

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DEC 9 2004

Mr. Thomas W. Isaac
Sr. Regulatory Specialist
Stepan Company
22 W. Frontage Rd.
Northfield, IL 60093

Subject: BTC 2125M 20% Solution
EPA Registration No. 1839-155
Application Date: 5/24/04
Receipt Date: 5/26/04

Dear Mr. Isaac:

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

- . Addition of the public health organism: Human Coronavirus
- . Addition of public health organism: Vancomycin Intermediate Resistant Staphylococcus aureus
- . Addition of the public health organism: Camphylobacter jejuni to the food contact surface sanitizer claim
- . Addition of the public health organisms: Hepatitis B Virus (HBV) and Hepatitis C virus (HCV)
- . Addition of the non-public health organism: Bovine Viral Diarrhea Virus (BVDV)
- . Addition of the public health organisms Escherichia coli 0157:H7, Yersinia enterocolitica and Listeria monocytogenes under the food contact surface Sanitizer claim
- . Reduction of the sanitizer hard water tolerance claim to 650 ppm as CaCO3 from the current label claim of 750 ppm as CaCO3
- . Expansion of the food contact surface sanitizer
- . Addition of the non-public health claim against the Citrus Canker organism, Xanthomonas axonopodis pathovar citri
- . Expanded use-sites and environmental surfaces
- . Addition of Wisconsin State division of Health directions for Eating Establishments
- . Addition of Disinfection Dilution and Sanitization Dilution charts
- . Addition of directions for Poultry & Swine Premise Sanitation

LABEL COMMENTS

1. ~~The proposed label claims that the product BTC 2125M Solution is an effective sanitizing~~

CONCURRENCES

SYMBOL	7510C						
SURNAME	Jones						
DATE	12-9-04						

rinse on previously cleaned, hard, non-porous food contact surfaces against *Campylobacter jejuni* in the presence of 750 ppm hard water at a concentration of 200 ppm active quaternary compound (a 1:1024 dilution). This claim is not supported by the submitted efficacy data (MRID 460484-01). Efficacy was demonstrated under these conditions with a concentration of 650 ppm hard water, not 750 ppm as listed on the proposed label. The May 25, 2004 letter from you to the Agency states that you wish to reduce the sanitizer hard water tolerance claim to 650 ppm as CaCO3 from the current label claim of 750 ppm as CaCO3. This change needs to be reflected on the label. No mention of a hard water tolerance of 750 ppm is to appear on the label for *C. jejuni*.

- 2. The proposed label claims that the product, BTC 2125M 20% Solution, is an effective disinfectant on hard, non-porous surfaces at a 1:366 dilution against the following microorganisms in the presence of 5% organic serum for a contact time of 10 minutes:

Human coronavirus	MRID No. 460664-01
Hepatitis B virus	MRID Nos. 455232-01 and 455232-02
Hepatitis C virus	MRID Nos. 456841-01 and 456841-02
Staphylococcus aureus-VR	MRID No. 447492-01

These claims are supported by submitted data.

You should note that claims for efficacy against Human coronavirus in no way imply that the product is efficacious against the causative agent of Severe Acute Respiratory Syndrome (SARS) and that any such claims are not allowed.

- 3. The proposed label claims that the product, BTC 2125M 20% Solution is an effective sanitizing rinse on previously cleaned, hard, non-porous food contact surfaces against the following microorganisms in the presence of 750 ppm hard water at a concentration of 200 ppm active quaternary compound (1:1024 dilution).

<i>Listeria monocytogenes</i>	MRID No. 442040-02
<i>Yersinia enterocolitica</i>	MRID No. 442040-01
<i>Escherichia coli</i> 0157:57	MRID No. 444062-01

These claims are supported by submitted data.

- 4. The following general changes need to be made to the label.

Page 3

- . Change "picnics facilities" to read "picnic facilities".
- . Change "minimizes the probability contaminating food" to "minimizes the Probability of contaminating food".

Page 4

- . Marble and Granite are listed as use surfaces. Since they are porous materials

in their raw form, "sealed marble" and "sealed granite" must be specified or Marble and granite are to be removed from the label.

- Fiberglass is listed as a use surface. Fiberglass is by nature a porous surface and must be removed from the label.
- Change "Campylobacter jejune" to "Campylobacter jejuni."

Page 5

- Under the heading Hospital Disinfection, include "viruses" in the disinfection against sentence so that it is clear that the below use table applies to disinfection against viruses as well as the organisms listed.
- Under the heading Virucidal Activity, change the statement "used on environmental, inanimate hard surfaces..." to read "used on hard, non-porous, inanimate, environmental surfaces...."

Page 6

- Under the heading Non-acid toilet bowl..., change "allow remain wet" to read "Allow to remain wet".

Page 7

- Under the heading Farm premise disinfection (step 6), change "scrappers" to read "scrapers".

Page 8

- Use directions for shoe bath sanitization and shoe foam sanitization are included on the proposed label. These are not food contact surfaces. The product was only tested as a sanitizing rinse for previously cleaned food contact surfaces. The aforementioned uses are inanimate non-food contact surfaces and require the product to be tested against Staphylococcus aureus and Klebsiella pneumoniae (see DIS/TSS-10). The product must be tested following standards presented in DIS/TSS-10 in order to have a sanitizing claim on shoe surfaces.

Directions for use as a shoe foam sanitizer include a use dilution of 800-1200 ppm. At this concentration, the solution would be categorized as a disinfectant. However, the contact time of 60 seconds is not adequate for such a claim since disinfecting efficacy was demonstrated at 10 minutes. Therefore, unless appropriate efficacy data is submitted (i.e. sanitizer test for inanimate non-food contact surfaces) both the shoe bath and shoe foam sanitizer directions must be removed from the label.

Page 9

- Change "Campylobacter jejune" to read "Campylobacter jejuni".

