

10324-58

7-18-2002

1/15

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JUL 18 2002

Mr. Marc Mason
General Manager
Mason Chemical Company
721 W. Algonquin Road
Arlington Heights, IL 60005

SUBJECT: Maquat 128
EPA Registration Number: 10324-58
Applications Dated: April 24, 2002
Receipt Date: April 26, 2002

Dear Mr. Marc Mason:

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

- update label language
- add public health pests
- submit two alternate confidential statements of formula and a revised basic formula

Chemistry

The submitted Basic Formulation (Formula 1, dated 4/24/02) and the Alternate Formulations (Formulas 3 and 4, dated 4/8/02) are acceptable and will be made part of the record for this file.

CONCURRENCES

SYMBOL	75100							
SURNAME	J. Fox							
DATE	7/16/02							

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

2/15

Revise the label as follows:

A. Make the following revision to page four:

Revise the section beginning "Before use in federally inspected meat and poultry..." to include: "A potable water rinse is not required following the use of the product as a sanitizer on previously..."

B. Make the following revisions to page five:

1. Add an additional heading such that the label reads as follow:
"Fungicidal Performance: Aspergillus niger Trichophyton mentagrophytes"

2. Revise the directions for HIV and HBV to read as on the last label which was reviewed for this product by correcting the headings to read as follows: **"*KILLS HIV AND HBV ON PRECLEANED ENVIRONMENTAL SURFACES..."** and **"SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATION AGAINST HIV-1 AND HBV ON SURFACES/OBJECTS..."**

3. Revise the directions for HIV and HBV by correcting the "Contact Time" section to read: "This 2 *minute* contact time will not control other common..."

C. Make the following revision to page six:

Revise the "Directions for Fogging" to read: "All food contact surfaces must be sanitized with a product solution of 200 ppm active quaternary (1 ounce per 3 1/2 gallons of this product)..."

D. Make the following revisions to page eight:

You have cited the EPA Reg. No. 1839-120 to support the use of this product for use in Humidifiers. Change your directions for humidifiers by deleting the current language and revising to read exactly as follows:

"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 2 gallons of water in the humidifier tank add 1/4 ounce of *this product*. *When you refill the tank, add 1/4 ounce of this product for every 2 gallons of water in the tank.* Not for use in heat vaporizing or atomizing type humidifiers."

CONCURRENCES

SYMBOL							
SURNAME							
DATE							

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

DANGER KEEP OUT OF REACH OF CHILDREN. Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. 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 side walls. Do not reuse empty container. Wrap and discard in trash (or recycle).

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

10324-58

ACCEPTED
with COMMENTS
in EPA Letter Dated:
JUL 18 2002

MAQUAT 128

Cleaner - Disinfectant - Sanitizer - Deodorizer - Fungicide - Mildewstat - Virucide*- With Organic Soil Tolerance For Hospitals Nursing Home, Whirlpool, Home, Institutional, Industrial, School, Dairy, Equine, Poultry/Turkey, Farm, Veterinary, Restaurant, Food Handling and Process Areas, Federally Inspected Meat and Poultry Plants, Bar and Institutional Kitchen Use and for Sanitizing Ice Machines. Formulated for effective Poultry Sanitation. Formulated for effective Swine Premise Sanitation. Formulated for effective Mushroom Farm Sanitation.

ACTIVE INGREDIENTS:

Alkyl (C₁₄ 60%, C₁₆ 30%, C₁₂ 5%, C₁₈ 5%)
dimethyl benzyl ammonium chloride 4.5%
Alkyl (C₁₂ 68%, C₁₄ 32%)
dimethyl ethylbenzyl ammonium chloride 4.5%

INERT INGREDIENTS: 91.0%

TOTAL: 100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

See left panel for additional precautionary statements

First Aid

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

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

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

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

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

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

MASON CHEMICAL COMPANY

"THE QUATERNARY SPECIALISTS"

721 W. Algonquin Road
Arlington Heights, IL 60005

847-290-1621
Toll Free:
1-800-362-1855

E.P.A. Reg. No. 10324-58
E.P.A. Est. No. 10324-IL-1



NET CONTENTS

BATCH NO

1/17

This product contains no phosphorus.

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

This product maximizes labor results by effectively controlling odors.

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

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

Cross contamination is of major housekeeping concern. This product has been formulated to aid in the reduction of cross-contamination 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*, fungicidal, and eliminates odor causing bacteria when used as directed.

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

This product will not leave a grit or soap scum. Will not cause swelling of transducer membrane or harm compressor plates.

This product is a versatile Disinfectant & Sanitizer for Veterinarian, Animal Care and Agricultural applications.

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

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

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

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

This product is recommended for use as a sanitizer on dishes, glassware and utensils (at 200 ppm active) and as a disinfectant on hard, nonporous surfaces (at 703 ppm active). A potable water rinse is not required after use as a sanitizer on food contact surfaces.

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

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

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

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

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

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

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

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

This product is recommended for use in household and commercial humidifiers. Use of this product will control a build-up of slime and unpleasant (malodors) odors.

