



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Antimicrobials Division (7510C)
1200 Pennsylvania Avenue NW
Washington, D.C. 20460

EPA Reg. Number:

10324-194

Date of Issuance:

MAR 25 2010

Term of Issuance:

Unconditional

Name of Pesticide Product:

MAQUAT 2420-10%

NOTICE OF PESTICIDE:

- x Registration
Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

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

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/re-registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for re-registration of your product under FIFRA section 4.

2. Make the labeling changes listed below before you release the product for shipment:

a. Revise the "EPA Registration Symbol to read, "EPA Reg. No. 10324-194.

Signature of Approving Official:

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

Date:

MAR 25 2010

- 1.) Revise the first statement under Environmental Hazards section on page 1 to be in agreement with the ADBAC RED by adding the following phrase, "... and aquatic invertebrates."
- 2.) Revise the 6<sup>th</sup> bullet in left column on page 3 by indicating "*hard nonporous surfaces of cervical collars and neck braces.*"
- 3.) Revise the 17<sup>th</sup> bullet in the right column on page 4 by deleting the term, tanning, and stating "*tattoo.*"
- 4.) Revise the 9<sup>th</sup> claim in the right column on page 4, the 11<sup>st</sup> claim in the right column on page 5, and the "Disinfecting Hard, Non-Porous Surfaces Against Avian Influenza" headings on page 7 and 17 by citing the organism's complete nomenclature, "*Avian Influenza A Virus.*"
- 5.) Revise the 18<sup>th</sup> bullet in the left column on page 6 by deleting the phrase, "by the EPA."
- 6.) The nomenclature for Herpes Simplex Type 1 and 2 is incomplete on page 9. You need to indicate that the microorganisms are viruses by stating "*Herpes Simplex Type 1 and 2 Virus.*"
- 7.) Revise the fourth paragraph of directions under "Sanitizing of Food Processing Equipment and Other Hard Surfaces in Food Processing Locations, Dairies, Restaurants, and Bars" on page 10 by adding the statement, "Articles too large for immersing must be thoroughly wetted by rinsing, spraying, or swabbing with 1 oz per 4 gallons use solution for 60 seconds."
- 8.) Revise the fifth step under Reverse Osmosis Unit directions on page 12 by deleting the statement, "No potable water rinse is allowed," because this contradicts the previous statement requiring the lines to be flushed with potable water.
- 9.) Revise the "Treatment of Meat and Poultry or Fruit and Vegetable Conveyors" on page 13 by adding the statement, "Allow surfaces to remain wet for at least 60 seconds."
- 10.) Revise the "Storage and Disposal" statements on page 19 to be in compliance with PR Notice 2007-4 by doing the following:

*(FOR USE ON NON-REFILLABLE CONTAINERS WITH HOUSEHOLD/RESIDENTIAL USES)*  
**STORAGE AND DISPOSAL**

Open dumping is prohibited. Store only in original container. Do not reuse empty container. If a leaky container must be contained within another, mark the outer container to identify the contents. Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep this product under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use. Non-refillable container. Do not reuse or refill this container. . Wrap and put in trash or offer for recycling if available. Batch Code: (Can be placed on container or label)

*(FOR USE ON NON-REFILLABLE CONTAINERS Institutional/Commercial/Industrial Public Health Uses)*

**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. If a leaky container must be contained within another, mark the outer container to identify the contents.

Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. 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 HANDLING:** Non-refillable container. Do not reuse this container to hold materials other than pesticides or diluted pesticides (rinsate). Offer for recycling for available or puncture and dispose in a sanitary landfill, or by other procedures approved by state and local authorities.

**RESIDUE REMOVAL INSTRUCTIONS:** *(For containers less than 5 gallons)*

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Fill container 1/4 full with water and recap. Shake 10 seconds. Follow Pesticide Disposal instructions for rinsate disposal. Drain for 10 seconds after the flow begins to drip. Repeat procedure two more times.

**RESIDUE REMOVAL INSTRUCTIONS:** *(For containers greater than 5 gallons)*

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Fill container 1/4 full with water. Tip container on its side and roll it back and forth, ensuring at least one complete revolution for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over its other end and tip it back and forth several times. Follow Pesticide Disposal instructions for rinsate disposal. Repeat procedure two more times.

11.) Revise the secondary container label on page 31 by deleting the "CAUTION" signal word and stating "DANGER."

**Product Chemistry:**

The submitted revised CFS was accepted per chemistry review dated 10/16/2009.

3. Submit three (3) copies of your final printed labeling before distributing or selling the product bearing the revised labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

4/28

A stamped copy of the label is enclosed for your records. Should you have any questions regarding 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  
Antimicrobials Division (7510P)

Enclosure: Stamped Label, Product Chemistry approved dated 10/16/2009, Acute Tox review approved dated 10/20/2009, Efficacy Review approved dated 11/9/2009 and Rebuttal Review approved date 12/5/2009.



**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-XXX

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

**MAQUAT® 2420-10%**

Net Contents

Batch No

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

**DANGER. Keep of Reach of Children.** Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed or absorbed through the skin. 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 before eating, drinking, chewing gum, using tobacco or using the toilet. 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.

**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.

Disinfectant, Food Contact Sanitizer, Deodorizer, Virucide\*

With Organic Soil Tolerance For Hospitals.

For use in Hospitals, Nursing Homes, Homes, Hotels & Motels, Institutional Facilities, Industrial Facilities, Schools, Dairies, Equine and Poultry/Turkey Farms, Veterinaries, Restaurants, Food Handling and Process Areas, Federally Inspected Meat and Poultry Plants, Bars and Institutional Kitchens and for Sanitizing Ice Machines.

Quaternary Ammonium Sanitizer  
No-Rinse Food Contact Surface Sanitizer  
Cold Temperature Food Contact Surface Sanitizer  
Non-Acid Bathroom Cleaner.  
Athletic Surface Disinfectant.  
Formulated for effective Poultry Sanitation.  
Formulated for effective Swine Premise Sanitation.  
Formulated for effective Mushroom Farm Sanitation.  
(Product of USA) (Made in the USA)

**ACTIVE INGREDIENTS:**

Didecyl Dimethyl Ammonium Chloride.....6.0%  
Alkyl (C<sub>14</sub> 50%, C<sub>12</sub> 40%, C<sub>16</sub> 10%)  
dimethyl ethylbenzyl ammonium chloride .....4.0%

**INERT INGREDIENTS:** .....90.0%

**TOTAL:** .....100.0%

**KEEP OUT OF REACH OF CHILDREN**

**DANGER PELIGRO**

See (left) (back) (side) (right) panel (of label) (below) for additional  
precautionary statements and first aid statements.

*(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 (Quaternary Ammonium Compound), 8, UN1903, PGIII

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

**MAR 25 2010**

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. 10324-194

8/19

(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.)

**Table of Contents**

Description	Page No.
Organism Guide	2
Marketing Claims	2
Use Directions	
General	6
Hospital/General	
Food Processing	
Disinfection	8
Food Contact Sanitization	9
Animal Premises	
Barber/Salon	
Restroom/Bathroom	
Deodorization	
Other	

**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.)

**DISINFECTION PERFORMANCE IN INSTITUTIONS (Hospitals, Dental Offices, Nursing Homes, and Other Health Care Institutions) and NON-MEDICAL FACILITIES (Households, Schools, Restaurants, Food Services, Beverage and Food Processing Plants, and Other Non-Medical Facilities):** This product is bactericidal according to the AOAC Use Dilution Test method on hard inanimate surfaces modified in the presence of 5% organic serum against:

- Pseudomonas aeruginosa* (ATCC 15442)
- Salmonella enterica* (ATCC 10708)
- Staphylococcus aureus* (ATCC 6538)

**VIRUCIDAL PERFORMANCE:** This product was evaluated in the presence of 5% serum and found to be effective against the following viruses on hard, non-porous environmental surfaces:

- Avian influenza A (H5N1) virus
- HIV-1
- Human Coronavirus (ATCC VR-740)

**FOOD CONTACT SANITIZING PERFORMANCE:** This product is effective in 500 ppm hard water (calculated as CaCO<sub>3</sub>) according to the AOAC Germicidal and Detergent Sanitizing Action of Disinfectants test against the following bacteria:

- Aeromonas hydrophila* (ATCC 23213)
- Clostridium perfringens-vegetative* (ATCC 13124)
- Enterobacter sakazakii* (ATCC 29544)
- Enterococcus faecalis* Vancomycin resistant (ATCC 51299)
- Escherichia coli* (ATCC 11229)
- Escherichia coli* O157:H7 (ATCC 35150)
- Escherichia coli* O157:H87 (ATCC BAA-184)
- Klebsiella pneumonia* (ATCC 4352)
- Listeria monocytogenes* (ATCC 19117)
- Salmonella enterica serotype - enteritidis* (ATCC 4931)
- Salmonella typhi* (ATCC 6539)
- Shigella dysenteriae* (ATCC 11835)
- Staphylococcus aureus* (ATCC 6538)
- Staphylococcus aureus* MRSA (ATCC 33592)
- Community Associated MRSA-Genotype 300

Community Associated MRSA Genotype 400  
*Streptococcus pyogenes* (ATCC 12344)  
*Yersinia enterocolitica* (ATCC 23715)

**MARKETING CLAIMS**

This formulation (Maquat 2420-10%) is for use on hard, non-porous surfaces in:

- Hospitals, nursing homes, medical and dental offices and clinics, healthcare facilities, physician offices, operating rooms/theaters, radiology rooms, isolation wards, quarantine areas, hospices, and medical research facilities.
- Patient care rooms & facilities, recovery rooms, Emergency Rooms, X-ray cat labs, exam rooms, newborn nurseries, neonatal units, orthopedics, whirlpool surfaces, footbath surfaces, respiratory therapy, surgi-centers, out-patient surgical centers, labs, blood collection rooms, central supply, housekeeping & janitorial rooms, ophthalmic/optometric facilities.
- EMS & fire facilities emergency vehicles, ambulance(s), police cars, fire trucks.
- Day care centers and nurseries, sick rooms, elder care centers, kindergartens, and preschools.
- Acute care institutions, alternate care institutions, home healthcare institutions.
- Life care retirement communities, elder care facilities.
- Restaurants, restaurants and bars, bars, kitchens, taverns, cafeterias, institutional kitchens, fast food operations and food storage areas.
- Supermarkets, convenience stores, retail and wholesale establishments, department stores, shopping malls, gift shops, video stores, bookstores, dressing rooms and laundries, photo copy centers, bicycle shops, auto repair centers.
- Computer manufacturing sites, toy factories.
- Food establishments, coffee shops, donut shops, bagel stores, pizza stores, liquor stores.
- Crime scenes and funeral homes, morgues, mortuaries, burial vaults, mausoleums, autopsy rooms, cadaver processing areas.
- Police stations, courthouses, correctional facilities, jails, prisons, municipal government buildings, penitentiaries, correctional institutions, bus stations, train stations.
- Institutional facilities, laboratories, factories, business and office buildings, restrooms, hotels and motels, and transportation terminals, maintenance vehicles.
- Public restrooms, public facilities, waysides, travel rest areas, shower rooms, shower stalls, bathrooms, shower and bath areas.
- Hotel, motels, dormitories.
- Kitchens, bathrooms and other household areas.
- Homes (households), condos, apartments, vacation cottages, summer homes.
- Institutions, schools and colleges, commercial and industrial sites, churches, classrooms, community colleges, universities, athletic facilities and locker rooms, exercise rooms, exercise facilities, gyms, gymnasiums, fieldhouses.
- Cosmetic manufacturing facilities, medical device manufacturing facilities, biotechnology firms, pharmaceutical manufacturing facilities, warehouses.

2/2

- Health clubs, spas, tanning salons, tanning spas/beds, massage/facial salons, hair/nail/pedicure salons, barber/beauty shops, salons, tattoo parlors.
- Museums, art galleries, post offices, performance/theater centers, banks, libraries, movie houses, bowling alleys.
- Recycling centers.
- Humidifier water tanks. *(Not for use in CA)*
- Campgrounds, playgrounds, recreational facilities, picnic facilities, sports arenas, sports complexes.
- Food processing plants, USDA inspected food-processing facilities, food storage areas, federally inspected meat and poultry plants, farms, dairy farms, hog farms, equine farms, poultry and turkey farms and egg processing plants, meat/poultry processing plants, meat/poultry producing establishments, mushroom farms, rendering plants, canneries, caterers, bakeries, meat packing plants, hide and leather processing plants.
- Processing facilities for Fish, Milk, Citrus, Wine, Fruit, Vegetable, Ice Cream and Potatoes and Beverage Plants.
- Tobacco plant premise and equipment.
- Veterinary clinics, animal life science laboratories, animal laboratories, animal research centers, animal quarantine areas, animal holding areas, equine farms, kennels, dog/cat (animal) kennels, animal breeding facilities, breeding and grooming establishments, pet animal quarters, zoos, pet shops, tack shops, operating rooms, washing areas, waiting rooms, examination rooms and other animal care facilities.
- Farmhouses, barns, sheds, tool sheds, barns, cattle barns, swine barns, sheep barns, horse barns, brooder houses, seed houses.
- Household and automotive garages, boats, ships, barges, watercraft, campers, RV's, trailers, mobile homes, cars, automobiles, trucks, delivery trucks, boxcars, tankers, tank trucks, buses, trains, taxis and airplanes, helicopters.
- Cruise lines, cruise ships, airline terminals, airports, shipping terminals, public transportation, transportation terminals.
- Commercial florist and flower shops.
- Basements, cellars, bedrooms, attics, living rooms and porches.

(This product) (Maquat<sup>®</sup> 2420-10%) (when used as directed) (may be used) (is formulated to disinfect) on (washable) hard, non-porous (inanimate) (environmental) surfaces such as:

- Food preparation and storage areas.
- Dishes, glassware, silverware, cooking utensils, eating utensils, plastic and other non-porous cutting boards, plastic and other non-porous chopping blocks, coolers, ice chests, refrigerator bins used for meat, vegetables, fruit and eggs, Tupperware<sup>®</sup>.
- Kitchen equipment such as food processors, blenders, cutlery, trash compactors and other utensils.
- Counters (countertops), Slurpee<sup>®</sup> machines, stoves (stovetops), sinks (bathroom, kitchen), tub surfaces, appliances, refrigerators, ice machines, microwave ovens and countertop laminates.

