

Elizabeth Tannehill
Regulatory Manager
Mason Chemical Company
721 W. Algonquin Road
Arlington Heights, IL 60005

AUG 16 2005

SUBJECT: Maquat 256
EPA Registration Number: 10324-56
Application Date: March 8, 2005
Receipt Date: March 23, 2005

Dear Ms. Elizabeth Tannehill:

The following amendment, submitted in connection with registration under section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable subject to the conditions listed below:

- submission of data to support additional public health organisms
- addition of directions for use

Acceptable Data

The product specific efficacy data is acceptable as follows:

Data Requirement	Means of Support	Status
AOAC Use Dilution Method - E. coli	Submitted study, MRID 465072-01	Acceptable, 1:256 dilution in 5% serum for 10 minutes
AOAC Use Dilution Method - S. choleraesuis	Submitted study, MRID 465072-02	Acceptable, 1:256 dilution in 5% serum for 10 minutes
AOAC Use Dilution Method - S. aureus	Submitted study, MRID 465072-03	Acceptable, 1:256 dilution in 5% serum for 10 minutes
AOAC Use Dilution Method - P. aeruginosa	Submitted study, MRID 465072-04	Acceptable, 1:256 dilution in 5% serum for 10 minutes
AOAC Use Dilution Method - L. pneumophila	Submitted study, MRID 465072-05	Acceptable, 1:256 dilution in 5% serum for 10 minutes

CONCURRENCES

SYMBOL							
SURNAME							
DATE							

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

2/21

AOAC Use Dilution Method - S. aureus MRSA	Submitted study, MRID4 65072-06	Acceptable, 1:256 dilution in 5% serum for 10 minutes
AOAC Use Dilution Method - E. faecalis	Submitted study, MRID 465072-07	Acceptable, 1:256 dilution in 5% serum for 10 minutes
AOAC Use Dilution Method - E. faecalis VRE	Submitted study, MRID 465072-08	Acceptable, 1:256 dilution in 5% serum for 10 minutes
AOAC Use Dilution Method - S. schottmuelleri	Submitted study, MRID4 65072-09	Acceptable, 1:256 dilution in 5% serum for 10 minutes
AOAC Use Dilution Method - C. ammoniagenes	Submitted study, MRID 465072-10	Acceptable, 1:256 dilution in 5% serum for 10 minutes
AOAC Use Dilution Method - S. aureus VISA	Submitted study, MRID 465072-11	Acceptable, 1:256 dilution in 5% serum for 10 minutes
AOAC Use Dilution Method - S. dysenteriae	Submitted study, MRID 465072-12	Acceptable, 1:256 dilution in 5% serum for 10 minutes
AOAC Use Dilution Method - S. salivarius	Submitted study, MRID 465072-13	Acceptable, 1:256 dilution in 5% serum for 10 minutes
AOAC Use Dilution Method - K. pneumoniae	Submitted study, MRID 465072-14	Acceptable, 1:256 dilution in 5% serum for 10 minutes
AOAC Use Dilution Method - P. mirabilis	Submitted study, MRID 465072-15	Acceptable, 1:256 dilution in 5% serum for 10 minutes
AOAC Use Dilution Method - S. marcescens	Submitted study, MRID 465072-16	Acceptable, 1:256 dilution in 5% serum for 10 minutes
Fungicidal Use-Dilution - T. mentagrophytes	Submitted study, MRID 465072-17	Acceptable, 1:256 dilution for 10 minutes
EPA Hard Surface Mildew - Fungistatic - A. niger	Submitted study, MRID 465155-01	Acceptable, 1:256 dilution in 5% serum for 10 minutes
Virucidal Effectiveness Test - Influenza A	Submitted study, MRID 465072-19	Acceptable, 1:256 dilution in 5% serum for 10 minutes
Virucidal Effectiveness Test - Herpes Type I	Submitted study, MRID 465072-20	Acceptable, 1:256 dilution in 5% serum for 10 minutes
Virucidal Effectiveness Test - Herpes Type II	Submitted study, MRID 465072-21	Acceptable, 1:256 dilution in 5% serum for 10 minutes
Virucidal Effectiveness Test - Vaccinia	Submitted study, MRID 465072-22	Acceptable, 1:256 dilution in 5% serum for 10 minutes
Virucidal Effectiveness Test - Human Coronavirus	Submitted study, MRID 465072-23	Acceptable, 1:256 dilution in 5% serum for 10 minutes
Virucidal Effectiveness Test - Canine Coronavirus	Submitted study, MRID 465072-24	Acceptable, 1:256 dilution in 5% serum for 10 minutes

CONCURRENCES

SYMBOL							
SURNAME							
DATE							

Conditions

1. Revise page one by deleting the claim that the product has "organic soil tolerance." Efficacy studies submitted for *Trichophyton mentagrophytes* were conducted in the absence of organic soil. Thus, this general claim must be deleted.
2. Revise the statements in the right column of page two to be more specific as follows: "This product cleans, shines, deodorizes and disinfects *the* hard, non-porous surfaces *specified* on the label. It inhibits the growth of mold and mildew, leaving bathrooms and..."
3. On page 2 (right column; item #11), change "odors by animal waste" to read "odors caused by animal waste."
4. Delete the following statement from page four which is no longer accurate: "This product has been authorized by the USDA as a sanitizer for all food contact surfaces." These products are now regulated by the EPA as you have referenced in the statement which follows on your label.
5. Revise the following statement on page four to read: "This product has been cleared by the EPA in 40 CFR Section 180.940 for use on..."
6. On page 4 (left column), change "Picnic tables and outdoor furniture" to read "Non-wooden picnic tables" and "Outdoor (patio) furniture, except cushions and wood frames."
7. Delete the following section from page five. This section does not make sense and it is unclear to whom this section is directed. Delete the section beginning: "Solution used to disinfect medical devices..." and ending: "...Must have clear instructions for mixing and use"
8. Clarify your directions for "Disinfection/Fungicidal Activity" on page five by adding contact time information as follows: "At 1/2 oz per gallon dilution, *with a 10 minute contact time*, this product exhibits..." Then delete the "OR" which follows this statement as the statement beginning "At this use level, this product is bactericidal..." as this second statement does not include the appropriate details to be used a substitute for the first statement.
9. You have not provided data to support a change in the rate at which this product is effective against HIV-1. Thus, revise the statement on page six to be in agreement with the last stamped label for this product and read exactly as follows: "At 1.5 ounces per 2 gallons (or equivalent use dilution) (732 ppm active quat) in the presence of 5% blood serum and 400 ppm of hardness for a 2 minute contact time this product was found to be effective against HIV-1..."

CONCURRENCES							
SYMBOL							
SURNAME							
DATE							

10. The data supplied to show effectiveness against HBV was not preformed in hard water. Thus, revise the following statement on page six to read exactly as follows: "At 3/4 ounce per gallon of water (or equivalent use dilution) (732 ppm active quat) in the presence of 5% organic load..."

11. Revise the section in the right column of page six to end as follows: "Add 1/2 ounce per gallon of water to disinfect hard, non-porous surfaces...Prepare a fresh solution *at least* daily or when use..."

12. Correct the ppm "For Deodorizing Garbage Cans, Garbage Trucks..." such that it is accurate as follows: **2440** ppm, not 2460 ppm.

13. Delete the following section on page seven at the bottom of the right column which does not belong: "Before using this product, food products...After use, all surfaces in the area must be thoroughly rinsed with potable water."

14. Revise the following section on page eight "To Disinfect Food Service Establishment Food Contact Surfaces" to read: "For countertops, *exterior surfaces of* appliances, and tables..."

15. Revise the subsection "Vehicles" in the Poultry and Swine section on page eight such that the rate used in this section is consistent. Revise to state: "...Use 3/4 ounce per gallon of water...(732 ppm active quat)..."

16. Revise the section "Veterinary Clinics/Animal Life Science Laboratory..." in the on page nine such that the rate used in this section is consistent with other animal use directions on this label. Revise to state: "...Saturate surfaces with a use solution of 3/4 ounce per gallon of water...(732 ppm active quat)..."

