

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

501 9 2004

SUBJECT: Maquat 20-M  
EPA Registration Number: 10324-94  
Application Dated: January 19, 2004  
Receipt Date: January 20, 2004

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:

- add public health pests
- update use sites

#### Efficacy Data

##### Acceptable Studies

Data Requirement	Means of Support	Status
<i>Hepatitis C virus</i>	Submitted study, MRID 461753-04 and -05	Acceptable @ 1:320 in 5% soil for 10 minutes
<i>Human coronavirus</i>	Submitted study, MRID 461753-02	Acceptable @ 1:320 in 5% soil for 10 minutes
<i>Canine coronavirus</i>	Submitted study, MRID 461753-01	Acceptable @ 1:320 in 5% soil for 10 minutes

No claims may be made for these organisms (Human Coronavirus or Canine Coronavirus) as the causative agent of Severe Acute Respiratory Syndrome (SARS).

#### CONCURRENCES

SYMBOL	75106							
SURNAME	J. Tannehill							
DATE	7/8/04							

**Conditions**

Revise the label as follows:

A. Make the following revisions to page two:

1. Revise the section beginning "This product is recommended for use in household and commercial humidifiers..." by deleting the reference to control of "a build up of slime and". The claim for control of slime is only appropriate for products used in an industrial setting such as to control slime in the manufacture of paper.
2. Your label does not include directions for use of this product as a "sanitizer" for whirlpools or Ultrasonic Baths. As such revise to state: "This product is a versatile cleaner and broad spectrum disinfectant formulated for use on bath and therapy equipment (Whirlpools). and This product is a versatile broad spectrum disinfectant formulated for use in Ultrasonic Baths (Ultrasonic cleaning units)."
3. Delete the site "footbath surfaces". Without specific directions for use in footbaths the term is misleading as to how the product is used at this site.
4. Revise to state: "This product is effective against household germs and odors caused by animal..."

B. Make the following revision to page three:

Revise the two statements on this page beginning "Health clubs, spas, tanning spas/beds..." by deleting "footbaths" and "Patient care rooms & facilities, recovery..." by deleting "footbaths". You have not provided specific directions for the treatment of footbaths.

C. Make the following revisions to page four:

1. Delete the material "fiberglass" from the 6th bullet in the left column. Fiberglass is considered a porous surface.
2. Revise the section beginning: "Use this product to clean, sanitize and disinfectant non-porous personal protective...and allow to air dry. (*Precaution:* Cleaning at the recommended..." Use of a signal word, Caution, within the text of the label is unacceptable.
3. Revise to reflect the submitted data as follows; "This product is an effective sanitizer in the presence of soils on *non food contact surfaces*."

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DATE							

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

3/20

4. You have submitted data on "small flies". This data is still in review with the Registration Division. Thus delete the claim for small flies on page one and four as well as the two sets of directions for this use on page eight headed: "For Control of Small Flies on Non-Food Contact Surfaces" and "For Control of Small Flies in Drains."

D. Make the following revisions to page five:

1. As per PR Notice 2000-5 which indicates when mandatory language is to be used, revise the "Note" to read exactly as follows: "Prepare a fresh solution at least daily or when use solution becomes visibly dirty...." deleting "A fresh solution should be prepared".

2. The data which was submitted to support Hepatitis C Virus was not performed in 200 ppm hard water nor was it performed in 100 % serum. As such revise the claim beginning "At 2 ounces per 5 gallons...in 200 ppm hard water...100% serum..." by deleting the claim for "Hepatitis C Virus (HCV).

E. Make the following revisions to page six:

1. Revise the section beginning "Kills HIV, HCV, and HBV on Precleaned..." by using the complete names: Hepatitis B Virus and Hepatitis C Virus at the end of this statement.

2. As per item D. 2. above, revise the HIV-1, HCV and HBV directions for use by deleting the following phrase from the "Contact Time" instructions as it is not supported by the submitted data: "in the presence of 200 ppm hard water (CaCO<sub>3</sub> and 100% serum.)"

3. Revise the directions for "Fungicidal Activity" to include: "...(a cause of Ringworm)..."

4. Revise the directions for "Cleansing of Body Surfaces and Body Orifices of Human Remains" by deleting the phrase: "and to remove and reduce surface contamination". As these directions are only for cleansing, removal of surfaces contamination implies antimicrobial activity and is unacceptable.

5. Revise both sets of directions for Barber/Salon Tools as per PR Notice 2000-5 which indicates when mandatory language is to be used, to read exactly as follows: "Prepare a fresh solution at least daily or when use solution becomes cloudy or soiled." deleting "Fresh solution should be prepared".

6. Delete the reference to urinals in the directions "From Concentrate." It is not appropriate to treat a urinal with the concentrate as there is no water in the urinal in which to dilute this product.

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DATE							

F. Make the following revisions to page seven:

1. Revise the "Disinfecting...Bath and Therapy Equipment" as follows:  
"...thoroughly disinfected, drain solution from the unit..." deleting the word cleaned.
2. The Agency has concerns regarding the following statement in the "Directions for Fogging:" "To sanitize hard, non-porous room surfaces as a adjunct to acceptable...as described above." Delete this statement.
3. Revise the directions for fogging to include the following statement: "...All food contact surfaces must be sanitized with an *EPA approved food contact sanitizer* solution of 200 ppm...prior to use..."