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 sanitize and disinfect non-porous salon/barber tools and instruments: combs, brushes, scissors, clippers, trimmers, razors, blades, tweezers and manicure instruments.

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

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

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

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

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

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

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

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

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

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

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

ACCEPTED
with COMMENTS
in EPA Letter Dated
JUL 18 2002
Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide,
registered under EPA Reg. No. 10324-58

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.

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

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

This product may be used as a general purpose antimicrobial detergent in florist shops, wholesale florist, shippers, green house packing areas and other commercial floriculture places for efficient cleaning and antimicrobial action against certain bacteria which cause:

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

Floor cleaner.

One step cleaner.

Cleans everyday kitchen messes.

Cleans kitchen surfaces and food preparation areas.

Cleans and shines.

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

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

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

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

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

Antibacterial. Kills Athlete's Foot fungus on bathroom surfaces.

Hospital use Disinfectant. Institutional Disinfectant (Sanitizer).

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

Maquat 128 for use in:

- Hospitals, nursing homes, medical and dental offices and clinics, physician offices, operating rooms, isolation wards, and medical research facilities.
- Patient care rooms & facilities, recovery, anesthesia, Emergency Rooms, X-ray cat labs, newborn nurseries, orthopedics, whirlpools, respiratory therapy, surgical centers, labs, blood collection rooms, central supply, housekeeping & janitorial rooms.
- EMS & fire facilities

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- Day care centers and nurseries, sick rooms
- Acute care institutions, alternate care institutions. Home healthcare institutions
- Life care retirement communities
- Restaurants, restaurants and bars, bars, cafeterias, institutional kitchens, fast food operations and food storage areas.
- Supermarkets, convenience stores, retail and wholesale establishments, department stores, shopping malls, gift shops, video stores, bookstores, dressing rooms and laundries, photo copy centers, bicycle shops, auto repair centers
- Computer manufacturing sites, toy factories
- Food establishments, coffee shops, donut shops, bagel stores, pizza stores, liquor stores
- Crime scenes and funeral homes, mortuaries, burial vaults, mausoleums, autopsy rooms
- Police stations, courthouses, municipal government buildings, bus stations, train stations.
- Institutional facilities, laboratories, factories, business and office buildings, restrooms, hotels and motels and transportation terminals.
- Public restrooms, travel rest areas, shower rooms, shower stalls, bathrooms
- Hotel, motels, dormitories
- Kitchens, bathrooms and other household areas.
- Institutions, schools and colleges, churches, classrooms, community colleges, universities, athletic facilities and locker rooms, exercise rooms, gyms, gymnásiums
- Cosmetic manufacturing facilities, medical device manufacturing facilities, biotechnology firms, pharmaceutical manufacturing facilities
- Heath clubs, spas, tanning spas, tanning beds, massage/ facial salons, hair/nail/pedicure salons, barber/beauty shops, salons, tattoo parlors
- Museums, art galleries, post offices, performance/theater centers, banks, libraries, movie houses
- Recycling centers
- Humidifier water tanks.
- Camp grounds, play grounds, recreational facilities, picnic facilities, sports arenas, sports complexes
- Food processing plants, USDA inspected food-processing facilities, dairy farms, hog farms, equine farms, poultry and turkey farms and egg processing plants, meat/poultry processing plants, meat/poultry producing establishments, mushroom farms
- Processing facilities for Fish, Milk, Citrus, Ice Cream and Potatoes.
- Veterinary clinics, animal life science laboratories, kennels, dog/cat animal kennels, breeding and grooming establishments, pet animal quarters, zoos, pet shops, tack shops and other animal care facilities.
- Household and automotive garages, boats, ships, barges, campers, trailers, mobile homes, cars, trucks, buses, trains, taxis and airplanes.

6/15

- Cruise lines, airline terminals, shipping terminals, public transportation
- Commercial florist and flower shops
- Basements, cellars, bedrooms, attics, living rooms, porches.

This product may be used on washable hard nonporous surfaces such as:

- Food preparation and storage areas.
- Dishes, glassware, silverware, cooking utensils, plastic and other nonporous cutting boards, coolers, ice chests, refrigerator bins used for meat, vegetables and egg, Tupperware®.
- Kitchen equipment such as food processors, blenders, cutlery and other utensils.
- Countertops, Slurppy® machines, stovetops, sinks, appliances, refrigerators, ice machines.
- Glass, metal, stainless steel, glazed porcelain, glazed ceramic, fiberglass, granite, marble, plastic, chrome and vinyl.
- Enameled surfaces, painted woodwork, Formica®, vinyl and plastic upholstery.
- Tables, chairs, desks, bed frames, lifts, washable walls, cabinets, doorknobs and garbage cans, cuspidors and spittoons.
- Exhaust fans, refrigerated storage and display equipment, coils and drain pans of air conditioning and refrigeration equipment and heat pumps.
- Large inflatable nonporous plastic and rubber structures, animals, promotional items, moonwalk, slides, obstacle course play and exercise equipment.
- Beer fermentation and holding tanks, bottling or packaging equipment.
- Citrus processing equipment and holding tanks.
- Picnic tables and outdoor furniture.
- Telephones and Telephone booths
- Highchairs
- Drinking fountains.
- Shower stalls, shower doors and curtains, bathtubs and glazed tiles, chrome plated intakes, toilets, toilet bowl surfaces, urinals, portable toilets, porcelain tile and restroom fixtures.
- Kennels kennel runs, cages floors, conductive flooring.
- Foundations, steps, plumbing fixtures, finished baseboards and windowsills.
- Dishes, silverware, glasses, cooking utensils and other similar size food processing equipment can be sanitized by immersion. **NO POTABLE WATER RINSE REQUIRED.**

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in EPA letter Dated:
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Under the Federal Insecticide,
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This product has been authorized by the USDA as a sanitizer for all food contact surfaces.