17. The data which you have cited to support non food contact sanitization may be used to show this product effective against *Staphylococcus aureus* and *Klebsiella pneumoniae*. Thus, revise page nine of your label by deleting the unsupported claim against *Enterococcus aerogenes* and replacing with the claim of effectiveness against *Klebsiella pneumoniae*.

18. Revise the two sections on page nine "Ultrasonic Bath Sanitizer Directions" and "Sanitization of Hard, Non-Porous Surfaces in Whirlpool Units" to consistently refer to sanitization throughout the section by replacing "disinfect" with "sanitize."

19. You have cited Reg. No. 10324-58 as the me too product for this submission. Thus revise the "Humidifier bacteria/Algae Treatment" directions on page 10 to agree with this label by changing the rate to **1/3 ounce per 4 gallons of water.**

20. One page 10 (left column), under "Sewer backup & river flooding," change "all affective areas" to read "all effected areas."

CONCURRENCES

SYMBOL							
SURNAME							
DATE							

21. On page 10 (right column), under "Sanitizing Hatchery Rooms Using Fogging Devices," change "breath this fog" to read "breathe this fog."

22. You have cited Reg. No. 10324-58 as the me too product for this submission. Thus revise the "Sanitizing Hatchery Rooms Using Fogging Devices" directions on page 10 to be in agreement with the rate on 10324-58. Revise to state: "...Mix 44.5 ounces of this product to 1 gallon water..."

23. The food contact sanitizing data provided to support this product was tested in 250 ppm hard water. Thus revise the claim on page eleven by deleting the reference to 600 ppm hard water to read exactly as follows: "It is an effective sanitizer when diluted in water up to 250 ppm hardness (CaCO₃)."

24. Revise the "Water Softener" directions on page twelve such that #3 states: "Proceed with the normal regeneration or interrupt the cycle after the...and let the softener soak with sanitizer solution for a minimum of..."

25. Revise the "Reverse Osmosis (RO) Units" directions on page twelve such that #1 states: "...Put membrane in a plastic bag so it remains..."

26. Revise the "Directions for Sanitizing Food Contact Surfaces in Food Processing Equipment and Utensils..." on pages thirteen and fourteen by deleting the steps #5 and #6 which are an unacceptable use of this product. After a rinse with potable water, the surfaces may not be rinsed with a solution of this product at a concentration greater than 400 ppm.

27. Revise #7 of this same section by correcting the rate to read : "...½ to 1 ounce of this product per 2.5 gallons of water..."

28. Make the following revision to page fourteen: revise the "Glove Dip Sanitizer Directions" by deleting one occurrence of the following statement: "Do not let sanitizing solution come into contact with the exposed skin."

29. Correct the ppm in "Food Processing Plants Using Fogging Devices" on page fourteen to read 1220 ppm.

General Comments

A stamped copy of the accepted labeling is enclosed. Submit one (1) copy of your final printed labeling before distributing or selling the product bearing the revised labeling.

6/21

Submit and/or cite all data required for registration/reregistration of your product under FIFRA section 3 (c) (5) and section 4 (a) when the Agency requires all registrants of similar products to submit such data.

If the above conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6 (e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions. Should you have any questions concerning this letter, please contact Tracy Lantz at (703) 308-6415.

Sincerely,



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

Enclosure: Stamped label, DER D315950

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

DANGER. KEEP OUT OF REACH OF CHILDREN. Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed or absorbed through the skin. Do not get in 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 and before eating, drinking, or using tobacco. 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 mix with oxidizers, anionic soaps and detergents.

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

STORAGE AND DISPOSAL

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

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

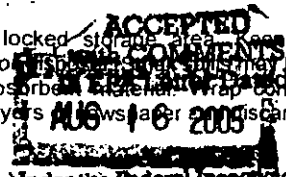
PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL (Larger than 1 gal.): Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or 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 and place in locked storage area. Keep from freezing. Do not contaminate water, food, or feed by storage or disposal. Spills may be mopped up or flushed away with water or absorbed on some absorbent material. Wrap container and put in trash. Securely wrap original container in several layers of newspaper and discard in trash.



Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 10324-56

MAQUAT® 256

DETERGENT/DISINFECTANT

Cleaner, Disinfectant, Detergent, Fungicide (against Pathogenic fungi), Deodorizer, Sanitizer, Virucide*, Mildewstat (on hard inanimate surfaces) - With Organic Soil Tolerance for Hospitals, Nursing Homes, Whirlpool, Home, Institutional, Industrial, School, Dairy, Equine, Poultry/Turkey Farm, Veterinary, Restaurant, Food Handling and Process Areas, Federally Inspected Meat and Poultry Plants, Bar and Institutional Kitchen Use and for Sanitizing Ice Machines.

Formulated for effective Poultry Sanitation.
Formulated for effective Swine Premise Sanitation.
Formulated for effective Mushroom Farm Sanitation.

ACTIVE INGREDIENTS:

n-Alkyl (60%C₁₄, 30%C₁₆, 5%C₁₂, 5%C₁₈)
dimethyl benzyl ammonium chloride 6.25%
n-Alkyl (68%C₁₂, 32%C₁₄)
dimethyl ethylbenzyl ammonium chloride 6.25%

INERT INGREDIENTS: 87.50%

TOTAL: 100.00%

**KEEP OUT OF REACH OF CHILDREN
DANGER PELIGRO**

See left panel for additional precautionary statements.

First Aid

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

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

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

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

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

MASON CHEMICAL COMPANY

"THE QUATERNARY SPECIALISTS"

721 W. Algonquin Road
Arlington Heights, IL 60005
847-290-1621
Toll Free:
1-800-362-1855

E.P.A. Reg. No. 10324-56
E.P.A. Est. No. 10324-IL-1

NET CONTENTS

BATCH NO

7/21

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 detergent/disinfectant 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 maximizes (improves) labor results by effectively controlling odors.

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

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

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 in schools, institutions and industry.

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

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

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

This product will not leave a grit or soap scum.

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

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

This product is a complete, chemically balanced disinfectant/sanitizer that provides clear use solutions.

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 recommended for use as a sanitizer on dishes, glassware and utensils (at 200 ppm active) and as a disinfectant on hard, non-porous surfaces (at 488 ppm active). A potable water rinse is not allowed after use as a sanitizer on food contact surfaces.

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

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

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

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

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

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

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

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

This product is a one-step disinfectant that is effective against a broad spectrum of bacteria, is virucidal* (including HIV-1 & HBV) and inhibits the growth of mold and mildew and their odors when used as directed.

This product is recommended for use as an Egg Shell sanitizer, with best results achieved in water temperatures ranging from 78°-110°F.

This product may be applied through automatic washing systems, immersion tanks, foaming apparatus, low-pressure sprayers, and fogging (wet misting) systems.

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

This product is specially formulated to effectively eliminate offensive odors caused by mold and mildew.

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

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

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

This product is effective at controlling mold and mildew odor on shower curtains.

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

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

This product is a no rinse disinfectant cleaner that disinfects, cleans and deodorizes in one labor saving step.

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

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

This product cleans, shines, deodorizes and disinfects all hard, non-porous surfaces listed on the label. It inhibits the growth of mold and mildew, leaving bathrooms and kitchens clean and fresh smelling.

This product is an effective antimicrobial cleaner designed for use by wholesale and retail florists, shippers and green houses. *(Not for use in California.)*

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. *(Not for use in California.)*

128

This product may be relied on to deodorize coolers, buckets, garbage pails and other areas where obnoxious odors may develop. (Not for use in California.)

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 may develop. (Not for use in California.)

This product may be used as a general purpose antimicrobial detergent in florist shops, wholesale florist, shippers, green house 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 may injure blooms of the various sensitive flowers including carnations, snapdragons, some orchids, baby's breath, sweet peas, freesia and alstroemeria.

Floor cleaner.

One step cleaner.

Cleans everyday kitchen messes.