- Interior hard, non-porous surfaces of water softeners, reverse osmosis units, ice machines, water coolers, water holding tanks and pressure tanks.
- Beer fermentation and holding tanks, bottling or pre-mix dispensing equipment.
- Wine processing equipment and holding tanks.
- Citrus processing equipment and holding tanks.
- Dishes, silverware, glasses, cooking utensils, eating utensils and other similar size food processing equipment can be sanitized by immersion. NO POTABLE WATER RINSE ALLOWED.
- Hospital beds, bed railings, bedpans, gurneys, traction devices, MRI, CAT, examining tables, scales, paddles, wheelchairs, cervical collars, neck braces, spine backboards, stretchers, unit stools, CPR training mannequins, curing lights, light lens covers, slit lamps, operating room lights, operating tables, oxygen hoods, dental chairs/countertops, examination tables, X-ray tables, washing areas, anesthesia carts, gurneys, stretchers, ambulance equipment/surfaces.
- Ultrasonic baths, whirlpools, whirlpool bathtubs.
- Highchairs, baby cribs, diaper changing stations, infant bassinets/cribs/warmers/incubators/care equipment, folding tables, hampers, laundry pails.
- Shower stalls, shower doors and curtains, bathtubs and glazed tiles, chrome plated intakes, toilets, toilet seats, toilet bowls, toilet bowl surfaces, urinals, empty diaper pails, portable and chemical toilets and latrine buckets, glazed porcelain, glazed tile and restroom fixtures, bathroom fixtures.
- Glass, laminated surfaces, metal, stainless steel, glazed porcelain, glazed ceramic, sealed granite, sealed marble, plastic (such as polycarbonate, polyvinylchloride, polystyrene or polypropylene), sealed limestone, sealed slate, sealed stone, sealed terra cotta, sealed terrazzo, chrome and vinyl, Plexiglass<sup>®</sup>, vanity tops.
- Tables, chairs, desks, folding tables, workstations, bed frames, lifts, washable walls, cabinets, doorknobs and garbage cans/pails, trash barrels, trash cans, trash containers, cuspidors and spittoons.
- Enameled surfaces, painted (finished) woodwork, Formica<sup>®</sup>, vinyl and plastic upholstery, washable wallpaper.
- Sealed foundations, steps, plumbing fixtures, finished baseboards and windowsills.
- Exhaust fans, refrigerated storage and display equipment, coils and drain pans of air conditioning and refrigeration equipment and heat pumps.
- Large inflatable non-porous plastic and rubber structures such as animals, promotional items, moonwalks, slides, obstacle course play and exercise equipment.
- Hard, non-porous surfaces of picnic tables and outdoor furniture or Non-wooden Picnic tables and outdoor furniture except cushions and wood frames. *(Note: Only one statement will be used on label.)*
- Tanning equipment. *(Not for use on needles or other skin piercing instruments)*
- Playground equipment.
- Automobile interiors.
- Maintenance equipment.
- Telephones and telephone booths.
- Drinking fountains and breakrooms.

32

- External lenses vision correction including eyeglasses (not for use on contact lenses), protective eyewear, goggles, light lens covers, optical instruments/implements.
- Hair clippers, cutting implements, plastic rollers, washable nail files, footbath surfaces
- Hard hats, headphones.
- Kennels, kennel runs, cages, kennel/cage floors, conductive flooring, examination tables, veterinary x-ray tables.
- Hatchers, setters, trays, racks, egg flats, walls, floors, ceilings, chick boxes, egg cases, vans and trash containers, bins, tractors, combines, harvesting equipment, and wagons.
- Wrestling and gymnastic mats, athletic training tables, physical therapy table, exercise equipment.
- Windows and mirrors.
- Crypton Barrier fabric

This product contains no phosphorous.

This product is a phosphate-free formulation designed to provide effective cleaning, deodorizing and disinfection in areas where housekeeping is of prime importance in controlling the hazard 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 can be applied through foaming apparatus, low-pressure sprayers, and fogging (wet misting) systems. Follow manufacturers' instructions when using this equipment.

Use this product on multi-touch surfaces responsible for cross-contamination.

This product is for use as a disinfectant on hard, non-porous surfaces (at 800 ppm active quat). A potable water rinse is required after application on food contact surfaces.

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

One-step cleaner.

Cleans and shines.

Antibacterial.

This product delivers non-acid disinfection performance in an economical concentrate.

Cross-contamination is of major housekeeping concern. This product has been formulated to aid in the reduction of cross-contamination on treated surfaces not only in hospitals, but also in schools, institutions and industry.

This product is an effective disinfectant/virucide in the presence of 5% serum contamination.

This product is for use in kitchens, bathrooms, and other household areas.

This product is a multi-surface cleaner, deodorizer and disinfectant. Use on windows, mirrors, and other non-food contact glass surfaces.

This product can be used in work areas such as tool rooms and garages for odor control and light duty cleaning.

Great for use (on) (in) the (kitchen), (bathroom), (floors) and other household areas. Removes (eliminates) odors. Deodorizes. Will not harm most surfaces.

Will not harm most surfaces. For a cleaner, fresher household. Removes stains. Removes dirt. Non-staining. Clear formula.

Disinfects (and Sanitizes) kitchen surfaces (bathroom surfaces and floors). Sanitizes kitchen surfaces (bathroom surfaces and floors). Kills household bacteria.

Kills common kitchen (bathroom) germs (bacteria) (and viruses\*).

This disinfectant/sanitizer has been designed specifically for hospitals, nursing homes, schools, food processing plants, food service establishments and other institutions where housekeeping is of prime importance.

This product is a concentrated Hospital Use disinfectant that is effective against a broad spectrum of bacteria, is virucidal\*, and eliminates odor causing bacteria when used as directed.

For larger areas, such as operating rooms and patient care facilities, this product is designed to provide both general cleaning and disinfection.

Will not cause swelling of transducer membrane or harm compressor plates.

This product is a versatile broad-spectrum disinfectant formulated for use in Ultrasonic Baths (Ultrasonic cleaning units).

Kill Avian Influenza A (H5N1) on pre-cleaned environmental surfaces.

This product is a one-step disinfectant that is effective against a broad spectrum of bacteria, is virucidal\* (including HIV-1) when used as directed.

Hospital Use Disinfectant. Institutional Disinfectant. Food Contact Surface Sanitizer.

Efficacy tests have demonstrated that this product is an effective bactericide and virucide in the presence of organic soil (5% blood serum).

This product meets AOAC Use – Dilution Test Standards for hospital disinfectants.

This product has passed the Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces Utilizing Human Coronavirus.

This product is a disinfectant for Cleanroom and Laboratory areas to disinfect washable, hard, non-porous non-food contact surfaces such as Laminar-airflow equipment and BioSafety Cabinet work surfaces and exterior surfaces of the following: countertops, sinks, plumbing fixture surfaces, and Incubators, Refrigerators and Centrifuge surfaces of metal, stainless steel, glass, plastic (such as polystyrene or polypropylene Formica®, and vinyl.

This product is a hospital disinfectant and deodorant (odor-counteractant) (odor neutralizer) designed for disinfecting, (deodorizing) (of) hard, non-porous environmental surfaces.

This product is a one-step (hospital-use) germicidal (disinfectant) cleaner and deodorant (odor-counteractant) (odor neutralizer) designed for general cleaning, (and) disinfecting, (deodorizing) (and controlling mold and mildew on) (of) hard, non-porous environmental surfaces. This product cleans quickly by removing dirt, grime, mold, mildew, food residue, body oils, dead skin, blood and other organic matter commonly found in hospitals (and) (in health care facilities) (on medical surfaces), nursing homes, schools and colleges, (day care centers), (medical) offices, funeral homes, veterinary clinics, pet shops, (equine farms), animal life science laboratories, hotels, motels, public areas and restrooms, foodservice establishments (restaurants) and federally inspected meat and poultry establishments (food [processing] plants). It (also) eliminates odors leaving (restroom) surfaces smelling clean and fresh. Use where odors are a problem.



This product cleans, disinfects and deodorizes (hard, non-porous environmental hospital (medical) surfaces) in one step (with no rinsing required). Its non-abrasive formula is designed for use on (Use daily on) (the following) hard, non-porous environmental surfaces: vinyl, painted surfaces, plastic (surfaces), glazed ceramic, glazed porcelain, chrome, stainless steel, brass, copper, laminated surfaces and baked enamel surfaces associated with floors, walls, ceilings, tables, chairs, countertops, telephones, fixtures, glazed tile, toilets, toilet bowls, urinals, sinks found in (health care facilities [hospitals]), patient rooms, operating rooms, ICU areas, shower rooms, and locker rooms. It can also be used to preclean and disinfect (hospital items: wheelchairs, [hospital] [patient] bed rails and linings, wash basins, bed pans, medical equipment surfaces, food establishments, (restaurants), (commercial kitchens) & restrooms) any washable (food and non-food contact) surface (where disinfection is required). A potable water rinse is required when disinfecting food contact surfaces. Do not use as a disinfectant on glasses, dishes, utensils, or interior surfaces of appliances.

Use this product to disinfect hard non-porous ambulance equipment and surfaces by rinsing all equipment that comes in prolonged contact with skin before reuse with clean warm water (about 120°F), and allow to air dry. (Precaution: Cleaning at 120°F temperature will avoid overheating and distortion of the ambulance equipment and surfaces that would necessitate replacement.)

This product is a broad-spectrum disinfectant formulated for use on bath and therapy equipment (Whirlpools).

This product maximizes (improves) labor results by effectively controlling odors.

When used as directed, this product will deodorize surfaces in restroom and toilet areas, behind and under sinks and counters, garbage cans and garbage storage areas, and other places where bacterial growth can cause malodors.

This product controls (reduces) (eliminates) (neutralizes) (destroys) odors to make your home (kitchen) (bathroom) sanitary.

This product neutralizes musty odors and tough odors from smoke, pet accidents, and spills on contact.

This product is effective against household germs (bacteria) and odors caused by animal waste, septic tank or sewage backup, smoke and bathroom and kitchen odors.

This product inhibits bacterial growth on moist surfaces and deodorizes by killing microorganisms that cause offensive odors. *(Not for use in California)*

This product is for use in household and commercial humidifiers. Use of this product will control unpleasant (malodors) odors. *(Not for use in California)*

This product is a deodorant (odor counteractant) (odor-neutralizer) designed for disinfecting, (deodorizing) on hard, non-porous environmental surfaces.

This product is non-abrasive designed for use on (restroom surfaces): glazed ceramic (restroom) tile, glazed porcelain, chrome, stainless steel and plastic surfaces associated with floors, walls, fixtures, toilets, urinals, sinks, shower rooms, and locker rooms.

This product provides long lasting freshness against tough (pet) odors, such as odors from litter boxes and pet accidents.

Eliminates odors caused by bacteria (and) (non-fresh foods). Kills odor causing bacteria in the kitchen (bathroom).

This product is for non-scratch cleaning of showers and tubs, shower doors and curtains, fixtures and toilet bowls.

This product will not leave a grit or soap scum.

This product is a (concentrated) non-acid (bowl and) bathroom cleaner, which cleans, disinfects and deodorizes in one easy step. It cleans, disinfects and deodorizes surfaces by killing many odor-causing microorganisms. Its non-abrasive formula is designed for use (Use daily) on ([hard, non-porous environmental] restroom surfaces): glazed ceramic (restroom) tile, glazed porcelain, chrome, stainless steel and plastic surfaces associated with floors, walls, fixtures, toilets, urinals, sinks, shower rooms and locker rooms.

Malodor(s) (Activity) (Odor) (Counteractancy) – eliminates (destroys) odors and odor-causing bacteria in restroom areas, behind and under sinks and counters, and storage areas (and other places where bacterial growth can cause malodors).

This product is a versatile Disinfectant for Veterinarian, Veterinary Practice, Animal Care, Animal Laboratory, and Agricultural and Farm Premise applications.

This product (also) eliminates odors leaving surfaces smelling clean and fresh in animal housing facilities, livestock, swine poultry facilities, grooming facilities, farms, kennels, pet stores, veterinary clinics, laboratories or other small animal facilities.

This product can be used to disinfect and deodorize terrarium and small animal cages, hot rock, substrate and cage furniture (plastic terrarium ornaments, driftwood, heat caves and water dishes). *(Use on rocks and driftwood not allowed for use in California.)*

This product disinfects and deodorizes (hard, non-porous environmental surfaces) in one step. Its non-abrasive formula is designed for use on (Use daily on) (Use daily to clean and disinfect) (hard, non-porous surfaces): plated or stainless steel, aluminum, chrome, glazed porcelain, glazed tile, laminated surfaces (associated with floors, walls, countertops, cages, kennels, animal equipment) found in (barns, pens and stalls) animal housing facilities.

This product has been designed for veterinarians, animal groomers, hair stylists, barbers and beauticians, for use in disinfecting and maintaining clippers. It acts as a virucide and bactericide while also cleaning. Regular use will help to maintain blades that operate with reduced friction and with smoother clipping action. Will help to prolong equipment life. This product is designed for use in pet salons, animal hospitals, barber and beauty shops. When used as directed it will disinfect metal clipper blades as well as many other hard, non-porous surfaces.

This product cleans rodent soiled areas.

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 all other hard non-porous Poultry House related equipment, and surfaces in the Hatchery environment.

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

Kill avian influenza A (H5N1) on pre-cleaned environmental surfaces.

This product is an effective antimicrobial cleaner, designed for use by wholesale and retail florists, shippers and green houses.

When used as directed, this product will disinfect hard, non-porous surfaces, such as flower buckets, floors and walls of coolers, design and packing benches, and countertops.

This product can be relied on to deodorize coolers, buckets, garbage pails and other areas where obnoxious odors develop.

Use this product to clean, disinfect and deodorize flower buckets, walls, floors of coolers, shippers, greenhouse packing areas, garbage pails and other areas where obnoxious odors develop.

