

10324-144

01/15/2008

1/17



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

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

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

JAN 15 2008

Subject: Maquat MN-FCS
EPA Registration 10324-144
Amendment Dated: Oct 15, 2007
EPA Received Date: Oct 17, 2007

Dear Elizabeth Tannehill

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

Proposed Amendment

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

General Comments

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

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

Sincerely,

Velma Noble
Product Manager (31)

Regulatory Management Branch I
Antimicrobial Division 7510c

CONCURRENCES						
SYMBOL	7510c					
SURNAME						
DATE	1-10-08					



MASON CHEMICAL COMPANY

"The Quaternary Specialists"

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

E.P.A. Reg. No. 10324-144

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

MAQUAT[®] 256 MN-FCS

Net Contents:

Batch No:

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

DANGER. KEEP OUT OF REACH OF CHILDREN. Corrosive. Causes irreversible eye damage and skin burns. Harmful if absorbed through skin, swallowed or inhaled. Avoid breathing spray mist. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves and protective clothing when handling. Wash thoroughly with soap and water after handling. 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 sidewalls. Do not reuse empty container. Wrap and discard in trash (or recycle).

Disinfectant, Cleaner, Mildewstat, Sanitizer, Virucide*, Deodorizer for Hospitals, Nursing Home, Whirlpool, Home, Hotels & Motels, Waterbed Conditioner, 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 Harvesting & Handling Equipment. Effective as a disinfectant in hard water up to 400 ppm hardness (calculated as CaCO3) in the presence of 5% serum contamination.

ACCEPTED with COMMENTS in EPA Letter Dated:

JAN 15 2008

Small Fly Ovicidal Treatment.

Formulated for effective Poultry Sanitation under the Federal Insecticide, Fungicide and Rodenticide Act as amended for the pesticide, registered under EPA Reg. No. 10324-144
Formulated for effective Swine Premise Sanitation.
Formulated for effective Mushroom Farm Sanitation.

ACTIVE INGREDIENTS:

- Octyl Decyl Dimethyl Ammonium Chloride6.510%
- Didecyl Dimethyl Ammonium Chloride3.255%
- Diocetyl Dimethyl Ammonium Chloride3.255%
- Alkyl (C₁₄, 50%; C₁₂, 40%; C₁₆, 10%) dimethyl benzyl ammonium chloride8.680%

INERT INGREDIENTS:

78.300%

TOTAL

100.000%

KEEP OUT OF REACH OF CHILDREN

DANGER

See left panel for additional precautionary statements.

First Aid

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

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

Transportation Information

DOT Hazard Class: 8 Corrosive
DOT Proper Shipping Name: Disinfectant Liquid Corrosive (Quaternary Ammonium Compound), 8, UN1903, PGII

3/17

This product contains no phosphorous.

This product is a phosphate free, pH neutral 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 cleans by removing dirt, grime, blood, urine, fecal matter and other common soils found in animal housing facilities, livestock, swine poultry facilities, grooming facilities, farms, kennels, pet stores, veterinary clinics, laboratories or other small animal facilities. It (also) eliminates odors leaving surfaces smelling clean and fresh.

This product can be used to disinfect, clean and deodorize terrarium and small animal cages, hot rock, substrate and cage furniture (plastic terrarium ornaments, driftwood, heat caves and water dishes.

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

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

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

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

This product is a concentrated Hospital Use disinfectant that is effective against a broad spectrum of bacteria, is virucidal*, and 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 or 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. *(Not for use in California)*

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

This product is for use as a disinfectant on hard, non-porous surfaces (at 850 ppm active). A potable water rinse is required after application as a disinfectant on food contact surfaces.

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

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

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

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

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

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

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

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

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

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

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

3/17

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

When used as directed, this product will disinfect hard, non-porous surfaces such as flower buckets, floors and walls of coolers, design and packing benches and counter tops. *(Not for use in California)*

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

Use this product to clean, disinfect and deodorize flower buckets, walls, floors of coolers, shippers, greenhouse packing areas, garbage pails and other areas where obnoxious odors may develop. *(Not for use in California)*

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

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

This product is an effective one-step sanitizer-cleaner for use on non-food contact surfaces.

This product is formulated to a neutral pH, yet provides effective cleaning strength that will not dull high gloss floor finishes with repeated use.

Floor cleaner.

One-step cleaner.

Cleans everyday kitchen messes.

Cleans non-food contact kitchen surfaces.

Cleans and shines.

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

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

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

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

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

Disinfects (and Sanitizes) kitchen surfaces (bathroom surfaces and floors). Sanitizes kitchen surfaces (bathroom surfaces and floors). Kills germs. Kills household bacteria. A potable water rinse is required after application as a disinfectant on food contact surfaces.

Antibacterial.

Hospital use Disinfectant. Institutional Disinfectant (Sanitizer).

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

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

Effective sanitizer in the presence of soils. (This product is an effective sanitizer in the presence of soils.)

This product is effective against Citrus Canker through the treatment of the handling, harvesting, storage and transportation equipment. *(Not for use in California.)*

This product is for Poultry Premise Sanitation (Hatcheries)

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

This product is for Swine Premise Sanitation:

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

Maquat® 256 MN-FCS for use in:

- Hospitals, nursing homes, medical and dental offices and clinics, physician offices, operating rooms/theaters, isolation wards, quarantine areas, ophthalmic/optometric facilities, and medical research facilities, cadaver processing areas.
- Patient care rooms & facilities, recovery rooms, anesthesia, Emergency Rooms, X-ray cat labs, newborn nurseries, orthopedics, whirlpool surfaces, footbath surfaces, respiratory therapy, surgi-centers, out-patient surgical centers, labs, blood collection rooms, central supply, housekeeping & janitorial rooms, exam rooms, radiology rooms.
- EMS & fire facilities, emergency vehicles, ambulance(s), ambulance equipment/surfaces, police cars, fire trucks.
- Day care centers, nurseries, sick rooms.
- Acute care institutions, alternate care institutions, home healthcare institutions.
- Lifecare retirement communities, elder care facilities.
- Restaurants, restaurants and bars, bars, taverns, cafeterias, institutional kitchens, fast food operations and food storage areas.
- Supermarkets, convenience stores, retail and wholesale establishments, department stores, shopping malls, gift shops, video stores, bookstores, dressing rooms and laundries, photocopy centers, bicycle shops, auto repair centers.
- Computer manufacturing sites, toy factories.
- Food establishments, coffee shops, donut shops, bagel stores, pizza stores, liquor stores.
- Crime scenes, funeral homes, mortuaries, burial vaults, mausoleums, autopsy rooms.
- Police stations, courthouses, correctional facilities, jails, prisons, correctional institutions, municipal government buildings, penitentiaries, bus stations, train stations.
- Institutional facilities, laboratories, factories, business and office buildings, restrooms, 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), apartments.
- Institutions, schools and colleges, churches, classrooms, community colleges, universities, athletic facilities and locker rooms, exercise rooms, exercise facilities, gyms, gymnasiums.
- Cosmetic manufacturing facilities, medical device manufacturing facilities, biotechnology firms, pharmaceutical manufacturing facilities.
- Heath clubs, spas, tanning spas, tanning beds, footbath surfaces, massage/facial salons, hair/nail/pedicure salons, barber/beauty shops, salons, tattoo parlors.
- Museums, art galleries, post offices, performance/theater centers, banks, libraries, movie houses.
- Recycling centers.
- Humidifier water tanks. *(Not for use in California)*
- Campgrounds, playgrounds, recreational facilities, picnic facilities, sports arenas, sports complexes, RV's and watercraft.
- Food processing plants, USDA inspected food-processing facilities, dairy farms, hog farms, equine farms, poultry and turkey farms and egg processing plants, meat/poultry processing plants, meat/poultry producing establishments, mushroom farms, rendering plants.
- Processing facilities for Fish, Milk, Citrus, Fruit, Vegetable, Ice Cream, Potatoes and Beverage plants.
- Household and automotive garages, boats, ships, barges, campers, trailers, mobile homes, cars, trucks, buses, trains, taxis and airplanes, helicopters, automobile interiors.
- 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.
- Cruise lines, airline terminals, airports, shipping terminals, public transportation.
- Commercial florist and flower shops. *(Not for use in California)*
- Basements, cellars, bedrooms, attics, living rooms and porches.

