACTIVE INGREDIENTS:**

Octyl Decyl Dimethyl Ammonium Chloride .....	3.0750%
Didecyl Dimethyl Ammonium Chloride.....	1.5375%
Dioctyl Dimethyl Ammonium Chloride.....	1.5375%
Alkyl (C <sub>14</sub> , 50%; C <sub>12</sub> , 40%; C <sub>16</sub> , 10%) dimethyl benzyl ammonium chloride .....	4.1000%
<b>INERT INGREDIENTS:</b> .....	<b>89.7500%</b>
<b>TOTAL</b> .....	<b>100.0000%</b>

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

SEE OUTER CONTAINER FOR PRECAUTIONARY STATEMENTS AND  
USE DIRECTIONS

**DISPOSAL:** Do not reuse container. Wrap and put in trash collection.

**MASON CHEMICAL COMPANY  
"THE QUATERNARY SPECIALISTS"**

721 W. Algonquin Road  
Arlington Heights, IL 60005

847-290-1621

Toll Free:  
1-800-362-1855



**1.0 OUNCE PACKET LABEL TO BE USED WITH MASTER  
CONTAINER LABEL**

**FOR DISINFECTION**

MIX EACH PACKET WITH 1 GALLON OF WATER

**MAQUAT MQ615-AS**

E.P.A. Reg. No. 10324-67 E.P.A. Est. No. 10324-IL-1

NET CONTENTS: 1.0 FLUID OZ.

**ACTIVE INGREDIENTS:**

Octyl Decyl Dimethyl Ammonium Chloride.....	3.0750%
Didecyl Dimethyl Ammonium Chloride.....	1.5375%
Dioctyl Dimethyl Ammonium Chloride.....	1.5375%
Alkyl (C <sub>14</sub> , 50%; C <sub>12</sub> , 40%; C <sub>16</sub> , 10%) dimethyl benzyl ammonium chloride.....	4.1000%
<b>INERT INGREDIENTS:</b> .....	<b>89.7500%</b>
<b>TOTAL</b> .....	<b>100.0000%</b>

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

SEE OUTER CONTAINER FOR PRECAUTIONARY STATEMENTS AND  
USE DIRECTIONS

**DISPOSAL:** Do not reuse container. Wrap and put in trash collection.

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