This product can be used as a general purpose antimicrobial (disinfectant) in florist shops, wholesale florist, shippers, greenhouse packing areas and other commercial floriculture places for efficient cleaning and antimicrobial action against certain bacteria which cause: *(Not for use in California)*

1. Plugging of stems with slime, which reduces uptake of water for various flowers including roses, chrysanthemums, gladioli and tulips.
2. Production of ethylene gas, which can injure blooms of the various sensitive flowers including carnations, snapdragons, some orchids, baby's breath, sweet peas, freesia and alstroemeria.

Use this product to disinfect non-porous salon/barber tools and instruments such as combs, brushes, scissors, clippers, plastic rollers, trimmers, razors, blades, tweezers and manicure instruments, and footbath surfaces.

Use this product to disinfect hard non-porous surfaces of personal protective safety equipment, protective headgear, athletic helmets, wrestling/boxing headgear, athletic shoe soles, hard hats, half mask respirators, full face breathing apparatus, gas masks, goggles, spectacles, headphones, face shields, hearing protectors and ear muffs. Rinse all equipment that comes in prolonged contact with skin before reuse with clean warm water (about 120 F), and allow to air dry. (Precaution: Cleaning at 120 F temperature will avoid overheating and distortion of the personal safety equipment that would necessitate replacement.)

Use to clean and disinfect non-medical (i.e. industrial and fire fighting) respirators in industrial, commercial and institutional premises.

Use (on) (to clean and disinfect) non-porous athletic mats, wrestling mats, gymnastic mats, exercise equipment and training tables.

This product is an effective cold temperature food contact surface sanitizer for refrigeration and freezer applications.

For use in:

Federally inspected meat and poultry plants on all hard, non-porous surfaces in inedible product processing areas, non-processing areas and/or exterior areas. All surfaces must be thoroughly rinsed with potable water.

Federally inspected meat and poultry plants as a floor and wall cleaner for use in all departments. Food products and packaging material must be removed from the room or carefully protected. All surfaces must be thoroughly rinsed with potable water.

Federally inspected meat and poultry plants as a disinfectant agent for use in all departments. Food products and packaging material must be removed from the room or carefully protected. Use product in accordance with its label. All surfaces must be thoroughly rinsed with potable water.

This product is for use as a sanitizer on hard, non-porous food contact surfaces (at 150-400 ppm active quat).

This product is for use as a sanitizer on dishes, glassware and utensils (at 150 - 400 ppm active quat) and as a disinfectant on hard, nonporous surfaces (at 800 ppm active quat). A potable water rinse is not allowed when used as a sanitizer on food contact surfaces.

OR

This product is for use as a sanitizer in public eating places, dairy processing equipment and food processing equipment and utensils (at 150 - 400 ppm active quat) and as a disinfectant on hard, non-porous surfaces (at 800 ppm active quat). A potable water rinse is not allowed (Do not rinse) when used as a sanitizer on food contact surfaces.

This product is for use as a sanitizer on food processing equipment and utensils (at 150-400 ppm active quat) and as a disinfectant on hard, non-porous surfaces (at 800 ppm active quat). A potable water rinse is not allowed (Do not rinse) 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 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 as a Food Grade Egg Shell sanitizer, with best results achieved in water temperatures ranging from 78 -110 F.

Cleans everyday kitchen messes.

Cleans kitchen surfaces and food preparation areas.

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 cross contamination on treated kitchen surfaces listed on this label. A potable water rinse is required after application on food contact surfaces when used as a disinfectant.

This product has been cleared by the EPA in 40CFR180.940 for use on food processing equipment, utensils and other food-contact articles at a concentration of 150-400 ppm active.

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 food poisoning microorganisms 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 microorganisms which 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.

This product cleans by removing dirt, grime and food soils in food preparation and processing areas. Its non-abrasive formula will not harm (scratch) surfaces. It cleans,

disinfects and eliminates odors leaving surfaces smelling clean and fresh. Use where odors are a problem.

Eliminates (kills) 99.999% of bacteria (germs) commonly found on kitchen surfaces (in 60 seconds).

Kills 99.999% of bacteria (germs) like, *Escherichia coli*, *Escherichia coli* O157:H7, *Staphylococcus aureus*, *Listeria monocytogenes*, *Yersinia enterocolitica* and *Shigella dysenteriae* on food contact kitchen surfaces in 60 seconds.

Use this product on finished floors, high speed burnished floors, conductive flooring, washable walls, tables, chairs, bathroom bowls, sinks, basins, shower stalls, tubs, glazed tiles, toilet, countertops, stove tops, exterior surfaces of appliances and refrigerators, cabinets, garbage cans, outdoor furniture (except cushions and wood frames), desks, telephones, door knobs and handles, and glass surfaces including windows and mirrors.

Disinfects, cleans, and deodorizes the following hard, non-porous inanimate surfaces: floors, walls, (non-medical) metal surfaces, (non-medical) stainless steel surfaces, glazed porcelain, plastic surfaces (such as polypropylene, polystyrene, etc.).

This product is designed for use on (Use daily on) (the following) (hard, non-porous environmental surfaces): vinyl, painted surfaces, plastic (surfaces), glazed ceramic, glazed porcelain, chrome, stainless steel, aluminum, laminated surfaces and baked enamel surfaces associated with floors, walls, ceilings, tables, chairs, countertops, telephones, fixtures, glazed tile, toilets, urinals, sinks, shower rooms and locker rooms (areas) – any washable (food and non-food contact) surface where disinfection is required. This product's non-dulling formula eliminates the time and labor normally required for rinsing. A potable water rinse is required for food contact surfaces after use as a disinfectant.

- Concentrate (Concentrated).
- Disinfects (Disinfectant).
- Cleans (Cleaner).
- Deodorizes (Deodorizer).

For use in households.

Will not harm sealed stone, sealed grout, or glazed tile.

This product is a complete, chemically balanced sanitizer that provides clear use solutions even in the presence of hard water.

### DIRECTIONS FOR USE

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

**PREPARATION OF DISINFECTION/VIRUCIDAL USE SOLUTION:** Before using this product, food products and packaging materials must be removed from the room or carefully protected. Add 1 fluid ounce of this product per 1 gallon of water (or equivalent use dilution) (800 ppm active quat) to disinfect hard non-porous surfaces. Apply this product with a brush, cloth, mop, sponge or mechanical spray device. When applied with a mechanical spray device, surfaces must be sprayed until thoroughly wetted. For sprayer applications, use a coarse pump or trigger spray device. Spray 6-8 inches from surface. Do not breathe spray. Rub with brush, sponge, mop or cloth. Treated surfaces must remain wet for 10 minutes. Rinse or allow to air dry. Rinsing of floors is not necessary unless they are to be waxed or polished. Rinse all surfaces that come in

contact with food such as countertops, appliances, tables and stovetops with potable water before reuse. Do not use this product to clean or disinfect utensils, glassware, dishes or interior surfaces of appliances. Prepare a fresh solution at least daily or when use solution becomes visibly dirty.

**Note:** With spray applications, cover or remove all food products. For heavily soiled areas, a preliminary cleaning is required.

**DISINFECTION PERFORMANCE IN INSTITUTIONS (Hospitals, Dental Offices, Nursing Homes, and Other Health Care Institutions) and NON-MEDICAL FACILITIES (Households, Schools, Restaurants, Food Services, Beverage and Food Processing Plants, and Other Non-Medical Facilities):** Add 1 ounce of this product to 1 gallon of water (or equivalent use dilution) (800 ppm active quat) OR mix a (1) (one)-ounce packet with 1 gallon of water. Treated surfaces must remain wet for 10 minutes. At this use level, this product is bactericidal according to the AOAC Use Dilution Test method on hard inanimate surfaces modified in the presence of 5% organic serum against:

*Pseudomonas aeruginosa* (ATCC 15442)

*Salmonella enterica* (ATCC 10708)

*Staphylococcus aureus* (ATCC 6538)

**\*VIRUCIDAL PERFORMANCE:** At 1 ounce of this product per 1 gallon use level (or equivalent use dilution) (800 ppm active quat), this product was evaluated in the presence of 5% serum with a 10-minute contact time and found to be effective against the following viruses on hard, non-porous environmental surfaces:

Avian Influenza A (H5N1) virus

HIV-1

Human Coronavirus (ATCC VR-740)

**GENERAL CLEANING AND DISINFECTION:** For heavily soiled areas, a pre-cleaning step is required. For one step cleaning and disinfection, use 1 fluid ounce of this product per 1 gallon of water (or equivalent use dilution) (800 ppm active quat). Apply use solution using a brush, sponge, cloth, mop or pressure sprayer so as to thoroughly wet surface to be cleaned/disinfected. For sprayer applications, use a coarse spray device. Allow surfaces to remain wet for 10 minutes and then let air dry or wipe up excess liquid. Prepare a fresh solution at least daily or when solution becomes visibly dirty or diluted.

(OR)

### FOR USE AS A ONE-STEP CLEANER/DISINFECTANT:

1. Pre-clean heavily soiled areas.
2. Apply use solution (1 ounce of this product per 1 gallon (800 ppm active quat) (or equivalent use dilution) to hard, non-porous environmental surfaces using a sponge, brush, cloth, mop or pressure sprayer.
3. To disinfect, all surfaces must remain wet for ten (10) minutes.
4. Wipe surfaces or let air dry.

**Note:** All food contact surfaces such as appliances and kitchen countertops must be rinsed with potable water. Do not use this product to clean or disinfect glassware, utensils, dishes or interior surfaces of appliances.

**FOR DISINFECTING HARD, NON-POROUS SURFACES AGAINST AVIAN INFLUENZA A (H5N1):** For use in homes, hospitals, hotels, motels and schools, the directions for hospital disinfection must be followed using a rate of 1 oz per gallon of water (800 ppm active quat) (or equivalent use dilution). (OR) For use in animal housing facilities, follow the animal premise directions.

2/1

## DISINFECTANT/VIRUCIDAL\* DILUTION CHART

Ounces of Product	Amount of Water
0.25 ounce	1 quart
0.50 ounce	½ gallon
1.00 ounce	1 gallon
2.50 ounces	2½ gallon
5.00 ounces	5 gallons
10.00 ounces	10 gallons
25.00 ounces	25 gallons

### Dilution Chart:

For Hospital and General Disinfection claims	1oz/1 gal. water
For Virucidal claims	1oz/1 gal. water
For Food Contact Sanitizing claims at 150 ppm	0.75 oz/4 gal. water
For Food Contact Sanitizing claims at 200 ppm	1 oz/4 gal. water
For Food Contact Sanitizing claims at 400 ppm	2 oz/4 gal. water

## HOSPITAL/HEALTH CARE/INSTITUTIONAL

(Note for reviewer: For labels that list medical premises and metal and/or stainless steel surfaces, one of the following FDA/EPA Memorandum of Understanding statements must be used.)

This product is not to be used as a terminal sterilant/high-level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body, or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product can be used to pre-clean or decontaminate critical or semi-critical medical devices prior to sterilization or high-level disinfection.

(Or)

This product is not for use on Medical device surfaces.

**INSTITUTIONAL DISINFECTANT DIRECTIONS (Hospitals, Dental Offices, Nursing Homes, and Other Health Care Institutions):** For disinfecting floors, walls, countertops, bathing areas, lavatories, bed frames, tables, chairs, garbage pails, and other hard, non-porous surfaces, add 1 ounce of this product to 1 gallon of water (800 ppm active quat) (or equivalent use dilution) OR mix a 1-ounce packet with 1 gallon of water to disinfect hard, non-porous surfaces. Apply use solution to hard, inanimate, non-porous surfaces thoroughly wetting surfaces with a brush, cloth, mop, sponge or sprayer. For sprayer applications, use a coarse spray device. Spray 6-8 inches from surface. Rub with brush, sponge, mop or cloth. Do not breathe spray. Treated surfaces must remain wet for 10 minutes. Rinse or allow to air dry. Prepare a fresh solution at least daily or when use solution becomes diluted or soiled.

**Note:** With spray applications cover or remove all food products. For heavily soiled areas, a preliminary cleaning is required.

**\*VIRUCIDAL PERFORMANCE:** At 1 ounce per 1 gallon of water use level (800 ppm active quat) (or equivalent use dilution) treated surfaces must remain wet for ten minutes. For heavily soiled areas, a preliminary cleaning is required. Prepare a fresh solution at least daily or more often if solution becomes diluted or soiled.

At 1 ounce per 1 gallon of water (or equivalent use dilution) (800 ppm active quat) in the presence of 5% serum, this product was found to be effective against HIV-1 (AIDS Virus) with a contact time of 10 minutes

**\*KILLS HIV ON PRECLEANED ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD/BODY FLUIDS** in health care setting or other settings in which there is an expected likelihood of soiling of inanimate surfaces/objects

with blood or body fluids and in which the surfaces/objects likely to be soiled with blood or body fluids can be associated with the potential for transmission of Human Immunodeficiency Virus Type 1 (HIV-1) (associated with AIDS).

### "SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATION AGAINST HIV-1 ON SURFACES/OBJECTS SOILED WITH BLOOD/BODY FLUIDS."

**Personal Protection:** Specific barrier protection items to be used when handling items soiled with blood or body fluids are disposable latex gloves, gowns, masks and eye coverings. (Alternate statement: Clean up must always be done wearing protective latex gloves, gowns, masks and eye protection.)

**Cleaning Procedure:** Blood and other body fluids (containing HIV-1) must be thoroughly cleaned from surfaces and objects before application of the disinfectant (this product).

**Disposal of Infectious Materials:** Blood and other body fluids, cleaning materials and clothing must be autoclaved and disposed of according to federal, state and local regulations for infectious waste disposal.

**Contact Time:** For HIV, leave surfaces wet for (10) (ten) minutes with a 1-ounce per 1 gallon of water (or equivalent use dilution) (800 ppm active quat) use solution.

**SURGICAL INSTRUMENT PRESOAK:** Add 1 ounce of this product to 1 gallon of water (or equivalent use dilution) (800 ppm active quat). Place pre-cleaned instruments in solution to presoak surgical instruments for a minimum of 10 minutes, then proceed with normal sterilization procedure. Prepare a fresh solution at least daily or more often if solution becomes cloudy or soiled.