G. Make the following revision to page eight:

Revise the "Dressing Plant and Rendering Plant Disinfection/Virucide..." directions to include the following at the end of each section: "Rinse all surfaces which contact food with potable water before reuse."

H. Make the following revisions to page nine:

1. Revise the "Laundry Sanitizer" directions to indicate: "...high relative humidity or **wet** contamination..." and correct the rate to **1.75** ounces per 100 pounds such that this product is in agreement with the cited me-too label.
2. As per the submitted data to support this use of this product as a non-food contact sanitizer, revise the following sets of directions to indicate a **3 minute** contact time: "Shoe Bath Sanitizer," "Shoe Foam," "Glove Dip Sanitizer," and "Salon/Barber Instruments and Tools Sanitizer."
3. Correct the rate for Entryway Sanitizing Systems to read: "**0.255-0.51** ounces per gallon of water (**0.75-1.5** ounces per 2 7/8 ounces per gallon of water)" such that this product is in agreement with the cited me-too label.
4. Revise the "Glove Dip Sanitizer Directions" as follows:
  - a. since your product is cleared as a food contact sanitizer we will allow the gloves to be sanitized prior to use in packaging and storage areas of food plants.
  - b. specify that only non porous gloves may be treated.
  - c. we are very concerned about personnel exposing their hands to the sanitizing solution, thus place the following statement in bold text: "**Do not let sanitizing solution come into contact with exposed skin.**"

I. Make the following revisions to page ten:

1. Delete the following statement in the "Sanitizing incubators and Hatchers Using Fogging Devices" sections. Delete: "...and do not enter until the fog has settled (30-60 minutes after fogging is completed.)" as this statement is not in agreement with the "Note" which follows stating a two hour re-entry interval.

2. Correct the rate in the fourth section of the Food Contact and Tobacco Processing Equipment Sanitizing Directions such that the rate is in agreement with the 0.5 ounce package marketed with this label: "...OR mix a **0.5** ounce packet with 4 gallons of water to..."

J. Make the following revisions to page eleven:

1. Revise the two "Note"(s) to be in agreement with the last stamped label for this product: "...under Section **HSS 196.13** of the Wisconsin..."

2. Revise the 6<sup>th</sup> statement of each set of Wisconsin State Divisions of Health directions to be in agreement with PR Notice 2000-5 which indicates when mandatory language is to be used, revise to read exactly as follows: "Prepare a fresh solution at least daily or when use solution becomes visibly soiled..." deleting "(Fresh sanitizing solution should be prepared)".

3. Revise the directions for Sanitization of Water Softeners, Reverse Osmosis Units, and Ice Machines to include the following statement immediately prior to item #2 in each set of directions: "*Unit must be washed with a compatible detergent and rinsed with potable water before sanitizing.*"

4. Revise the directions for Sanitization of Water Softeners, Reverse Osmosis Units, and Ice Machines, Water Coolers, Water Holding Tanks and Pressure Tanks by correcting the rate to be in agreement with the cited "me-too" to read **1** ounce per 8 gallons. (Note that these directions continue onto page twelve.)

K. Make the following revision to page thirteen:

Revise the directions for treatment of Meat and Poultry or Fruit and Vegetable Conveyors to be in agreement with PR Notice 2000-5 which indicates when mandatory language is to be used, revise to read exactly as follows: "Conveyor Equipment *must* be free of product..."

**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.

6/20

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,

A handwritten signature in black ink, appearing to read 'Velma Noble', with a stylized, cursive script.

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

Enclosure: Stamped Label  
7510C:T.Lantz:7/8/04:10324-94b

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

**DANGER, Keep Out of Reach of Children.** Corrosive. Causes irreversible eye damage and skin burns. May be fatal if swallowed. Harmful if swallowed absorbed through the skin. Do not get into eyes, on skin or on clothing. Wear goggles or face shield and rubber gloves and protective clothing when handling. Wash thoroughly with soap and water after handling. 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 by other procedures approved by state and local authorities. In addition, plastic containers may be disposed of by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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

**STORAGE AND DISPOSAL**

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

JUL 9 2004

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No 10324-94

**MAQUAT<sup>®</sup> 20-M**

Disinfectant - Sanitizer - Deodorizer - Fungicide - Mildewstat - Virucide\* - With Organic Soil Tolerance For Hospitals Nursing Home, 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:**

Alkyl (C<sub>14</sub> 60%, C<sub>16</sub> 30%, C<sub>12</sub> 5%, C<sub>18</sub> 5%)

dimethyl benzyl ammonium chloride..... 10.0%

Alkyl (C<sub>12</sub> 68%, C<sub>14</sub> 32%)

dimethyl ethylbenzyl ammonium chloride..... 10.0%

**INERT INGREDIENTS:** ..... 80.0%

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

**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.

**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 30005

847-290-1621

Toll Free:

1-800-362-1855

E.P.A. Reg. No. 10324-94

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

NET CONTENTS

BATCH NO

This product contains no phosphorous.