Cleans kitchen surfaces and food preparation areas.

Cleans and shines.

Great for use (on) (in) the (kitchen), (bathroom), (floors) and other household areas. Removes (eliminates) odors. Deodorizes. Safe for most surfaces.

Safe for most surfaces. For a cleaner, fresher household. Removes stains. Removes dirt. Non-staining. Clear formula.

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

Cleans everyday kitchen messes like dirt, grease and food stains. Cuts through tough grease and grime.

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

Antibacterial.

Kills Athlete's Foot fungus on bathroom surfaces.

Hospital Use Disinfectant. Institutional Disinfectant (Sanitizer).

Kills common kitchen (bathroom) germs.

Maquat 256 for use in:

- Hospitals, nursing homes, medical and dental offices and clinics, physician offices, operating rooms, isolation wards, and medical research facilities.
- Patient care rooms & facilities, recovery (rooms), anesthesia, Emergency Rooms, X-ray cat labs, newborn nurseries, orthopedics, whirlpools, footbath surfaces, respiratory therapy, surgi-centers, labs, blood collection rooms, central supply, housekeeping & janitorial rooms.
- EMS & fire facilities, emergency vehicles, ambulances(s), police cars.
- Day care centers and nurseries, sick rooms.

- Acute care institutions, alternate care institutions, home healthcare institutions.
- Life care retirement communities.
- Restaurants, restaurants and bars, bars, 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, photocopy 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, mortuaries, burial vaults, mausoleums, autopsy rooms.
- 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.
- Public restrooms, public facilities, waysides, travel rest areas, shower rooms, shower stalls, bathrooms.
- Hotel, motels, dormitories.
- Kitchens, bathrooms and other household areas.
- Homes (households)
- Institutions, schools and colleges, churches, classrooms, community colleges, universities, athletic facilities and locker rooms, exercise rooms, exercise facilities, gyms, gymnasiums.
- Cosmetic manufacturing facilities, medical device manufacturing facilities, biotechnology firms, pharmaceutical manufacturing facilities.
- Heath clubs, spas, tanning spas, tanning beds, footbath surfaces, 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.
- Campgrounds, playgrounds, recreational facilities, picnic facilities, sports arenas, sports complexes.
- Food processing plants, USDA inspected food-processing facilities, 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.
- Processing facilities for Fish, Milk, Citrus, Fruit, Vegetable, Ice Cream and Potatoes and beverage plants.

9/21

- Tobacco plants premise and equipment.
- Veterinary clinics, animal life science laboratories, kennels, dog/cat animal kennels, breeding and grooming establishments, pet animal quarters, zoos, pet shops, tack shops and other animal care facilities.
- Household and automotive garages, boats, ships, barges, campers, trailers, mobile homes, cars, trucks, buses, trains, taxis and airplanes.
- Cruise lines, airline terminals, shipping terminals, public transportation.
- Commercial florist and flower shops.
- Basements, cellars, bedrooms, attics, living rooms, porches.

This product may be used on washable hard, non-porous 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 egg, Tupperware®.
- Kitchen equipment such as food processors, blenders, cutlery, trash compactors and other utensils.
- Countertops (counters), Slurppy® machines, stovetops (stoves), sinks (bathroom, kitchen), tub surfaces, appliances, refrigerators, ice machines.
- Interior hard, non-porous surfaces of water softeners, reverse osmosis units, ice machines, water coolers, water holding tanks and pressure tanks.
- Glass, metal, stainless steel, glazed porcelain, glazed ceramic, granite, marble, plastic, (such as polystyrene or polypropylene), sealed limestone, sealed slate, sealed stone, sealed terra cotta, sealed terrazzo, chrome and vinyl.
- Enameled surfaces, painted woodwork (finished), Formica®, vinyl and plastic upholstery.
- Foundations, steps, plumbing fixtures, finished baseboards, and window sills.
- Tables, chairs, desks, bed frames, lifts, washable walls, cabinets, doorknobs and garbage cans, cuspidors and spittoons.
- 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: animals, promotional items, moonwalks, slides, obstacle course play and exercise equipment.
- Beer fermentation and holding tanks, bottling or pre-mix dispensing equipment.
- Citrus processing equipment and holding tanks.
- Picnic tables and outdoor furniture.
- Telephones and Telephone booths.
- Highchairs.
- Drinking fountains.

- Shower stalls, shower doors and curtains, bathtubs and glazed tiles, chrome plated intakes, toilets, toilet bowls, bowl surfaces, urinals, empty diaper pails, portable and chemical toilets and latrine buckets, porcelain tile and restroom fixtures.
- Ultrasonic baths, whirlpools, whirlpool bathtubs.
- Kennels, kennel runs, cages, kennel/cage floors, conductive flooring.
- Dishes, silverware, glasses, cooking utensils, eating utensils and other similar size food processing equipment can be sanitized by immersion. NO POTABLE WATER RINSE ALLOWED.
- Wrestling and gymnastic mats, athletic training tables, physical therapy tables.

Use this product to clean, sanitize and disinfectant non-porous 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, 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 the recommended 120°F temperature will avoid overheating and distortion of the personal safety equipment that would necessitate replacement.)

This product is recommended for Poultry Premise Sanitation (Hatcheries)

Egg Receiving Area	Tray Dumping Area	Chick Processing Area
Egg Holding Area	Chick Holding Area	Chick Loading Area
Setter Room	Hatchery Room	Poultry Buildings

This product is recommended for Swine Premise Sanitation:

Farrowing Barns and Areas	Dressing Plants	Blocks
Waterers and Feeders	Loading Equipment	Creep Area
Hauling Equipment	Nursery	Chutes

~~This product has been cleared by the FDA in 40 CFR Section 180.940 for use on food processing equipment, utensils, and other food – contact articles at a concentration of 200-400 ppm active.~~

This product has been cleared by the FDA in 40 CFR Section 180.940 for use on food processing equipment, utensils, and other food – contact articles at a concentration of 200-400 ppm active.

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

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

This product meets AOAC efficacy standards for hard surface sanitizers.

This product has passed the Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces Utilizing (*Duck*) Hepatitis B Virus.

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

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

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

Regular, effective cleaning and sanitizing of equipment utensils and work or dining surfaces minimize the probability of contaminating food during preparation, storage or service which could harbor hazardous microorganisms. Effective cleaning will remove

soil and prevent the accumulation of food residues, which may compose or support the rapid development of food poisoning organisms or toxins. Application of effective sanitizing procedures reduces the number of those disease organisms, which may be present on equipment and utensils after cleaning, and reduces the potential 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 shall 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 shall 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.

DIRECTIONS FOR USE

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

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

~~Solution used to disinfect medical devices, instruments and equipment. This solution may be used as a cleaning agent, and once properly cleaned, solution will provide a level of disinfection. Solution must be able to be used in normal ventilation areas and non-toxic for breathing. Must not cause harm to equipment or patients with normal contact after being cleaned. Must have clear instructions for mixing and use.~~

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 may 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 or medical equipment surfaces.

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 not allowed following use of the product as a sanitizer on previously cleaned hard, food contact surfaces provided that the surfaces are adequately drained before contact with food so that little or no residue remains.

Apply this product with a cloth, mop or mechanical spray device. When applied with a mechanical spray device, surfaces must be sprayed until thoroughly wetted. Treated surfaces must remain wet for 10 minutes. For sprayer applications, use a coarse pump or trigger sprayer. Spray 6-8 inches from surface. Rub with brush, sponge or cloth. Do not breathe spray.

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

DISINFECTION

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.

To disinfect hard, inanimate surfaces (such as walls, floors, table tops), add 1/2 oz. detergent/disinfectant (this product) per (to) gallon of water (OR mix 1/2 oz. packet with one gallon of water). Apply solution with mop, cloth, sponge or mechanical sprayer so as to wet all surfaces thoroughly. Allow (treated surfaces) to remain wet for 10 minutes and then let air dry.

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

For heavily soiled areas, a pre-cleaning step is required.

Prepare a fresh solution at least daily or when use dilution becomes diluted or soiled.