**Note:** Plastic instruments can remain immersed until sterilization. Metal instruments must be removed after 10 minutes, rinsed, dried, and kept in a clean non-contaminated receptacle until sterilization. Prolonged soaking will cause damage to metal instruments. Surgical instruments must be sterilized before use.

**ULTRASONIC BATH DISINFECTANT/VIRUCIDAL DIRECTIONS:** Use this product to disinfect hard, (inanimate) non-porous, non-critical objects compatible with Ultrasonic cleaning units. Pour (a) fresh solution of 1 ounce of this product per gallon of water (or equivalent use dilution) (800 ppm active quat) directly into bath chamber. Pre-clean 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 (FIBERGLASS) 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 (1 ounce per 1 gallon) (or equivalent use dilution) (800 ppm active quat) 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. Treated surfaces must remain wet for 10 minutes for proper disinfection. After the unit has been thoroughly disinfected, drain solutions from the unit and rinse any/all (cleaned) (disinfected) surfaces with fresh water. The unit is ready for reuse.

**CLEANING AND DISINFECTING HARD, NON-POROUS SURFACES ON PERSONAL PROTECTIVE EQUIPMENT (RESPIRATORS):** Pre-clean equipment if heavily soiled to ensure proper surface contact. Add 1 ounce of this product to 1 gallon of water (or equivalent use dilution) (800 ppm active quat). Gently mix for uniform solution. Apply solution to hard, non-porous surfaces of the respirator with a brush, coarse spray

device, sponge or by immersion. Thoroughly wet all surfaces to be disinfected. Treated surfaces must remain wet for ten (10) minutes. Remove excess solution from equipment prior to storage. The user must comply with all OSHA regulations for cleaning respiratory protection equipment (29 CFR § 1910.134).

### FOOD PROCESSING PREMISES

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. A potable water rinse is required after use as a disinfectant..

**DIRECTIONS FOR FOOD PROCESSING PLANTS:** For use on non-food contact surfaces such as floors, walls, tables, garbage cans and disposal areas. Before using this product, food products and packaging materials must be removed from the room or carefully protected. Follow Disinfection directions.

**DIRECTIONS FOR FOOD STORAGE AREAS:** For use on non-food contact surfaces such as shelves, floors, walls and tables. Before using this product, food products and packaging materials must be removed from the room or carefully protected. Then follow Disinfection directions.

#### FOR USE AS A CLEANER/DISINFECTANT IN FOOD PROCESSING PLANTS:

1. Before using this product in food processing areas, food products and packaging materials must be removed from the room or carefully protected.
2. Apply use solution of one ounce of this product per 1 gallon of water evenly over surface using a brush, cloth, mop, sponge or coarse spray device. Be sure to wet all surfaces thoroughly. Do not breathe spray.
3. Allow product to remain on surface for ten (10) minutes.
4. Wipe with clean cloth, sponge or paper towel.
5. For heavily soiled areas, thoroughly clean surface prior to disinfecting.
6. When disinfecting food contact surfaces used for food preparation, rinse surfaces thoroughly with potable water. This product must not be used to clean the following surfaces: utensils, glassware, dishes or interior surfaces of processing equipment.

**TO DISINFECT FOOD-PROCESSING AND TOBACCO PREMISES:** Before using this product, food products and packaging materials must be removed from area or carefully protected. For use on floors, walls and storage areas, mix 1 oz of this product to 1 gallon of water (or equivalent use dilution) (800 ppm active quat). For heavily soiled areas, a pre-cleaning step is required. Apply solution with a brush, mop, cloth, sponge or hand pump trigger spray device so as to wet all surfaces thoroughly. For sprayer applications use a coarse spray device. Allow surfaces 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, exterior surfaces of 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 1 gallon of water (or equivalent use dilution) (800 ppm active quat). For heavily soiled areas, a pre-cleaning step is required. Apply solution with a brush, mop, cloth, sponge or hand pump trigger spray device so as to wet all surfaces thoroughly. For sprayer applications, use a coarse spray device. Allow surface to remain wet for 10 minutes. Then remove excess liquid and rinse the surface with potable water. (Alternate statement: After use, all surfaces in the area must be thoroughly rinsed with potable water.) This product is not for use as a disinfectant on dishes, glassware or eating utensils.

**FOR USE ON NON-FOOD CONTACT SURFACES AS A GENERAL DISINFECTANT IN THE BREWERY INDUSTRY:** Use 1 ounce of this product per 1 gallon of water (or

equivalent use dilution) (800 ppm active quat). Follow the general cleaning and disinfectant directions above.

**DIRECTIONS FOR FOGGING 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 cubic feet of room area with a product solution containing 1.5 ounces product to 1 gallon of water (or equivalent use dilution) (1,200 ppm). Wear a dust mist respirator when mixing the use solution and pouring it into the fogging apparatus. Vacate the area of all personnel during fogging and for a minimum of 2 hours after actual fogging and a minimum of 4 air exchanges per hour in the facility. All food contact surfaces must be sanitized with an EPA approved food contact sanitizer solution of 150 -400 ppm active quaternary (0.75 to 2 ounces per 4 gallons of this product) (or equivalent use dilution) prior to use. 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 must a room or building be entered by anyone within two hours of the actual fogging and a minimum of 4 air exchanges (ACH) per hour in the facility. If the building must be entered, then the individuals entering the building 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.**

**DISINFECTING POTATO STORAGE AREA AND EQUIPMENT:** Remove all potatoes prior to disinfection of potato storage area and equipment. Pre-clean hard surfaces by removing heavy soils or gross filth. Add 1 ounce of this product to 1 gallon of water (or equivalent use dilution) (800 ppm active quat). (OR) Mix a (1) (one)-ounce packet with 1 gallon of water. Treated surfaces must remain wet for 10 minutes. At this use level, this product is bactericidal according to the AOAC Use Dilution Test method on hard inanimate surfaces modified in the presence of 5% organic serum. All treated surfaces must be thoroughly rinsed with potable water prior to reuse.

### FOOD CONTACT AND TOBACCO PROCESSING EQUIPMENT SANITIZING DIRECTIONS

Before use as a sanitizer in federally inspected meat and poultry plants and dairies, food products and packaging materials must be removed from the room or carefully protected. A potable water rinse is not allowed (Do not rinse) following the use of this product as a sanitizer on previously cleaned hard, non-porous surfaces provided that the surfaces are adequately drained before contact with food so that little or no residue remains.

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.

**FOOD CONTACT SANITIZING PERFORMANCE:** At 0.75 ounce per 4 gallons this product (or equivalent use dilution) (150 ppm active quat) 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:

*Aeromonas hydrophila* (ATCC 23213)

*Clostridium perfringens-vegetative* (ATCC 13124)

*Enterobacter sakazakii* (ATCC 29544)

*Enterococcus faecalis* Vancomycin resistant (ATCC 51299)

*Escherichia coli* (ATCC 11229)  
*Klebsiella pneumonia* (ATCC 4352)  
*Staphylococcus aureus* MRSA (ATCC 33592)  
*Staphylococcus aureus* (ATCC 6538)  
*Streptococcus pyogenes* (ATCC 12344)

At 1 ounce per 4 gallons this product (or equivalent use dilution) (200 ppm active quat) 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:

*Aeromonas hydrophila* (ATCC 23213)  
*Clostridium perfringens-vegetative* (ATCC 13124)  
*Enterobacter sakazakii* (ATCC 29544)  
*Enterococcus faecalis* Vancomycin resistant (ATCC 51299)  
*Escherichia coli* (ATCC 11229)  
*Escherichia coli* O157:H7 (ATCC 35150)  
*Escherichia coli* O157:H8 (ATCC BAA-184)  
*Klebsiella pneumonia* (ATCC 4352)  
*Listeria monocytogenes* (ATCC 19117)  
*Salmonella enteritidis* (ATCC 4931)  
*Salmonella typhi* (ATCC 6539)  
*Shigella dysenteriae* (ATCC 11835)  
*Staphylococcus aureus* (ATCC 6538)  
*Staphylococcus aureus* MRSA (ATCC 33592)  
Community Associated MRSA-Genotype 300  
Community Associated MRSA Genotype 400  
*Streptococcus pyogenes* (ATCC 12344)  
*Yersinia enterocolitica* (ATCC 23715)

**FOOD CONTACT SANITIZING DILUTION CHART**

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

**PUBLIC EATING PLACES, DAIRY PROCESSING EQUIPMENT AND FOOD PROCESSING EQUIPMENT AND UTENSILS SANITIZING DILUTION CHART**

Active quat solution	1 gallon	4 gallons	10 gallons	20 gallons
150 ppm	0.1875 ounce	0.75 ounce	1.875 ounces	3.75 ounces
200 ppm	0.25 ounce	1.00 ounce	2.5 ounces	5.00 ounces
300 ppm	0.375 ounces	1.50 ounces	3.75 ounces	7.50 ounces
400 ppm	0.50 ounce	2.00 ounces	5.0 ounces	10.00 ounces

**SANITIZATION:** When used for sanitization of previously cleaned food equipment or food contact items limit active quaternaries – to 150-400 ppm. At this level **NO POTABLE WATER RINSE** is allowed.

It is an effective sanitizer when diluted in water up to 500 ppm hardness (CaCO<sub>3</sub>).

To sanitize previously cleaned and rinsed non-porous food contact surfaces, prepare 150-400 ppm active quaternary solution by adding ¼ to 1 oz. to 4 gallons of water.

**TO SANITIZE IMMOBILE ITEMS** (such as tanks, chopping blocks, countertops, refrigerated storage and display equipment and food processing equipment): Flood the area with appropriate ppm active quaternary solution for at least 1 minute, making sure to wet all surfaces completely. Remove excess, drain the use-solution from the surface and air dry. No potable water rinse is allowed.

**TO SANITIZE MOBILE ITEMS** (such as drinking glasses and eating utensils): Immerse in appropriate ppm active quaternary solution for at least 1 minute, making sure to immerse completely. Remove items, drain the use-solution from the surface and air dry. Prepare a fresh solution at least daily or more frequently as soil is apparent. No potable water rinse is allowed.

**SANITIZING OF FOOD PROCESSING EQUIPMENT AND OTHER HARD SURFACES IN FOOD PROCESSING LOCATIONS, DAIRIES, RESTAURANTS AND BARS**

**DIRECTIONS:** For sanitizing food processing equipment, dairy equipment, food utensils, dishes, silverware, eating utensils, glasses, 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.

Before use as a sanitizer in federally inspected meat and poultry plants and dairies, food products and packaging materials must be removed from the room or carefully protected. A potable water rinse is not allowed (Do not rinse) following the use of this product as a sanitizer on previously cleaned hard, non-porous surfaces provided that the surfaces are adequately drained before contact with food so that little or no residue remains.

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** (after use as a sanitizer).

Dishes, silverware, glasses, cooking utensils, eating utensils and other similar size food processing equipment can be sanitized by immersion in a (0.75-2) ounce per 4 gallon of water solution of this product (or equivalent use dilution) (150-400 ppm active quat) with a 1-minute contact time. **NO POTABLE WATER RINSE IS ALLOWED.** (Note to reviewer: Organisms listed will only be used with the appropriate use dilution in this direction.)

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.

**PUBLIC EATING PLACES/DAIRY PROCESSING**

**FOR PUBLIC EATING PLACES, DAIRY PROCESSING EQUIPMENT AND FOOD PROCESSING EQUIPMENT AND UTENSILS:** 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 compatible detergent followed by a potable water rinse before application of sanitizing solutions. Apply a solution of ¾ - 2 ounces of this product in 4 gallons of water (or equivalent use dilution) (150-400 ppm active) to pre-cleaned, hard surfaces, thoroughly wetting surfaces with a brush, cloth, mop, sponge, sprayer or by immersion. For spray applications, use a coarse pump or trigger spray device. 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 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. 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).

21E

**DIRECTIONS FOR SANITIZING FOOD CONTACT SURFACES IN PUBLIC EATING PLACES, DAIRY PROCESSING EQUIPMENT AND FOOD PROCESSING EQUIPMENT, UTENSILS, AND FOOD CONTACT ARTICLES AS REGULATED BY 40CFR sec 180.940(a):**

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  $\frac{3}{4}$  to 2 ounces of this product per 4 gallons of water (or equivalent use dilution) (150-400 ppm active quat). 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. Thoroughly drain then air dry. Thoroughly drain non-immersed items and air dry. (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food). No potable rinse allowed.

**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.

1. Thoroughly wash equipment and utensils in a hot detergent solution. Rinse utensils and equipment thoroughly with potable water.
2. Sanitize equipment and utensils by immersion in a  $\frac{3}{4}$  to 2-ounce of this product per 4 gallons of water solution (or equivalent use dilution) (150-400 ppm active quat) for at least 60 seconds at a temperature of 75 F. This dilution is equivalent to a solution containing 50 ppm available chlorine.
3. For equipment and utensils too large to sanitize by immersion, apply  $\frac{3}{4}$  to 2 ounces of this product per 4 gallons of water (150-400 ppm active quat) (or equivalent use dilution) by rinsing, spraying or swabbing until thoroughly wetted.
4. Allow sanitized surfaces to drain and air dry. Do not rinse.

**WISCONSIN STATE DIVISION OF HEALTH**

**DIRECTIONS FOR EATING ESTABLISHMENTS** (Not applicable in CA)

1. Scrape and pre-wash utensils and glasses whenever possible.
2. Wash with a good detergent or compatible cleaner.
3. Rinse with potable water.
4. Sanitize in a solution of 1 to (2) (two) ounces per 4 gallons of this product (200-400 ppm active quaternary). Immerse all utensils for at least two minutes or for contact time specified by governing sanitary code.
5. Place sanitized utensils on a rack or drain board to air-dry.
6. Prepare fresh sanitizing solution at least daily or when visibly soiled or diluted.