Page 10

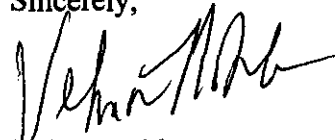
- . Under the heading "Sanitization of sanitary filling equipment" change "Washer and riser applications" to read "washer and rinse applications".
- 5. Delete the "Diary Cow Applications" from the label because this use requires FDA approval.
- 6. Delete the word "sanitizing" from directions on page 13 since efficacy testing wasn't performed using a fogging type of application and therefore it is unknown whether fogging in this manner is actually sanitizing the surfaces.

GENERAL COMMENTS

A stamped copy of the accepted labeling is enclosed. Submit three (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 Zenobia Jones at (703) 308-6198.

Sincerely,



Velma Noble
Product Manager 31
Regulatory Management Branch 1
Antimicrobial Division (7510C)

5717

BTC[®] 2125M 20% Solution

- DISINFECTANT
- VIRUCIDE
- SANITIZER
- DEODORIZER
- MILDEWSTAT (on hard inanimate surfaces)
- LAUNDRY BACTERIOSTAT
- CITRUS CANKER CONTROL *(Not for Use in California)*
 - Effective in the presence of 5% serum contamination
 - For Hospital, Institutional and Industrial Use
 - For Farm, School, Dairy, Restaurant, Food Handling and Processing Areas, Equine, Poultry/Turkey Farm, Bar, Tavern and Institutional Kitchen Use
 - Formulated for Effective Farm Premise Sanitation
 - Formulated for Effective Poultry Premise Sanitation
 - Formulated for Effective Swine Premise Sanitation
 - Formulated for Effective Mushroom Farm Sanitation
 - Formulated for Effective Veterinary Practice/Animal Care/Animal Laboratory Disinfection

ACTIVE INGREDIENTS

Alkyl (60% C ₁₄ , 30% C ₁₈ , 5% C ₁₂ , 5% C ₁₈) dimethyl benzyl ammonium chlorides.....	10.0%
Alkyl (68% C ₁₂ , 32% C ₁₄) dimethyl ethylbenzyl ammonium chlorides.....	10.0%
INERT INGREDIENTS	80.0%
TOTAL	100.0%

KEEP OUT OF REACH OF CHILDREN DANGER

FIRST AID

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

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 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 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 the 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 by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

(OPTIONAL) You may contact xxx/xxx-xxx for emergency medical treatment information.

See side panel for additional precautionary statements.

EPA Reg. No. 1839-155
EPA Est. No. 1839-IL-01

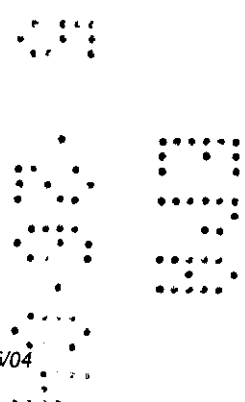
STEPAN COMPANY
22 West Frontage Road
Northfield, IL 60093

ACCEPTED
with COMMENTS
in EPA Letter Dated:

DEC 8 - 2004

NET CONTENTS

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide,
registered under EPA Reg. No. 1839-155



BTC® 2125M 20% Solution is designed specifically for hospitals, nursing homes, hotels, lodging establishments, schools, athletic/recreational facilities/tanning spas, food processing plants, dairies, food service establishments, restaurants, bars, transportation terminals, automotive garages, animal quarters, poultry and turkey farms, kennels and institutions where disinfection, sanitization, and deodorization is of prime importance. When used as directed, (this product or product name) is formulated to disinfect hard, non-porous, inanimate environmental surfaces: floors, walls, metal surfaces, stainless steel surfaces, glazed porcelain, glazed ceramic tile, plastic surfaces, bathrooms, shower stalls, sink tops, bathtubs, cabinets, tables, chairs, tanning beds and telephones.

(This product or product name) deodorizes those areas that generally are hard to keep fresh smelling, such as garbage storage areas, empty garbage bins and cans, pet areas and any other areas that are prone to odors caused by microorganisms.

(In addition,) (this product or product name) will sanitize previously cleaned and rinsed non-porous food contact surfaces such as tanks, chopping blocks (non-wooden and plastic), counter tops, drinking glasses and eating utensils.

(This product or product name) can be used to sanitize previously cleaned food grade eggs in shell egg and egg product processing plants.

(This product or product name) contains no phosphorous.

(This product or product name) is for use in institutional kitchens and bathrooms.

(This product or product name) has been formulated to aid in the reduction of cross-contamination on treated surfaces not only in hospitals, but in schools, institutions and industry.

When used as directed, (this product or product name) is a concentrated Hospital Use disinfectant that is an effective broad spectrum bactericide and virucide*.

(This product or product name) is an economical concentrate that can be used with a mop and bucket, sponge, cloth, low pressure coarse sprayer, hand pump trigger sprayer or by soaking.

(This product or product name) will not leave a grit or soap scum.

(This product or product name) is a versatile Disinfectant & Sanitizer for Veterinarian, Animal Care and Agricultural premises.

(This product or product name) is a complete, chemically balanced disinfectant/sanitizer that provides clear solutions even when diluted in hard water.

(This product or product name) is recommended for use as a sanitizer on dishes, glassware, and utensils 200 ppm active quaternary without potable water rinse.

(This product or product name) is recommended for use as a sanitizer on food processing equipment at 200-400 ppm active quaternary without potable water rinse.

(This product or product name) is recommended as a hard, non-porous surface hospital disinfectant at 547 ppm active quaternary and as a general disinfectant at 469 ppm active quaternary.

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

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

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

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

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

Use (this product or product name) to sanitize and disinfect non-porous salon/barber tools and instruments: combs, brushes, scissors, blades, and manicure instruments.

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

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

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

(This product or product name) is formulated to effectively eliminate offensive odors caused by mold and mildew.

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

Use (this product or product name) on multi-touch surfaces responsible for cross-contamination.

(This product or product name) is effective at controlling mold and mildew odor on shower curtains.

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

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

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

When used as directed, (this product or product name) will disinfect hard, non-porous surfaces such as flower buckets, floors, walls of coolers, design and packing benches and counter tops.

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

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

(This product or product name) may be used as a general purpose antimicrobial detergent in florist shops, wholesale florists, 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 sensitive 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, babies breath, sweet peas, freesia and alstroemena.