This product is a phosphate-free formulation designed to provide effective cleaning, deodorizing and disinfection in areas where housekeeping is of prime importance in controlling the hazard of cross contamination on treated surfaces.

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

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

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

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 also 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 even in the presence of hard water.

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

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 625 ppm active). A potable water rinse is not allowed when used 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 as a sanitizer in wineries for use on holding tanks, floors and processing equipment.

This product is recommended for use in household and commercial humidifiers. Use of this product will control [REDACTED] unpleasant (malodors) odors.

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

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

Use this product to sanitize and disinfect non-porous salon/barber tools and instruments: (such as) combs, brushes, scissors, clippers, trimmers, razors, blades, tweezers and manicure instruments [REDACTED]

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

This product is recommended for use as a Hatching-Egg 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 cause(d) 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 on shower curtains.

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 provides effective cleaning strength that will not dull most metal-interlock floor finishes, and does not require a rinse prior to recoat.

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.

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

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

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

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:

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 grim.

Disinfects (and Sanitizes) kitchen surfaces (bathroom surfaces and floors). Sanitizes kitchen surfaces (bathroom surfaces and floors). 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 (and viruses\*).

Maquat 20-M 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, respiratory therapy, surgi-centers, labs, blood collection rooms, central supply, housekeeping & janitorial rooms.
- EMS & fire facilities, emergency vehicles, ambulance(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, photo copy centers, bicycle shops, auto repair centers.
- Computer manufacturing sites, toy factories.

- Food establishments, coffee shops, donut shops, bagel stores, pizza parlors, liquor stores.
- Crime scenes and funeral homes, mortuaries, burial vaults, mausoleums, autopsy rooms.
- Police stations, courthouses, correctional facilities, jails, prisons, municipal government buildings, 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/beds, massage/facial salons, hair/nail/pedicure salons, barber/beauty shops, salons, tattoo parlors.
- Museums, art galleries, post offices, performance/theater centers, banks, libraries, movie houses, bowling alleys.
- Recycling centers.
- Humidifier water tanks.
- 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, Wine, Fruit, Vegetable, Ice Cream and Potatoes and beverage plants.
- Tobacco plant 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.

- 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.
- Counters (countertops), Slurpy® machines, stoves (stovetops), 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, [REDACTED], 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, moonwalk, slides, obstacle course play and exercise equipment.
- Beer fermentation and holding tanks, bottling or pre-mix dispensing equipment.
- Wine processing equipment and holding tanks.
- 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, toilet 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.

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, Egg Holding Area, Setter Room, Tray Dumping Area, Trays, Buggies, Racks, Egg Flats, Chick Holding Room, Hatchery Room, Chick Processing Area, Chick Loading Area, Poultry Buildings, Ceilings, Side walls and Floors, Drinkers, and all other hard non-porous Poultry House related equipment, and surfaces in the Hatchery environment.

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

This product has been cleared by the FDA in 21 CFR Section 178.1010 for use on food processing equipment, utensils, and other food contact articles at a concentration of 200 ppm active.

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

**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 Hepatitis C Virus.

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

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

**This product is an effective sanitizer in the presence of soils.**

and plastic in restaurants, at the home and in the office, and in public places.

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

To prevent cross contamination, kitchenware and food contact surfaces of equipment should 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:)

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 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 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 (mist) pump or trigger sprayer. Spray 6-8 inches from surface and rub with brush, sponge or cloth. Do not breathe spray (mist).

**NOTE:** With spray applications, cover or remove all food products. Prepare a fresh solution XXXXXXXXXX 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.

Add 2 ounces of this product to 5 gallons of water (625 ppm active quat) OR mix a 2 ounce packet with 5 gallons of water. Treated surfaces must remain wet for 10 minutes. At this use level, this product is bactericidal according to the AOAC Use Dilution Test method on hard inanimate surfaces modified in the presence of 5% organic serum against:

*Burkholderia cepacia*  
*Campylobacter jejuni*  
*Corynebacterium ammoniaegenes*  
*Escherichia coli* 0157:H7  
*Enterococcus faecium* (Vancomycin Resistant) (VRE)

*Pseudomonas aeruginosa*  
*Salmonella choleraesuis*  
*Salmonella typhi*  
*Shigella sonnei*  
*Staphylococcus aureus*

*Klebsiella pneumoniae*  
*Listeria monocytogenes*  
*Proteus mirabilis*

*Staphylococcus aureus* (Methicillin resistant)  
*Yersinia enterocolitica*

**Virucidal Performance:** At 2 ounces per 5 gallons use level (625 ppm active quat), this product was evaluated in the presence of 5% serum with a 10 minute contact time and found to be effective against the following viruses on hard non-porous environmental surfaces.