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

*(Alternative language for clean in place, closed loop dilution centers.)*

**WISCONSIN STATE DIVISION OF HEALTH**

**DIRECTIONS FOR EATING ESTABLISHMENTS** (Not applicable in CA)

1. Scrape and pre-wash utensils and glasses whenever possible.
2. Wash with a good detergent or compatible cleaner.
3. Rinse with potable water.
4. Sanitize in a solution of 200-400 ppm active quaternary from the Closed Loop Dilution Center (or equivalent use dilution). Immerse all utensils for at least two minutes or for contact time specified by governing sanitary code.
5. Place sanitized utensils on a rack or drain board to air-dry.

6. Prepare fresh sanitizing solution at least daily or more often when visibly soiled or diluted.

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

**DIRECTIONS FOR RESTAURANT AND BAR SANITIZER**

Equipment and utensils must be thoroughly preflushed or prescraped and, when necessary, presoaked to remove gross food particles and soil. 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.

For precleaned dishes, glassware, silverware, eating utensils, (and) cooking utensils, immerse in a solution containing  $\frac{3}{4}$  to 2 ounces of this product per 4 gallons of water (or equivalent use dilution) (150-400 ppm active quaternary). Allow surface to remain wet for at least 60 seconds. Drain thoroughly before reuse. No potable water rinse is allowed.

*(Alternative language for clean in place, closed loop dilution centers)*

**FOR USE AS A SANITIZER ON DISHES, GLASSWARE, SILVERWARE, EATING UTENSILS, COOKING UTENSILS:** For heavily soiled areas, remove gross food particles by preflush, prescrape, and presoak when necessary. Wash thoroughly with detergent or compatible cleaner then rinse with potable water prior to application of this product. Then immerse in a sanitizing solution from Closed Loop Dilution Center (150-400 ppm active quaternary). Allow surface to remain wet for at least 60 seconds. Drain thoroughly and air dry before reuse. No potable water rinse is allowed.

**SANITIZING OF FOOD PROCESSING EQUIPMENT (ICE MACHINES) AND OTHER HARD SURFACES IN FOOD CONTACT LOCATIONS:** 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. Unit must be washed with a compatible detergent and rinsed with potable water before sanitizing.
3. Wash and rinse all surfaces thoroughly.
4. Apply a solution of  $\frac{3}{4}$  to 2 ounces of this product in 4 gallons of water (or equivalent use dilution) (150-400 ppm active quat) by mechanical spray, direct pouring or recirculating through the system. Surfaces must remain wet for at least one minute followed by complete draining and drying. Fresh solution must be prepared for each cleaning.
5. No potable water rinse is allowed when product is used as directed.
6. Return machine to service.

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

**Water Softeners** – Sanitization must 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. (Alternate statement: Unit must be washed with a compatible detergent and rinsed with potable water before sanitizing.)
2. Backwash the softener and add 1.5 to 4 ounces of sanitizer per 8 gallons of water (or equivalent use dilution) (150-400 ppm active quat) to the brine tank well. (The brine tank must have water in it to permit the solution to be carried into the softener.) (NOTE: Standard system capacity is 48 gallons).

3. Proceed with the normal regeneration or interrupt the cycle after the brining step and let the softener soak for a minimum of 60 seconds.
4. 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 must 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 1.5 to 4 ounces of sanitizer per 8 gallons of water (or equivalent use dilution) (150-400 ppm active quat) 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. **NO POTABLE WATER RINSE IS ALLOWED.** 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 must 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 1.5 to 4 ounces of sanitizer per 8 gallons of water (or equivalent use dilution) (150-400 ppm active quat).
4. Circulate solution through machine making sure to wet all surfaces and allow a minimum contact of 60 seconds.
5. Drain and completely flush machine twice with potable water.
6. Return machine to normal operation.

**Water Coolers, Water Holding Tanks and Pressure Tanks** – Sanitization must 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 1.5 to 4 ounces of sanitizer per 8 gallons of water (or equivalent use dilution) (150-400 ppm active quat).
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.

**FOOD PROCESSING EQUIPMENT AND UTENSILS**

**FOR FOOD PROCESSING EQUIPMENT AND UTENSILS IN FOOD PROCESSING FACILITIES:** 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 application of sanitizing solutions. Apply a solution of ¼ to 2 ounces of this product in 4 gallons of water (or equivalent use dilution) (150-400 ppm active) to pre-cleaned, hard, non-porous surfaces thoroughly wetting surfaces with a brush, cloth, mop, sponge, sprayer or by immersion. For spray applications, use a coarse pump or trigger spray device. 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 150-400 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: Allow sanitized surfaces to adequately drain before contact with food). 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 (DO NOT RINSE) AFTER APPLICATION OF THE SANITIZING SOLUTION** (after use as a sanitizer).

(OR)

**DIRECTIONS FOR FOOD PROCESSING EQUIPMENT AND UTENSILS (AS REGULATED BY) (40CFR sec 180.940(c))**

Equipment and utensils must be thoroughly preflushed or prescraped and, when necessary, presoaked to remove gross food particles. Clean and rinse equipment thoroughly. Then apply sanitizing solution containing ¼ to 2 ounces of this product per 4 gallons of water (or equivalent use dilution) (150-400 ppm active quaternary). Allow surfaces to remain wet for at least 60 seconds. Prepare a fresh solution at least daily or when use solution becomes visibly dirty. For mechanical operation, use solution may not be reused for sanitizing applications. No potable water rinse is allowed (Do not rinse). (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food).

(OR)

**DIRECTIONS FOR SANITIZING FOOD CONTACT SURFACES IN FOOD PROCESSING EQUIPMENT AND UTENSILS, AS 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.
3. Sanitize articles using a solution of ¼ to 2 ounces of this product per gallon of water (or equivalent use dilution) (150 to 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.
4. Remove immersed and non-immersed items from solution to (and) make certain all surfaces are adequately drained before contact with food. No potable water rinse is allowed. (Do not rinse). (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food).

**DIRECTIONS FOR FOOD PROCESSING EQUIPMENT AND DAIRIES**

Equipment and utensils must be thoroughly preflushed or prescraped and, when necessary, presoaked to remove gross food particles. Clean and rinse equipment thoroughly. Then apply sanitizing solution containing ¼ to 2 ounces of this product per 4 gallons of water (or equivalent use dilution) (150-400 ppm active quaternary). Apply solution to pre-cleaned, hard, non-porous surfaces thoroughly wetting surfaces with a brush, cloth, mop, sponge, sprayer or by immersion. For spray applications, use a coarse pump or trigger spray device. Spray 6-8 inches from surface. Rub with brush, sponge, or cloth. Do not breathe spray. With spray applications, cover or remove all food products. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly and allow surface to air dry before reuse. Prepare a fresh solution at least daily or when



use solution becomes visibly dirty. For mechanical operation, use solution may not be reused for sanitizing applications. No potable water rinse is allowed after application of the sanitizing solution.

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

For sanitizing of bottling or pre-mix dispensing equipment, after cleaning thoroughly rinse equipment with a potable water rinse. Fill equipment with a solution of  $\frac{3}{4}$  to 2 ounces of this product per 4 gallons of water (or equivalent use dilution) (150 - 400 ppm active quat). 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 changeover between products the system must be cleaned, rinsed and flushed with the sanitizing solution for at least 1 minute. Drain thoroughly and allow surface to air dry before reuse. No potable water rinse is allowed. (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food).

#### **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  $\frac{3}{4}$  to 2 ounces of this product per 4 gallons of water (or equivalent use dilution) (150 - 400 ppm active quat) for the exterior application for the filler and closing machine. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly and allow surface to air dry before reuse. No potable water rinse is allowed. (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food).

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

For sanitizing beer fermentation and holding tanks, citrus and food processing storage, and holding tanks. Remove gross filth and soil by pre-flush or pre-scrape and when necessary presoak. Then wash surfaces with a compatible detergent and rinse with potable water prior to sanitizing. Prepare a solution of  $\frac{3}{4}$  to 2 ounces of this product per 4 gallons of water (or equivalent use dilution) (150 - 400 ppm active quat) for mechanical or automated systems. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly before reuse. No potable water rinse is allowed.

For mechanical operations or automated systems, the used sanitizing solution may not be used for sanitizing, but may be reused for other purposes such as cleaning.

#### **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  $\frac{3}{4}$  to 1 ounce of this product per 4 gallons of warm water (or equivalent use dilution) (150-200 ppm active quat). The solution must be warmer than the eggs, but not to exceed 130°F. Wet eggs thoroughly and allow to drain. Eggs sanitized with this product must be subjected to a potable water rinse only if they are to be broken immediately for use in the manufacture of egg products. Eggs must be reasonably dry before casing or breaking. The solution must not be re-used for sanitizing eggs.

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

**FOR TREATMENT OF MEAT AND POULTRY OR FRUIT AND VEGETABLE 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. To sanitize the belt apply this product at a 150-400 ppm quat  $\frac{3}{4}$  to 2 ounces of this product per 4 gallons of water (or equivalent use dilution) to conveyors with 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, apply coarse spray to equipment, peelers, collators, slicers and saws with this product at a dilution of 150-400 ppm active quat. Conveyor equipment must be free of product when applying this coarse spray. Do not allow this solution to be sprayed directly on food.

**FOR SANITIZING CONVEYOR BELTS IN FISHERIES, MILK, CITRUS, WINE, POTATO & ICE CREAM and BEVERAGE PROCESSING PLANTS:** 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. To sanitize the belt apply this product at 150-400 ppm quat ( $\frac{3}{4}$  to 2 ounces of this product) per 4 gallons of water (or equivalent use dilution) to conveyors with 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 this product at a dilution of 150-400 ppm active quat. Conveyor equipment must be free of product when applying this coarse spray. Do not allow this solution to be sprayed directly on food.

**DIRECTIONS FOR REDUCING BACTERIA ASSOCIATED WITH CONDENSATION ON EQUIPMENT AND PIPES:** Prepare a solution of 1 to (2) (two) ounces of this product per 4 gallons of water (or equivalent use dilution) (200-400 ppm active quat). Apply to the exterior surfaces of equipment and pipes. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly and allow surface to air dry before reuse. No potable water rinse is allowed. (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food).

*(Separate Instructions for Elevated Temperature Sanitizing)*

**ELEVATED TEMPERATURE SANITIZER FOR FOOD PROCESSING EQUIPMENT AND OTHER HARD SURFACES IN FOOD PROCESSING LOCATIONS, DAIRIES, RESTAURANTS AND BARS DIRECTIONS:**

*(The following 4 paragraphs need not be mentioned twice but must appear at least once on a food contact surface sanitizer)*

For sanitizing food processing equipment, dairy equipment, food utensils, dishes, silverware, eating utensils, glasses, 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.

Before use as a sanitizer in federally inspected meat and poultry plants and dairies, food products and packaging materials must be removed from the room or carefully protected. A potable water rinse is not allowed (Do not rinse) following the use of this product as a sanitizer on previously cleaned hard, non-porous surfaces provided that the surfaces are adequately drained before contact with food so that little or no residue remains.

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 (after use as a sanitizer).**

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. At a temperature of 120° F sanitize articles using a solution of 1 ounce of this product per 10 gallons of water (*or equivalent use dilution*) (100 ppm active quat). 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. Thoroughly drain then air dry. No potable rinse allowed. Thoroughly drain non-immersed items and air dry.

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.

**Note:** It is important that the temperature of the solution be at or above 120°F for effective sanitation at this level of quat.

**COLD TEMPERATURE SANITIZER FOR (REFRIGERATORS/FREEZERS) FOOD PROCESSING EQUIPMENT AND OTHER HARD SURFACES IN FOOD PROCESSING LOCATIONS, DAIRIES, RESTAURANTS AND BARS DIRECTIONS:**

*(The following paragraphs need not be mentioned twice but must appear at least once on a food contact surface sanitizer)*

Before use as a sanitizer in federally inspected meat and poultry plants and dairies, food products and packaging materials must be removed from the room or carefully protected. A potable water rinse is not allowed (Do not rinse) following the use of this product as a sanitizer on previously cleaned hard, non-porous surfaces provided that the surfaces are adequately drained before contact with food so that little or no residue remains.

**FOR SANITIZING REFRIGERATORS, FREEZERS 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 refrigerator (I) (freezer)
2. Unit must be washed with a compatible detergent and rinsed with potable water before sanitizing.
3. Wash and rinse all surfaces thoroughly.
4. Temperature of the unit must be at or above 38°F (3°C)
5. Sanitizing solution temperature must be at 120° F or higher to assure proper sanitation.
6. At a temperature of 120° F sanitize articles using a solution of 1 to (2) (two) ounces of this product per 4 gallons of water (*or equivalent use dilution*) (200-400 ppm active quat). Apply 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. Fresh solution must be prepared for each cleaning. No potable water rinse is allowed when product is used as directed.
7. Return unit to service.

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.

**Note:** It is important that the temperature of the solution be at or above 120°F for effective sanitizing at this level of quat.

**COLD TEMPERATURE SANITIZER FOR FOOD PROCESSING EQUIPMENT, DAIRY EQUIPMENT, FOOD UTENSILS, DISHES, SILVERWARE, EATING UTENSILS, GLASSES, SINK TOPS, COUNTERTOPS, REFRIGERATED STORAGE AND DISPLAY EQUIPMENT AND OTHER HARD, NON-POROUS SURFACE**

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. Temperature of the surfaces to be sanitized must be at or above 38°F (3°C)
5. Sanitizing solution temperature must be at 120° F or higher to assure proper sanitation.
6. At a temperature of 120° F sanitize articles using a solution of 1 to (2) (two) ounces of this product per 4 gallons of water (*or equivalent use dilution*) (200-400 ppm active quat). 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.
7. Remove immersed items from solution. Thoroughly drain then air dry. No potable rinse allowed. Thoroughly drain non-immersed items and air dry.

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.

**Note:** It is important that the temperature of the solution be at or above 120°F for effective sanitizing at this level of quat.