BTC® 2125M 20% Solution (product name) 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 and facilities, recovery, anesthesia, emergency rooms, X-ray cat labs, newborn nurseries, orthopedics, whirlpools, footbaths, respiratory therapy,
- EMS & fire facilities
- Day care centers and nurseries, sick rooms
- Acute care institutions, alternate care institutions, healthcare institutions
- Life care retirement communities
- Restaurant, cafeterias, pizzerias, fast food operations, bars, taverns, cocktail lounges, food storage areas, food establishments, coffee shops, donut shops, bagel stores, liquor stores
- Supermarkets, convenience stores, retail and wholesale establishments, department stores, shopping malls, gift shops, video stores, bookstores, dressing rooms, laundries, photo copy centers, bicycle shops, auto repair centers, toy stores
- Computer manufacturing sites, toy manufacturing sites
- Crime scenes, funeral homes, mortuaries
- Police stations, courthouses, municipal government buildings
- Bus stations, train stations, transportation terminals, airports, heliports
- Institutional facilities, laboratories, factories
- Lodging establishments, hotels, motels, bed & breakfast, dormitories
- Public restrooms, travel rest areas, shower rooms, shower stalls, bathrooms
- Schools, colleges, universities, classrooms, education institutions, school administration offices
- Athletic facilities, health clubs, spas, tanning salons/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 theaters, theaters
- Recycling centers and equipment.
- Humidifier water tanks
- Camp grounds, play grounds, recreational facilities, picnics facilities, sports arenas, sports complexes, sports stadiums
- Food processing plants, dairy farms, hog farms, equine farms, poultry & turkey farms, egg processing plants, meat/poultry processing plants, meat/poultry producing establishments, mushroom farms
- Fishery, milk, citrus, ice cream, potato processing plants
- 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
- Automotive garages, boats, ships, trailers, cars, trucks, buses, trains, taxis and airplanes
- Commercial florist and flower shops

(This product or product name) may be used on washable hard, non-porous surfaces:

- Food preparation and storage areas

- Dishes, glassware, silverware, cooking utensils, plastic and other non-porous cutting boards, coolers, ice chests
- Kitchen equipment: food processors, blenders, cutlery, utensils
- Countertops, Slurry[®] Machines, stovetops, sinks, appliances, refrigerators, ice machines
- Glass, metal, stainless steel, glazed porcelain, glazed ceramic, fiberglass, granite, marble, plastic, chrome, vinyl
- Enameled surfaces, painted woodwork, Formica[®], vinyl and plastic upholstery
- Tables, chairs, desks, bed frames, lifts, washable walls, cabinets, doorknobs, garbage cans
- Exhaust fans, refrigerated storage equipment, display equipment
- Large inflatable non-porous plastic and rubber structures such as animals, promotional items, moonwalk, slides, obstacle course play and exercise equipment
- Beer fermentation and holding tanks, bottling or pre-mix dispensing equipment
- Citrus processing equipment and holding tanks
- Telephones
- High chairs
- Drinking fountains
- Shower stalls, shower doors and curtains, bathtubs, glazed ceramic tiles, glazed porcelain, chrome plated fixtures, toilets, toilet bowl surfaces, urinals, portable toilets, porcelain tile, restroom fixtures, bathroom fixtures, metal surfaces, stainless steel surfaces
- Kennels, kennel runs, cage floors, cages

(This product or product name) is recommended for Poultry Premise Disinfection (Hatcheries), Egg Receiving Areas, Egg Holding Areas, Setter Room, Tray Dumping Area, Trays, Buggies, Racks, Egg Flats, Chick Holding room, Poultry Buildings, Ceilings, Sidewalls and Floors, Drinkers, and all other Poultry House related Equipment, and all other hard, non-porous surfaces in the Hatchery Environment.

Use (this product or product name) for Swine Premise Disinfection: Waterers and Feeders, Hauling Equipment, Dressing Plants, Loading Equipment, Farrowing Barns and Areas, Nursery, Blocks, Creep Area, Chutes.

(This product or product name) meets AOAC Use Dilution Test Standards for hospital disinfectants.

(This product or product name) meets AOAC Germicidal & Detergent standards for sanitizing previously cleaned food-contact surfaces.

(This product or product name) is an effective sanitizer for use on food contact surfaces in 60 seconds at 200 ppm active quaternary against *Campylobacter jejuni*, *Staphylococcus aureus*, *Escherichia coli*, *Escherichia coli* O157:H7, *Yersinia enterocolitica* and *Listeria monocytogenes*.

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

To prevent cross-contamination, kitchenware and equipment food contact surfaces must be washed, rinsed with potable water and sanitized after each use and following any interruption of operation during which time contamination may have occurred.

Where equipment and utensils are used for the preparation of foods on a continuous production-line basis, utensils and equipment food-contact surfaces must be washed, rinsed with potable water and sanitized at intervals throughout the day on a schedule based on food temperature, type of food, and the amount of food particle accumulation.

DIRECTIONS FOR USE

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

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

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

or

This product is not for use on critical and semi-critical medical device surfaces.

DISINFECTION - To disinfect inanimate, hard, non-porous surfaces apply use-solution with mop, cloth, sponge, low pressure coarse sprayer or hand-pump trigger sprayer so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes, then remove excess liquid. For heavily soiled areas, a pre-cleaning step is required. Prepare a fresh solution for each use.

For low pressure coarse sprayer and hand pump trigger sprayer applications, spray 6-8 inches from surface; rub with brush, sponge or cloth. Do not breathe spray.

Note: for spray applications, cover or remove all food products.

DILUTION RATES:

GENERAL DISINFECTION - Add 1.5 ounces of (this product or product name) per 5 gallons of water for disinfection against Staphylococcus aureus (ATCC 6538), Salmonella choleraesuis (ATCC 10708), Listeria monocytogenes (ATCC 35152), and Yersinia enterocolitica (ATCC 23715).