MAQUAT[®] 256 MN-FCS, when used as directed, is formulated to disinfect and sanitize hard, non-porous inanimate environmental surfaces such as:

- Food preparation and storage areas.
- Dishes, glassware, silverware, cooking utensils, plastic and other non-porous cutting boards, coolers, ice chests, refrigerator bins used for meat, vegetables, and eggs, Tupperware[®].
- Kitchen equipment such as food processors, blenders, cutlery and other utensils.
- Countertops (counters), sinks (bathroom, kitchen), tub surfaces, exterior surfaces of Slurppy[®] machines, exterior surfaces of refrigerators and microwaves (refrigerator exteriors), coolers, freezer exteriors, stovetops, appliances, shelves, racks and carts.

- Glass, metal, stainless steel, glazed porcelain, glazed ceramic, sealed granite, sealed marble, plastic (such as polystyrene, polyvinylchloride, polycarbonate 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, porcelain, washable wallpaper.
- Foundations, steps, plumbing fixtures, finished baseboards and windowsills.
- Tables, chairs, desks, workstations, bed frames, lifts, washable walls, cabinets, doorknobs and garbage cans/pails, cuspidors and spittoons, trash barrels/cans, fishing gear.
- Hospital beds, traction devices, MRI, CAT, examining tables, scales, paddles, wheelchairs, baby cribs, bed railings, bedpans, cervical collars, CPR training mannequins, curing lights, dental chairs/countertops/instruments/implements/OR surfaces, diaper changing stations, folding tables, gurneys, incubators, warmers, neck braces, optical instruments/implements, oxygen hoods, spine backboards, stretchers, slit lamps, unit stools. *(Note: These use sites can only be included on labels with the FDA/EPA Memorandum of Understanding statement found in the beginning of the Directions for Use on this label.)*
- Exhaust fans, refrigerated storage and display equipment, coils and drain pans of air conditioning and refrigeration equipment and heat pumps.
- Large inflatable, non-porous plastic and rubber structures: animals, promotional items, moonwalks, slides, obstacle course play and exercise equipment.
- Hard, non-porous surfaces of picnic tables and outdoor furniture or Non-wooden picnic tables and outdoor furniture except cushions and wood frames. *(Note: Only one statement will be used on label.)*
- Telephones and telephone booths.
- Highchairs.
- Drinking fountains and break rooms.
- 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, vanity tops, porcelain tile and restroom fixtures, laundry pails.
- Ultrasonic baths, whirlpools, whirlpool bathtubs.
- Kennels, kennel runs, kennel/cages floors, and conductive flooring.
- Windows and mirrors.

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

Dishes, silverware, glasses, cooking utensils and other similar size food processing equipment can be sanitized by immersion. NO POTABLE WATER RINSE ALLOWED.

This product meets AOAC Use – Dilution Test Standards for hospital disinfectants at 400 ppm water hardness.

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

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

This product meets the EPA standards a sanitizer for all food contact surfaces.

This product has been cleared by the EPA in 40 CFR Section 180.940 (c) for use on food processing equipment and utensils at 400 ppm hard water.

This product has passed the Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces Utilizing (*Duck*) Hepatitis B virus and Bovine viral diarrhea virus (BVDV) (Surrogate for human Hepatitis C Virus).

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

MAQUAT 256 MN-FCS is a Hospital Use Disinfectant at ½ ounce per gallon (4 milliliters per liter) (1:256 dilution) (or equivalent use dilution), modified in the presence of 400 ppm hard water.

This product is effective against the control of small flies on non-food contact surfaces such as floors, walls, drains, 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.

This product eliminates foul back draft odors from sink disposals and floor drains.

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 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 organisms that may be present on equipment and utensils after cleaning, and reduces the potential for their 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

Disinfectant Performance: Add ½ ounce per gallon (4 milliliters per liter) of water (1:256) (850 ppm active quat) (or equivalent use dilution) to disinfect hard non-porous surfaces OR Mix (a) 2 ounce packet with 4 gallons of water. Treated surfaces must remain wet for 10 minutes. MAQUAT 256 MN-FCS is bactericidal according to the AOAC Use Dilution Test method and Virucidal* according to the virucidal qualification, on hard inanimate surfaces, modified in the presence of 5% organic serum against:

Acinetobacter anitratus (ATCC 49137)
Acinetobacter baumannii (ATCC 19606)
Acinetobacter calcoaceticus (ATCC 51421)
Burkholderia cepacia (ATCC 25416)
Campylobacter jejuni (ATCC 29428)
Chlamydia psittaci (ATCC VR-125)
Corynebacterium ammoniagenes (ATCC 6871)
Enterobacter aerogenes (ATCC 13048)
Enterobacter cloacae (ATCC 13047)
Enterococcus faecalis (ATCC 19433)

Klebsiella pneumoniae (Mezlocillin Resistant)
Klebsiella pneumoniae (Ticarcillin Resistant)
Klebsiella pneumoniae (Tobramycin Resistant)
Klebsiella pneumoniae (Oxacillin Resistant)
Klebsiella pneumoniae (Cefotetan Sensitive)
Klebsiella pneumoniae (Trimeth-sulfa Sensitive)
Listeria monocytogenes (ATCC 984)
Proteus vulgaris (ATCC 33420)
Pseudomonas aeruginosa (ATCC 15442)
Salmonella enterica (ATCC 10708)

Enterococcus faecalis Multiple Drug Resistant
Enterococcus faecalis (Gentamycin Resistant)
Enterococcus faecalis (Streptomycin Sensitive)
Enterococcus faecalis (Vancomycin Resistant) (VRE)
Enterococcus faecalis (Ciprofloxacin Sensitive)
Enterococcus faecalis (Penicillin G Sensitive)
Enterococcus faecalis (Tetracycline Sensitive)
Enterococcus faecium (Vancomycin Resistant) (VRE)
Escherichia coli (ATCC 8739)
Escherichia coli Antibiotic Resistant
Escherichia coli (Ampicillin Resistant)
Escherichia coli (Cephalothin Resistant)
Escherichia coli (Ciprofloxacin Resistant)
Escherichia coli (Gentamicin Resistant)
Escherichia coli (Mezlocillin Resistant)
Escherichia coli (Ticarcillin Resistant)
Escherichia coli (Tobramycin Resistant)
Escherichia coli (Trimeth-Sulfa Resistant)
Escherichia coli (Oxacillin Resistant)
Escherichia coli (Cefotaxime Sensitive)
Escherichia coli (Cefotetan Sensitive)
Escherichia coli (Ceftizoxime Sensitive)
Escherichia coli 0157:H7 (ATCC 35150)
Klebsiella pneumoniae (ATCC 13883)
Klebsiella pneumoniae Antibiotic Resistant
Klebsiella pneumoniae (Ampicillin Resistant)
Klebsiella pneumoniae (Cefotaxime-Intermediate Resistant)
Klebsiella pneumoniae (Ceftizoxime-Intermediate Resistant)
Klebsiella pneumoniae (Cephalothin Resistant)
Klebsiella pneumoniae (Ciprofloxacin Resistant)
Klebsiella pneumoniae (Gentamicin Resistant)
Salmonella schottmuelleri (ATCC 8759)
Salmonella typhi (ATCC 6539)
Salmonella typhimurium (ATCC 14028)
Serratia marcescens
Shigella dysenteriae (ATCC 9361)
Shigella flexneri (ATCC 12022)
Staphylococcus aureus (ATCC 6538)
Staphylococcus aureus (Ciprofloxacin Sensitive)
Staphylococcus aureus (Clindamycin Resistant)
Staphylococcus aureus (Erythromycin Resistant)
Staphylococcus aureus (Methicillin Resistant) (MRSA) (ATCC 33591)
Staphylococcus aureus (Oxacillin Resistant)
Staphylococcus aureus (Penicillin G Resistant)
Staphylococcus aureus (Tetracycline-Intermediate Resistant)
Staphylococcus aureus (Trimeth/Sulfa Sensitive)
Staphylococcus aureus (Ampicillin Resistant)
Staphylococcus aureus (Cefotaxime Resistant)
Staphylococcus aureus Multiple Drug Resistant
Staphylococcus aureus (Cephalothin Resistant)
Staphylococcus aureus (Vancomycin Sensitive)
Staphylococcus epidermidis (ATCC 14990)
Streptococcus pyogenes (ATCC 19615)