Avian influenza /Turkey/Wisconsin  
Avian Reovirus  
Bovine Viral Diarrhea  
Infectious Bronchitis Virus  
Infectious Bovine Rhinotracheitis virus (IBR)  
Canine Coronavirus  
Canine Distemper  
Equine Arteritis virus  
Herpes Simplex Type 1  
Herpes Simplex Type 2  
Hepatitis B Virus

Hepatitis C Virus  
Human Coronavirus  
Infectious Laryngotracheitis  
Influenza A2/Japan  
Newcastle disease virus  
Porcine Respiratory & Reproductive Virus (PRRSV)  
Porcine Rotavirus  
Pseudorabies virus  
Transmissible Gastroenteritis (TGE)  
Vaccinia virus

## Hospitals, Dental Offices, Nursing Homes and other Health Care Institutions Disinfection and Virucidal Dilution Chart

Ounces of Product	Amount of Water
0.1 ounces	1 quart
0.2 ounces	½ Gallon
0.4 ounces	1 gallon
1.0 ounces	2 ½ gallons
2.0 ounces	5 gallons
4.0 ounces	10 gallons

At 2 ounces per 5 gallons (or equivalent use dilution) (625 ppm active quat) in the presence of 200 ppm hard water (CaCO<sub>3</sub>) and 100% serum this product was proven to be effective against (Duck) Hepatitis B Virus XXXXXXXXXX with a contact time of 10 minutes.

**General Disinfectant-Non-medical (schools, restaurants, food services, dairies, farm, beverage and food processing plants):** Add 1.5 ounces of this product to 5 gallons of water (469 ppm active quat).

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 with a 10 minute contact time against:

*Campylobacter jejuni*  
*Escherichia coli* 0157:H7  
*Listeria monocytogenes*  
*Proteus mirabilis*

*Salmonella choleraesuis*  
*Staphylococcus aureus*  
*Staphylococcus aureus* (Methicillin resistant)  
*Yersinia enterocolitica*

## General Disinfectant-Non-medical Dilution Chart

Ounces of Product	Amount of Water
0.075 ounces	1 quart
0.15 ounces	½ Gallon
0.3 ounces	1 gallon
0.75 ounces	2 ½ gallons
1.5 ounces	5 gallons
3.0 ounces	10 gallons

**\*KILLS HIV, HCV AND HBV ON PRECLEANED ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD/BODY FLUIDS** in health care setting or other settings in which there is an expected likelihood of soiling of inanimate surfaces/objects with 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 I (HIV-1) (associated with AIDS), HCV and HBV.

**"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:** For HIV, leave surfaces wet for two minutes with 2¼ ounces per 5 gallons (or equivalent use dilution) (703 ppm active quat) use solution. This contact time will not control other common types of viruses and bacteria. For HBV and HCV, leave surfaces wet for 10 minutes with 2 ounces per 5 gallons (or equivalent use dilution) (625 ppm active quat) [REDACTED]

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

**For Use on Finished Floors:** To limit gloss reduction, use 4 ounces of this product per 5 gallons of water. Apply with a damp mop or auto scrubber. Allow to air dry.

**General Deodorization:** To deodorize, add 1½ ounces of this product to 5 gallons of water (or equivalent use dilution) (469 ppm active quat). Excess material should be wiped up or allowed to air dry.

**For Deodorizing Garbage Cans, Garbage Trucks, Industrial Waste Receptacles and Garbage Handling Equipment:** It is especially important to preclean for the product to perform properly. Then, apply a wetting concentration of 1.625 ounces of this product per gallon of water (or equivalent use dilution) (2,500 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 2 ounces per 5 gallons use-level (or equivalent use dilution) (625 ppm active quat) this product is effective against Trichophyton mentagrophytes (athlete's foot fungus) (cause of Ringworm) on inanimate surfaces in the presence of 5% blood serum in locker rooms, dressing rooms, shower and bath areas and exercise facilities.

**Mold and Mildew Control:** At 2 ounces per 5 gallons, (or equivalent use dilution) (625 ppm active quat) this product will effectively inhibit 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.

**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, [REDACTED] apply 1.5 ounces of this product to 5 gallons of water (429 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, moonwalk, slides, obstacle course play and exercise equipment): Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of 2 ounces per 5 gallons (625 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 of Barber/Salon Tools Directions:** Pre-cleaned barber/salon tools, such as combs, brushes, razors, clipper and trimmer blades, tweezers, manicure/pedicure tools and scissors, can be disinfected by immersing in 0.3 ounces per gallon solution of this product (or equivalent use dilution) (469 ppm active quat). Completely immerse instruments and tools for at least 10 minutes. Rinse thoroughly and dry before use. Fresh solution should be prepared at least daily or more often if solution becomes cloudy or soiled.

**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 0.4 ounce per gallon solution of the product (or equivalent use dilution) (625 ppm active quat). Completely immerse instruments and tools for at least 10 minutes. Rinse thoroughly and dry before use. Fresh solution should be prepared 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.

#### **NON-ACID TOILET BOWL (AND URINAL) DISINFECTANT DIRECTIONS**

Remove gross filth prior to disinfection.

**From Concentrate:** Add ½ oz. to the toilet bowl [REDACTED] and mix. Brush thoroughly over exposed surfaces and under the rim with a cloth, mop, or sponge. Repeat and allow to stand for 10 minutes and flush.

**From use-solution:** Empty toilet bowl or urinal and apply a 0.3 oz 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 spray application, use a coarse spray device.

**For Heavy Duty Cleaning:** Empty toilet bowl or urinal and apply 9 ounces per 5 gallons (or equivalent dilution) 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.