General Disinfectant/Non-Medical Dilution Chart:

Product Amount	Water Volume
0.075 ounce	1.0 quart
0.15 ounce	0.5 gallon
0.3 ounce	1.0 gallon
0.75 ounce	2.5 gallons
1.5 ounces	5.0 gallons
3.0 ounces	10.0 gallons

468.15ppm

1:427

HOSPITAL DISINFECTION -Add 1.75 ounces of (this product or product name) per 5 gallons of water for disinfection against Pseudomonas aeruginosa (ATCC 15442) and Vancomycin intermediate resistant Staphylococcus aureus (VISA), as well as the organisms listed under the GENERAL DISINFECTION section.

Hospitals, Dental Offices, Nursing Homes and other Health Care Institutions Disinfection and Virucide Dilution Chart:

Product Amount	Water Volume
0.0875 ounce	1.0 quart
0.175 ounce	0.5 gallon
0.35 ounce	1.0 gallon
0.875 ounce	2.5 gallons
1.75 ounces	5.0 gallons
3.5 ounces	10.0 gallons

546.875 ppm

1:314

* **VIRUCIDAL ACTIVITY** - (This product or product name), when used on environmental, inanimate hard surfaces at 1.75 ounces per 5 gallons of water exhibits effective virucidal activity against Influenza A₂/Japan (representative of the common flu virus), Herpes Simplex Type 1 (causative agent of fever blisters), Adenovirus Type 5 (causative agent of upper respiratory infections), Vaccinia Virus (representative of the pox virus group), Avian Influenza A/Turkey/Wisconsin (causative agent of an acute avian lower respiratory tract infection), Newcastle Disease Virus, Laryngotracheitis Virus, HIV-1 (Human Immunodeficiency Virus Type 1), Hepatitis B virus (HBV), Hepatitis C virus (HCV), Bovine Viral Diarrhea Virus (BVDV) and Human Coronavirus (ATCC VR-740, Strain 229E).

KILLS HIV-1, HBV and HCV ON PRE-CLEANED ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD/BODY FLUIDS in health care settings (hospitals, nursing homes) 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 OF SURFACES/OBJECTS SOILED WITH BLOOD/BODY FLUIDS.

PERSONAL PROTECTION: When handling items soiled with blood or body fluids use disposable latex gloves, gowns, masks, or eye coverings.

CLEANING PROCEDURES: Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application of this product.

CONTACT TIME: Allow surface to remain wet for 10 minutes.

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

EFFICACY TESTS HAVE DEMONSTRATED THAT THIS PRODUCT IS AN EFFECTIVE BACTERICIDE AND VIRUCIDE IN THE PRESENCE OF ORGANIC SOIL (5% BLOOD SERUM).

Non-acid toilet bowl and urinal disinfectant directions: Remove heavy soil prior to disinfecting. Empty toilet bowl or urinal and apply a use-solution of 1.75 ounces per 5 gallons of water (or equivalent dilution) to exposed surfaces including under the rim with a cloth, mop, sponge or hand pump trigger sprayer. Brush or swab thoroughly, then allow remain wet for 10 minutes and flush.

To disinfect food processing premises: floors, walls, and storage areas, add 1.5 ounces of (this product or product name) per 5 gallons of water (or equivalent dilution). 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. Before using this product, food products and packaging materials must be removed from the area or carefully protected. After use, all surfaces in the area must be thoroughly rinsed with potable water.

To disinfect food service establishment or restaurant food contact surfaces: countertops, outside of appliances, tables, add 1.5 ounces of (this product or product name) per 5 gallons of water (or equivalent dilution). For heavily soiled areas, a pre-cleaning step is required. Apply use-solution with a cloth, sponge or hand pump trigger sprayer so as to wet all surfaces thoroughly. Allow the surface to remain wet for 10 minutes, then remove excess liquid and rinse the surface with potable water. Do not use on utensils, dishes, glasses or cookware.

Disinfecting potato storage area and equipment: Remove all potatoes prior to disinfection of potato storage area or equipment. Pre-clean hard surfaces by removing heavy soil or gross filth. Follow general disinfection (1.5 ozs. per 5 gal.) procedure described above. All treated surfaces must be thoroughly rinsed with potable water prior to reuse.

For use as a general disinfectant on brewery premises (non-food contact surfaces): Floors, walls, and storage areas add 1.5 ounces of (this product or product name) per 5 gallons of water (or equivalent dilution). For heavily soiled areas, a pre-cleaning step is required. Apply use-solution with a mop, cloth, sponge, low pressure coarse sprayer or hand pump trigger sprayer so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes, then remove excess liquid. Before using product, food products (beer, wort, hops, mash, grain, brew ingredients) must be removed from the area or carefully protected. After use, all surfaces must be thoroughly rinsed with potable water.

Ultrasonic bath disinfectant directions: Use (this product or product name) to disinfect hard, non-porous, non-critical instruments/objects compatible with Ultrasonic cleaning units. Pour fresh use-solution of 1.75 ounces per gallon of water (or equivalent dilution) directly into bath chamber. Pre-clean soiled objects. Place objects into unit and operate for a minimum of 10 minutes, according to manufacturer's use directions. Remove objects and rinse with sterile water (sterile water for injection), or allow to air dry. Prepare a fresh solution for each use.

Whirlpool bath disinfection directions: After using whirlpool unit, drain and fill with a use-solution of 1.75 ounces of (this product or product name) per 5 gallons to just cover the intake valve. Start pump to circulate solution. Wash down the unit sides, seat of the chair lift, and any 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 disinfected surfaces with fresh water. Repeat for heavily soiled units.

Commercial Florist Use Directions: To clean, disinfect and deodorize hard non-porous surfaces in one step, prepare use-solution by adding (mixing) 1.75 ounces per 5 gallons of water. For heavy-duty use, add (mix) 2 ounces per gallon of water.

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, hand pump trigger sprayer or low pressure coarse sprayer.

For heavily soiled areas, a preliminary cleaning is required.

For sprayer applications, 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.

(Not for use in California)

Directions for fogging 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 1 quart per 1000 cubic feet of room area with a solution containing 0.75 ounce per of product to 1 gallon of water (1160 ppm active quaternary). Vacate the area of all personnel for a minimum of 2 hours after fogging. All food contact surfaces must be thoroughly rinsed with potable water before reuse.