DISINFECTION/FUNGICIDAL ACTIVITY: At 1/2 oz per gallon dilution, this product exhibits effective disinfectant activity against the following:

OR

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:

Brevibacterium ammoniagenes ATCC 6872
Enterococcus faecalis (Vancomycin resistant) - VRE (ATCC 51299)
Enterobacter aerogenes ATCC 13408
Escherichia coli ATCC 11229
Enterococcus faecalis ATCC 29212
Legionella pneumophila ATCC 33153
Klebsiella pneumoniae ATCC 4352
Proteus mirabilis ATCC 9240
Pseudomonas aeruginosa, PRD-10 ATCC 15442

Salmonella schottmuelleri ATCC 8759
Salmonella choleraesuis ATCC 10708
Serratia mercrescens ATCC 14756
Shigella dysenteriae ATCC 11835
Staphylococcus aureus ATCC 6538
Staphylococcus aureus (Methicillin resistant) ATCC 33592
Streptococcus faecalis
Streptococcus salivarius ATCC 7073
Staphylococcus aureus (Vancomycin resistant) - VISA (HIP 5836)

VIROCIDAL* ACTIVITY: The product when used on environmental inanimate hard surfaces at 1/2 oz per gallon of water exhibits effective virucidal* activity against:

OR

At 1/2 ounce per gallon use level, this product was evaluated in the presence of 5% serum with a 10 minutes contact time and found to be effective against the following viruses on hard, non-porous environmental surfaces:

Adenovirus Type 2 (causative agent of upper respiratory infections)
Canine Coronavirus
Human Coronavirus
Herpes simplex, Type 1 (causative agent of fever blisters)
Herpes simplex, Type 2

Influenza A2 /Japan (representative of the common flu virus)
Vaccinia Virus (representative of the pox virus group)

At 3/4 ounce per gallon use level, this product is effective against the following:

Canine Distemper
Equine Arteritis Virus
Infectious Bronchitis Virus
Infectious Avian Laryngotracheitis
Infectious Bovine Rhinotracheitis virus (IBR)
Transmissible Gastroenteritis (TGE)

Newcastle disease virus
Porcine Respiratory & Reproductive virus (PRRSV)
Porcine Rotavirus
Pseudorabies virus
Avian influenza A/Turkey/Wisconsin

1/21

Fungicidal Performance:*Aspergillus niger* ATCC 6275*Trichophyton mentagrophytes* ATCC 9533**Hospitals, Dental Offices, Nursing Homes and other Health Care Institutions Disinfection, Fungicidal and Virucidal Dilution Chart**

Ounces of Product	Amount of Water
1/8 ounce	1 quart
1/4 ounce	1/2 Gallon
1/2 ounce	1 gallon
1 1/2 ounces	2 1/2 gallons
2 1/2 ounces	5 gallons
5 ounces	10 gallons

At 1/2 ounce per gallon (or equivalent use dilution) (488 ppm active quat) in the presence of 5% blood serum and 400 ppm of hardness for a 2 minute contact time this product was found to be effective against HIV-1 (AIDS Virus).

At 3/4 ounce per gallon of water (or equivalent use dilution) (732 ppm active quat) in the presence of 2% organic load this product was proven to be effective against (Duck) Hepatitis B Virus with a contact time of 10 minutes.

At 3/4 ounce per gallon of water (or equivalent use dilution) (732 ppm active quat) in the presence of 5% organic load this product was proven to be effective against Bovine viral diarrhea virus (BVDV) (Surrogate for human Hepatitis C virus) with a contact time of 10 minutes.

***KILLS HIV, HCV AND HBV ON PRE-CLEANED ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD/BODY FLUIDS** in health care settings 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), Hepatitis B virus (HBV) and Hepatitis C virus (HCV).

SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATION AGAINST HIV-1, HCV AND HBV 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, or eye coverings.

CLEANING PROCEDURE: Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application of the disinfectant.

DISPOSAL of INFECTIOUS MATERIALS: Blood and other body fluids should be autoclaved and disposed of according to federal, state and local regulations for infectious waste disposal.

CONTACT TIME: Leave surfaces wet for 2 minutes for HIV and ten minutes for HBV and HCV. This contact time will not control other common type of viruses and bacteria.

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

Disinfection/Fungicidal Directions: Use at a rate of 1/2 ounce per gallon. Allow surfaces to remain wet for 10 minutes. Apply use solution to hard inanimate, non-

porous surfaces to highly wetting surfaces as recommended and required, with a cloth, mop, sponge or sprayer. For heavily soiled areas, a preliminary cleaning is required. For sprayer applications use a coarse spray device. Spray 6-8 inches from surface. Rub with brush, sponge or cloth. Do not breathe spray.

Add 1/2 ounce per gallon of water to disinfect hard, non-porous surfaces. Treated surfaces must remain wet for 10 minutes. Prepare a fresh solution daily or when use dilution becomes diluted or soiled.

For Use on Finished Floors: To limit gloss reduction, use 1/2 ounce of this product per 1 gallon of water. Apply with a damp mop or auto scrubber. Allow to air dry.

To clean and deodorize: Add 1/2 oz. per gallon of water. Swab with cloth, mop or mechanical spray device so as to thoroughly wet surfaces. Wipe excess or allow to air dry. Prepare a fresh solution at least daily or when use solution becomes visibly dirty.

General Deodorization: To deodorize, add 1/2 ounce of this product to one gallon of water (or equivalent use dilution) (488 ppm active quat). Allow 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 of 2.5 ounces of this product per gallon of water (or equivalent use dilution) (2,460 ppm quat active).

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 follow directions for "General Deodorization".

Fungicidal Activity: At 1/2 ounce per gallon use-level, (or equivalent use dilution) (488 ppm active quat) this product is effective against *Trichophyton mentagrophytes* (athlete's foot fungus) (a cause of Ringworm) on inanimate surfaces in locker rooms, dressing rooms, shower and bath areas and exercise facilities. Preclean all surfaces prior to using this product.

- OR -

At this level the product is also fungicidal against the pathogenic fungi, *Trichophyton mentagrophytes* in areas such as locker rooms, dressing rooms, shower and bath areas and exercise facilities.

MILDEWSTAT: Controls the growth of mold and mildew on pre-cleaned hard, non-porous surfaces (such as floors, walls, table tops) add 1/2 oz. of this product per gallon of water. Apply solution with a cloth, mop or sponge making sure to wet all surfaces completely. Let air dry. Prepare a fresh solution for each use. Repeat application at weekly intervals or when mildew growth reappears.

OR

Mold and Mildew Control: At 1/2 ounce per gallon, (or equivalent use dilution) (488 ppm active quat) this product will effectively inhibit and control the growth of mold and mildew and the odors caused by them when applied to hard, non-porous surfaces (as indicated in general instructions above). Allow to dry on surface and repeat treatment every seven days or when new growth appears.

For Schools, Industry and Non-Medical Institutional Uses: This product delivers cleaning and germicidal effectiveness. Treated surfaces must remain wet for 10 minutes, then allow to air dry or wipe. For heavily soiled areas, a preliminary cleaning is required. Apply a 1/2 ounce per gallon of water solution (or equivalent use dilution) (488 ppm). Prepare a fresh solution at least daily or if solution becomes diluted or soiled. It is

effective against Staphylococcus aureus, Salmonella choleraesuis, Escherichia coli and Serratia marcescens.

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 ½ ounce of this product to 1 gallon of water (488 ppm active) to the surfaces and body openings, natural or artificial. Allow a 10 minute contact time for optimal results. Bath the entire body using sponge or washcloth. A soft brush may be employed on surfaces other than the face. Prepare a fresh solution for application of each remains.

To control the growth of mold and mildew on large inflatable non-porous plastic and rubber structures (animals, promotional items, moonwalks, slides, obstacle course play and exercise equipment): Thoroughly clean all surfaces with soap or detergent (or this product) and rinse with water. Saturate surfaces with a use solution of ½ ounce per gallon (488 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.