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

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

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

This product meets AOAC efficacy standards for hard surface sanitizers.

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

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

To prevent cross contamination, kitchenware and food contact surfaces of equipment shall be washed, rinsed 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.

This product is recommended for Poultry Premise Sanitation (Hatcheries)

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

This product is recommended for Swine Premise Sanitation:

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

DIRECTIONS FOR USE

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

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.

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 required following use of the product on previously cleaned hard surfaces provided that the surfaces are adequately drained before contact with food so that little or no residue remains.

Apply this product with a cloth, mop or mechanical spray device. When applied with a mechanical spray device, surfaces must be sprayed until thoroughly wetted. Treated surfaces must remain wet for 10 minutes. For sprayer applications, use a coarse mist

7/15

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

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

DISINFECTION

Hospitals, Dental Offices, Nursing Homes and other Health Care Institutions. For disinfecting floors, walls, countertops, bathing areas, lavatories, bed frames, tables, chairs, garbage pails and other hard non-porous surfaces.

Add 1 ounce of this product to one gallon of water (703 ppm active quat). Treated surfaces must remain wet for 10 minutes. At this use level, this product is bactericidal according to the AOAC Use Dilution Test method on hard inanimate surfaces modified in the presence of 5% organic serum against:

- Campylobacter jejuni*
- Corynebacterium ammoniagenes*
- Enterobacter aerogenes*
- Enterococcus faecalis*
- Escherichia coli*
- Klebsiella pneumoniae*
- Listeria monocytogenes*
- Pseudomonas aeruginosa*

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in EPA Letter Dated:
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Salmonella choleraesuis
Salmonella choleraesuis
Salmonella typhi
Shigella dysenteriae
Staphylococcus aureus
Staphylococcus aureus (Methicillin Resistant)
Streptococcus
Streptococcus
 amended, for the pesticide,
 registered under EPA Reg. No. 10324-58

Virucidal Performance: At 1 ounce per gallon use level (703 ppm active quat), this product was evaluated in the presence of 5% serum with a 10 minute contact time and found to be effective against the following viruses on hard nonporous environmental surfaces.

- Avian influenza A/Turkey/Wisconsin
- Canine Distemper
- Equine Arteritis Virus
- Hepatitis B Virus (HBV)
- Herpes Simplex Type1
- HIV-1 (AIDS Virus)
- Infectious Avian Laryngotracheitis
- Infectious Bronchitis Virus
- Infectious Bovine Rhinotracheitis virus (IBR)
- Aspergillus niger*
- Influenza A2/Japan
- Newcastle disease virus
- Porcine Respiratory & Reproductive Virus (PRRSV)
- Porcine Rotavirus
- Pseudorabies virus
- Transmissible Gastroenteritis (TGE)
- Vaccinia virus
- Trichophyton mentagrophytes*

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

Ounces of Product	Amount of Water
¼ ounce	1 quart
½ ounce	½ Gallon
1.0 ounce	1 gallon
2½ ounces	2½ gallons
5.0 ounces	5 gallons
10.0 ounces	10 gallons

At 1 ounce per one gallon (or equivalent use dilution) (703 ppm active quat) in the presence of 200 ppm hard water (CaCO₃) and 100% serum this product was proven to be effective against Hepatitis B Virus with a contact time of 10 minutes.

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

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

Personal Protection: Specific barrier protection items to be used when handling items soiled with blood or body fluids are disposable latex gloves, gowns, masks, or eye coverings.

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

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

Contact Time: Leave surfaces wet for two minutes for HIV and ten minutes for HBV with 1 ounce per gallon (or equivalent use dilution) (703 ppm active quat) use solution. This contact time will not control other common types of viruses and bacteria.

Disinfection/Fungicidal/Virucidal Directions: Use at a rate of 1 ounce per gallon. Allow surfaces to remain wet for 10 minutes. 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 mist.

Add 1 ounce per gallon (8 milliliters per liter) of water to disinfect hard, non-porous surfaces. Treated surfaces must remain wet for 10 minutes. Prepare a fresh solution daily or when use dilution becomes diluted or soiled.

General Deodorization: To deodorize, add 1 ounce of this product to one gallon of water (or equivalent use dilution) (703 ppm active quat). Allow to air dry.