**GLOVE DIP SANITIZER DIRECTIONS:** To prevent cross contamination from area to area in animal areas and the packaging and storage areas of food plants, dip pre-washed (plastic, latex or other synthetic rubber) non-porous gloved hands into a suitable clean container that contains enough freshly made sanitizing solution to cover the gloved area. Do not let sanitizing solution come into contact with the exposed skin. Make up the sanitizing solution by adding 1 to (2) (two) ounces of this product per 4 gallons of water (*or equivalent use dilution*) (200 400 ppm active quat). Dip (Soak) in solution for 1 minute. **NO POTABLE WATER RINSE IS ALLOWED.** Change the sanitizing solution in the bath at least daily or when solution appears dirty. **Do not let sanitizing solution come into contact with exposed skin.**

**ANIMAL PREMISES**

**SITE PREPARATION:** The first step in any on-going sanitation program must be the removal of gross contamination and debris. This can 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.

**APPLICATION:** Remove all animals and feeds from (premises) (areas to be treated), vehicles (trucks, cars), and enclosures (coops, crates, kennels, stables). Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other surfaces of facilities and fixtures occupied or traversed by poultry or other animals. 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 disinfecting or virucidal solution for a period of 10 minutes. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure. Ventilate buildings, 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,

troughs, automatic feeders, fountains and waterers and other equipment which can contact food or water with soap or detergent, and rinse with potable water before reuse.

**VETERINARY CLINICS/ANIMAL LIFE SCIENCE LABORATORY/ ANIMAL CARE FACILITIES/ANIMAL RESEARCH CENTERS/ANIMAL LABORATORY/ANIMAL QUARANTINE AREAS/ANIMAL BREEDING FACILITIES/ZOOS/PET SHOP/ANIMAL HUSBANDRY/ KENNELS/ BREEDING AND GROOMING ESTABLISHMENTS/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) (areas to be treated), 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) (800 ppm active quat) 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 which dispenses food or water with soap or detergent, and rinse with potable water before reuse.

**RENDERING PLANT/DRESSING PLANT DISINFECTANT DIRECTIONS (DRESSING PLANT AND RENDERING PLANT DISINFECTANT DIRECTIONS):** Cover or remove all food and packaging material before disinfection. Remove gross soils. Disinfect 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) (800 ppm active quat). 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. Rinse all surfaces which contact food with potable water before reuse.

**TERRARIUM AND SMALL ANIMAL CAGE AND CAGE FURNITURE DISINFECTION:** Animals frequently defecate on hot rocks and other hard non-porous 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. *(Use on rocks and driftwood not allowed for use in California.)*

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 of 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat) 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:** Do not apply this product directly onto the small animal. If this product comes into contact with the small animal's skin, then immediately wash the material off of the animal with lukewarm water. If the small animal ingests this product, contact your veterinarian immediately. 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.

**REPTILE TANK CLEANING AND DISINFECTION DIRECTIONS:** Remove all reptiles from the enclosure (tank) prior to cleaning and disinfecting. Remove all litter or drippings from surfaces. Empty all equipment used for feeding or watering reptiles. Thoroughly clean all surfaces with soap or detergent and rinse with water. Apply the disinfecting and virucidal solution of 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat) to the surfaces of the enclosure (tank) until thoroughly wet. Allow surfaces to remain wet for 10 minutes. Wipe dry. Rinse all surfaces that come in contact with food with potable water before reuse. Allow the enclosure (tank) to ventilate for a minimum of 10-15 minutes before replacing the reptiles.

**Note:** Do not apply this product directly onto the reptile. If this product comes in contact with the reptile's skin, then immediately wash the material off of the animal with lukewarm water. If the reptile ingests this product, contact your veterinarian immediately.

#### FARM PREMISE DISINFECTION DIRECTIONS

**FARM PREMISE DISINFECTION DIRECTIONS:** Do not use in milking stalls, milking parlors or milk houses. Remove all animals and feed from (premises) (areas to be treated), vehicles and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, stables, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate all surfaces with (Use) (Apply) 1 ounce per gallon of water (or equivalent dilution) (800 ppm active quat) and allow surface to remain wet for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels and scrapers used in removing litter and manure. Ventilate buildings, cars, trucks, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

(OR)

#### FOR USE IN EQUINE, DAIRY AND HOG FARMS:

1. Remove all animals and feed from (premises) (areas to be treated), 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 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 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat) use 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.

**VEAL, CALVING, HOG, CATTLE AND HORSE OPERATIONS:** Between depopulations of facilities, cleaning and disinfection of pens, hutches, aisles and other environmental surfaces can be required. Empty all troughs, racks, and other feeding and watering appliances. Flush soils from these areas. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate all surfaces with the disinfecting and virucidal solution 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat) and allow to remain wet for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels and scrapers used in removing litter and manure. Ventilate buildings, cars, trucks, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

**FOR USE IN THE TREATMENT OF ANIMAL HOUSING FACILITIES:**

1. Remove all animals and feed from (premises) (areas to be treated), 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 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 (floors, walls, cages and other washable hard, non-porous environmental surfaces) with the disinfecting and virucidal solution of 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat) 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, scrapers 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.

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

**SITE PREPARATION:** The first step in any on-going sanitation program must be the removal of gross contamination and debris. This can 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.

**APPLICATION AND USE DILUTION FOR POULTRY/TURKEY/SWINE PREMISE, ANIMAL QUARTERS AND KENNELS:** Remove all animals and feeds from (premises) (areas to be treated), vehicles (trucks and cars), and enclosures (coops, crates, kennels). Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and other fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Use 1 ounce of (this product) (MAQUAT® 2420-10%) per gallon of water (or equivalent use dilution) (800 ppm active quat). Saturate surfaces with the disinfecting solution for a period of 10 minutes. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure. After application, ventilate buildings, coops and other closed spaces. Do not

house poultry or other animals or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, troughs, automatic feeders, fountains and waterers, and other equipment which may contact food or water with soap or detergent, and, rinse with potable water before reuse.

OR

**DISINFECTION/VIRUCIDE OF POULTRY/TURKEY EQUIPMENT, SWINE QUARTERS, LIVESTOCK FARMS, EQUINE QUARTERS, ANIMAL QUARTERS AND KENNELS DIRECTIONS:** Prior to use, remove all poultry, other animals and their feeds from (premises) (areas to be treated), vehicles (trucks and cars) and enclosures (coops, crates, kennels, stables). Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other surfaces of facilities and fixtures occupied or traversed by poultry or other animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Use 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat). Saturate surfaces with the disinfecting solution for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used in removing litter and manure.

After application, ventilate buildings, coops and other closed spaces. Do not house poultry or other animals or employ equipment until treatment has been absorbed, set or dried.

All treated equipment that will contact feed or drinking water (racks, troughs, automatic feeders, fountains and waterers) must be thoroughly scrubbed with soap or detergent, then rinsed with potable water before reuse.

**HATCHERIES:** For disinfection/virucide, use 1 ounce of this product per gallon of water (or equivalent use dilution) (800 ppm active quat). Apply to hatchers, setters, trays, racks, egg flats, walls, floors, ceilings, chickboxes, egg cases, trash containers, carts, sexing tables, delivery trucks, vans and other hard surfaces. Leave all treated surfaces exposed to solution (wet) for 10 minutes or more. Rinse surfaces with potable water before reuse. Allow surface to air dry.

**VEHICLES:** Clean all vehicles including mats, crates, cabs, and wheels with high-pressure water and this product. For sprayer applications, use a coarse spray. Use 1 ounce of this product per gallon of water (or equivalent use dilution) (800 ppm active quat) for general disinfection/virucide. Leave all treated surfaces exposed to solution 10 minutes or more and allow to air dry.

**FOR USE IN LIVESTOCK, POULTRY AND TURKEY HOUSES:**

1. Remove all animals and feed from (premises) (areas to be treated), 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 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 (Use) (Apply) 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat) 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, scrapers 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.

**DISINFECTANT DIRECTIONS FOR CHICK VANS, EGG TRUCKS HATCHERY and FARM VEHICLES:** Clean all vehicles including mats, crates, cabs, and wheels with high-pressure water and this product. Use 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat) to treat all vehicles. Leave all treated surfaces exposed to disinfectant solution wet for 10 minutes or more. For sprayer applications, use a coarse spray device.

**DISINFECTANT/VIRUCIDAL\* DIRECTIONS TO TREAT HARD NON-POROUS, NON-FOOD CONTACT SURFACES OF AUTOMATED TRAY, RACK AND BUGGY WASHERS:** Mix a solution containing 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat). Remove all litter and manure from surfaces to be treated. Treat hard non-porous, non-food contact surfaces of automated trays, racks and buggy washers into solution for 10 minutes. Thoroughly clean all surfaces with soap or detergent and rinse with water before reuse. Change the disinfecting solution at least daily or when solution appears dirty.

**DISINFECTANT/VIRUCIDAL\* DIRECTIONS TO TREAT HARD NON-POROUS, NON-FOOD CONTACT SURFACES IN EGG RECEIVING AND EGG HOLDING AREAS:** Mix a solution containing 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat). Remove all litter and manure from surfaces to be treated. Saturate hard non-porous, non-food surfaces with the solution for a period of 10 minutes. Apply by mop, brush or sprayer. Thoroughly clean all surfaces with soap or detergent and rinse with water before reuse. Change the disinfecting solution at least daily or when solution appears dirty.

**MEAT PACKING PLANTS:** Use this product to disinfect hard, non-porous surfaces associated with the following sites: livestock vehicles and holding pens, perceiving areas and delivery chutes, slaughter areas and conveyors, hand, rub and guide rails, post knock cabinets, stands and flooring surfaces, chains and moving process lines, surfaces of equipment for hide operations consisting of brine curing, hide transfer bin surfaces, chutes, conveyors, tallow and animal feed production hard, non-porous surfaces, processed products and offal equipment surfaces, fabrication and processing areas covering cold storage areas, all stainless steel cut out and prep tables, counter tops, conveyors, chains, tables, floors, walls and all stainless surfaces. For application, saturate all surfaces with solution and scrub to loosen all soils. Use 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat). Surfaces must remain wet for 10 minutes, then thoroughly rinsed with potable water before operations are resumed.

All treated equipment that will contact animal feed or food surfaces must be thoroughly scrubbed with soap or detergent then rinsed with potable water before reuse.

**HIDE/LEATHER PROCESSING PLANTS:** To use as a disinfectant on hard, non-porous surfaces, add 1 ounce per gallon of water (or equivalent dilution) (800 ppm active quat). The product can be used on hide storage bins, holding tanks, chill tanks, serpentine tanks and chains, machine and tannery equipment surfaces, conveyors and trolleys, hide press, grading and storage areas and scales, etc. Pre-clean all surfaces prior to use to remove gross soils. Thoroughly wet all hard, non-porous surfaces by evenly applying the use solution. Apply use solution with a brush, cloth, mop, sponge, sprayer or by immersion, thoroughly wetting surfaces. For sprayer applications, use a coarse spray device at 6-8" from surfaces. Do not breathe spray. Treated surfaces must remain wet for 10 minutes. Wipe dry or allow to air dry.

**SPECIAL INSTRUCTIONS FOR INACTIVATING AVIAN INFLUENZA A (H5N1):** Remove all poultry and feeds from (premises) (areas to be treated), 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 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat) 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, scrapers used in removing litter and manure. 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.

#### BARBER/SALON

**DISINFECTION/VIRUCIDE OF BARBER/SALON TOOLS DIRECTIONS:** Pre-clean barber/salon tools, such as combs, brushes, plastic rollers, razors, clipper and trimmer blades, tweezers manicure/pedicure tools and scissors, can be disinfected by immersing in 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat). Completely immerse instruments and tools for at least 10 minutes. Rinse thoroughly and dry before use. Fresh solution must be prepared at least daily or more often if solution becomes cloudy or soiled.

(OR)

**FOR USE TO CLEAN AND DISINFECT BARBER AND BEAUTY/MANICURE INSTRUMENTS AND TOOLS:**

1. Pre-clean heavily soiled items.
2. Completely immerse pre-cleaned combs, scissors, plastic rollers, clipper blades, razors, manicure implements and other non-porous instruments in the use solution (1 ounce per gallon of water) (or equivalent use dilution) (800 ppm active quat) so that surfaces remain wet for ten (10) minutes.
3. Rinse surfaces thoroughly and let air dry before reuse.
4. Change solution at least daily or sooner if visibly dirty.

(OR)

**DISINFECTING/VIRUCIDE GROOMING CLIPPERS:** Remove hair, dandruff and dust particles prior to disinfecting the blades. Turn the clipper off occasionally during use and spray between the teeth of blades with a solution of 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat). Allow surface to remain wet for at least 10 minutes. Rinse surfaces thoroughly. Then wipe dry with a clean soft cloth.

(OR)

**CLEANING HAIR CLIPPERS AND ELECTRIC SHEARS:** While clipper/shear is running, hold in the downward position and spray with a 1 ounce per gallon of water solution (or equivalent use dilution) (800 ppm active quat) of this product directly onto the blades two or three times to thoroughly wet the blades. Do not spray on the clipper case or drip into clipper housing. Turn off clipper/shear. Allow surface to remain wet for at least 10 minutes. Rinse surfaces thoroughly. Then wipe dry with a clean soft cloth. Lubricate as per clipper/shear manufacturer's instructions.

(OR)

**CLEANING BARBER/SALON SHEARS AND OTHER IMPLEMENTS:** Spray shear/implement until thoroughly wet. Wipe away visible debris using a soft bristle brush or cloth. Turn off clipper/shear. Immerse pre-cleaned shear/implement into a container of 1 ounce per gallon of water solution (or equivalent use dilution) (800 ppm active quat) of this product for at least 10 minutes. Rinse surfaces thoroughly. Remove

shear/impliment and wipe dry. Use fresh solution at least daily or when immersion tank (bowl) (sink) solution becomes diluted or visibly soiled.

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

**DISINFECTION OF HARD, NON-POROUS SURFACES IN FOOTBATHS:** To remove body oils, dead tissue, soil and all other buildups or organic matter on inanimate surfaces after using the footbath, drain the water and thoroughly clean all hard, non-porous surfaces with soap or detergent, then rinse with water. Saturate surfaces with a use solution of 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat) to exposed surfaces with a brush, cloth, mop, sponge or sprayer. Brush or swab thoroughly and allow solution to stand for 10 minutes. For spray applications, use a coarse spray device. Do not breathe spray. After the unit has been thoroughly disinfected, rinse all cleaned surfaces with fresh water. Do not use equipment until treatment has been absorbed, set or dried.