To control the growth of mold and mildew on 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 ½ ounce per gallon (488 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.

Disinfection/Fungicide/Virucide for Barber/Salon Tools Directions: Immerse pre-cleaned barber/salon tools, such as combs, brushes, razors, clipper and trimmer blades, tweezers, manicure/pedicure tools and scissors, in a ½ ounce per gallon solution of the product (or equivalent use dilution) (488 ppm active quat). Completely immerse instruments and tools for at least 10 minutes. Rinse thoroughly and dry before use. Prepare a fresh solution at least daily or more often if solution becomes cloudy or soiled.

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

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 ½ ounce per gallon of water (or equivalent use dilution) (488 ppm active quat) to exposed surfaces with a 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. After the unit has been thoroughly disinfected, rinse all cleaned surfaces with fresh water. Do not breathe spray. Do not use equipment until treatment has been absorbed, set or dried.

NON-ACID TOILET BOWL (AND URINAL) DISINFECTION/CLEANER DIRECTIONS

Remove gross filth prior to disinfection.

From concentrate Add ½ ounce to the toilet bowl and mix. Brush thoroughly over exposed surfaces and under the rim, with a cloth, mop or sponge and allow to stand for 10 minutes and flush.

From use solution: Empty toilet bowl or urinal and apply ½ ounce per gallon use solution to exposed surfaces including under the rim with a cloth, mop, sponge or sprayer, brush or swab thoroughly and allow to stand for 10 minutes and flush. For sprayer applications use a coarse spray device.

For heavy duty cleaning: Empty toilet bowl or urinal and apply 2 ounces per gallon use solution to exposed surfaces including under the rim with a cloth, mop, sponge or sprayer, brush or swab thoroughly and allow to stand for 10 minutes and flush.

OR

To disinfect toilet bowls, flush toilet, add ½ oz. detergent/disinfectant directly to the bowl water. Swab the bowl completely using a scrub brush or toilet mop making sure to get under the rim. Let stand for 10 minutes and flush.

Cleaning/Deodorizing Directions: Add ¼ to 1 ounce per gallon of water 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.

Ultrasonic Bath Disinfectant Directions: Use this product to disinfect hard (inanimate) non-porous, non-critical objects compatible with Ultrasonic cleaning units. Pour (a) fresh solution of ½ ounce per gallon of water (or equivalent use dilution) (488 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 visible dirty or discolored.

For Disinfecting Hard, Non-porous (Fiberglass) Bath and Therapy Equipment: To remove body oils, dead tissue, soil and all other buildups or organic matter on inanimate surfaces after using the whirlpool unit, drain the water and refill with fresh water to just cover the intake valve. Add ½ ounce of this product for each gallon of water (488 ppm active quat) in the unit at this point. Briefly start the pump to circulate the solutions. Turn off pump. Wash down the unit sides, seat of the chair lift, and any/all related equipment with a clean swab, brush or sponge. Product to surface contact time must be at least 10 minutes for proper disinfection. After the unit has been thoroughly disinfected, drain solutions from the unit and rinse and/all disinfected (cleaned) surfaces with fresh water. The unit is ready for reuse.

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 ½ ounce of this product for each gallon of (488 ppm active quat) 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.

~~Before using this product, food products, packaging materials must be removed from the room or carefully covered. After use, all surfaces in the area must be thoroughly rinsed with potable water.~~

To Disinfect Food-Processing and Tobacco Premises: For floors, walls and storage areas, add ½ ounce of this product to one gallon of water (or equivalent use dilution)

13/21

(488 ppm active quat). For heavily soiled areas, a pre-cleaning step is required. Apply solution with a mop, cloth, sponge or hand pump trigger sprayer so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes. Then remove excess liquid. For sprayer applications, use a coarse spray device. Before using this product, food products and packaging materials must be removed from area or carefully protected. After use, all surfaces in the area must be thoroughly rinsed with potable water.

To Disinfect Food Service Establishment Food Contact Surfaces: For countertops, appliances, and tables, add ½ ounce of this product to one gallon of water (or equivalent use dilution) (488 ppm active quat). Before using this product, food products and packaging materials must be removed from area or carefully protected. For heavily soiled areas, a pre-cleaning step is required. Apply solution with a mop, cloth, sponge or hand pump trigger sprayer so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes. Then remove excess liquid and rinse the surface with potable water. For sprayer applications use a coarse spray device. After use, all surfaces in the area must be thoroughly rinsed with potable water.

For use on non-food contact surfaces as a general disinfectant in the brewery industry: Use ½ ounce of this product per gallon of water (or equivalent use dilution) (488 ppm active quat). Follow the Disinfectant directions above.

Directions for Fogging: For use 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 1¼ ounces product to 1 gallon of water (or equivalent use dilution) (1,230 ppm). Vacate the area of all personnel during fogging and for a minimum of 2 hours after fogging. All food contact surfaces must be sanitized with an EPA approved food contact sanitizer solution of 200 ppm active quaternary (½ ounce per 2½ gallons of this product) 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 should a room or building be entered by anyone within two hours of the actual fogging. 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.

POULTRY (AND SWINE) PREMISE SANITATION SITE PREPARATION

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

Disinfection/Fungicide/Virucide of Poultry/Turkey Equipment, Swine Quarters, Animal Quarters and Kennels Directions: Remove all animals and feeds from premises vehicles and enclosures such as coops and crates. Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Use ¾ ounce of this product per gallon of water (or equivalent use dilution) (732 ppm active quat). Saturate surfaces with the recommended

disinfecting solution 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.

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: Use ¾ ounce of this product per gallon of water (or equivalent use dilution) (732 ppm active quat) to treat the following hard, non-porous surfaces: hatchers, setters, trays, racks, carts, sexing tables, delivery trucks and other hard surfaces. Leave all treated surfaces exposed to disinfectant solution wet for 10 minutes or more. Rinse with potable water before reuse. Then allow 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 ½ ounce per gallon of water (or equivalent use dilution) (488 ppm active quat) to treat all vehicles. Leave all treated surfaces exposed to disinfectant solution wet for 10 minutes or more and allow to air dry.

RENDERING PLANT/DRESSING PLANT DISINFECTANT/FUNGICIDE/VIRUCIDAL DIRECTIONS (DRESSING PLANT AND RENDERING PLANT DISINFECTANT – VIRUCIDE DIRECTIONS): Pre-clean all surfaces before using this product. Disinfect walls and floors in poultry and animal dressing plants. Disinfect offal rooms, exterior walls and loading platforms of dressing plants. Cover or remove all food and packaging materials. Remove all gross soils. Saturate all surfaces with the recommended use solution of ¾ ounce of this product per gallon of water (or equivalent use dilution) (732 ppm active quat). Scrub to loosen all soils. Allow treated surfaces to soak for 10 minutes and thoroughly rinse all wetted and cleaned surfaces with potable water.

FARM PREMISE DISINFECTION DIRECTIONS

For use in Equine, Dairy and Hog Farms

1. Remove all animals and feed from premises, vehicles and enclosures.
2. Remove all litter and manure from floors, walls and surfaces of barn, pens, stalls chutes and other facilities and fixtures occupied or transversed by animals.
3. Empty all troughs, racks and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate all surfaces with the recommended disinfecting or virucidal solution (¾ oz. per gallon of water or equivalent use dilution) (732 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, or 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.

CLEANING AND DISINFECTION: For all general cleaning and disinfection use ½ ounce of this product per gallon of water (or equivalent use dilution) (488 ppm active quat). Apply this product using a cloth, mop, or pressure sprayer so as to thoroughly

14/21

wet surface to be disinfected. Allow to remain wet for 10 minutes and then let air dry. For heavily soiled areas, a pre-cleaning step is required. Prepare a fresh solution after each use. For sprayer applications, use a coarse spray device.

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. Follow general disinfecting directions as outlined in that section. All treated surfaces must be thoroughly rinsed with potable water prior to reuse.