For Deodorizing Garbage Cans, Garbage Trucks, Industrial Waste Receptacles and Garbage Handling Equipment: It is especially important to preclean for the product to perform properly. Then, apply a wetting concentration of 3.5 ounces of this product per gallon of water (or equivalent use dilution) (2,460 ppm quat active).

For Odors Caused by Dogs, Cats and Other Domestic Animals: Use on rugs, floors, walls, tile, cages, crates, litter boxes, mats, floor coverings, or any surface soiled by a pet. Test a small inconspicuous area first. Blot problem area. Then follow directions for "General Deodorization".

Fungicidal Activity

At 1 ounce per gallon use-level, (or equivalent use dilution) (703 ppm active quat) this product is effective against *Trichophyton mentagrophytes* (athlete's foot fungus) on inanimate surfaces in the presence of 5% blood serum in locker rooms, dressing rooms, shower and bath areas and exercise facilities.

Mold and Mildew Control

At 1 ounce per gallon, (or equivalent use dilution) (703 ppm active quat) this product will effectively inhibit the growth of mold and mildew and the odors caused by them when applied to hard non-porous surfaces (as indicated in general instructions above).

8/15

Allow to dry on surface and repeat treatment every seven days when new growth appears.

To control the growth of mold and mildew on large inflatable nonporous plastic and rubber structures (animals, promotional items, moonwalk, slides, obstacle course play and exercise equipment). Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of 1 ounce per gallon (703 ppm active quat) of water (or equivalent dilution) for a period of 10 minutes. Ventilate buildings and other closed spaces. Do not use equipment until treatment has been absorbed, set or dried.

Disinfection/Fungicide/Virucide for Barber/Salon Tools Directions: Immerse precleaned barber/salon tools (such as combs, brushes, razors, clipper and trimmer blades, tweezers manicure/pedicure tools and scissors) in a 1 ounce per gallon solution of the product (or equivalent use dilution) (703 ppm active quat). Completely immerse instruments and tools for at least 10 minutes. Rinse thoroughly and dry before use. Prepare a fresh solution at least daily or more often. Solution becomes cloudy or soiled.

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

Non-Acid Toilet Bowl Disinfection/Cleaner Directions: Remove gross filth prior to disinfection.

From concentrate:

Add 1 ounce (8 milliliters per liter) to the toilet bowl and mix. Brush thoroughly over exposed surfaces and under the rim, with a cloth, mop or sponge and allow to stand for 10 minutes and flush.

From use solution:

Empty toilet bowl or urinal and apply 1 ounce per gallon (8 milliliters per liter) use solution to exposed surfaces including under the rim with a cloth, mop, sponge or sprayer, brush or swab thoroughly and allow to stand for 10 minutes and flush. For sprayer applications use a coarse spray device.

For heavy duty cleaning:

Empty toilet bowl or urinal and apply 4 ounces per gallon (32 milliliters per liter) use solution to exposed surfaces including under the rim with a cloth, mop, sponge or sprayer, brush or swab thoroughly and allow to stand for 10 minutes and flush.

Cleaning/Deodorizing Directions:

Add ½ to 2 ounces per gallon (4-16 milliliters per liter) of water to clean and deodorize windows, mirrors and glass surfaces. Use a coarse spray device. Spray 6-8 inches from surface, rub with sponge or cloth. Do not breathe spray mist.

Ultrasonic Bath Disinfectant Directions: Use this product to disinfect hard (inanimate) nonporous objects compatible with Ultrasonic cleaning units. Pour fresh solution of 1 ounce per gallon of water (or equivalent use dilution) (703 ppm active quat) directly into bath chamber. Preclean soiled objects. Place objects into unit and operate for a minimum of 10 minutes, according to manufacturers use directions. Remove objects and rinse with sterile water (sterile water for injection), or allow to air dry. Replace solution daily or when solution becomes visible dirty or discolored.

For Disinfecting Hard Nonporous 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 1 ounce of this product for each gallon of water (703 ppm active quat) in the unit at this point. Briefly start the pump to circulate the solutions. Turn off pump. Wash down the unit sides, seat of the chair lift, and any/all related equipment with a clean swab, brush or sponge. Product to surface contact time must be at least 10 minutes for proper disinfection. After the unit has been thoroughly disinfected, drain solutions from the unit and rinse all disinfected surfaces with fresh water. The unit is ready for reuse.

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.

To disinfect food-processing premises: floors, walls and storage areas, add 1 ounce of this product to one gallon of water (or equivalent use dilution) (703 ppm active quat). For heavily soiled areas, a pre-cleaning step is required. Apply solution with a mop, cloth, sponge or hand pump trigger sprayer so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes, then remove excess liquid. For sprayer applications use a coarse spray device. Before using this product, food products and packaging materials must be removed from area or carefully protected. After use, all surfaces in the area must be thoroughly rinsed with potable water.

To disinfect food service establishment food contact surfaces: countertops, appliances, tables add 1 ounce of this product to one gallon of water (or equivalent use dilution) (703 ppm active quat). For heavily soiled areas, a pre-cleaning step is required. Apply solution with a mop, cloth, sponge or hand pump trigger sprayer so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes, then remove excess liquid and rinse the surface with potable water. For sprayer applications use a coarse spray device.