**Cleaning/Deodorizing Directions:** Add 1 1/8 to 4.5 ounces per gallon (or equivalent dilution) 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 (mist).

**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 0.4 ounces per gallon of water (or equivalent use dilution) (625 ppm active quat) directly into bath chamber. Pre-clean soiled objects. Place objects into unit and operate for a minimum of 10 minutes, according to manufacturers' use directions. Remove objects and rinse with sterile water (sterile water for injection), or allow to air dry. Replace solution at least daily or when solution becomes visibly dirty or discolored.

**For Disinfecting Hard, Non-porous Bath (Fiberglass) and Therapy Equipment:** To remove body oils, dead tissue, soil and all other buildups or organic matter on inanimate surfaces after using the whirlpool unit, drain the water and refill with fresh water to just cover the intake valve. Add 2 ounces of this product for each 5 gallons of water (0.40 ounces per one gallon) (625 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 any/all 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 2 ounces of this product for each 5 gallons of (0.40 ounces to one gallon) (625 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.

**To Disinfect Food-Processing and Tobacco Premise:** (For) floors, walls and storage areas, add 1½ ounces of this product to 5 gallons of water (or equivalent use dilution) (469 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. For sprayer applications use a coarse spray device. Allow to remain wet for 10 minutes. Then remove excess liquid. For sprayer applications, use a coarse (mist or) spray. 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 1½ ounces of this product to 5 gallons of water (or equivalent use dilution) (469 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. For sprayer applications use a coarse spray device. Allow to remain wet for 10 minutes. Then remove excess liquid and rinse the surface with potable water.

**For use on non-food contact surfaces as a general disinfectant in the brewery industry:** Use 1½ ounces of this product per 5 gallons of water (or equivalent use dilution) (469 ppm active quat). Follow the general 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 ¾ ounce product to 1 gallon of water (or equivalent use dilution) (1,200 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 a product solution of 200 ppm active quaternary (½ ounce per 4 gallons) 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.**

**Disinfection of Poultry/Turkey Equipment, Swine Quarters, Animal Quarters and Kennels:** Prior to disinfection, remove all poultry, other animals and their feed from premises, trucks, coops and crates. Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other surfaces of facilities and fixtures occupied or traversed by poultry or other animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Use 1½ ounces of this product per 5 gallons of water (or equivalent use dilution) (469 ppm active quat). Saturate surfaces with the recommended disinfecting solution for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.

After disinfection, 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.

**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 2 ounces of this product per 5 gallons of water (or equivalent use dilution) (625 ppm active quat). Saturate surfaces with the recommended disinfecting solution for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.

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

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

**HATCHERIES:** For general disinfection, use 1½ ounces of this product per 5 gallons of water. For disinfection/fungicide/virucide, use 2 ounces of this product per 5 gallons of water. Apply to hatchers, setters, trays, racks, carts, sexing tables, delivery trucks and

other hard surfaces. Leave all treated surfaces exposed to solution (wet) for 10 minutes or more and allow to air dry. Rinse surfaces with potable water. 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 (mist or) spray. Use 1½ ounces of this product per 5 gallons of water for general disinfection. Use 2 ounces of this product per 5 gallons of water for disinfection/fungicide/virucide. Leave all treated surfaces exposed to solution for 10 minutes or more and allow to air dry.

**DRESSING PLANT AND RENDERING PLANT DISINFECTANT DIRECTIONS (RENDERING PLANT/DRESSING PLANT DISINFECTANT DIRECTIONS):** Cover or remove all food and packaging material before disinfection. Remove gross soils. Disinfect equipment, utensils, walls and floors in poultry and animal dressing plants with a solution of 1½ ounces of this product per 5 gallons of water (or equivalent use dilution) (469 ppm active quat). Equipment and utensils must remain wet for 10 minutes then thoroughly rinsed with potable water before operations are resumed. Disinfect all rooms, exterior walls and loading platforms of dressing plants.

**DRESSING PLANT AND RENDERING PLANT DISINFECTANT - FUNGICIDE - VIRUCIDE DIRECTIONS (RENDERING PLANT/DRESSING PLANT DISINFECTANT - FUNGICIDE - VIRUCIDE DIRECTIONS):** Cover or remove all food packaging material before disinfection. Remove gross soils. Apply to equipment, utensils, walls and floors in poultry and animal dressing plants with a solution of 2 ounces of this product per 5 gallons of water (or equivalent use dilution) (625 ppm active quat). Equipment and utensils must remain wet for 10 minutes then thoroughly rinsed with potable water before operations are resumed. Disinfect all rooms, exterior walls and loading platforms of dressing plants.

#### FARM PREMISE DISINFECTION DIRECTIONS

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

1. Remove all animals and feed from premises, vehicles and enclosures.
2. Remove all litter and manure from floors, walls and surfaces of barn, pens, (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 for a period of 10 minutes.
6. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels, scrappers used in removing litter and manure.
7. Ventilate buildings, cars, trucks, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set and dried.
8. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

**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 loads 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 2 ounces per 5 gallons of water (or equivalent dilution) (625 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:** To clean, disinfect and deodorize hard non-porous surfaces in one step, prepare Use solution by adding (mixing) 1½ ounces per 5 gallons of water (469 ppm active). For heavy-duty use, add (mix) 6 ounces per 5 gallons of water (1,875 ppm active).