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

Directions: For cleaning and disinfecting the following hard, non-porous surfaces: Equipment, utensils, instruments, cages, kennels, stables, stalls and catteries. Remove all animals and feeds from premises, animal transportation vehicles, crates etc. Remove all litter, droppings and manure from floors, walls and surfaces of facilities occupied or transversed by animals. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of 1/2 ounce per gallon of water (or equivalent dilution) (488 ppm active quat) for a period of 10 minutes. 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.

COMMERCIAL FLORIST USE DIRECTIONS (Not for use in California.): To clean, disinfect and deodorize hard, non-porous surfaces in one step, prepare use solution by adding (mixing) 1/2 ounce per gallon of water (1:256). For heavy-duty cleaning, add (mix) 2 ounces per gallon of water (1:64).

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 recommended and 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 sprayer. Spray 6-8 inches from surface. Rub with brush, sponge or cloth. Do not breathe spray.

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

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

SANITIZER DIRECTIONS FOR NON-FOOD CONTACT SURFACES

Preparation of sanitizer use solution: Add 1/4 ounces of this product to 1 gallon of water (or equivalent use dilution) (732 ppm active) to sanitize hard, non-porous surfaces. At 732 ppm active, this product is an effective one-step sanitizer against *Staphylococcus aureus* and *Escherichia coli*.

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

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

Treated surfaces must remain wet for 60 seconds, then wipe with sponge, mop or cloth or allow to air dry.

SHOE BATH SANITIZATION: To prevent cross contamination into treated animal areas, and the packaging and storage areas of food plants, shoe baths containing one inch of freshly made solution should be placed at all entrances to buildings, hatcheries and at all the entrances to the production and packaging rooms. Scrape waterproof shoes and place in 3/4 ounces of this product per 1 gallon (or equivalent use dilution) (732 ppm active quat) of water solution for 60 seconds prior to entering area. Change the sanitizing solution in the bath at least daily or sooner if solution appears dirty.

SHOE FOAM DIRECTIONS: To prevent tracking harmful organisms into animal areas, and the packaging and storage areas of food plants, apply a foam layer approximately 0.5 to 2 inches thick made from a solution of 1/4 to 1.125 ounces per gallon of water (or equivalent use dilution) (732 to 1098 ppm active) at all entrances to buildings, hatcheries, production and packaging rooms by using a foam generating machine or aerator to apply foam layer. Follow the foaming directions as specified by the manufacture of the foam generator/aerator. Scrape waterproof shoes. Stand and/or walk through foamed area for 60 seconds prior to entering area. Foam area should be washed and replaced at least daily or when it appears dirty.

SALON/BARBER INSTRUMENTS AND TOOLS SANITIZER DIRECTIONS: Pre-clean soiled instruments and tools. Completely immerse water safe non-porous instruments and tools in a solution of 1/4 ounce per gallon (or equivalent use dilution) (732 ppm active quat) of water for at least 60 seconds. Rinse thoroughly and dry before use. Prepare a fresh solution at least daily or more often if solution becomes cloudy or soiled.

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

Ultrasonic Bath Sanitizer Directions: Use this product to disinfect hard, (inanimate) non-porous, non-critical objects compatible with Ultrasonic cleaning units. Pour a fresh solution of 1/4 ounce per gallon of water (or equivalent use dilution) (732 ppm active quat) directly into bath chamber. Pre-clean soiled objects. Place objects into unit and operate for a minimum of 60 seconds, according to manufacturers' use directions. Remove objects and rinse with sterile water (sterile water for injection), or allow to air dry. Replace solution at least daily or when solution becomes visible dirty or discolored.

Sanitization 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 1/4 ounce of this product for each gallon of (or equivalent use dilution) (732 ppm active quat) 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 60 seconds. 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.

Footbath Sanitizer Directions: 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 1/4 oz per gallon of water (or equivalent use dilution) (732 ppm active quat) to exposed surfaces with a cloth, mop, sponge or sprayer. Brush or swab thoroughly and allow solution to stand for 60 seconds. For spray applications, use a coarse spray device. After the unit has been

15/21

thoroughly sanitized, rinse all cleaned surfaces with fresh water. Do not breathe spray. Do not use equipment until treatment has been absorbed, set or dried.

Humidifier Sanitizer Directions (Not applicable in CA): Thoroughly clean water tank and filters. Add ¾ ounce of this product per gallon of refill water. Not for use in heat or atomizing type humidifiers.

OR

Humidifier Bacteria/Algae Treatment (Not applicable in CA): Formulated for use in portable humidifiers. Thoroughly clean water tank and filters before each heating season, or sooner if necessary. For every 2 gallons of water in the humidifier tank add 1½ ounce of this product. When you refill the tank, add 1½ ounce of this product for every 2 gallons of water in the tank.

Not for use in heat vaporizing or atomizing type humidifiers.

WATER AND SMOKE DAMAGE RESTORATION (Not applicable in CA)

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, sub floors, drywall, trim, and frame lumber, tackless strip and paneling. Using solutions recommended, saturate affected materials with enough product to remain wet for at least 10 minutes. Use proper ventilation.

Sewer backup & river flooding: During mitigation procedures, dilute ¾ to 1.5 ounces of this product per gallon of water allowing for the diluting effect of absorbed water within saturated materials. Remove gross filth or heavy soil along with non-salvageable materials. Saturate all affective areas with a sprayer using a coarse spray tip, before and after cleaning and extraction.

Carpets, carpet cushions and other porous materials such as 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 ¾ to 1.5 ounces of the product per gallon of water, 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 through extraction. Dry rapidly and thoroughly.

Special Instructions for Cleaning Carpet Against Odor Causing Bacteria: This product may be used in industrial and institutional areas such as homes, motels & hotel chains, nursing homes, schools and hospital(s). For use on wet, cleanable synthetic fibers. Do not use on wool. Vacuum carpet thoroughly prior to cleaning. Test fabric for color fastness.

For Portable Extraction Units: Mix 3/8 ounce of this product per gallon of water.

For Truck Mounted Extraction Machines: Mix 13 ounces of the product per 1½ gallons of water and meter at 4 gallons per hour.

For Rotary Floor Machines: Mix ¾ ounce of this product per gallon of water 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.

Smoke Damage Restoration (Not applicable in CA): 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, sub floors, drywall, trim and frame lumber, tackless strip and paneling. Follow directions as outlined in the Water Damage Restoration section. Using solutions recommended, saturate affected materials with enough product to remain wet for at least 10 minutes. Use proper ventilation.

CARPET SANITIZER AGAINST ODOR-CAUSING BACTERIA, FOR HOME, INSTITUTIONAL, INDUSTRIAL AND HOSPITAL USE (Not applicable in CA)

This product sanitizes the carpet by controlling/reducing the growth of odor-causing bacteria. It can be used in industrial and institutional areas such as homes, motels, hotels chains, nursing homes and hospitals.

Vacuum carpet thoroughly prior to application. Mix 3/8 ounce of product per gallon of water. 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 should 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 should not be mixed with other cleaning products.

SANITIZING HATCHERY ROOMS USING FOGGING DEVICES

Remove all animals and feed from premises, vehicles and enclosures. Remove all litter and manure from floors walls and surfaces of the room to be treated. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Close room off so fog is confined to room to be treated. Mix 45 ounces this product to 1 gallon water (or equivalent use dilution). Insert the nozzle of the fogger through a suitable opening into the room. With the setting in maximum output, fog for one minute for each 4000 cubic feet of space in the room. When fogging is completed ventilate buildings and other closed spaces. Do not allow people to contact or breath this fog and do not enter until 2 hours after fogging is complete. Do not house livestock or employ equipment until treatment has been absorbed or dried. Thoroughly clean all surfaces with soap or detergent and rinse with water.

FOOD PROCESSING PLANTS USING FOGGING DEVICES

Prior to fogging, food products and packaging material must be removed from the room or carefully protected. After cleaning, fog desired areas using 1 quart per 1000 cubic feet of room area with a solution containing 1¼ ounces of product to 1 gallon of water (1,230 ppm). Vacate the area of all personnel for a minimum of 2 hours after fogging. All food contact surfaces must be thoroughly rinsed prior to reuse with potable water.