For use on non-food contact surfaces as a general disinfectant in the brewery industry use 1 ounce of this product per gallon of water (or equivalent use dilution) (703 ppm active quat). Follow the Disinfectant directions above.

Directions for Fogging: Dairies, beverage and food processing plants. To sanitize hard nonporous room surfaces as an adjunct to acceptable manual cleaning and disinfecting as described above. Prior to fogging, food products and packaging material must be removed from the room or carefully protected. After cleaning, fog desired areas using one quart per 1000 cubic feet of room area with a product solution containing 1¼ ounces product to 1 gallon of water (or equivalent use dilution) (1,230 ppm). Vacate the area of all personnel during fogging and for a minimum of 2 hours after fogging. All food contact surfaces must be sanitized with a product solution of 200 ppm active quaternary (1 ounce per 3½ gallons of this product) prior to use. Allow food contact surfaces to drain thoroughly before operations are resumed.

NOTE: The fog generated is irritating to the eyes, skin and mucous membranes. Under no circumstances should a room or building be entered by anyone within two hours of the actual fogging. If the building must be entered, then the individuals entering the building must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long sleeves and long pants.

POULTRY (AND SWINE) PREMISE SANITATION SITE PREPARATION

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

9/15

the heavy debris is eliminated thoroughly clean all surfaces with soap or detergent and rinse with water.

Disinfection/Fungicide/Virucide of Poultry/Turkey Equipment, Swine Quarters, Animal Quarters and Kennels Directions: Remove all animals and feeds from premises vehicles and enclosures such as coops and crates. Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Use 1 ounce of this product per gallon of water (or equivalent use dilution) (703 ppm active quat). Saturate surfaces with the recommended disinfecting solution for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.

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

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

HATCHERIES: Use 1 ounce of this product per gallon of water to treat the following hard non-porous surfaces: hatchers, setters, trays, racks, carts, sexing tables, delivery trucks and other hard surfaces. Leave all treated surfaces exposed to disinfectant solution wet for 10 minutes or more. Rinse with potable water before reuse. Then allow to air dry.

VEHICLES: Clean all vehicles including mats, crates, cabs, and wheels with high pressure water and this product. For sprayer applications, use a coarse mist or spray. Use 1 ounce per gallon to treat all vehicles. Leave all treated surfaces exposed to disinfectant solution wet for 10 minutes or more and allow to air dry.

SHOE BATH SANITIZATION: 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 1 ounce of this product per gallon (8 milliliters per liter) of water solution for 60 seconds prior to entering area. Change the sanitizing solution in the bath daily or sooner if solution appears dirty.

DRESSING PLANT USE: Disinfect equipment, utensils, walls and floors in poultry and animal dressing plants. Disinfect offal rooms, exterior walls and loading platforms of dressing plants. Cover or remove all food and packaging materials. Remove all gross soils. Saturate all surfaces with the recommended use solution of 1 ounce of this product per gallon of water, Scrub to loosen all soils. Allow to soak for 10 minutes and thoroughly rinse all wetted and cleaned surfaces with potable water.

SANITIZING HATCHERY ROOMS USING FOGGING DEVICES

Remove all animals and feed from premises, vehicles and enclosures. Remove all litter and manure from floors walls and surfaces of the room to be treated. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Close room off so fog is confined to room to be treated. Mix 155 ounces this product to 2.5 gallons water. Insert the nozzle of the fogger through a suitable opening into the room. With the setting in maximum output, fog for one minute for each 4000 cubic feet of space in the room. When fogging is completed ventilate buildings and other closed spaces. Do not allow people to contact or breath this fog and do not enter until 2 hours after fogging is

complete. Do not house livestock or employ equipment until treatment has been absorbed or dried. Thoroughly clean all surfaces with soap or detergent and rinse with water.

SANITIZING INCUBATORS AND HATCHERS USING FOGGING DEVICES

Mix 16 ounces of this product to 128 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. It is acceptable to fog setters and hatchers with 1 ounce per gallon solution of this product on an hourly or every other hour basis. If this is done, fog for 30-90 seconds once per hour or once every two hours. When fogging is completed ventilate buildings and other closed spaces. Do not allow people to contact or breath this fog and do not enter until 2 hours after fogging is complete. Do not house livestock or employ equipment until treatment has been absorbed or dried. Thoroughly 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 1 1/4 ounces of product to 1 gallon of water (1,230 ppm). Vacate the area of all personnel for a minimum of 2 hours after fogging. All food contact surfaces must be thoroughly rinsed prior to reuse with potable water.

NOTE: The fog generated is irritating to the eyes, skin and mucous membranes. Under no circumstances should a room or building be entered by anyone within two hours of the actual fogging. If the building must be entered, then the individuals entering the building must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long sleeves and long pants.

FOGGING IS TO BE USED AS AN ADJUNCT TO ACCEPTABLE MANUAL CLEANING AND DISINFECTING OF ROOM AND MACHINE SURFACES.