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 DISINFECTION OF ROOM AND MACHINE SURFACES.

Disinfection of poultry/turkey equipment, swine quarters, animal quarters and kennels: For disinfection of pre-cleaned poultry equipment (brooders, watering founts, feeding equipment), animal quarters and kennels, apply a use-solution of 1.75 ounces of (this product or product name) per 5 gallons of water. Remove all poultry, animals, and feed from premises, trucks, coops, and crates. Remove all litter and droppings from floors, walls and surfaces of facilities occupied or traversed by poultry or animals. Empty all troughs, racks, and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate the surfaces with the disinfecting solution for a period of 10 minutes. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals as well as forks, shovels, and scrapers used for removing litter and manure. Ventilate building, coops, and other closed spaces. Do not house poultry or animals or employ equipment until treatment has been absorbed, set or dried. All treated equipment that will contact feed or drinking water must be rinsed with potable water before reuse.

Hatcheries: To disinfect and provide virucidal* activity, use 1.75 ounces of (this product or product name) per 5 gallons of water (or equivalent dilution). Apply to hatcheries, setters, trays, racks, carts, sexing tables, delivery trucks and other hard, non-porous surfaces. Leave all treated surfaces exposed to the use-solution for a minimum of 10 minutes and allow to air dry.

Vehicles: Clean all vehicles including mats, crates, cabs and wheels with high pressure water and (this product or product name). For spray applications use a coarse spray device. Use 1.75 ounces of (this product or product name) per 5 gallons of water (or equivalent dilution) for disinfection and virucidal* activity. Leave all treated surfaces exposed to the use-solution for a minimum of 10 minutes and allow to air dry.

Dressing plant disinfectant/virucidal* directions: Apply a use-solution of 1.75 ounces per 5 gallons of water (or equivalent dilution) to equipment, utensils, walls and floors in poultry and animal dressing plants. Equipment and utensils must remain wet for a minimum of 10 minutes then thoroughly rinsed with potable water before resuming operations. Disinfect all rooms, exterior walls and loading platforms of dressing plants.

Farm premise disinfection: 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, 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 a compatible soap or detergent and rinse with potable water.
5. Saturate all hard, non-porous surfaces with a use-solution of 1.75 ounces per 5 gallons of water (or equivalent dilution) and allow to remain wet for a minimum 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 a compatible soap or detergent and rinse with potable water before reuse.

MUSHROOM FARM PREMISE USE:

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.

Cleaning and Disinfection: For general disinfection, use 1.5 ounces of (this product or product name) per 5 gallons of water (or equivalent dilution). Apply use-solution with a cloth, mop, sponge, low pressure coarse sprayer or by immersion to thoroughly wet all surfaces. Treated surfaces must remain wet for a minimum of 10 minutes. Wipe or allow to air dry. For heavily soiled areas, pre-clean first. Prepare a fresh solution for each use or more often if use-solution becomes visibly diluted, clouded or soiled.

For Heavy Duty Cleaning: When greater cleaning is desired, use 3 ounces of (this product or product name) per 5 gallons of water (or equivalent dilution). Heavily soiled areas may require repeated cleaning before treatment.

DO NOT APPLY THE USE-SOLUTION TO THE MUSHROOM CROP, COMPOST OR CASING. Thoroughly rinse treated surfaces with potable water before they contact crop, compost or casing.

Shoe bath sanitizer directions: To prevent tracking harmful organisms into animal areas, and the packaging and storage areas of food plants, shoe baths containing one inch of freshly made use-solution should be placed at all entrances to buildings, hatcheries and all entrances to the production and packaging rooms. Scrape waterproof shoes and place 0.125 ounce of (this product or product name) per gallon of water (or equivalent use dilution) (200 ppm active solution) for 60 seconds prior to entering area. Change use-solution in the bath daily or sooner if use-solution appears dirty.

Shoe foam sanitizer directions: To prevent tracking harmful organisms into animal areas, and the packaging and storage areas of food plants, apply a foam layer approximately 0.5 to 2 inches thick made from a solution of 0.5 to 0.75 ounce per gallon of water (or equivalent use dilution) (800 to 1200 ppm active quaternary) 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 daily or when it appears dirty.

Not for Use in California.

CITRUS CANCKER CONTROL - For prevention of Citrus Canker Disease through treatment of equipment. (This product or product name), when used at a 1:96 dilution (2000 ppm active quaternary) or 1.335 ounces (40 ml) per gallon of water up to 200 ppm hardness (as CaCO₃), is effective against *Xanthomonas axonopodis* pathovar *citri* (Citrus Canker). Treat all trucks, vehicles, and equipment thoroughly at the 1:96 dilution. 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 by this artificial means of transportation, treatments are made by trigger spraying, dipping or brushing, using the maximum rate of 2000 ppm quaternary. After use, all surfaces which come in contact with food or crop must be rinsed with potable water.

Veterinary clinics/animal life science laboratory/pet shop/kennels/breeding and grooming establishments/tack shops disinfection directions: For cleaning and disinfection of the following hard, non-porous surfaces: equipment not used for animal food or water, utensils, instruments, cages, kennels, stables 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 traversed by animals. Thoroughly clean all surfaces with a compatible soap or detergent and rinse with potable water. Saturate all hard, non-porous surfaces with a use-solution of 1.75 ounces of this product (or product name) per 5 gallons of water (or equivalent dilution) for a 10 minutes minimum. Ventilate buildings and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried. Scrub all treated feed racks, automatic feeders, waterers and other equipment that dispenses food or water with a compatible soap or detergent and thoroughly rinse with potable water before reuse.

Salon (barber) instruments and tools disinfection (bactericide/ virucide*) directions: Mix 1.75 ounces of (this product or product name) per 5 gallons of water (or equivalent dilution) to disinfect, hard, non-porous instruments and tools. Completely immerse combs, brushes, rollers, razors, scissors, blades, manicure and other salon instruments and tools for 10 minutes. For heavily soiled instruments and tools a preliminary cleaning is required. Rinse thoroughly and dry before use. Prepare a fresh solution daily or more often if the solution becomes visibly 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 barber/salon instruments and tools: Immerse pre-cleaned barber/salon instruments and tools (combs, brushes, razors, scissors, blades and manicure instruments) in a use-solution of 0.5 ounce of (this product or product name) per 4 gallons of water (or equivalent dilution) for at least 60 seconds (one minute). Rinse thoroughly and dry before use. Prepare a fresh solution daily or more often if solution becomes visibly 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.