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 (mist) pump or trigger sprayer. Spray 6-8 inches from surface, (and) rub with brush, sponge or cloth. Do not breathe spray (mist).

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.

**FOR CONTROL OF SMALL FLIES ON NON-FOOD CONTACT SURFACES:** For control of small flies: *Drosophila* spp. and the *Phoridae* family. To control flies on non-food contact surfaces such as floors, walls, countertops, metal surfaces, painted surfaces, glazed porcelain, glazed tile, glass, chrome, rubber, and plastic in restaurants, kitchens, dishwashing areas and bar and wait station areas. Remove food and food packaging prior to use. Cover exposed food-handling surfaces. After removing gross filth, apply a solution of 4 ounces of this product per 5 gallons of water (or equivalent use dilution) (625 ppm active quat) to surfaces and locations where flies may breed. Spray surfaces thoroughly or apply mopping, mopping and spraying onto the surface. Repeat application as often as needed. Do not contaminate food and food packaging.

**FOR CONTROL OF SMALL FLIES IN DRAINAGE:** For control of small flies: *Drosophila* spp. and the *Phoridae* family. Spray or pour solution of 4 ounces per 5 gallons of water (or equivalent use dilution) (625 ppm active quat) in drain during the lowest level of drain use. Add 14 ounces of solution daily to each drain to maintain fly control. Apply around the edge of the drain and coat all sides of inside of drain.

#### SANITIZER DIRECTIONS FOR NON-FOOD CONTACT SURFACES

**Preparation of sanitizer use solution:** Add ½ ounce of this product to 4 gallons of water (or equivalent use dilution) (200 ppm active) to sanitize hard, non-porous surfaces. At 200 ppm active, this product is an effective one-step sanitizer against *Staphylococcus aureus* and *Enterococcus aerogenes*.

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

For sprayer applications, use a coarse 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 3 minutes, then wipe with sponge, mop or cloth or allow to air dry.

**LAUNDRY SANITIZER (AGAINST ODOR CAUSING BACTERIA):** Use 3.5 ounces per 100 pounds of dry weight fabric. Dilute the appropriate amount of this product in one to two gallons of water, then add to the washwheel in the final rinse. Re-treat fabric after each washing. For residual bacteriostatic activity against odor causing bacteria, conditions of high relative humidity or wet contamination are required. Laundered fabric may also be treated by soaking.

**SHOE BATH SANITIZER DIRECTIONS:** To prevent tracking harmful organisms into animal areas, and the packaging and storage areas of food plants, shoe baths containing one inch of freshly made sanitizing 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 a ¼ ounce of this product per 2 gallons of water (or equivalent use dilution) (200 ppm active) solution for 60 seconds prior to entering area. Change the sanitizing solution in the bath at least daily or when 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 ½ to ¾ ounce per gallon of water (or equivalent use dilution) (781 to 1172 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.

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

**ENTRYWAY SANITIZING SYSTEMS:** To prevent cross contamination of harmful organisms from area to area, set the system to deliver (0.51 – 1.02 oz. per gallon of water) (1.5 – 3 oz. per 2 7/8 oz per gallon of water) (400 – 800 ppm active) of sanitizing solution. The (spray) (foam) should cover the entire path of the doorway. Set the system so that a continuous wet blanket of sanitizer solution is delivered to the floor.

Do not mix other foam additives to the sanitizing solution.

**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) 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 a 1/8 ounce of this product per gallon 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.

**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 ¼ ounce per 2 gallons (or equivalent use dilution) (200 ppm active) of water for at least 60 seconds. Rinse thoroughly and dry before use. Fresh solution should be prepared 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.

**Dairy Cow Application Directions:** The udders, flanks and teats of dairy cows can be washed with a solution of ½ ounce of this product in 4 gallons of warm water. Use a fresh towel for each cow. Avoid contamination of wash solution by dirt and soil. Do not dip used towel back into wash solution. When solution becomes visibly dirty, discard and provide fresh solution.

**Humidifier Bacteria/Algae Treatment:** Formulated for use in portable humidifiers. Thoroughly clean water tank and filters before each heating season, or sooner if necessary. For every gallon of water in the humidifier tank add 0.05 ounces of this product. When you refill the tank, add 0.05 ounce of this product for every gallon of water added.

Not for use in heat vaporizing or atomizing type humidifiers.

#### WATER/SMOKE DAMAGE RESTORATION

Effective against odor causing bacteria and fungi for home, institutional, industrial and hospital use. This product is particularly suitable for use in water damage restoration situations against odor causing bacteria on the following porous and semi-porous materials: carpets, carpet cushion, sub floors, drywall, trim, 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 ½ to 1 ounce 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 affected 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 ½ to 1 ounce of the product per gallon of water (781-1562 ppm active quat), allowing for the diluting effect of absorbed water within saturated materials. Remove gross filth or heavy soil. Apply directly with a sprayer using a coarse spray tip, to fully saturate affected materials. Roll, brush or agitate into materials and allow the materials to remain damp for 10 minutes. Follow with a 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 ½ ounce of this product per 2 gallons of water.