Veterinary Clinics/Animal Life Science Laboratory/Pet Shop/Kennels/Breeding and grooming Establishment/Tack Shops Disinfection Directions: For cleaning and disinfecting the following hard nonporous surfaces: Equipment, utensils, instruments, cages, kennels, stables, stalls and catteries. Remove all animals and feeds from premises, animal transportation vehicles, crates etc. Remove all litter, droppings and manure from floors, walls and surfaces of facilities occupied or transversed by animals. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of 1 ounce per gallon of water (or equivalent dilution) (703 ppm active quat) for a period of 10 minutes. Ventilate buildings and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, automatic feeders, waterers and other equipment which dispenses food or water with soap or detergent, and rinse with potable water before reuse.

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 barns, pens, chutes and other facilities and fixtures occupied or transversed by animals.
3. Empty all troughs, racks and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate all surfaces with the recommended disinfecting solution for a period of 10 minutes.

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JUL 18 2002
10/15

6. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels, scrapers used in removing litter and manure.
7. Ventilate buildings, cars, trucks, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set, or dried.
8. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

CLEANING AND DISINFECTION For all general cleaning and disinfection use 1 ounce of this product per gallon of water. Apply this product using a cloth, mop, or pressure sprayer so as to thoroughly wet surface to be disinfected. Allow to remain wet for 10 minutes and then let air dry. For heavily soiled areas, a precleaning step is required. Prepare a fresh solution after each use. For sprayer applications use a coarse spray device.

Disinfecting Potato storage area and equipment: Remove all potatoes prior to disinfection of potato storage area and equipment. Preclean 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.

Dairy Cow Application Directions: The udders, flanks and teats of dairy cows can be washed with a solution of 1 ounce of this product per 3½ gallons of warm water. Use a fresh towel for each cow. Avoid contamination of wash solution by dirt and soil. Do not dip used towel back into wash solution. When solution becomes visibly dirty, discard and provide fresh solution.

Humidifier Bacteria/Algae Treatment Formulated for use in portable humidifiers. Thoroughly clean water tank and filters before each heating season, or sooner if necessary. For every 2 gallons of water in the humidifier tank add ¼ ounce of water in the tank. Not for use in heat vaporizing or atomizing type humidifiers.

Commercial Florist Use Directions: To clean, disinfect and deodorize hard non-porous surfaces in one step, prepare use solution by adding (mixing) 1 ounce per gallon of water (1:128). For heavy-duty use, add (mix) 4 ounces per gallon of water (1:32).

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 brush, sponge, brush, sponge or sprayer.

For heavily soiled areas, a preliminary cleaning is required.

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

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

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

MUSHROOM FARM INDUSTRY USE DIRECTIONS

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

Disinfection: Use 1 ounce of this product per gallon of water (or equivalent dilution). Wet all surfaces thoroughly. Treated surfaces should be allowed to remain wet for 10

minutes. Let air-dry. For heavily soiled areas, preclean first. Prepare a fresh solution for each use.

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

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

WATER DAMAGE RESTORATION

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

Sewer backup & river flooding: During mitigation procedures, dilute 1 to 2 ounces of this product per gallon of water allowing for the diluting effect of absorbed water within saturated materials. Remove gross filth or heavy soil along with non-salvageable materials. Saturate all affective areas with a sprayer using a coarse spray tip, before and after cleaning and extraction.

Carpets, carpet cushions and other porous materials such as sub floors, drywall, trim and frame lumber, tackless strip and paneling: For water damage from a clean water source, extract excess water. Test hidden area for colorfastness. Dilute 1 to 2 ounces of the product per gallon of water, allowing for the diluting effect of absorbed water within saturated materials. Remove gross filth or heavy soil. Apply directly with a sprayer using a coarse spray tip, to fully saturate affected materials. Roll, brush or agitate into materials and allow the materials to remain damp for 10 minutes. Follow with a through extraction. Dry rapidly and thoroughly.

Special Instructions for Cleaning Carpet Against Odor Causing Bacteria: This product may be used in industrial and institutional areas such as homes, motels & hotel chains, nursing homes, schools and hospital. 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.

For truck mounted extraction machines: Mix 12 ounces of the product per gallon of water and meter at 4 gallons per hour.

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

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

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

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

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1/15

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

For use 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.

SMOKE DAMAGE RESTORATION

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

FOOD CONTACT 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, glasses, sink tops, countertops, refrigerated storage and display equipment and other hard non-porous surfaces. NO POTABLE WATER RINSE IS REQUIRED.

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 required following the use of this product on previously cleaned hard nonporous surfaces provided that the surfaces are adequately drained before contact with food so that little or no residue remains.

Apply a solution of 1 ounce of this product in 3½ gallons of water, (or equivalent use dilution) (200 ppm active) to pre-cleaned, hard surfaces thoroughly wetting surfaces with a cloth, mop, sponge, sprayer or by immersion. For spray applications, use a coarse mist, pump or trigger sprayer. Spray 6 to 8 inches from surface, rub with brush, sponge, or cloth. Do not breathe spray mist. With spray applications cover or remove all food products. From a Closed Loop Dilution Center, apply 200 ppm active solution to the surface to be sanitized. Surfaces should remain wet for at least 1 minute followed by adequate draining and air drying.