***Virucidal Performance:** At ½ ounce per gallon of water use level (850 ppm active quat) (or equivalent use dilution), treated surfaces must remain wet for ten minutes. For heavily soiled areas, a preliminary cleaning is required. Prepare a fresh solution at least daily or more often if solution becomes diluted or soiled. This product was evaluated and found to be effective in the presence of 5% blood serum against the following viruses on hard, non-porous surfaces:

Hepatitis B Virus (HBV)
Herpes Simplex virus Type 1
Herpes Simplex virus Type 2
Human Coronavirus

Hepatitis C Virus
HIV-1 (AIDS virus)
Influenza A/PR Virus
Vaccinia Virus

Non-Food Contact Sanitizing Performance: Add ½ ounce per gallon (4 milliliters per liter) (or equivalent use dilution) of water to sanitize hard, non-porous environmental surfaces. Treated surfaces must remain wet for 60 seconds. Wipe with sponge, mop or cloth. Allow to air dry.

Staphylococcus aureus (ATCC 6538)

Klebsiella pneumoniae (ATCC 4352)

Food Contact Sanitizing Performance: At ½ ounce per 5 gallons this product (170 ppm active) (or equivalent use dilution) eliminates 99.999% of the of the following bacteria in 60 seconds in 300 ppm hard water (calculated as CaCO₃) according to the AOAC Germicidal and Detergent Sanitizing Action of Disinfectants test.

Campylobacter jejuni (ATCC 29428)
Escherichia coli (ATCC 11229)
Listeria monocytogenes (ATCC 984)
Salmonella choleraesuis (ATCC 10708)

Shigella dysenteriae (ATCC 9361)
Staphylococcus aureus (ATCC 6538)
Yersinia enterocolitica (ATCC 23715)

11/17

Fungicidal against: At ½ ounce per gallon of water use level (850 ppm active quat) (or equivalent use dilution), treated surfaces must remain wet for ten minutes. For heavily soiled areas, a preliminary cleaning is required. Prepare a fresh solution at least daily or more often if solution becomes diluted or soiled.

Aspergillus niger (ATCC 6275)

Dilution Guide:

For Hospital or Medical Environment claims	½ oz/1 gal. water
For General or Broad Spectrum claims	½ oz/1 gal. water
For Virucidal claims	½ oz/1 gal. water
For Animal Virucidal claims	½ oz/1 gal. water
For Non-Food Contact Sanitizing claims	½ oz/1 gal. water
For Food Contact Sanitizing claims at 170 ppm	0.5 oz/5 gal. water
For Food Contact Sanitizing claims at 200 ppm	0.6 oz/5 gal. water
For Food Contact Sanitizing claims at 400 ppm	1.2 oz./5 gal. water

Hospital/Disinfection/Virucidal/Fungicidal Dilution Chart

Ounces of Product	Amount of Water
1/8 ounces	1 quart
¼ ounce	½ Gallon
½ ounce	1 gallon
1 ¼ ounces	2 ½ gallons
2 ½ ounces	5 gallons
5.0 ounces	10 gallons

Non-Food Contact Sanitizing Dilution Chart

Ounces of Product	Amount of Water
1/8 ounces	1 quart
¼ ounce	½ Gallon
½ ounce	1 gallon
1 ¼ ounces	2 ½ gallons
2 ½ ounces	5 gallons
5.0 ounces	10 gallons

Food Contact Surface Sanitizing Dilution Guide

To prepare a 170, 200, 300 or 400 ppm active quaternary solution, use the following dilution table. Prepare correct dilution rate based upon the appropriate use site.

Active quat solution	1 gallon	5 gallons	10 gallons	20 gallons
170 ppm	0.1 ounce	0.5 ounce	1.0 ounce	2.0 ounces
200 ppm	0.12 ounce	0.6 ounces	1.2 ounces	2.4 ounces
300 ppm	0.18 ounce	0.9 ounces	1.8 ounces	3.6 ounces
400 ppm	0.24 ounce	1.2 ounces	2.4 ounces	4.8 ounces

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 FDA/EPA Memorandum of Understanding statements must be used:)

This product is not to be used as a terminal sterilant/high-level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body, or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product 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 (and air-dried) before contact with food so that little or no residue remains.

DISINFECTION

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

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

PREPARATION OF USE SOLUTION: For water hardness up to 400 ppm add ½ ounce per gallon (4 milliliters per liter) of water (1:256) (850 ppm active quat) (or equivalent use dilution) to disinfect hard non-porous surfaces OR Mix (a) 2-ounce packet with 4 gallons of water. Treated surfaces must remain wet for 10 minutes.

Disinfection/Virucidal/Fungicidal Directions: Apply use solution to hard, inanimate, non-porous surfaces thoroughly wetting surfaces as recommended and required, with a cloth, mop, sponge or sprayer. For heavily soiled areas, a preliminary cleaning is required. For sprayer applications, use a coarse spray device. Spray 6-8 inches from surface. Rub with brush, sponge or cloth. Do not breathe spray.

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

Add ½ ounce per gallon (4 milliliters per liter) (850 ppm active quat) (or equivalent use dilution) of water to disinfect hard, non-porous surfaces. Treated surfaces must remain wet for 10 minutes. Prepare a fresh solution at least daily or when use dilution becomes diluted or soiled.

At ½ ounce per one gallon (or equivalent use dilution) (850 ppm active quat) in the presence of 400 ppm hard water (CaCO₃) and 100% serum this product was proven to be effective against (Duck) Hepatitis B Virus with a contact time of 10 minutes.

At ½ ounce per one gallon (or equivalent use dilution) (850 ppm active quat) in the presence of 400 ppm hard water (CaCO₃) and 5% serum this product was proven to be effective against Bovine viral diarrhea virus (BVDV) (Surrogate for human Hepatitis C virus) with a contact time of 10 minutes.

*** KILLS HIV, HBV and HCV ON PRECLEANED ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD/BODY FLUIDS** in health care setting or other settings in which there is an expected likelihood of soiling of inanimate surfaces/objects with blood or body fluids and in which the surfaces/objects likely to be soiled with blood or body fluids can be associated with the potential for transmission of human immunodeficiency virus Type 1 (HIV-1) (associated with AIDS), Hepatitis B virus (HBV) and Hepatitis C virus (HCV).

“SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATION AGAINST HIV-1, HBV and HCV ON SURFACES/OBJECTS SOILED WITH BLOOD/BODY FLUIDS.”

7/17

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 Procedures: Blood and other body fluids containing HIV-1, HBV and HCV must be thoroughly cleaned from surfaces and objects before application of this product.

Contact Time: Leave surface wet for 10 minutes with ½ ounce per gallon (4 milliliters per liter) (850 ppm active quat) (or equivalent use dilution) use solution.