NOTE: The fog generated is irritating to the eyes, skin and mucous membranes. Under no circumstances should a room or building be entered by anyone within two hours of

16/21

the actual fogging. 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.

**FOOD CONTACT PROCESSING AND TOBACCO PROCESSING EQUIPMENT
SANITIZING DIRECTIONS**

SANITIZATION: When used for sanitization of previously cleaned food equipment or food contact items limit active quaternaries – to 200-400 ppm. At this level **NO POTABLE WATER RINSE** is allowed.

It is an effective sanitizer when diluted in water up to 500 ppm hardness (CaCO₃).

To sanitize previously cleaned and rinsed non-porous food contact surfaces, prepare 200-400 ppm active quaternary solution by adding 1-2 oz. to 5 gallons of water.

To sanitize immobile items (such as tanks, chopping blocks, counter tops) flood the area with 200-400 ppm solution or apply with a cloth or sponge making sure to wet all surfaces completely for at least 60 seconds. Let air dry. Prepare a fresh solution for each use.

To sanitize mobile items (such as drinking glasses, eating utensils), immerse in 200-400 ppm solution for at least 60 seconds making sure to immerse completely. Remove and let air dry. Prepare a fresh solution at least daily or more frequently as soil is apparent.

OR

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, 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 following the use of this product 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 a solution of 1 ounce of this product in 5 gallons of water, (or equivalent use dilution) (200 ppm active) OR mix a 1-ounce packet with 5 gallons of water to pre-cleaned, hard surfaces, thoroughly wetting surfaces with a cloth, mop, sponge, sprayer or by immersion. For spray applications, use a coarse pump or trigger sprayer. Spray 6 to 8 inches from surface. Rub with brush, sponge, or cloth. Do not breathe spray. With spray applications cover or remove all food products. From a Closed Loop Dilution Center, apply 200 ppm active solution to the surface to be sanitized. Surfaces should remain wet for at least 1 minute followed by adequate draining (and air drying).

Prepare a fresh solution at least daily or when use solution becomes visibly dirty. For mechanical application use solution may not be reused for sanitizing applications. **NO**

POTABLE WATER RINSE IS ALLOWED AFTER APPLICATION OF THE SANITIZING SOLUTION.

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 1 ounce per 5 gallons solution of this product (200 ppm active). **NO POTABLE WATER RINSE IS ALLOWED.**

At 1 ounce per 5 gallons this product (200 ppm active) eliminates 99.999% of the of the following bacteria in 60 seconds in 250 ppm hard water (calculated as CaCO₃) according to the AOAC Germicidal and Detergent Sanitizing Action of Disinfectants test.

Escherichia coli

Staphylococcus aureus

Ounces of Product	Amount of Water
0.125 ounces	¾ gallon
¼ ounce	1¼ gallon
½ ounce	2½ gallons
1 ounces	5 gallons
2 ounces	10 gallons
4 ounces	20 gallons

For Public Eating Places, Dairy Processing Equipment and Food Processing Equipment and Utensils: Apply a solution of 1 ounce of this product in 5 gallons of water (or equivalent use dilution) (200 ppm active) OR mix a 1 ounce packet with 5 gallons of water to pre-cleaned, hard surfaces, thoroughly wetting surfaces with a cloth, mop, sponge, sprayer or by immersion. For spray applications, use a coarse pump or trigger sprayer. Spray 6 to 8 inches from surface. Rub with brush, sponge, or cloth. Do not breathe spray. With spray applications cover or remove all food products. From a Closed Loop Dilution Center, apply 200 ppm active solution to the surface to be sanitized. Surfaces should 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** (after use as a sanitizer) (after application of the sanitizing solution).

For Food Processing Equipment and Utensils: Apply a solution of 1 to 2 ounces of this product in 5 gallons of water (or equivalent use dilution) (200-400 ppm active) to pre-cleaned, hard, non-porous surfaces thoroughly wetting surfaces with a cloth, mop, sponge, sprayer or by immersion. For spray applications, use a coarse pump or trigger sprayer. Spray 6 to 8 inches from surface. Rub with brush, sponge, or cloth. Do not breathe spray. With spray applications cover or remove all food products. From a Closed Loop Dilution Center, apply 200-400 ppm active solution to the surface to be sanitized. Surfaces should 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) (after application of the sanitizing solution).

17/21

DIRECTIONS FOR SANITIZING FOOD CONTACT SURFACE PUBLIC EATING PLACES, DAIRY PROCESSING EQUIPMENT AND FOOD PROCESSING EQUIPMENT, AND UTENSILS REGULATED BY 40CFR sec 180.940:

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 1 ounces of this product per 5 gallons of water (200 ppm active). Articles that can be immersed in solution should remain in solution for 60 seconds. Articles too large for immersing should be thoroughly wetted by rinsing, spraying or swabbing.
5. Remove immersed items from solution to drain (and then air dry). Non-immersed item should be allowed to air dry also. (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food).

**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 1 ounces of this product per 5 gallons of water for at least 60 seconds at a temperature of 75°F. This dilution is equivalent to a solution containing 50 ppm available chlorine.
3. For equipment and utensils too large to sanitize by immersion, apply 1 ounce of this product per 5 gallons of water (200 ppm active) by rinsing, spraying or swabbing until thoroughly wetted.
4. Allow sanitized surfaces to drain (and air dry). (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food). Do not rinse.

**WISCONSIN STATE DIVISION OF HEALTH
DIRECTIONS FOR EATING ESTABLISHMENTS**

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 ounce of this product per 5 gallons water (200 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 more often 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**

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 : lution from the Closed Loop Dilution Center (200 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 more often 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.

Sanitizing of Food Processing Equipment (Ice Machines) and Other Hard Surfaces In Food Contact Locations: Equipment and utensils must be thoroughly preflushed or prescraped and when necessary presoaked to remove gross food particles. For sanitizing food processing equipment, dairy equipment, refrigerated storage and display equipment and other hard, non-porous surfaces. No potable water rinse is allowed.

1. Turn off refrigeration
2. Wash and rinse all surfaces thoroughly.
3. Apply a solution of 1 ounce of this product in 5 gallons of water (or equivalent use dilution) (200 ppm active) by mechanical spray, direct pouring or by recirculating through the system. Surfaces must remain wet for at least one minute followed by complete draining (and drying). (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food). Prepare a fresh solution for each cleaning. No potable water rinse is allowed when product is used as directed.
4. Return machine to service.

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

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

1. Backwash the softener and add 1 ounce of sanitizer per 5 gallons of water (200 ppm active) to the brine tank well. (The brine tank should have water in it to permit the solution to be carried into the softener.) (NOTE: Standard system capacity is 48 gallons.)
2. Unit must be washed with a compatible detergent and rinsed with potable water before sanitizing
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.

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

1. Turn off RO system, drain storage tank and remove membrane element and pre-filters. Put membrane element in a plastic bag so it remains wet. Do not use this product to sanitize the membrane element. Membrane element must be sterilized separately.
2. Unit must be washed with a compatible detergent and rinsed with potable water before sanitizing
3. Fill empty pre-filter housing with 1 ounce of sanitizer per 5 gallons of water (200 ppm active) and turn on raw water. (NOTE: Standard system capacity is 1 to 2 gallons).
4. After holding tank is full, let system stand idle for a minimum of 60 seconds. Turn off water. Drain holding tank.

18/21

- Before the system is put back into service, flush system with potable water to assure sanitizing solution is rinsed thoroughly from system. Follow the manufacturer's directions for re-installation of new pre-filters, membrane element and post filter.

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

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

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

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

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

DIRECTIONS FOR RESTAURANT AND BAR SANITIZER

Equipment and utensils should 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 1 ounce of this product per 5 gallons of water (or equivalent use dilution) (200 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 (200 ppm active quaternary). Allow surface to remain wet for at least 60 seconds. Drain thoroughly and air dry before reuse. (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food) No potable water rinse is allowed.