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 REQUIRED AFTER APPLICATION OF THE SANITIZING SOLUTION.

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

Dishes, silverware, glasses, cooking utensils and other similar size food processing equipment can be sanitized by immersion in a 1 ounce per 3½ gallons solution of this product (200 ppm active). NO POTABLE WATER RINSE IS REQUIRED.

At 1 ounce per 3½ gallons this product (200 ppm active) eliminates 99.999% of the of the following bacteria in 60 seconds in 500 ppm hard water (calculated as CaCO3) according to the AOAC Germicidal and Detergent Sanitizing Action of Disinfectants test.

Escherichia coli

Staphylococcus aureus

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

1. Scrape, flush or presoak articles (whether mobile or stationary) to remove gross food particles and soil.
2. Thoroughly wash articles with an appropriate detergent or cleaner.
3. Rinse articles thoroughly with potable water.
4. Sanitize articles using a solution of 1 ounce of this product per 3½ gallons of water (200 ppm active). Articles that can be immersed in solution should remain in solution for 60 seconds. Articles too large for immersing should be thoroughly wetted by rinsing, spraying or swabbing.
5. Remove immersed items from solution to drain and then air dry. Non-immersed item should be allowed to air dry also.

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

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

1. Thoroughly wash equipment and utensils in a hot detergent solution. Rinse utensils and equipment thoroughly with potable water.
2. Sanitize equipment and utensils by immersion in 1 ounce of this product per 3½ gallons of water for at least 60 seconds at a temperature of 75°F. This dilution is equivalent to a solution containing 50 ppm available chlorine.
3. For equipment and utensils too large to sanitize by immersion, apply 1 ounce of this product per 3½ gallons of water (200 ppm active) by rinsing, spraying or swabbing until thoroughly wetted.
4. Allow sanitized surfaces to drain and air dry. Do not rinse.

WISCONSIN STATE DIVISION OF HEALTH DIRECTIONS FOR EATING ESTABLISHMENTS

1. Scrape and pre-wash utensils and glasses when ever possible.
2. Wash with a good detergent or compatible cleaner.
3. Rinse with potable water.
4. Sanitize in a solution of 1 ounce of this product per 3½ gallons water. (200 ppm active quaternary.) Immerse all utensils for at least two minutes or for contact time specified by governing sanitary code.
5. Place sanitized utensils on a rack or drain board to air-dry.
6. Prepare fresh sanitizing solution daily or more often when visibly soiled or diluted.

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

12/15

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

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

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

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

Sanitizing of Food Processing Equipment (Ice Machines) and Other hard Surfaces In Food Contact Locations. Equipment and utensil must be thoroughly preflushed or prescraped and when necessary presoaked to remove gross food particles. For sanitizing food processing equipment, dairy equipment, refrigerated storage and display equipment and other hard non-porous surfaces. No Potable Water Rinse is required.

1. Turn off refrigeration
2. Wash and rinse all surfaces thoroughly.
3. Apply a solution of 1 ounce of this product in 3½ gallons of water (or equivalent use dilution) (200 ppm active) by mechanical spray, direct pouring or by recirculating through the system. Surfaces must remain wet for at least one minute followed by complete draining and drying. A fresh solution should be prepared for each cleaning. No potable water rinse is required. No product is used as directed.
4. Return machine to service.

DIRECTIONS FOR RESTAURANT AND BAR SANITIZER

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

For precleaned dishes, glassware, silverware, cooking utensils, immerse in a solution containing 1 ounce of this product per 3½ gallons of water. (or equivalent use dilution) (200 ppm active quaternary) Allow surface to remain wet for at least 60 seconds. Drain thoroughly before reuse. No rinse is required

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

For use as a sanitizer on dishes, glassware, silverware, cooking utensils. For heavily soiled areas, remove gross food particles by preflush, prescrape, and presoak when necessary. Wash thoroughly with detergent or compatible cleaner then rinse with potable water prior to application of this product. Then immerse in a sanitizing solution from Closed Loop Dilution Center. (200 ppm active quaternary) Allow surface to remain wet for at least 60 seconds. Drain thoroughly and air dry before reuse. No rinse is required.

DIRECTIONS FOR FOOD PROCESSING EQUIPMENT AND DAIRIES

Equipment and utensils must be thoroughly preflushed or prescraped and when necessary presoaked to remove gross food particles. Clean and rinse equipment

thoroughly, then apply sanitizing solution containing 1 ounce of this product per 3½ gallons of water (or equivalent use dilution) (200 ppm active quaternary). No rinse is required.

At 1 ounce per 3½ gallons this sanitizer fulfills the criteria of Appendix F of the Grade A Pasteurized Milk, Ordinance 1978 Recommendations of the U.S. Public Health Services in waters up to 500 ppm of hardness calculated as CaCO₃ when evaluated by the AOAC Germicidal and Detergent Sanitizer Method against Escherichia coli and Staphylococcus aureus.