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

For Use on Finished Floors: To limit gloss reduction, use ½ ounces of this product per gallon of water. Apply with a damp mop or auto scrubber. Allow to air dry.

General Deodorization: To deodorize, add ½ ounce of this product to 1 gallon of water (or equivalent use dilution) (850 ppm active quat). Excess liquid must be wiped up or allowed to air dry.

LAUNDRY DEODORIZER (AGAINST ODOR CAUSING BACTERIA): Use 1.5 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 wash wheel in the final rinse. Re-treat fabric after each washing. For residual bacteriostatic activity against odor causing bacteria, conditions of high relative humidity or west contamination are required. Laundered fabric may also be treated by soaking.

For Deodorizing Garbage Cans, Garbage Trucks, Industrial Waste Receptacles and Garbage Handling Equipment: It is especially important to pre-clean for the product to perform properly. Use ½ ounce per gallon of this product or other suitable detergent system for pre-cleaning step. Then, apply a wetting concentration of 1½ ounces of this product per gallon of water (or equivalent use dilution) (2,542 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".

Mold and Mildew Control Directions: Add ½ ounce of this product per gallon (4 milliliters per liter) (850 ppm active quat) (or equivalent use dilution) of water to control the growth of mold and mildew and their odors on hard, non-porous surfaces. Thoroughly wet all treated surfaces completely. Let air dry. Repeat application weekly or when growth or odor reappears.

Air Freshener/Automotive Uses: ½ ounce per gallon of water will effectively neutralize damp musty odors caused by mildew in storage areas, basements, closets, bathrooms and A/C filters. Effective on smoking and cooking odors (garlic, fish, onions, etc.), automobile odors from tobacco, musty carpet smell, and beverage smells will be eliminated. Spray or apply onto seats, carpets, headliner and ashtray or into trunk and all vents to eliminate odors from tobacco, beverage spills and musty carpet. For sprayer applications, use a coarse spray device. Allow to air dry. (*3)

Cleansing of Body Surfaces and Body Orifices of Human Remains: To cleanse away skin secretions and accompanying malodor, to insure the removal of all soil and bloodstains, apply ½ ounce of this product to 1 gallon of water (850 ppm active) (or equivalent use dilution) to the surfaces and body openings, natural or artificial. Bathe the entire body using sponge or washcloth. A soft brush may be employed on surfaces

other than the face. Allow a 10 minute contact time for optimal results. Prepare a fresh solution for application of each remains.

To control the growth of mold and mildew on large inflatable non-porous plastic and rubber structures (animals, promotional items, moonwalks, slides, obstacle course play and exercise equipment): Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of ½ ounce per 1 gallon (850 ppm active quat) of water (or equivalent use 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/Virucide for Barber/Salon Tools Directions: Immerse pre-cleaned barber/salon tools (such as combs, brushes, razors, manicure/pedicure tools, clippers tweezers, clipper and trimmer blades, cutting implements, rollers, and scissors) in a ½ ounce per gallon solution (or equivalent use dilution) (850 ppm active quat) of the product. Completely immerse instruments and tools for at least 10 minutes. Rinse thoroughly and dry before use. Prepare a fresh solution at least daily or more often if solution becomes cloudy or soiled.

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

Disinfection of Hard, Non-Porous Surfaces in Footbaths: To remove body oils, dead tissue, soil and all other buildups or organic matter on inanimate surfaces after using the footbath, drain the water and thoroughly clean all hard, non-porous surfaces with soap or detergent, then rinse with water. Saturate surfaces with a use solution of ½ oz per gallon of water (or equivalent use dilution) (850 ppm active quat) to exposed surfaces with a cloth, mop, sponge or sprayer. Brush or swab thoroughly and allow solution to stand for 10 minutes. For spray applications, use a coarse spray device. Do not breathe spray. After the unit has been thoroughly disinfected, rinse all cleaned surfaces with fresh water. Do not use equipment until treatment has been absorbed, set or dried.

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

Remove gross filth prior to disinfection.

From Concentrate: Add ½ ounce (4 milliliters per liter) (or equivalent use dilution) to the toilet bowl and mix. Brush thoroughly over exposed surfaces and under the rim with a cloth, mop, or sponge. Allow to stand for 10 minutes and flush.

From Use Solution: Empty toilet bowl or urinal and apply ½ ounce per gallon (4 milliliters per liter) (or equivalent use 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. For sprayer application, use a coarse spray device.

For Heavy Duty Cleaning: Empty toilet bowl or urinal and apply 2 ounces per gallon (16 milliliters per liter) (or equivalent use 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. For sprayer applications, use a coarse spray device.

Cleaning/Deodorizing Directions: Add 0.25 – 1 ounce per gallon (2-8 milliliters per liter) (or equivalent use dilution) of water to clean and deodorize windows, mirrors and non-food contact glass surfaces. Apply solution with a mop, cloth, sponge or mechanical sprayer so as to wet all surfaces thoroughly. For sprayer applications, use a coarse spray device. Spray 6-8 inches from surface. Allow to air dry or wipe up excess liquid. Rub with sponge or cloth. Do not breathe spray.

For Use To Clean and Disinfect Shower Rooms, Locker Rooms and Other Large Open Areas with Floor Drains:

1. Pre-clean heavily soiled areas.
2. Apply Use Solution of ½ ounce per gallon of water (850 ppm quat active) to floors, walls and ceilings making sure not to over spray. To disinfect, all surfaces must remain wet for 10 minutes.

Special instructions for foam guns: Pour concentrate into foam gun bottle and attach to spray nozzle and ensure gun is attached to hose. **Note:** See foam gun instructions for more information. Make sure setting is set for 1:256 dilution. Once in place, squeeze the handle to dispense foam solution. To disinfect, all surfaces must remain wet for ten (10) minutes. *(Foam gun directions not for use in California.)*

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

Mobile Home/RV Holding Tanks/Recreational Vehicles: For toilet waste and holding tanks, cover bottom of holding tank with water and ¼ – 1 ounce per gallon of water to deodorize. If odors return before time to empty, add ¼ – ½ ounce to the tank. For kitchen waste, add ¼ to ½ ounces to gray water tank as needed to control malodors created by dirty dishwater.

Ultrasonic Bath Disinfectant Directions: Use this product to disinfectant hard, (inanimate) non-porous, non-critical objects compatible with Ultrasonic cleaning units. Pour (a) fresh solution at ½ ounce of this product per gallon of water (1:256) (850 ppm active quat) (equivalent use dilution) directly into bath chamber. Pre-clean heavily soiled objects. Place objects into unit and operate for a minimum of 10 minutes, according to the manufactures' (use) directions. Remove objects and wash (rinse) with sterile water (sterile water for injection) or allow to air dry. Prepare fresh solution for each use.

Disinfection of Hard, Non-porous Surfaces in Whirlpool Units: After using the whirlpool unit, drain and refill with fresh water to just cover the intake valve. Add ½ ounce of this product (850 active quat) (or equivalent use dilution) for each gallon of fresh water added. 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.

For Disinfecting Hard, Non-porous (Fiberglass) Bath and Therapy Equipment: To remove body oils, dead tissue, soil and all other buildups or organic matter on inanimate surfaces after using the whirlpool unit, drain the water and refill with fresh water to just cover the intake valve. Add 2.5 ounces of this product for each 5 gallons of water (½ ounces per one gallon) (850 ppm active quat) (or equivalent use dilution) in the unit at this point. Briefly start the pump to circulate the solution. Turn off pump. Wash down the unit sides, seat of the chair lift, and any/all related equipment with a clean swab, brush or sponge. Product to surface contact time must be at least 10 minutes for proper disinfection. After the unit has been thoroughly disinfected, drain solution from the unit and rinse any/all cleaned surfaces with fresh water. The unit is ready for reuse.