MILDEWSTAT - To control mold and mildew on pre-cleaned, hard, non-porous surfaces add 1.5 ounces of (this product or product name) per 5 gallons of water. Apply solution with a cloth, mop or sponge making sure to wet all surfaces completely. Let air dry. Prepare a fresh solution for each use. Repeat application at weekly intervals or when mildew growth appears.

To Control Mold and Mildew on Large, Inflatable, Non-Porous Plastic and Rubber Structures (animals, promotional items, moonwalk, slides, obstacle course play equipment, exercise equipment, and wrestling mats). Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use-solution of 1.5 ounces of (this product or product name) per 5 gallons of water (0.3 ounce per gallon of water) (469 ppm active quaternary) (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.

GENERAL DEODORIZATION: To deodorize, add 1.5 ounces of (this product or product name) to 5 gallons of water (or equivalent use dilution) (469 ppm active quat). Let air dry.

For Deodorizing Garbage Cans, Garbage Trucks, Industrial Waste Receptacles and Garbage Handling Equipment: It is especially important to pre-clean for this product to perform properly. Apply a wetting concentration of 1.625 ounces of (this product or product name) per gallon of water (or equivalent use dilution) (2500 ppm active quaternary).

For Odors Caused by Dogs, Cats and Other Domestic Animals: Use on rugs, floors, walls, tile, cages, 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.

Water damage restoration: For institutional, industrial and hospital use. (This product or product name) is suitable for use in water damage restoration as a deodorizer on the following porous and semi-porous materials: carpets, cushions, sub floors, drywall, trim, frame lumber, tackless strip and paneling. Use a solution of 1.75 ounces of this product (or trade name) per 5 gallons of water (or equivalent dilution). Saturate all affected materials with enough solution to remain wet for a minimum of 10 minutes. Use proper ventilation.

Smoke damage restoration: Effective as a deodorizer for industrial, institutional and hospital use. (This product or product name) is for use in smoke damage restoration situations to deodorize the following porous and semi-porous materials: carpets, carpet cushion, sub floors, drywall, trim and frame lumber, tackless strip and paneling. Follow directions in the Water Damage Restoration section. Using the recommended use-solutions, saturate affected materials with enough product to remain wet for a minimum of 10 minutes. Use proper ventilation.

Sewer backup and river flooding: During mitigation procedures, dilute 0.55 to 1.1 ounces of (this product or product name) per gallon of water. Remove gross filth or heavy soil along with non-salvageable materials. Saturate all affected areas with the use-solution of (this product or product name). Apply the use-solution with a low pressure, coarse sprayer before and after cleaning and extraction.

Carpet, 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 a hidden area for colorfastness. Remove gross filth or heavy soil. Dilute 0.55 to 1.1 ounces of (this product or product name) per gallon of water, (859-1718 ppm active quaternary). Apply the use-solution with a low pressure coarse sprayer to fully saturate affected materials. Roll, brush or agitate into materials and allow the materials to remain damp for 10 minutes. Follow with a thorough extraction. Thoroughly dry all materials rapidly.

Special instructions for carpet deodorization: (This product or product name) may be used in motels, hotels, nursing homes, schools and hospitals. (This product or product name) is for use on wet, cleanable, synthetic fibers. Do not use on wool. Vacuum carpet thoroughly prior to cleaning. Test fabric for colorfastness.

- **For portable extraction units:** Mix 0.55 ounce per gallon of water.
- **For truck mounted extraction machines:** Mix 6.75 ounces per gallon of water and meter at 4 gallons per hour.
- **For rotary floor machines:** Mix 1.1 ounces per gallon of water and apply at the rate of 300-500 sq. ft. per gallon.

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

Carpet deodorization for industrial and institutional use, and hospital use: (This product or product name) may be used in motels, hotels, nursing homes and hospitals.

Vacuum carpet thoroughly prior to application. Mix 0.55 ounce per gallon of water. Follow injection and/or extraction procedures as specified for any conventional steam cleaning equipment you are using. For rotary floor machines, mix 1.1 ounces 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 colorfastness 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 or product name) should not be mixed with other cleaning chemicals.

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, and to remove and reduce surface contamination, apply 1.75 ounces of (this product or product name) to 5 gallons of water (or equivalent dilution) (547 ppm active quaternary) (or equivalent dilution) to the surfaces and body openings, natural or artificial. Allow 10 minute contact time for optimal results. Bathe the entire body using sponge or washcloth. A soft brush may be employed on surfaces other than the face. Prepare a fresh solution for application to each remains.

LAUNDRY BACTERIOSTAT FOR COMMERCIAL, INDUSTRIAL, AND NON-MEDICAL INSTITUTIONAL LAUNDRY APPLICATIONS: This product provides the fabric with residual bacteriostatic activity against odor causing gram-negative and gram-positive bacteria when this product is added to the final rinse at a rate of 4.8 ounces per 100 lbs. of dry laundry.

KILLS HIV-1 ON LAUNDRY IN COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL APPLICATIONS. This product provides virucidal activity against HIV-1 on fabrics when added to the final rinse at a rate of 3.0 ounces per 100 pounds of dry laundry.

This product, when added to the final rinse, will provide virucidal activity against HIV-1 at a dosage rate of 1 ounce (1/8 cup) per load in small capacity top-loading and front-loading commercial, industrial and non-medical institutional laundering machines.

SANITIZATION - Recommended for use in restaurants, food service establishments, dairies, food processing plants, and bars. When used as directed this product is an effective sanitizer against *Campylobacter jejune* (ATCC 29428), *Escherichia coli* (ATCC 11229), *Escherichia coli* O157:H7 (ATCC 43895), *Staphylococcus aureus* (ATCC 6538), *Yersinia enterocolitica* (ATCC 23715), and *Listeria monocytogenes* (ATCC 35152).