BEVERAGE DISPENSING EQUIPMENT SANITIZER DIRECTIONS

For sanitizing of bottling or pre-mix dispensing equipment, after cleaning thoroughly rinse equipment with cold or lukewarm potable water. Fill equipment with a solution of 1 ounce of this product per 3½ gallons of water (or equivalent use dilution) (200 ppm active). Allow solution to remain in equipment for at least 60 seconds, or until operations resume at which time the sanitizing solution should be drained from the system. To insure the removal of flavors, it is suggested that during changeover between products the system should be cleaned, rinsed and flushed with the sanitizing solution for at least 1 minute. Drain thoroughly and allow to air dry before reuse. No rinse required.

SANITARY FILLING EQUIPMENT SANITIZER DIRECTIONS

Recommended for use in sanitizing bottles or cans in the final rinse application. The product is to be proportioned into the final rinse water line of the container washer or rinser in the concentration of 200 ppm active quat. Prepare a solution of 1 ounce of this product per 3½ gallons of water (or equivalent use dilution) (200 ppm active) for the exterior application for the filler and closing machine. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly before reuse. No rinse required.

STORAGE TANK SANITIZER DIRECTIONS

Recommended for sanitizing beer fermentation and holding tanks, citrus and food processing storage and holding tanks. Remove gross filth and soil by preflush or prescrape and when necessary presoak. Then wash surfaces with a compatible detergent and rinse with potable water prior to sanitizing. Prepare a solution of 1 ounce of this product per 3½ gallons of water (or equivalent use dilution) (200 ppm active) for mechanical or automated systems. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly before reuse. No rinse required.

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

SANITIZING EGG SHELLS INTENDED FOR FOOD DIRECTIONS

To sanitize previously cleaned food-grade eggs in shell egg and egg product processing plants, spray with a solution of 1 ounce of this product per 3½ gallons of warm water (or equivalent use dilution) (200 ppm active). The solution should be warmer than the eggs, but not to exceed 130°F. Wet eggs thoroughly and allow to drain. Eggs sanitized with this product shall be subjected to a potable water rinse only if they are to be broken immediately for use in the manufacture of egg products. Eggs should be reasonably dry before casing or breaking. The solution should not be reused for sanitizing eggs.

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

FOR CONTINUOUS TREATMENT OF MEAT AND POULTRY OR FRUIT AND VEGETABLE CONVEYORS Remove gross food particles and excess soil by a pre-flush or pre-scrape, wash with a good detergent or compatible cleaner, rinse equipment thoroughly with potable water, then rinse equipment with a sanitizing solution. To

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13/15

sanitize the belt apply this product at a 200 ppm quat level (1 ounce per 3½ gallons) (or equivalent use dilution) to conveyors with suitable feeding equipment. Controlled volumes of sanitizer are applied to return portion of conveyor through nozzles so located as to permit maximum drainage of sanitizer from equipment and to prevent puddles on top of belt. Do not allow this solution to be sprayed directly on food. During interruptions in operation, coarse spray equipment, peelers, collators, slicers and saws with this product at a dilution of 200 ppm active quat. Conveyor equipment should be free of product when applying this coarse spray.

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

(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.

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amended, for the pesticide,
registered under EPA Reg. No. 10324-58

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

FOR DISINFECTION

MIX EACH PACKET WITH 4 GALLONS OF WATER

MAQUAT 128

E.P.A. Reg. No. 10324-58 E.P.A. Est. No. 10324-IL-1

NET CONTENTS: 4.0 FLUID OZ.

ACTIVE INGREDIENTS:

Alkyl (C₁₄ 60%, C₁₆ 30%, C₁₂ 5%, C₁₈ 5%)
dimethyl benzyl ammonium chloride 4.5%
Alkyl (C₁₂ 68%, C₁₄ 32%)
dimethyl ethylbenzyl ammonium chloride..... 4.5%

INERT INGREDIENTS: 91.0%

TOTAL: 100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER

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

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

MASON CHEMICAL COMPANY

"THE QUATERNARY SPECIALISTS"

721 W. Algonquin Road
Arlington Heights, IL 60005

847-290-1621

Toll Free:
1-800-362-1855



14/15

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

FOR FOOD CONTACT SANITIZER

MIX EACH PACKET WITH 3.5 GALLONS OF WATER

MAQUAT 128

E.P.A. Reg. No. 10324-58 E.P.A. Est. No. 10324-IL-1

NET CONTENTS: 1.0 FLUID OZ.

ACTIVE INGREDIENTS:

Alkyl (C₁₄ 60%, C₁₆ 30%, C₁₂ 5%, C₁₈ 5%)
dimethyl benzyl ammonium chloride 4.5%
Alkyl (C₁₂ 68%, C₁₄ 32%)
dimethyl ethylbenzyl ammonium chloride..... 4.5%

INERT INGREDIENTS: 91.0%

TOTAL: 100.0%

**KEEP OUT OF REACH OF CHILDREN
DANGER**

SEE OUTER CONTAINER FOR PRECAUTIONARY STATEMENTS AND USE
DIRECTIONS

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

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ACCEPTED
with COMMENTS
in EPA Letter Dated:

JUL 18 2002

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide,
registered under EPA Reg. No. 10324-58