Surgical Instrument Presoak: Add ½ ounce of this product to 1 gallon of water (or equivalent use dilution) (850 ppm active quat) (or equivalent use dilution). Place pre-cleaned instruments in solution to presoak surgical instruments for a minimum of 10 minutes, then proceed with normal sterilization procedure. *(Note: This use site can only be included on labels with the FDA/EPA Memorandum of Understand statement found in the beginning of the Directions for Use on this label.)*

To Disinfect Food-Processing Premises and Tobacco Premises: Before using this product, food products and packaging materials must be removed from area or carefully protected. For floors, walls and storage areas, add ½ ounce of this product to 1 gallon of water (or equivalent use dilution) (850 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 application, use a coarse spray (device). Allow surface to remain wet for 10 minutes. Then remove excess liquid. After use, all surfaces in the area must be thoroughly rinsed with potable water.

To Disinfect Food Service Establishment Food Contact Surfaces: (For) countertops, exterior surfaces of appliances, and tables. Before using this product food products and packaging materials must be removed from area or carefully protected. Add ½ ounce of this product to 1 gallon of water (or equivalent use dilution) (850 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. 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 ½ ounce of this product per 1 gallon (or equivalent use dilution) (850 ppm active quat) of water. Follow the disinfectant directions above.

Directions for Fogging: (For use in) dairies, beverage and food processing plants. Prior to fogging, food products and packaging material must be removed from the room or carefully protected. After cleaning, fog desired areas using one quart per 1000 cubic feet of room area with a product solution containing ¾ ounces product to 1 gallon of water (or equivalent use dilution) (1,270 ppm). Vacate the area of all personnel during fogging and 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.

Animal Premise Virucidal Performance: At ½ ounce per gallon (850 ppm quat active) (or equivalent use dilution) use level and with a 10 minute contact time, this product was found to be effective against the following viruses on hard, non-porous environmental surfaces:

Canine Distemper Virus	Procine Respiratory & Reproductive Virus (PRRSV)
Canine Coronavirus	Porcine Rotavirus
Infectious Bovine Rhinotracheitis (IBR)	Pseudorabies Virus

Disinfection/Virucide of Poultry/Turkey Equipment, Swine Quarters, Animal Quarters and Kennels Directions: Remove all animals and feeds from premises, vehicles (trucks and cars) and enclosures (coops, crates, kennels). Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and 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 ½ ounce of this product per gallon of water (or equivalent use dilution) (850 ppm active quat). Saturate surfaces with the recommended disinfecting solution for a period of 10 minutes. Immerse all halters,

9/17

ropes and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.

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

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

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

VEHICLES: Clean all vehicles including mats, crates, cabs, and wheels with high-pressure water and this product. Use ½ ounce per gallon of water (or equivalent use dilution) to treat all vehicles. Leave all treated surfaces exposed to disinfectant solution wet for 10 minutes or more and allow to air dry. For sprayer applications, use a coarse spray device.

RENDERING PLANT/DRESSING PLANT DISINFECTANT/VIRUCIDE DIRECTIONS:

Cover or remove all food packaging material before disinfection. Remove gross soils. Apply to walls and floors in poultry and animal dressing plants with a solution of ½ ounces of this product per gallon of water (or equivalent use dilution) (850 ppm active quat). Surfaces must remain wet for 10 minutes then thoroughly rinsed with potable water before operations are resumed. Disinfect all rooms, exterior walls and loading platforms of dressing plants. Thoroughly rinse all wetted and cleaned surfaces with potable water.

OR

DRESSING PLANT USE/ RENDERING PLANT DISINFECTANT/VIRUCIDE DIRECTIONS:

Disinfect equipment, walls and floors in poultry and animal dressing plants. Disinfect offal rooms, exterior walls and loading platforms of dressing plants. Cover or remove all food and packaging materials. Remove all gross soils. Saturate all surfaces with the recommended use solution, ½ ounce of this product per gallon of water (or equivalent use dilution) (850 ppm active quat). Scrub to loosen all soils. Allow to soak for 10 minutes and thoroughly rinse all wetted and cleaned surfaces with potable water. Rinse all surfaces which contact food with potable water before reuse.

FARM PREMISE USE (Equine, Poultry/Turkey, Dairy and Hog Farms): Do not use in milking stalls, milking parlors or milk houses. Remove all animals and feed from premises, vehicles and enclosures. Remove all litter 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. Saturate all surfaces with a use solution of ½ ounce of this product per gallon of water (or equivalent dilution) for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels and scrapers used in removing litter and manure. Ventilate buildings, cars, trucks, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

OR

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 traversed by animals.
3. Empty all troughs, racks and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate all surfaces with the recommended disinfecting/virucidal solution (½ ounce per gallon of water) (or equivalent use dilution) for a period of 10 minutes.
6. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels, scrapers used in removing litter and manure.
7. Ventilate buildings, cars, trucks, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set and dried.
8. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

For Use For Treatment of Animal Housing Facilities:

1. Remove all animals and feed from premises, vehicles and enclosures.
2. Remove all litter and manure from floors, walls and surfaces of barn, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals.
3. Empty all troughs, racks and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate all surfaces (floors, walls, cages and other washable hard, non-porous environmental surfaces) with the recommended disinfecting and virucidal solution (½ ounce per gallon of water or equivalent use dilution) (850 ppm active quat) for a period of 10 minutes. For smaller surfaces, use a trigger spray bottle to spray all surfaces with solution until wet.
6. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels, scrapers used in removing litter and manure.
7. Ventilate buildings, cars, trucks, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set and dried.
8. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

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

1. Remove all animals.
2. Thoroughly clean all surfaces and objects (hot rocks, caves, cage furniture, feeding and watering dishes, and appliances) including the substrate in the terrarium or cage with soap or detergent and rinse with water.
3. Saturate all surfaces (floors, walls, cages and other washable hard, non-porous environmental surfaces) with the recommended disinfecting and virucidal solution (½ ounce per gallon of water or equivalent use dilution) (850 ppm active quat) for a period of 10 minutes. For smaller surfaces, use a trigger

10/17

spray bottle to spray all surfaces with solution until wet. Then wipe surfaces dry.

4. Saturate gravel as above and let stand for 10 minutes. Place in bucket of clean water and swirl for 15-30 seconds. Thoroughly air dry before returning to terrarium.
5. Do not return animals to the habitat until it is dry and ventilated.
6. Thoroughly scrub all treated surfaces with soap or detergent and rinse with potable water before reuse.
7. Clean terrarium at least once weekly or more as needed.

Note: Substrates for desert terrariums (i.e. gravel) must be completely dry before returning to terrarium to avoid high humidity levels. Always replace substrate if a foul odor persists.

POULTRY/TURKEY/SWINE PREMISE, ANIMAL QUARTERS AND KENNEL SANITATION

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

Application and Use Dilution Poultry/Turkey/Swine Premise, Animal Quarters and Kennels: Remove all animals and feeds from premises, vehicles (trucks and cars), and enclosures (coops, crates, kennels). Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and other fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Use ½ ounce of this product per gallon of water (or equivalent use dilution) (850 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 animals or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, troughs, automatic feeders, fountains and waterers, and other equipment which may contact food or water with soap or detergent, and, rinse with potable water before reuse.

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 Practice(Clinics)/Animal Care, Animal Laboratory/ Animal Life Science Laboratory/Zoos/Pet Shop/Kennels/Breeding and Grooming Establishments/Tack Shops Disinfection Directions: For cleaning and disinfecting the following hard, non-porous surfaces: equipment used for animal food or water, utensils, instruments, cages, kennels, stables, stalls and catteries, etc. Remove all animals (and) feeds from premises, animal transportation vehicles, crates, etc. Remove all litter, droppings and manure from floors, walls and surfaces occupied or traversed by animals. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of ½ ounce of this product per gallon of water (or equivalent dilution) for a period of 10 minutes. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure. Ventilate buildings and other closed spaces. Do not house

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

COMMERCIAL FLORIST USE DIRECTIONS (Not for use in California): To clean, disinfect and deodorize hard, non-porous surfaces in one step, prepare use solution by adding (mixing) ½ ounce of this product per gallon of water (1:256) (or equivalent use dilution). For heavy-duty use, add (mix) 2 ounces per gallon of water (1:64).