Remove all gross food particles and soil from areas that are to be sanitized with a good detergent, pre-flush, pre-soak or pre-scrape treatment. Rinse with a potable water rinse.

Prepare a fresh use-solution daily or more frequently as soil is apparent.

To sanitize pre-cleaned and potable water-rinsed, non-porous public eating establishment and dairy food contact surfaces: prepare a 200 ppm active quaternary solution by adding 0.5 ounce of this product to 4 gallons of water, 1.25 ounces to 10 gallons of water, or 2.5 ounces to 20 gallons of water.

To prepare a 200 ppm active quaternary solution, use the following dilution table:

Product Amount	Water Volume
0.125 ounce	1 gallon
0.5 ounce	4 gallon
1.25 ounces	10 gallons
2.5 ounces	20 gallons

195.3125ppm

To sanitize mobile items in public eating establishments (drinking glasses, dishes, eating utensils), immerse in a 200 ppm active quaternary solution for at least 60 seconds, making sure to immerse completely. Remove items, drain the use-solution from the surface, and air dry. Do not rinse.

To sanitize public eating establishment surfaces (counters, tables, non-wooden (plastic) cutting boards), apply a 200 ppm active quaternary solution with a (cloth, sponge, low pressure coarse sprayer or hand pump trigger sprayer) making sure that the surface remains completely wet for at least 60 seconds and let air dry. Do not rinse.

To sanitize dairy processing equipment (tanks, piping, pasteurizers, milking equipment) (apply a 200 ppm active quaternary solution with a low pressure coarse sprayer) or (circulate a 200 ppm active quaternary solution throughout the equipment). Surfaces must remain thoroughly wet for at least 60 seconds, followed by adequate draining and air drying. Do not rinse.

At 0.5 ounce per 4 gallons, this sanitizer fulfills the criteria of Appendix F of the Grade A Pasteurized Milk Ordinance 1978 Recommendations of the U. S. Public Health Services in waters up to 750 ppm of hardness calculated as CaCO₃ when evaluated by the AOAC Germicidal and Detergent Sanitizer Method against *Escherichia coli* and *Staphylococcus aureus*.

When used for sanitization of previously cleaned (public eating establishment food contact surfaces, dairy processing equipment, food contact items), limit the active quaternary to 200 ppm. NO POTABLE WATER RINSE IS REQUIRED. This product is an effective sanitizer when diluted in water up to 750 ppm hardness (CaCO₃).

Sanitization of beverage dispensing equipment:

1. Wash equipment with a compatible detergent and rinse with potable water prior to sanitizing.
2. Fill equipment with a use-solution of 0.125 ounce of this product (or trade name) per gallon of water (or equivalent dilution) (200 ppm active quaternary).
3. Allow use-solution to remain in equipment for at least 60 seconds.
4. Drain thoroughly and allow to air dry before reuse. Do not rinse with potable water.

(This statement is required for marketing food contact sanitizers in Wisconsin.)

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 clean water.
4. Sanitize in a solution of 0.5 ounce to 4 gallons of water (200 ppm active quaternary). Immerse all utensils for at least two minutes or for contact time specified by governing sanitary code.
5. Place sanitized utensils on a rack or drain board to air dry.

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

U.S. PUBLIC HEALTH SERVICE FOOD SERVICE SANITIZATION RECOMMENDATIONS

Cleaning and sanitizing: Equipment and utensils must be thoroughly pre-flushed or pre-scraped and when necessary, pre-soaked to remove gross food particles and soil.

1. Thoroughly wash equipment and utensils in hot detergent solution.
2. Rinse utensils and equipment thoroughly with potable water.
3. Sanitize equipment and utensils by immersion in a use-solution of 0.5 ounce of this product (or product name) per 4 gallons of water (or equivalent dilution) (200 ppm active quaternary) for at least 60 seconds at a temperature of 75°F.
4. For equipment and utensils too large to sanitize by immersion, apply a use-solution of 0.5 ounce of this product (or product name) per 4 gallons of water (or equivalent dilution) (200 ppm active quaternary) by rinsing, spraying or swabbing until thoroughly wet.
5. Allow sanitized surface to drain and air dry. Do not rinse.

Dairy cow application directions: The udders, flanks and teats of dairy cows can be washed with a solution of 0.5 ounce of (this product or product name) in 4 gallons of warm water. Use a fresh towel for each cow. Avoid contamination of wash solution by dirt and soil. Do not dip used towel back into wash solution. When solution becomes visibly dirty, discard and provide fresh solution.

To sanitize previously cleaned food-grade eggs in shell egg and egg product-processing plants, spray with a use-solution of 0.5 ounce of (this product or product name) in 4 gallons of warm water (200 ppm quat). The use-solution should be warmer than the eggs, but not to exceed 130°F. Wet eggs thoroughly and allow to drain. Eggs sanitized with this use-solution shall be subjected to a potable water rinse only if they are broken immediately for use in the manufacture of egg products. Eggs should be reasonably dry before casing or breaking. The use-solution should not be reused for sanitizing eggs.

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

Active Quat Solution	1 Gallon	4 Gallon	10 Gallons	20 gallons
200 ppm	0.125 ounce	0.5 ounce	1.25 ounces	2.5 ounces
300 ppm	0.188 ounce	0.75 ounce	1.88 ounces	3.75 ounces
400 ppm	0.25 ounce	1 ounce	2.5 ounces	5 ounces

To sanitize immobile food processing equipment and surfaces (tanks, non-wooden (plastic) chopping blocks, counter tops, conveyors) flood the area with a 200 to 400 ppm active quaternary solution for at least 60 seconds, making sure to wet all surfaces completely. Drain the use-solution from the surface, and air dry.

To sanitize mobile food processing utensils (knives, grinders, shredders, cleavers, ladles), immerse in a 200 to 400 ppm active quaternary solution for at least 60 seconds, making sure to immerse completely. Remove, drain the use-solution from the surface, and air dry.