**For truck mounted extraction machines:** Mix 6 ounces of this product per gallon of water and meter at 4 gallons per hour.

**For rotary floor machines:** Mix ½ 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.

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## **CARPET SANITIZER AGAINST ODOR-CAUSING BACTERIA, FOR HOME, INSTITUTIONAL, INDUSTRIAL AND HOSPITAL USE**

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, hotel chains, nursing homes and hospitals.

Vacuum carpet thoroughly prior to application. Mix ½ ounce of this product per 2 gallons 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 ½ 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.

**Smoke Damage Restoration:** Effective against odor causing bacteria and fungi for home, institutional, industrial and hospital use. This product is particularly suitable for use in smoke damage restoration situations against odor causing bacteria on the following porous and semi-porous materials: carpets, carpet cushion, 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.

### **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 48 ounces of this product to 320 ounces of 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.

### **SANITIZING INCUBATORS AND HATCHERS USING FOGGING DEVICES**

Mix 10 ounces of this product to 125 ounces of water. Fog 3-8 ounces of this into setters and hatchers immediately after transfer. Repeat daily in setters and every 12 hours in hatchers. Discontinue hatcher treatments at least 24 hours prior to pulling the hatch. Do not allow people to contact or breath this fog.

It is acceptable to fog setters and hatchers with a 1 ounce per gallon solution of this product (or equivalent use dilution) on an hourly or every other hour basis. If this is done, fog for 30-90 seconds once per hour or once every two hours. When fogging is complete, ventilate buildings and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent, and rinse with potable water before reuse.

## **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 ¾ ounces of product to 1 gallon of water (1,200 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.**

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

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

Prior to application, remove gross food particles and soil by a pre-flush or pre-scrape and when necessary, presoak. Then thoroughly wash or flush objects with a good detergent or compatible cleaner, followed by a potable water rinse before applications of the sanitizing solution.

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

Apply a solution of ½ ounce of this product in 4 gallons of water (or equivalent use dilution) (200 ppm active) OR mix a 1 ounce packet with 8 gallons of water to precleaned, hard surfaces, thoroughly wetting surfaces with a cloth, mop, sponge, sprayer or by immersion. For spray applications, use a coarse (mist) pump or trigger sprayer. Spray 6 to 8 inches from surface, (and) rub with brush, sponge, or cloth. Do not breathe spray (mist). 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. A fresh solution should be prepared at least daily or when use solution becomes visibly dirty. For mechanical application Use solution may not be reused for sanitizing applications. NO POTABLE WATER RINSE IS ALLOWED (after use as a sanitizer) (after application of the sanitizing solution).

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 ½ ounce per 4 gallons solution of this product (200 ppm active). NO POTABLE WATER RINSE IS ALLOWED.



At ½ ounce per 4 gallons this product (200 ppm active) eliminates 99.999% of the of the following bacteria in 60 seconds in 500 ppm hard water (calculated as CaCO<sub>3</sub>) according to the AOAC Germicidal and Detergent Sanitizing Action of Disinfectants test:

*Campylobacter jejuni*

*Escherichia coli*

*Escherichia coli* O157:H7

*Listeria monocytogenes*

*Shigella dysenteriae*

*Staphylococcus aureus*

*Yersinia enterocolitica*

Ounces of Product	Amount of Water
0.0312 ounces	1 quart
0.0625 ounces	½ Gallon
0.125 ounces	1 gallon
¼ ounce	2 gallons
½ ounce	4 gallons
0.625 ounces	5 gallons
1¼ ounces	10 gallons
2½ ounces	20 gallons

#### **DIRECTIONS FOR SANITIZING FOOD PROCESSING EQUIPMENT, UTENSILS, AND FOOD CONTACT ARTICLES REGULATED BY 21CFR sec 178.1010:**

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 1/8 ounce of this product per gallon 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.

#### **U.S. PUBLIC HEALTH SERVICE FOOD SERVICE SANITIZATION RECOMMENDATIONS CLEANING AND SANITIZING:**

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

1. Thoroughly wash equipment and utensils in a hot detergent solution. Rinse utensils and equipment thoroughly with potable water.
2. Sanitize equipment and utensils by immersion in a ½ ounce of this product per 4 gallons of water (solution) 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 ¼ ounce of this product per 2 gallons of water (200 ppm active) by rinsing, spraying or swabbing until thoroughly wetted.
4. Allow sanitized surfaces to drain and air dry. Do not rinse.

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

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 ½ ounce of this product per 4 gallons of 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 ( [REDACTED] ) 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 a solution 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 ( [REDACTED] ) 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:** For sanitizing food processing equipment, dairy equipment, refrigerated storage and display equipment, and other hard non-porous surfaces. Equipment and utensils must be thoroughly preflushed or prescaped and when necessary presoaked to remove gross food particles. No potable water rinse is allowed.

1. Turn off refrigeration.
2. Wash and rinse all surfaces thoroughly.
3. Apply a solution of ½ ounce this product in 4 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. Fresh solution should be prepared 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 2 ounces of sanitizer per 8 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. Proceed with the normal regeneration or interrupt the cycle after the brining step and let the softener soak for a minimum of 60 seconds.
3. Return system to service. NO POTABLE WATER RINSE IS ALLOWED.