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

For heavily soiled areas, a preliminary cleaning is required.

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

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

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

For Control of the Drosophila spp. and Phoridae Family of Flies on Non-Food Contact Surfaces: 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 ½ ounce of this product per gallon of water (or equivalent use dilution) (850 ppm active quat) to surfaces and locations where flies may breed. Spray surfaces thoroughly or apply by pouring, mopping or sponging onto the surface. Repeat application 1-2 times per week or as needed. Do not contaminate food and food packaging.

FOR CONTROL OF SMALL FLIES AND AS A DEODORIZER IN DRAINS (AND DISPOSALS): For control of small flies: Drosophila spp. and the Phoridae family. Spray or pour solution of ½ ounces per gallon of water (or equivalent use dilution) (850 ppm active quat) into drain (disposal) during time of lowest level of (drain) use. Add 14 ounces of solution daily to each drain (disposal) to maintain fly control. Apply around the edge of the drain (disposal) and coat all sides of inside of drain (disposal).

Waterbed Conditioner: When used as a waterbed conditioner, controls the growth of odor-causing and slime-forming bacteria. Prevents bubbles, preserves plasticizers, conditions vinyl interior, sequesters minerals.

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

Dosage: To control growth of odor-causing and slime-forming bacteria, add 1.875 ounces in a free flow waterbed of 90 to 180 gallon capacity. Add 3.75 ounces in a waveless/fiber waterbed mattress of 90 to 180 gallon capacity. Repeat application every 4 to 6 months.

Citrus Canker Control (Not for use in California): For prevention of Citrus Canker Disease through treatment of equipment. Effective against *Xanthomonas axonopodis* pv. *citri* (Citrus Canker) at 2000 ppm active quat. Treat all trucks, vehicles, and equipment thoroughly at a dilution ratio of 1:108 (2000 ppm active quat). Treatment can be applied to trucks, attached trailers, field harvesting equipment; including cargo area, wheels, tires, under carriage, hood, roof, fenders and any other part of transportation equipment that can be taken into infested areas. To prevent the spread of Citrus Canker

117

by this artificial means of transportation, treatments are made by trigger spraying, dipping or brushing, using maximum rate 2000 ppm quat. For Sprayer applications use a coarse spray device. After use, all surfaces which come in contact with food or crop must be rinsed with potable water. Clothing must be either thoroughly rinsed or laundered before reuse. Footwear should be rinsed before reuse.

SANITIZER DIRECTIONS FOR NON-FOOD CONTACT SURFACES

Preparation of Sanitizer Use Solution: Add ½ ounce per gallon (4 milliliters per liter) (or equivalent use dilution) of water to sanitize hard, non-porous environmental surfaces. Treated surfaces must remain wet for 60 seconds. Wipe with sponge, mop or cloth. Allow to air dry.

Staphylococcus aureus

Klebsiella pneumoniae

To Sanitize (and Deodorize): Apply sanitizer use solution to pre-cleaned, hard, non-porous surfaces with a cloth, mop, sponge, sprayer or by immersion. Thoroughly wet surface. For heavily soiled areas, a preliminary cleaning is required. For sprayer applications, use a coarse pump or trigger sprayer. Spray 6-8 inches from surface and rub with brush, sponge or cloth. Do not breathe spray. Let stand for 60 seconds, then wipe. Allow to air dry.

SHOE BATH SANITIZER (DIRECTIONS): To prevent cross contamination from area to area in animal areas, and the packaging and storage areas of food plants,) shoe baths containing one inch of freshly made 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 ½ ounce of this product per gallon (4 milliliters per liter) (or equivalent use dilution) of water solution for 60 seconds prior to entering area. Change the sanitizing solution in the bath at least daily or sooner if solution appears dirty.

SHOE FOAM DIRECTIONS: To prevent cross contamination from area to area in animal areas, and the packaging and storage areas of food plants, apply a foam layer approximately 0.5 to 2 inches thick made from a solution of ½ to ¾ ounce per gallon of water (or equivalent use dilution) (850 to 1271 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 from area to area, set the system to deliver (½ per 1 gallon of water) (or equivalent use dilution) (800 ppm active) of sanitizing solution. The (spray) (foam) must cover the entire path of the doorway. Set the system so that a continuous wet blanket of sanitizer solution is delivered to the floor.

Do not mix other foam additives to the sanitizing solution.

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 ½ ounce per gallon (or equivalent use dilution) (850 ppm active) of water for at least 60 seconds. Rinse thoroughly and dry before use. Prepare a fresh solution at least daily or more often if solution becomes cloudy or soiled.

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

TO SANITIZE HOOF TRIMMING EQUIPMENT: Prior to application, pre-clean hoof trimming equipment and utensils before and after use on each animal with detergent and warm water or compatible cleaner to remove soil using a pre-scrape, pre-flush, or when necessary, pre-soak followed by a potable water rinse. To sanitize, prepare a ½ oz of this product per 1 gallon of water solution (or equivalent use dilution). Apply to pre-cleaned hard surfaces using a cloth, mop, sponge or sprayer or by immersion to thoroughly wet surfaces. Allow surfaces to remain wet for at least 60 seconds followed by adequate draining or air drying. Prepare fresh solution at least daily or when solution becomes visibly dirty.

Humidifier Directions *(Not for use in California):* Thoroughly clean water tank and filters. Add ½ ounces of this product per gallon of refill water (or equivalent use dilution).

OR

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 ½ ounce of this product (or equivalent use dilution). When you refill the tank, add ½ ounce of this product for every gallon of water added.

Not for use in heat or atomizing type humidifiers.

Ultrasonic Bath Sanitizing Directions: Use this product to sanitize hard (inanimate) nonporous non-critical objects compatible with Ultrasonic cleaning units. Pour fresh solution of ½ ounce per gallon of water (or equivalent use dilution) (850 ppm active quat) directly into bath chamber. Pre-clean soiled objects. Place objects into unit and operate for a minimum of 1 minute, according to manufacturers use directions. Remove objects and rinse with sterile water (sterile water for injection), or allow to air dry. Replace solution at least daily or when solution becomes visible dirty or discolored.

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

For Sanitizing Hard, Non-porous Whirlpool Units: After using the whirlpool unit, drain the water and refill with fresh water to just cover the intake valve. Add ½ ounce of this product for each gallon of water (or equivalent use dilution) (850 ppm active quat) 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. Treated surfaces must remain wet for 60 seconds. After the unit has been thoroughly sanitized, drain solutions from the unit and rinse any/all cleaned surfaces with fresh water. The unit is ready for reuse.

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

Effective against odor causing bacteria and fungi for home, institutional, industrial and hospital use. This product is particularly suitable for use in water damage restoration situations against odor causing bacteria on the following porous and semi-porous materials: carpets, carpet cushion, upholstery, drapes, sub floors, drywall, trim, and frame lumber, tackless strip and paneling. Using solutions recommended, saturate affected materials with enough product to remain wet for at least 10 minutes. Use proper ventilation.

SMOKE DAMAGE RESTORATION *(Not for use in California):* Effective against odor causing bacteria and fungi for home, institutional, industrial and hospital use. This product is particularly suitable for use in smoke damage restoration situations against odor causing bacteria on the following porous and semi-porous materials: carpets, carpet cushion, upholstery, drapes, sub floors, drywall, trim and frame lumber, tackless strip and paneling. Follow directions as outlined in the Water Damage Restoration

12/17

section. 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 (or equivalent use dilution) allowing for the diluting effect of absorbed water within saturated materials. Remove gross filth or heavy soil along with non-salvageable materials. Saturate all affective areas with a sprayer using a coarse spray tip, before and after cleaning and extraction.