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 1 ounce of this product per 5

gallons of water (or equivalent use dilution) (200 ppm active quaternary). No potable water rinse is allowed.

At 1 ounce per 5 gallons this sanitizer fulfills the criteria of Appendix F of the Grade A Pasteurized Milk, Ordinance 1978 Recommendations of the U.S. Public Health Services in waters up to 250 ppm of hardness calculated as CaCO₃ when evaluated by the AOAC Germicidal and Detergent Sanitizer Method against Escherichia coli and Staphylococcus aureus.

Dairy Cow Application Directions: The udders, flanks and teats of dairy cows can be washed with a solution of 1 ounce of this product per 5 gallons of warm water. Use a fresh towel for each cow. Avoid contamination of wash solution by dirt and soil. Do not dip used towel back into wash solution. When solution becomes visibly dirty, discard and provide fresh solution.

BEVERAGE DISPENSING EQUIPMENT SANITIZER DIRECTIONS

For sanitizing of bottling or pre-mix dispensing equipment, after cleaning thoroughly rinse equipment with cold or lukewarm potable water. Fill equipment with a solution of 1 ounce of this product per 5 gallons of water (or equivalent use dilution) (200 ppm active). Allow solution to remain in equipment for at least 60 seconds, or until operations resume at which time the sanitizing solution should be drained from the system. To insure the removal of flavors, it is suggested that during changeover between products the system should be cleaned, rinsed and flushed with the sanitizing solution for at least 1 minute. Drain thoroughly and allow to air dry before reuse. (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food). No potable water is rinse allowed.

SANITARY FILLING EQUIPMENT SANITIZER DIRECTIONS

Recommended 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 ppm active quat. Prepare a solution of 1 ounce of this product per 5 gallons of water (or equivalent use dilution) (200 ppm active) for the exterior application for the filler and closing machine. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly and allow to air dry before reuse. (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food) No potable water rinse is allowed.

(Note: The following directions are for use in food processing areas only)

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 1 to 2 ounce(s) of this product per 5 gallons of water (or equivalent use dilution) (200-400 ppm active quaternary). No potable water rinse is allowed (Do not rinse).

To prepare a 200, 300 or 400 ppm active quaternary solution use the following dilution table.

Active quat solution	2.5 gallon	5 gallons	10 gallons	20 gallons
200 ppm	½ ounce	1 ounce	2 ounces	4 ounces
300 ppm	¾ ounces	1 ½ ounces	3 ounces	6 ounces
400 ppm	1 ounce	2 ounces	4 ounces	8 ounces

(Alternate Directions for Sanitizing Food Processing Equipment and Utensils.)

DIRECTIONS FOR SANITIZING FOOD CONTACT SURFACES IN FOOD PROCESSING EQUIPMENT AND UTENSILS, AS REGULATED BY 40CFR sec 180.940(c):

1/9/21

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.
4. Rinse articles thoroughly with potable water.

- [REDACTED]
- [REDACTED]
7. Sanitize articles using a solution of ½ to 1 ounce of this product per gallon of water (200 to 400 ppm active). Articles that can be immersed in solution should remain in solution for 60 seconds. Articles too large for immersing should be thoroughly wetted by rinsing, spraying or swabbing.
 8. 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)

STORAGE TANK SANITIZER DIRECTIONS

Recommended for sanitizing beer fermentation and holding tanks, citrus and food processing storage and holding tanks. Remove gross filth and soil by preflush or prescrape and when necessary presoak. Then wash surfaces with a compatible detergent and rinse with potable water prior to sanitizing. Prepare a solution of 1 ounce of this product per 5 gallons of water (or equivalent use dilution) (200 ppm active) 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 1 ounce of this product per 5 gallons of warm water (or equivalent use dilution) (200 ppm active). The solution should be warmer than the eggs, but not to exceed 130°F. Wet eggs thoroughly and allow to drain. Eggs sanitized with this product shall be subjected to a potable water rinse only if they are to be broken immediately for use in the manufacture of egg products. Eggs should be reasonably dry before casing or breaking. The solution should not be reused for sanitizing eggs.

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

FOR CONTINUOUS 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 200 ppm quat level (1 ounce per 5 gallons) (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. Do not allow this solution to be sprayed directly on food. During interruptions in operation, coarse spray equipment, peelers, collators, slicers and saws with this product at a dilution of 200 ppm active quat. Conveyor equipment should be free of product when applying this coarse spray.

FOR SANITIZING IN FISHERIES, MILK, CITRUS, POTATO & ICE CREAM PROCESSING PLANTS: For use as a sanitizer on conveyor belts and equipment to reduce or eliminate odors in the processing area. Also, for use on filling equipment to reduce bacteria associated with condensation on equipment and pipes. Follow directions for sanitizing food contact surfaces.

GLOVE DIP SANITIZER DIRECTIONS: To prevent the spreading of harmful organisms into animals 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 ounce of this product per 5 gallons of water (or equivalent use dilution) (200 ppm active). Dip (Soak) in solution for 60 seconds. **NO POTABLE WATER RINSE IS ALLOWED.** Change the sanitizing solution in the bath at least daily or when solution appears dirty. **Do not let sanitizing solution come into contact with exposed skin.**

FOOD PROCESSING PLANTS USING FOGGING DEVICES

Prior to fogging, food products and packaging material must be removed from the room or carefully protected. After cleaning, fog desired areas using 1 quart per 1000 cubic feet of room area with a solution containing 1¼ ounces of product to 1 gallon of water (1,230 ppm). Vacate the area of all personnel for a minimum of 2 hours after fogging. All food contact surfaces must be thoroughly rinsed prior to reuse with potable water.

NOTE: The fog generated is irritating to the eyes, skin and mucous membranes. Under no circumstances should a room or building be entered by anyone within two hours of the actual fogging. 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.

MUSHROOM FARM INDUSTRY USE DIRECTIONS

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

Disinfection: Use ½ ounce of this product per gallon of water (or equivalent dilution). Wet all surfaces thoroughly. Treated surfaces should be allowed to remain wet for 10 minutes. Let air-dry. For heavily soiled areas, preclean first. Prepare a fresh solution for each use.

For Heavy Duty Cleaning: When greater cleaning is desired, use 1 ounce of this product per gallon of water (or equivalent dilution). Heavily soiled areas may require repeated cleaning before treatment.

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

(Alternative language for bag in the box dispensing equipment.)

DIRECTIONS FOR 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.

12/28

**HALF OUNCE PACKET LABEL TO BE USED WITH MASTER
CONTAINER LABEL FOR DISINFECTION**

FOR DISINFECTION

MIX EACH PACKET WITH 1 GALLON OF WATER

MAQUAT 256

E.P.A. Reg. No. 10324-56 E.P.A. Est. No. 10324-IL-1

NET CONTENTS: ½ FLUID OZ.

ACTIVE INGREDIENTS:

Alkyl (C₁₄ 60%, C₁₆ 30%, C₁₂ 5%, C₁₈ 5%)
dimethyl benzyl ammonium chloride..... 6.25%
Alkyl (C₁₂ 68%, C₁₄ 32%)
dimethyl ethylbenzyl ammonium chloride..... 6.25%

INERT INGREDIENTS:..... 87.50%

TOTAL:..... 100.00%

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



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

FOR FOOD CONTACT SANITIZER

MIX EACH PACKET WITH 5 GALLONS OF WATER

MAQUAT 256

E.P.A. Reg. No. 10324-56 E.P.A. Est. No. 10324-IL-1

NET CONTENTS: 1.0 FLUID OZ.

ACTIVE INGREDIENTS:

Alkyl (C₁₄ 60%, C₁₆ 30%, C₁₂ 5%, C₁₈ 5%)
dimethyl benzyl ammonium chloride..... 6.25%
Alkyl (C₁₂ 68%, C₁₄ 32%)
dimethyl ethylbenzyl ammonium chloride..... 6.25%

INERT INGREDIENTS:..... 87.50%

TOTAL:..... 100.00%

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



21/21