**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. Fill empty pre-filter housing with 2 ounces of sanitizer per 8 gallons of water (200 ppm active) and turn on raw water. (NOTE: Standard system capacity is 1 to 2 gallons).
3. After holding tank is full, let system stand idle for a minimum of 60 seconds. Turn off water. Drain holding tank.
4. 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** – Sanitizations should occur after initial installation, after the machine is serviced and periodically during its use.

1. Shut off incoming water line to machine.
2. Prepare a solution of 2 ounces of sanitizer per 8 gallons of water (200 ppm active).
3. Circulate solution through machine making sure to wet all surfaces and allow a minimum contact of 60 seconds.
4. Drain and complete flush machine twice with potable water.
5. Return machine to normal operation.

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

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

#### **DIRECTIONS FOR RESTAURANT AND BAR SANITIZER**

Equipment and utensils should be thoroughly preflushed or prescaped 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 ½ ounce of this product per 4 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. No (potable water) rinse is allowed.

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

Equipment and utensils must be thoroughly preflushed or prescaped and, when necessary, presoaked to remove gross food particles. Clean and rinse equipment thoroughly. Then apply sanitizing solution containing ½ ounce of this product per 4 gallons of water (or equivalent use dilution) (200 ppm active quaternary). No (potable water) rinse is allowed.

At ½ ounce per 4 gallons this sanitizer fulfills the criteria of Appendix F of the Grade A Pasteurized Milk, Ordinance 1978 Recommendations of the U.S. Public Health Services in waters up to 500 ppm of hardness calculated as CaCO<sub>3</sub> when evaluated by the AOAC Germicidal and Detergent Sanitizer Method against Escherichia coli and Staphylococcus aureus.

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

For sanitizing of bottling or pre-mix dispensing equipment, after cleaning thoroughly rinse equipment with a potable water rinse. Fill equipment with a solution of ½ ounce of this product per 4 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. No (potable water) rinse is 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 ½ ounce of this product per 4 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 before reuse. No (potable water) rinse is allowed.

#### **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 pre-flush or pre-scrape and when necessary presoak. Then wash surfaces with a compatible detergent and rinse with potable water prior to sanitizing. Prepare a solution of ½ ounce of this product per 4 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 ½ ounce of this product per 4 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 re-used for sanitizing eggs.

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

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## 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 1.5 ounces of this product per 5 gallons of water (0.30 ounces 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 3 ounces of this product per 5 gallons of water. (0.6 ounces of this product per gallon of water) (or equivalent dilution). Heavily soiled areas may require repeated cleaning before treatment.

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

**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 (½ ounce per 4 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. 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. Do not allow this solution to be sprayed directly on food.

**FOR SANITIZING IN FISHERIES, MILK, CITRUS, WINE, POTATO & ICE CREAM and BEVERAGE 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.

*(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.

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

### FOR DISINFECTION

MIX EACH PACKET WITH 5 GALLONS OF WATER

# MAQUAT 20-M

E.P.A. Reg. No. 10324-94 E.P.A. Est. No. 10324-IL-1

NET CONTENTS: 2.0 FLUID OZ.

### ACTIVE INGREDIENTS:

Alkyl (C<sub>14</sub> 60%, C<sub>16</sub> 30%, C<sub>12</sub> 5%, C<sub>18</sub> 5%)  
dimethyl benzyl ammonium chloride ..... 10.0%  
Alkyl (C<sub>12</sub> 68%, C<sub>14</sub> 32%)  
dimethyl ethylbenzyl ammonium chloride..... 10.0%

**INERT INGREDIENTS:** ..... 80.0%

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

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

**SEE OUTER CONTAINER FOR PRECAUTIONARY STATEMENTS AND USE DIRECTIONS.**

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

**MASON CHEMICAL COMPANY**

**"THE QUATERNARY SPECIALISTS"**

721 W. Algonquin Road  
Arlington Heights, IL 60005

847-290-1621

Toll Free:  
1-800-362-1855



**ONE-HALF (1/2) OUNCE PACKET LABEL TO BE USED WITH  
MASTER CONTAINER LABEL FOR FOOD CONTACT  
SANITIZER**

**FOR FOOD CONTACT SANITIZER**

MIX EACH PACKET WITH 4 GALLONS OF WATER

**MAQUAT 20-M**

E.P.A. Reg. No. 10324-94 E.P.A. Est. No. 10324-IL-1

NET CONTENTS: 0.5 FLUID OZ.

**ACTIVE INGREDIENTS:**

Alkyl (C<sub>14</sub> 60%, C<sub>16</sub> 30%, C<sub>12</sub> 5%, C<sub>18</sub> 5%)  
dimethyl benzyl ammonium chloride ..... 10.0%  
Alkyl (C<sub>12</sub> 68%, C<sub>14</sub> 32%)  
dimethyl ethylbenzyl ammonium chloride..... 10.0%

**INERT INGREDIENTS:** ..... 80.0%

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

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

**SEE OUTER CONTAINER FOR PRECAUTIONARY STATEMENTS AND USE  
DIRECTIONS.**

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

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