Carpets, carpet cushions, upholstery, drapes 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 (or equivalent use dilution), 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, institutional, commercial and residential areas such as homes, motels & hotel chains, nursing homes, schools and hospital. 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 gallon of water (or equivalent use dilution).

For truck mounted extraction machines: Mix 6 ounces of this product per gallon of water and meter at 4 gallons per hour (or equivalent use dilution).

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

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

CARPET DEODORIZATION AGAINST ODOR-CAUSING BACTERIA, FOR HOME, INSTITUTIONAL, INDUSTRIAL AND HOSPITAL USE

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

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

For use 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 cloth, a water-based product should not be used.

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

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

SANITIZING HATCHERY ROOMS USING FOGGING DEVICES

Remove all animals and feed from premises, vehicles and enclosures. Remove all litter and manure from floors, walls and surfaces of the room to be treated. Empty all troughs, racks and other feeding and watering appliances. Close room off so fog is confined to room to be treated. Mix one part this product to five parts water (½ gallon this product to 2.5 gallons water) (or equivalent use dilution). Vacate the area of all personnel for a minimum of 2 hours. 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 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 6 ounces of this product to 122 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 breathe this fog and do not enter until the fog has settled. It is acceptable to fog setters and hatchers with a ½ ounce per gallon solution of MAQUAT 256 MN-FCS (or equivalent use dilution) on an hourly or every other hour basis. Vacate the area of all personnel for a minimum of 2 hours. If this is done, fog for 30-90 seconds once per hour or once every two hours. 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 ¼ ounces of product to 1 gallon of water (1,200 ppm) (or equivalent use dilution). Vacate the area of all personnel for a minimum of 2 hours during 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. (DO NOT RINSE.)

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

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

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

Dishes, silverware, glasses, cooking utensils and other similar size food processing equipment can be sanitized by immersion in a ½ ounce per 5 gallons solution of this product (170 ppm active) (or equivalent use dilution) for a contact time of 1 minute. Prepare a fresh sanitizing solution at least daily. NO POTABLE WATER RINSE IS ALLOWED (DO NOT RINSE).

Prepare a fresh solution at least daily or when use solution becomes visibly dirty. For mechanical application use solution may not be reused for sanitizing applications.

For Public Eating Places, Dairy Processing Equipment and Food Processing Equipment and Utensils: Prior to application, remove gross food particles and soil by a pre-flush or pre-scrape and when necessary, presoak. Then thoroughly wash or flush objects with a good detergent or compatible cleaner, followed by a potable water rinse before applications of the sanitizing solution. Apply a solution of 0.5 to 1.2 ounce of this product in 5 gallons of water (or equivalent use dilution) (170 to 400 ppm active) to hard surfaces thoroughly wetting surfaces with a cloth, mop, sponge, sprayer or by immersion. For spray applications, use a coarse pump or trigger sprayer. Spray 6 to 8 inches from surface. Rub with brush, sponge, or cloth. Do not breathe spray. With spray applications cover or remove all food products. From a Closed Loop Dilution Center, apply 170-200 ppm active solution to the surface to be sanitized. Surfaces must remain wet for at least 1 minute followed by adequate draining and air drying. Prepare a fresh solution at least daily or when use solution becomes visibly dirty. For mechanical application use solution may not be reused for sanitizing applications. NO POTABLE WATER RINSE IS ALLOWED AFTER APPLICATION OF THE SANITIZING SOLUTION (after use as a sanitizer).

For Food Processing Equipment and Utensils: Prior to application, remove gross food particles and soil by a pre-flush or pre-scrape and when necessary, presoak. Then thoroughly wash or flush objects with a good detergent or compatible cleaner, followed by a potable water rinse before applications of the sanitizing solution. Apply a solution of 0.5 to 1.2 ounce(s) of this product in 5 gallons of water (or equivalent use dilution) (170-400 ppm active) to hard, non-porous surfaces thoroughly wetting surfaces with a cloth, mop, sponge, sprayer or by immersion. For spray applications, use a coarse pump or trigger sprayer. Spray 6 to 8 inches from surface. Rub with brush, sponge, or cloth. Do not breathe spray. With spray applications cover or remove all food products. From a Closed Loop Dilution Center, apply 150-400 ppm active solution to the surface to be sanitized. Surfaces must remain wet for at least 1 minute followed by adequate draining and air drying. (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food). Prepare a fresh solution at least daily or when use solution becomes visibly dirty. For mechanical application, use solution may not be reused for sanitizing applications. NO POTABLE WATER RINSE IS ALLOWED AFTER APPLICATION OF THE SANITIZING SOLUTION (after use as a sanitizer).

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

1. Scrape, flush or presoak articles (whether mobile or stationary) to remove gross food particles and soil.
2. Thoroughly wash articles with an appropriate detergent or cleaner.
3. Rinse articles thoroughly with potable water.
4. Sanitize articles using a solution of 0.5 to 1.2 ounce of this product per 5 gallons of water (170-400 ppm active) (or equivalent use dilution). Articles that can be immersed in solution must remain in solution for 60 seconds. Articles too large for immersing must be thoroughly wetted by rinsing, spraying or swabbing.
5. Remove immersed items from solution to drain and then air dry. Allow non-immersed items to air dry also.

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

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

Equipment and utensils must be thoroughly preflushed or prescraped and, when necessary, presoaked to remove gross food particles. Thoroughly wash articles with an appropriate detergent or cleaner. Rinse articles thoroughly with potable water. Then apply sanitizing solution containing 2 to 4.8 ounces of this product per 20 gallons of water (or equivalent use dilution) (170-400 ppm active quaternary). Surfaces must remain wet for at least 1 minute. No potable water rinse is allowed (Do not rinse). (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food).

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

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

1. Scrape, flush or presoak articles (whether mobile or stationary) to remove gross food particles and soil.
2. Thoroughly wash articles with an appropriate detergent or cleaner.
3. Rinse articles thoroughly with potable water.
4. Sanitize articles using a solution of 0.1 to 0.24 ounce of this product per gallon of water (170 to 400 ppm active) (or equivalent use dilution). Articles that can be immersed in solution must remain in solution for 60 seconds. Articles too large for immersing must be thoroughly wetted by rinsing, spraying or swabbing.
5. Remove immersed and non-immersed items from solution to drain and then air dry. No potable water rinse is allowed (Do not rinse). (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food).

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

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

1. Thoroughly wash equipment and utensils in a hot detergent solution. Rinse utensils and equipment thoroughly with potable water.
2. Sanitize equipment and utensils by immersion in 0.5 to 1.2 ounces of this product per 5 gallons of water (or equivalent use dilution) 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 0.6 ounce per 5 gallons solution of this product (200 ppm active) (or equivalent use dilution) by rinsing, spraying or swabbing until thoroughly wetted.
4. Allow sanitized surfaces to drain and air dry. Do not rinse with potable water.

14
117

WISCONSIN STATE DIVISION OF HEALTH

DIRECTIONS FOR EATING ESTABLISHMENTS *(Not for use in California)*

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 0.5 to 0.6 ounces per 5 gallons of this product. (170 to 200 ppm active quaternary) (or equivalent use dilution). Immerse all utensils for at least two minutes or for contact time specified by governing sanitary code.
5. Place sanitized utensils on a rack or drain board to air-dry.
6. Prepare a fresh solution at least daily or when visibly soiled or diluted.