**DISINFECTION/VIRUCIDE OF HARD, NON-POROUS SURFACES IN FOOTBATHS:** To remove body oils, dead tissue, soil and all other buildups or organic matter on inanimate surfaces after using the footbath, drain the water and thoroughly clean all hard, non-porous surfaces with soap or detergent, then rinse with water. Saturate surfaces with a use solution of 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat) to exposed surfaces with a brush, cloth, mop, sponge or sprayer. Brush or swab thoroughly and allow solution to stand for 10 minutes. For spray applications, use a coarse spray device. Do not breathe spray. After the unit has been thoroughly disinfected, rinse all cleaned surfaces with fresh water. Do not use equipment until treatment has been absorbed, set or dried.

### RESTROOM/BATHROOM

#### NON-ACID TOILET BOWL (AND URINAL) (& BATHROOM) DISINFECTANT/CLEANER DIRECTIONS

Remove gross filth prior to disinfection.

**FROM CONCENTRATE:** Add 1 ounce of this product (or equivalent dilution) (800 ppm active quat) to the toilet bowl and mix. Brush thoroughly over exposed surfaces and under the rim with a cloth, mop, or sponge. Repeat and allow solution to stand for 10 minutes and flush.

*(Or use alternate Concentrate Use directions)*

**FOR USE AS A NON-ACID BOWL CLEANER/DISINFECTANT IN TOILET BOWLS FROM CONCENTRATE:**

1. Pre-clean heavily soiled areas.
2. Add 1 fluid ounce (or equivalent dilution) (800 ppm active quat) into toilet bowl.
3. Swab entire surface area especially under the rim.
4. Repeat and allow entire surface to remain wet for ten (10) minutes.
5. Flush toilet and rinse swab applicator thoroughly.

**FROM USE-SOLUTION:** Preclean surface. Empty toilet bowl or urinal and apply 3 to 4 ounces of use solution to exposed surfaces including under the rim with a brush, cloth, mop, sponge or sprayer. Brush or swab thoroughly and allow solution to stand for 10 minutes and flush. For spray application, use a coarse spray device.

*(Or use alternate Use-Dilution directions)*

**FOR USE AS A NON-ACID BOWL CLEANER/DISINFECTANT IN TOILET BOWLS (AND URINALS) FROM USE-DILUTION:**

1. Pre-clean heavily soiled areas.

2. Empty toilet bowls by forcing water through the trap. Apply Use Solution to exposed surfaces in toilet bowls and urinals.
3. Swab entire surface area especially under the rim.
4. Allow entire surface to remain wet for ten (10) minutes.
5. Flush toilet and rinse swab applicator thoroughly.

*(Or use alternate Use-Dilution directions)*

**TOILET BOWLS/URINALS:** Swab bowl with brush to remove heavy soil prior to cleaning or disinfecting. Clean by applying use-solution around the bowl and up under the rim. Stubborn stains can require brushing. To disinfect, first preclean to remove heavy soil, then remove or expel over the inner trap the residual bowl water. Pour in a solution made up of 1 ounce of this product per gallon of water (or equivalent use dilution) (800 ppm active quat). Swab the bowl completely using a scrub brush or mop, making sure to get under rim. Let stand for 10 minutes or overnight, then flush.

*(Or use alternate Use directions)*

**DISINFECTION AND CLEANING TOILET BOWLS AND URINALS:**

1. With a swab mop applicator, remove water from bowl by forcing out trap. Preliminary cleaning is required for heavily soiled surfaces.
2. Press swab mop against side of bowl to remove excess water from applicator.
3. Apply a solution of 1 ounce of this product per gallon of water (or equivalent use dilution) (800 ppm active quat) evenly onto surface to be cleaned and disinfected.
4. Swab entire surface area especially under the rim where outlets are located.
5. Allow this product to remain wet on surfaces at least 10 minutes.
6. Flush toilet and rinse applicator thoroughly.

*(Or)*

**GENERAL CLEANING TOILET BOWL:** Apply (Open cap) (Squeeze gently, directing) 1 ounce of bowl cleaner under the rim and on sides of bowl (inside only). Brush, clean and flush toilet. (Close cap). Rinse brush with clean water. Do not use on any other surfaces including toilet seat, toilet lid, countertops, tubs and sinks. To clean other acid resistant toilet bowls or urinals, dilute product with 3 parts water. Do not allow solution to remain on surfaces without immediately rinsing thoroughly with water.

*(Or)*

**TO CLEAN AND DISINFECT:** A preliminary cleaning is required for the removal of heavy soil prior to disinfection. Fill toilet bowl with clean water. Saturate mop with 1 ounce of this product while holding bottle and mop applicator over bowl. Swab bowl completely making sure to get under the rim. Let stand for 10 minutes then flush. Rinse applicator completely.

*(Or)*

**TO DISINFECT TOILET BOWLS:** Fill toilet bowl with clean water. Apply (Squeeze) 1 ounce of this product onto bowl brush. Clean the entire unit especially under the rim at water outlets. Allow surface to remain wet 10 minutes. Flush and rinse out bowl brush with clean water. A preliminary cleaning step is required for the removal of heavy soil prior to disinfection.

*(Or)*

**TO DISINFECT TOILET BOWLS:** Flush to remove heavy soil. To clean, simply squirt 1 2 ounces of this product under the rim and around sides. Allow it to stand several minutes then scrub entire surface (especially under the rim) with a bowl (toilet) mop. Flush and rinse. To disinfect, squirt at least ¾ to 1 ounce of this product under the rim and around the sides. Scrub bowl with mop. Allow solution to remain in the bowl for 10 minutes after scrubbing. Flush and rinse.

*(Or)*

**TO DISINFECT TOILET BOWLS:**

1. Remove gross filth and heavy soil deposits.
2. Fill toilet bowl with clean water.

3. Apply 1 ounce of this product to swab applicator, brush, cloth, mop, sponge, or directly to surface.
4. Swab entire surface area, especially under the rim.
5. Allow entire surface to remain wet for ten (10) minutes.
6. Flush toilet and rinse swab applicator thoroughly.

(Or)

**TOILET BOWL (AND URINAL) DISINFECTION/CLEANER DIRECTIONS:** Remove gross filth prior to disinfection. Empty toilet bowl or urinal and apply solution of 1 ounce of this product per 128 ounces of water to exposed surfaces including under the rim with a brush, cloth, mop, sponge or sprayer. Allow toilet bowl to fill with water. Brush or swab thoroughly and allow solution to stand for 10 minutes and flush.

(Or)

**TO CLEAN AND DISINFECT URINALS:** Flush to remove heavy soil. Remove screens and strainers. Then squirt a solution of 1 ounce of this product per 128 ounces of water around edges and top. Allow solution to flow down over surfaces. Allow it to stand several minutes before scrubbing, then flush and rinse. To disinfect, allow solution to remain in urinal at least 10 minutes after scrubbing.

(Or)

**TO DISINFECT URINAL:**

1. Remove gross filth and heavy soil deposits.
2. Apply a solution of 1 ounce of this product per gallon of water directly to urinal surfaces including water outlets area for general cleaning.
3. Then pour additional solution on applicator.
4. Clean entire unit, especially under rim at water outlets, with applicator.
5. Remove screen trap to deodorize drain and apply 2 to 4 ounces directly on edge and into drain.
6. Wait 10 minutes, flush and rinse applicator.

(Or)

**TO CLEAN WATERFREE (WATERLESS) URINALS:** Remove any debris from the bowl. Spray (product name) onto urinal surface. DO NOT spray product directly onto cartridge. Wipe surface to clean. Change cartridge as needed.

**DEEP CLEANING/DISINFECTING WATERFREE (WATERLESS) URINALS:** Remove and properly dispose of cartridge according to manufacturer's directions. Deep clean or disinfect the entire urinal by applying 1 ounce of this product directly onto surface. Brush (scrub) surfaces and let solution stand for 10 minutes. Dry surface with a soft cloth. Do not pour excess or soiled water down waterless urinal trap.

**FOR HEAVY DUTY CLEANING:** Preclean surface. Empty toilet bowl or urinal and apply 3 to 4 ounces of concentrate solution to exposed surfaces including under the rim with a brush, cloth, mop, sponge or sprayer. Brush or swab thoroughly and allow solution to stand for 10 minutes and flush. For sprayer application, use a coarse spray device and swab all areas after spraying.

**TO DISINFECT TUBS, SHOWER STALLS, SINKS, FAUCETS:** Swab area and remove gross filth and heavy soil. Apply 1 ounce of this product per gallon of water (or equivalent dilution) (800 ppm active quat) onto surface to be cleaned or apply with cloth or sponge until thoroughly wet and allow surface to remain wet for at least 10 minutes. Wipe around with damp cloth or sponge. Do not allow solution to dry on surface. Rinse thoroughly with water.

**FOR USE TO CLEAN AND DISINFECT SHOWER ROOMS, LOCKER ROOMS AND OTHER LARGE, OPEN AREAS WITH FLOOR DRAINS:**

1. Pre-clean heavily soiled areas.

2. Apply use solution of 1 ounce per gallon of water (or equivalent use dilution) (800 ppm active quat) to floors, walls and ceilings making sure not to over spray. To disinfect, all surfaces must remain wet for ten (10) minutes.

**Special instructions for foam guns:** Pour concentrate into foam gun bottle and attach bottle to spray nozzle and ensure gun is attached to hose. (Note: See foam gun instructions for more information. Make sure setting is set for a 1:128 dilution.) Once in place, squeeze the handle to disperse foam solution. To disinfect, all surfaces must remain wet for ten (10) minutes. (Foam guns not for use in California.)

3. Scrub using a deck brush or other coarse material as necessary.
4. Rinse surfaces thoroughly and let air dry.

**Note:** Rinsing is not necessary unless floors are to be coated with finish or restorer. All food contact surfaces, such as appliances and kitchen countertops, must be rinsed with potable water. Do not use this product to clean or disinfect glassware, utensils, dishes or interior surfaces of appliances.

**RV HOLDING TANKS/RECREATIONAL VEHICLES (Not for use in CA):** For toilet waste and holding tanks, cover bottom of holding tank with water and add 1 ounce of the product per gallon of water (or equivalent use dilution) to deodorize. If odors return before time to empty, add 1 ounce of this product per gallon of water (or equivalent use dilution) to the tank. For kitchen waste, add 1 ounce of this product (or equivalent use dilution) to gray water tank as needed to control malodors created by dirty dishwasher.

**DEODORIZATION**

**CLEANING/DEODORIZING DIRECTIONS:** Add ½ to 1 ounce of this product per gallon (or equivalent dilution) of water to clean and deodorize windows, mirrors and glass surfaces. Apply solution with a brush, mop, cloth, sponge or mechanical sprayer so as to wet all surfaces thoroughly. For sprayer applications, use a coarse spray device. Spray 6-8 inches from surface. Rub with sponge or cloth. Allow surface to air dry or wipe up excess liquid. Do not breathe spray.

**GENERAL DEODORIZATION:** To deodorize, add ½ to 1 ounce of this product per gallon of water (or equivalent use dilution). Excess material must be wiped up or allowed to air dry.

**FOR DEODORIZING GARBAGE CANS, GARBAGE TRUCKS, INDUSTRIAL WASTE RECEPTACLES AND GARBAGE HANDLING EQUIPMENT:** It is especially important to preclean for the product to perform properly. Then, apply a wetting concentration: 16 ounces of this product per 5 gallons of water (or equivalent use dilution) (2,500 ppm, quat active quat). Treated surfaces must remain wet for 10 minutes.

**FOR DEODORIZING SEPTIC STORAGE TANKS:** When tanks are empty, pour ½ to 1 (one) ounce per gallon of water (400- 800 ppm active quat) (or equivalent use dilution) into septic storage tank on recreational vehicles, campers and boats to control the bacteria that can cause odors. As tank fills with sewage and the vehicle is moving, this solution will mix and provide an adequate deodorizing solution for this use. This product is to be used on gray and black water tanks only. Check with local, state, or federal authorities before disposing of sewage in accordance to federal, state and local regulations for waste disposal. (Not for use in CA)

**AIR FRESHENER/AUTOMOTIVE USES:** A solution of ½ to 1 ounce of this product per gallon of water (or equivalent use dilution) (400-800 ppm active quat) will effectively neutralize damp musty odors caused by mildew in storage areas, basements, closets, bathrooms and A/C filters. Spray or apply onto seats, carpets, headliner and ashtray or into trunk and all vents to eliminate odors from tobacco, beverage spills and musty carpet. For sprayer applications, use a coarse spray device. Allow surfaces to air dry.

**FOR ODORS CAUSED BY DOGS, CATS AND OTHER DOMESTIC ANIMALS:** Use on rugs, floors, walls, tile, cages, crates, litter boxes, mats, floor coverings, or any surface soiled by a pet. Test a small inconspicuous area first. Blot problem area. Then add ½ to 1 ounce of this product per gallon of water. Excess material must be wiped up or allowed to air dry.

**FOR DISINFECTION AND TO DEODORIZE NON-POROUS ATHLETIC EQUIPMENT** (wrestling and gymnastic mats, athletic training tables, physical therapy tables, athletic helmets, wrestling/boxing headgear, athletic shoe soles): Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of 1 ounce per gallon (800 ppm active quat) of water (or equivalent dilution) for a period of 10 minutes. Ventilate buildings and other closed spaces. Do not use equipment until treatment has been absorbed, set or dried.

**GLASS CLEANING/DEODORIZING DIRECTIONS:** Add ½ to 1 fluid ounce per gallon of water (or equivalent use dilution) to clean and deodorize windows, mirrors, and glass surfaces. Use a coarse spray device. Spray 6-8 inches from surface. Rub with sponge or cloth. Do not breathe spray.