When used for sanitization of previously cleaned food processing equipment and utensils, limit the active quaternary to a maximum of 400 ppm. NO POTABLE WATER RINSE IS REQUIRED. This product is an effective sanitizer when diluted in water up to 750 ppm hardness (CaCO3).

Sanitization of food processing equipment, utensils, and other food contact articles regulated under 40CFR180.940:

1. Scrape, flush, or pre-soak articles (whether mobile or stationary) to remove gross food particles and soil.
2. Thoroughly wash articles with a compatible detergent or cleaner.
3. Rinse articles thoroughly with potable water.
4. Sanitize by immersing articles with a use-solution of 0.5-1ounce of this product (or trade name) per 4 gallons of water (or equivalent dilution) (200-400 ppm active quaternary) for at least 60 seconds. Articles too large for immersion should be thoroughly wetted by rinsing, spraying or swabbing.
5. Remove immersed items from solution to drain and then let air dry. Non-immersed items should also be allowed to air dry.

Sanitization of sanitary filling equipment: Prepare a use-solution of 0.125-0.250 ounce of (this product or product name) per gallon of water (or equivalent dilution) (200-400 ppm active quaternary) for final washer and riser applications. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly and allow to air dry before reuse. Do not rinse.

Sanitization of beer fermentation and storage tanks: Recommended for sanitization of beer fermentation and holding tanks, citrus and food processing storage and holding tanks. Prepare a use-solution of 0.125-0.250 ounce of (this product or product name) per gallon of water (or equivalent dilution) (200-400 ppm active quaternary) for mechanical or automated systems. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly and allow to air dry before reuse. No rinse is required. For mechanical operations or automated systems, the used sanitizing solution may not be reused for sanitization.

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 compatible detergent or cleaner. Rinse equipment thoroughly with potable water. Apply 0.5-1 ounce of (this product or product name) per 4 gallons of water (or equivalent use dilution) (200 to 400 ppm active quaternary) to conveyors with suitable feeding equipment. Do not allow this solution to be sprayed directly on food. Controlled volumes of the sanitizer solution are applied to return portion of conveyor through nozzles so located as to permit maximum drainage of sanitizer solution from equipment and to prevent puddles on top of belt. During interruptions in operation, use a low pressure coarse sprayer to apply a use-solution of 0.5-1 ounce of (this product or product name) per 4 gallons of water (or equivalent) (200-400 ppm quaternary) to equipment, peelers, collators, slicers and saws. Conveyor equipment should be free of product when applying this coarse spray.

Sanitization of Interior Surfaces of Water Softeners and Reverse Osmosis (RO) Units

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

1. Backwash the softener and add 1 ounce of sanitizer per 8 gallons of water (200 ppm active quaternary) to the brine tank well. (NOTE: standard system capacity is 48 gallons.) (The brine tank should have water in it to permit the solution to be carried into the softener.)
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. Backwash the softener with potable water to make sure all sanitizing solution is thoroughly rinsed from the unit before returning it to service.

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

1. Turn off RO system, drain storage tank and remove membrane element and pre-filters. Put membrane element in a plastic bag so it remains wet.
2. Fill empty pre-filter housing with 1 ounce of sanitizer per 8 gallons of water (200 ppm active sanitizer) and turn on raw water. (NOTE: standard system capacity is 1-2 gallons.)
3. After holding tank is full, let system stand idle for a minimum of 60 seconds. Turn off water. Drain holding tank.
4. Before the system is put back into service, flush system with potable water to assure sanitizing solution is rinsed thoroughly from system. Follow the manufacturer's directions for re-installation of new pre-filters, membrane element and post filter.

Sanitization of Interior Surfaces of Ice Machines, Water Coolers, Water Holding Tanks and Pressure Tanks

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

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

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

1. Shut off incoming water line.
2. Prepare a solution of 1 ounce of sanitizer per 8 gallons of water (200 ppm active quaternary).
3. Apply or circulate (if possible) to wet all surfaces and allow a minimum contact of 60 seconds.
4. Drain and completely flush system twice with potable water.
5. Return to service by opening incoming water lines.

(Not for use in California)

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 a compatible cleaner or detergent and rinse thoroughly with potable water. Close off room so fog is confined to room to be treated. Mix 70 ounces of (this product or product name) to 2.5 gallons of water. Insert the fogger nozzle through a suitable opening into the room. With the setting in maximum output, fog for one minute for each 4000 cubic feet of room space. 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 a compatible soap or detergent and rinse thoroughly with potable water.

43750 PF

Sanitizing incubators and hatcheries using fogging devices: Mix 6.75 ounces of (this product or product name) to 120 ounces of water. Fog 3 to 8 ounces of this use-solution 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.

11250 ppm

It is acceptable to fog hatchers and setters with a 0.55 ounce per gallon use-solution of (this product or product name) on an hourly or every other hour basis. If this is done, fog for 30-90 seconds once per hour or once every two hours. When fogging is complete, ventilate buildings, and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with a compatible soap or detergent, and thoroughly rinse with potable water. Best results are achieved with use-solution water temperature ranging from 78-110°F.

859.315 PF

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, the individuals entering the building must wear a self-contained respiratory approved by NIOSH/MSHA, goggles, long sleeves and long pants.

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

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

KEEP OUT OF REACH OF CHILDREN. CORROSIVE. Causes irreversible eye damage and skin burns. Do not get in eyes, on skin or on clothing. Wear goggles or face shield and rubber gloves when handling. May be fatal if swallowed or absorbed through skin. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse.

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

(Required for product supplied in containers 5 gallons or greater.)

ENVIRONMENTAL HAZARDS

This product 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 to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

Contains no phosphorus.

STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.

PESTICIDE STORAGE - Store in a dry place no lower in temperature than 50°F or higher than 120°F.

CONTAINER DISPOSAL - Do not reuse empty container. Triple rinse empty container with water. Return metal drum then offer for reconditioning or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers may be disposed of in a sanitary landfill, incinerated, or if allowed by local authorities, by burning. If burned, stay out of smoke.

For containers 1 gallon or less: Do not reuse empty container (bottle, can, bucket). Wrap container and put in trash.

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.