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

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

WISCONSIN STATE DIVISION OF HEALTH

DIRECTIONS FOR EATING ESTABLISHMENTS *(Not for use in California)*

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 (170-200 ppm active quaternary). Immerse all utensils for at least two minutes or for contact time specified by governing sanitary code.
5. Place sanitized utensils on a rack or drain board to air-dry.
6. Prepare fresh sanitizing solution at least daily or 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 Utensils In Food

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

1. Turn off refrigeration
2. Unit must be washed with a compatible detergent and rinsed with potable water before sanitizing.
3. Wash and rinse all surfaces thoroughly.
4. Apply a solution of 0.5 to 1.2 ounces of this product in 5 gallons of water (or equivalent use dilution) (170-400 ppm active) by mechanical spray, direct pouring or by recirculating through the system. Surfaces must remain wet for at least one minute followed by complete draining and drying. Prepare a fresh solution for each cleaning. No potable water rinse is allowed when product is used as directed.
5. Return machine to service.

DIRECTIONS FOR RESTAURANT AND BAR SANITIZER

Equipment and utensils must be thoroughly preflushed or prescraped and when necessary presoaked to remove gross food particles and soil. Then thoroughly wash or flush objects with a good detergent or compatible cleaner followed by a potable water rinse before application of the sanitizing solution.

For precleaned dishes, glassware, silverware, eating utensils, cooking utensils, immerse in a solution containing 0.5 to 1.2 ounce(s) of this product per 5 gallons of water (or equivalent use dilution) (170-400 ppm active quaternary). Allow surface to remain wet for at least 60 seconds. Drain thoroughly before reuse. No potable water rinse is allowed.

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

For Use as a Sanitizer on Dishes, Glassware, Silverware, Eating utensils, Cooking utensils: For heavily soiled areas, remove gross food particles by preflush, prescrape, and presoak when necessary. Wash thoroughly with detergent or compatible cleaner then rinse with potable water prior to application of this product. Then immerse in a sanitizing solution from Closed Loop Dilution Center (or equivalent use dilution) (170-400 ppm active quaternary). Allow surface to remain wet for at least 60 seconds. Drain thoroughly and air dry before reuse. No potable water rinse is allowed.

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

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

1. Tank must be washed with a compatible detergent and rinsed with potable water before sanitizing. Backwash the softener and add 0.5-1.2 ounce(s) of sanitizer per 5 gallons of water (170-400 ppm active) (or equivalent use dilution) 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. Tank must be washed with a compatible detergent and rinsed with potable water before sanitizing.
3. Fill empty pre-filter housing with 0.5-1.2 ounce(s) of sanitizer per 5 gallons of water (170-400 ppm active) (or equivalent use dilution) and turn on raw water. (NOTE: Standard system capacity is 1 to 2 gallons).
4. After holding tank is full, let system stand idle for a minimum of 60 seconds. Turn off water. Drain holding tank.
5. Return unit(s) to normal operation. NO POTABLE WATER RINSE IS ALLOWED. Follow the manufacturer's directions for re-installation of new pre-filters, membrane element and post filter.

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

Ice Machines – 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. Unit must be washed with a compatible detergent and rinsed with potable water before sanitizing.
3. Prepare a solution of 0.5 to 1.2 ounce(s) of sanitizer per 5 gallons of water (170-400 ppm active) (or equivalent use dilution).
4. Circulate solution through machine making sure to wet all surfaces and allow a minimum contact of 60 seconds. No potable water rinse is allowed when product is used as directed.
5. Return machine to normal operation.

15/17

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 0.5 to 1.2 ounce(s) of sanitizer per 5 gallons of water (170-400 ppm active) (or equivalent use dilution).
4. Apply or circulate (if possible) to wet all surfaces and allow a minimum contact of 60 seconds. No potable water rinse is allowed when product is used as directed.
5. Return to service by opening incoming water lines.

DIRECTIONS FOR FOOD PROCESSING EQUIPMENT AND DAIRIES

Equipment and utensils must be thoroughly preflushed or prescraped and when necessary presoaked to remove gross food particles. Clean and rinse equipment thoroughly. Then apply sanitizing solution containing 0.5 to 1.2 ounce(s) of this product per 5 gallons of water (or equivalent use dilution) (170-400 ppm active quaternary). No potable water rinse is allowed.

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 0.5 to 1.2 ounces of this product per 5 gallons of water (or equivalent use dilution) (170-400 ppm active). Allow solution to remain in equipment for at least 60 seconds, or until operations resume at which time the sanitizing solution must be drained from the system. To insure the removal of flavors, it is suggested that during 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 allowed. (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food).

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 170-400 ppm active quat. Prepare a solution of 0.5 to 1.2 ounces of this product per 5 gallons of water (or equivalent use dilution) (170-400 ppm active) for the exterior application for the filler and closing machine. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly and allow to air dry before reuse. No potable water rinse allowed. (Alternate statement: Allow sanitized surfaces to adequately drain before contact with food).

GLOVE DIP SANITIZER DIRECTIONS: To prevent cross contamination from area to area in animals areas and the packaging and storage areas of food plants, dip pre-washed (plastic, latex or other synthetic rubber) non-porous gloved hands into a suitable clean container that contains enough freshly made sanitizing solution to cover the gloved area. Make up the sanitizing solution by adding 0.5 to 1.2 ounce of this product per 5 gallons of water (or equivalent use dilution) (170-400 ppm active). Dip (Soak) in solution for 60 seconds. **NO POTABLE WATER RINSE IS ALLOWED.** Change the sanitizing solution in the bath at least daily or when solution appears dirty. **Do not let sanitizing solution come into contact with exposed skin.**

STORAGE TANK SANITIZER DIRECTIONS

Recommended for sanitizing beer fermentation and holding tanks, wine, 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 0.5 to 1.2 ounces of this product per 5 gallons of water (or equivalent use dilution) (170-400 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 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 0.5 to 1.2 ounces of this product per 5 gallons of warm water (or equivalent use dilution) (170-400 ppm active). The solution should be warmer than the eggs, but not to exceed 130°F. Wet eggs thoroughly and allow to drain. Eggs sanitized with this product shall be subjected to a potable water rinse only if they are to be broken immediately for use in the manufacture of egg products. Eggs should be reasonably dry before casing or breaking. The solution should not be re-used for sanitizing eggs.

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

MUSHROOM FARM INDUSTRY USE DIRECTIONS

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

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

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

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

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 170-400 ppm quat level (0.5 to 1.2 ounce(s) per 5 gallons) (or equivalent use dilution) to conveyors with suitable feeding equipment. Do not allow this solution to be sprayed directly on food. Controlled volumes of sanitizer are applied to return portion of conveyor through nozzles so located as to permit maximum drainage of sanitizer from equipment and to prevent puddles on top of belt. During interruptions in operation, coarse spray equipment, peelers, collators, slicers and saws with this product at a dilution of 170 ppm active quat. Conveyor equipment must be free of product when applying this coarse spray. Do not allow this solution to be sprayed directly on food.

FOR SANITIZING IN FISHERIES, MILK, WINE, CITRUS, 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.

1617

(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.

2 OUNCE PACKET LABEL TO BE USED WITH MASTER CONTAINER LABEL

FOR DISINFECTION

MIX EACH PACKET WITH 4 GALLONS OF WATER

MAQUAT 256 MN-FCS

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

NET CONTENTS: 2 FLUID OZ.

ACTIVE INGREDIENTS:

Octyl Decyl Dimethyl Ammonium Chloride.....	6.510%
Didecyl Dimethyl Ammonium Chloride.....	3.255%
Dioctyl Dimethyl Ammonium Chloride.....	3.255%
Alkyl (C ₁₄ , 50%; C ₁₂ , 40%; C ₁₆ , 10%) dimethyl benzyl ammonium chloride.....	8.680%

INERT INGREDIENTS: 78.300%

TOTAL..... 100.000%

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



17/17