**HUMIDIFIER DIRECTIONS:** Formulated for use in portable humidifiers. Thoroughly clean water tank and filters (before each heating season, or sooner if necessary). Add ½ to 1 ounce of this product per gallon of refill water (or equivalent use dilution). Not for use in heat or atomizing type humidifiers. *(Not for use in California.)*

(OR)

**HUMIDIFIER BACTERIA/ALGAE TREATMENT** *(Not for use in California.):* Formulated for use in portable humidifiers. Thoroughly clean water tank and filters before each heating season or sooner if necessary. For every gallon of water in the humidifier tank add ½ to 1 ounce of this product (or equivalent use dilution). When you refill the tank, add ½ to 1 ounce of this product for every gallon of water added in the tank (or equivalent use dilution).

Not for use in heat vaporizing or atomizing type humidifiers.

#### **WATER/SMOKE DAMAGE RESTORATION** *(Not for use in California)*

(Effective against odor-causing bacteria and fungi for home, institutional, industrial and hospital use.) This product is particularly suitable (for use in water damage restoration situations against odor causing bacteria) on the following (porous and semi-porous) materials: (carpets, carpet cushion, upholstery, drapes,) sub floors, drywall, trim and frame lumber, tackless strip and paneling. Saturate affected materials with enough product to remain wet for at least 10 minutes. Use proper ventilation. *(Parenthesis statement not for use in CA.)*

**SMOKE DAMAGE RESTORATION:** (Effective against odor causing bacteria and fungi for home, institutional, industrial and hospital use.) This product is particularly suitable (for use in smoke damage restoration situations against odor causing bacteria) on the following (porous and semi-porous) materials: (carpets, carpet cushion, upholstery, drapes,) sub floors, drywall, trim and frame lumber, tackless strip and paneling. Follow directions as outlined in the Water Damage Restoration section. Saturate affected materials with enough product to remain wet for at least 10 minutes. Use proper ventilation. *(Parenthesis statement not for use in CA.)*

**SEWER BACKUP & RIVER FLOODING** *(Not for use in California.):* During mitigation procedures, dilute 1-2 ounces of this product per gallon of water (or equivalent use dilution) allowing for the diluting effect of absorbed water within saturated materials. Remove gross filth or heavy soil along with non-salvageable materials. Saturate all affected areas with a sprayer using a coarse spray tip before and after cleaning and extraction.

**(CARPETS, CARPET CUSHIONS, UPHOLSTERY, DRAPES AND OTHER POROUS MATERIALS), SUB FLOORS, DRYWALL, TRIM AND FRAME LUMBER, TACKLESS STRIP AND PANELING:** For water damage from a clean water source, extract excess water. Test hidden area for colorfastness. Dilute 1-2 ounces of the product per gallon of water (or equivalent use dilution) (800-1600 ppm active quat), allowing for the diluting effect of absorbed water within saturated materials. Remove gross filth or heavy soil. Apply directly with a sprayer using a coarse spray tip to fully saturate affected materials. Roll, brush or agitate into materials and allow the materials to remain damp for 10 minutes. Follow with a thorough extraction. Dry rapidly and thoroughly. *(Parenthesis statement not for use in CA.)*

**SPECIAL INSTRUCTIONS FOR CLEANING CARPET (AGAINST ODOR CAUSING BACTERIA):** This product can be used in industrial, institutional, commercial and residential areas such as homes, motel & hotel chains, nursing homes, schools and hospitals. For use on wet, cleanable synthetic fibers. Do not use on wool. Vacuum carpet thoroughly prior to cleaning. Test fabric for color fastness. *(Parenthesis statement not for use in CA.)*

**For portable extraction units:** Mix ½ ounce of this product per gallon of water (or equivalent use dilution).

**For truck mounted extraction machines:** Mix 12 ounces of this product per gallon of water (or equivalent use dilution) and meter at 4 gallons per hour.

**For rotary floor machines:** Mix 1 ounce of this product per gallon of water (or equivalent use dilution) and apply at the rate of 300-500 sq. ft. per gallon.

Do not mix this product with other cleaning products. Follow the cleaning procedures specified by the manufacturer of the cleaning equipment. After using this product, set the carpet pile and protect the carpet from furniture legs and bases while drying. Do not over wet. If applied to stain resistant nylon carpet, apply a fabric protector according to the carpet manufacturer's directions.

#### **CARPET CLEANING/DEODORIZATION (AGAINST ODOR-CAUSING BACTERIA) FOR HOME, INSTITUTIONAL, INDUSTRIAL AND HOSPITAL USE**

*(Parenthesis statement not for use in CA.)*

This product cleans and deodorizes the carpet (by controlling/reducing the growth of odor-causing bacteria). It can be used in industrial, institutional, commercial and residential areas such as homes, motels, hotels chains, nursing homes and hospitals. *(Parenthesis statement not for use in CA.)*

Vacuum carpet thoroughly prior to application. Mix ½ ounce of product per gallon of water (or equivalent use dilution). Follow the injection and/or extraction procedures as specified for any conventional steam cleaning equipment you are using. For rotary floor machines, mix 1 ounce per gallon of water and spray on carpet at a rate of 300-500 sq. ft. per gallon.

For use (Use this product) on washable synthetic fibers. Do not use on wool. Test color fastness of carpet before use. Apply diluted product to a small concealed spot, then rub with a clean white cloth. If color changes or transfers to (the) cloth, a water-based product must not be used.

After using the product, set carpet pile in one direction with a stiff brush. Place aluminum foil under the legs of furniture while carpet is drying. Over-wetting can cause carpet to shrink. Manufacturer assumes no responsibility for over-wetting misuse.

**Note:** This product must not be mixed with other cleaning products.



## OTHER USES

**DISINFECTION OF HARD NON-POROUS SURFACES IN WHIRLPOOL UNITS:** After using the whirlpool unit, drain and refill with fresh water to just cover the intake valve. Add 1 ounce of this product for each gallon (or equivalent use dilution) (800 ppm active quat) of water at this point. Briefly start the pump to circulate the solution. Turn off the pump. Wash down the unit sides, seat of the chair, lift and any/all 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 any/all cleaned surfaces with fresh water. Repeat for heavy soiled units.

**WATERBED CONDITIONER** (Not for use in CA): When used as a waterbed conditioner, controls the growth of odor-causing and slime-forming bacteria. Prevents bubbles, preserves plasticizers, conditions vinyl interior, sequesters minerals.

If bed has not been treated properly, drain bed completely. Add 15 gallons of water and mix vigorously. Drain bed again. Fill bed with water and follow dosage directions.

**Dosage:** To control growth of odor-causing and slime-forming bacteria, add 4 fluid ounces of this product (or equivalent use dilution) in a free flow waterbed of 90 to 180 gallon capacity. Add 8 fluid ounces (or equivalent use dilution) in a waveless/fiber waterbed mattress of 90 to 180 gallon capacity. Repeat application every 4 to 6 months.

**CLEANSING OF BODY SURFACES AND BODY ORIFICES OF HUMAN REMAINS:** To cleanse away skin secretions and accompanying malodor, to insure the removal of all soil and bloodstains, apply 1 ounce of this product to a gallon of water (or equivalent use dilution) 800 ppm active quat) to the entire body. Bathe the entire body using sponge or washcloth. A soft brush may be employed on surfaces other than the face. Allow a 10 minute contact time for optimal results. Prepare a fresh solution for application of each remains.

**FOR DISINFECTING BAGLESS VACUUM CLEANERS:** Add 1 ounce of this product to 1 gallon of water (800 ppm active quat) (or equivalent use dilution). Turn off and unplug vacuum cleaner. Remove the hard, non-porous container that houses collected material from vacuum cleaner. Empty contents into a waste receptacle. Rinse collection container with water and wipe clean to remove any additional collected material. Apply solution to collection container with a cloth, sponge, or hand pump trigger spray device so as to wet all surfaces thoroughly. For sprayer applications, use a coarse spray device. Allow surfaces to remain wet for 10 minutes. Then remove excess liquid. Wipe and let surface air dry. Reattach container to vacuum cleaner.

**COMMERCIAL FLORIST USE DIRECTIONS:** To clean, disinfect and deodorize hard, non-porous surfaces in one step, prepare use solution by adding (mixing) 1 ounce per gallon of water (800 ppm active quat) (or equivalent use dilution). For heavy-duty use, add (mix) 2 ounces per gallon of water (1,600 ppm active quat) (or equivalent use dilution).

Remove all leaves, petals, garbage and refuse. Pre-clean surfaces using pressurized water where possible. Apply Use solution to hard, (inanimate) non-porous surfaces, thoroughly wetting surfaces as required, with a cloth, mop, brush, sponge or sprayer.

For heavily soiled areas, a preliminary cleaning is required.

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

Treated surfaces must remain wet for 10 minutes. Allow surface to air dry.

Prepare a fresh solution at least daily or sooner if use solution becomes visibly dirty.

**WORK AREAS AND BENCHES:** Spray or swab working surface with a solution of 1 oz. of this product per 1 gallon of water (or equivalent use dilution) for 10 minutes before each work period and again after each plant is completed to help control transfer of diseases such as *Botrytis*, crown rot, downy mildew, *Erwinia*, and root rot. To apply solutions for sprayer applications, use as a coarse spray only.

**POTS, FLATS AND FLOWER BUCKETS:** Brush or wash used pots and flats, then soak in a solution of 1 oz. of this product per 1 gallon of water (or equivalent use dilution) for 10 minutes to help control transfer of diseases such as anthracnose, blight, *Botrytis*, crown rot, *Erwinia*, mildew, root rot, and rust.

**CUTTING TOOLS:** Soak cutting edge of tool for 10 minutes in a solution of 1 oz. of this product per 1 gallon of water (or equivalent use dilution) before use to help control transfer of diseases such as *Botrytis*, *Erwinia*, root and stem rots, and Tobacco Mosaic Virus (TMV). Dry and oil tools at the end of each workday.

### DIRECTIONS FOR HOUSEHOLD USE

**KITCHEN/BATHROOM/HOUSEHOLD CLEANING:** Apply 1 oz per gallon of water (800 ppm active quat) (or equivalent use dilution) solution with a cloth, sponge, mop or directly on surface with a mechanical spray. If a mechanical spray is used spray must be coarse. Hold container 6 inches to 8 inches from surface and spray until thoroughly wet. Wipe the soiled area clean. This product is not to be used on dishware, glasses or eating utensils.

**DISINFECT/DEODORIZE:** To disinfect hard, non-porous surfaces such as floors, walls, counters, sinks, tubs, toilets, glazed tile, exterior surfaces of appliances, refrigerators or freezers, microwave exteriors, stove tops and hoods, tables, garbage pails, faucets apply 1 oz of this product per gallon of water (800 ppm active quat) (or equivalent use dilution) with cloth, sponge, mop or mechanical spray. If a mechanical spray is used, spray must be coarse. Hold container 6 inches to 8 inches from surface and spray until thoroughly wet. Treated surface must remain wet for 10 minutes before wiping. For heavily soiled areas a pre-cleaning step is required. The pre-clean step must be done according to the Kitchen/Bathroom/Household Cleaning directions. Rinse with potable water after use on surfaces that come in contact with food.

### DIRECTIONS FOR ALTERNATE CONTAINERS/DELIVERY SYSTEMS

**AUTOMATED DILUTION SYSTEM (DILUTION SYSTEMS TRADE NAME INSTRUCTIONS:** Remove cap/spray nozzle from empty container. Fill empty container with a newly prepared use-solution. Replace cap/spray nozzle. Place correct use-dilution label on newly filled container.

#### BAG-IN BOX CONTAINERS

**How to use this package:** This package is designed to be used with dilution control systems only. Open package and connect to dispense according to directions on the box.

**TRIGGER SPRAYERS:** Fill bottle from dispenser. Apply to surfaces according to directions above.

**MOP BUCKETS:** Fill bucket from dispenser. Set up "Wet Floor" signs. Mop floor surfaces as specified in directions above.

#### PACKETS (For pre-measured tear open packets)

(For Disinfection packet only) Pour contents of packet into (1) gallon of water. Keep packets in box until ready to use.

(For Food Contact Sanitization packet only) Pour contents of packet into (4) gallons of water. Keep packets in box until ready to use.

## REFILLS

**To Refill Concentrate From Large Containers Into Smaller Containers:** This product may be used to fill and refill clean, properly labeled containers for dilution elsewhere within your facility. Make sure the small container has been cleaned, dried and properly labeled according to state and local regulations. Also make sure other items (funnels or hand pumps) are properly cleaned and dried. To refill, simply pour (or pump product) from the larger container directly into the smaller one being careful not to spill any product. Keep both containers sealed when not in use.

22/20

(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 or disposal.

**PESTICIDE STORAGE:** Open dumping is prohibited. Store only in original container. Store in a dry place no lower in temperature than 50°F or higher than 120°F. 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.

(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).

**PACKET DISPOSAL:** Do not reuse. Discard empty container and put in trash.

## ONE OUNCE PACKET LABEL TO BE USED WITH MASTER CONTAINER LABEL FOR DISINFECTION

### FOR DISINFECTION

MIX EACH PACKET WITH 1 GALLON OF WATER

## MAQUAT 2420-10%

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

NET CONTENTS: 1.0 FLUID OZ.

#### ACTIVE INGREDIENTS:

Didecyl Dimethyl Ammonium Chloride..... 6.0%

Alkyl (C<sub>14</sub> 50%, C<sub>12</sub> 40%, C<sub>16</sub> 10%

dimethyl ethylbenzyl ammonium chloride..... 4.0%

**INERT INGREDIENTS:**..... 90.0%

**TOTAL:**..... 100.0%

**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

2/17

**ONE OUNCE PACKET LABEL TO BE USED WITH MASTER  
CONTAINER LABEL FOR FOOD CONTACT SANITIZER**

**FOR FOOD CONTACT SANITIZER**

MIX EACH PACKET WITH 4 GALLONS OF WATER

**MAQUAT 2420-10%**

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

NET CONTENTS: 1.0 FLUID OZ.

**ACTIVE INGREDIENTS:**

Didecyl Dimethyl Ammonium Chloride .....6.0%

Alkyl (C<sub>14</sub> 50%, C<sub>12</sub> 40%, C<sub>16</sub> 10%

dimethyl ethylbenzyl ammonium chloride .....4.0%

**INERT INGREDIENTS:** .....90.0%

**TOTAL:** .....100.0%

**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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