

6836-140

4-4-2003

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

1/12

APR - 4 2003

Ms. Ana Rodriguez- Koster
 Agent for Lonza
 Lewis & Harrison
 122 C Street, NW Suite 740
 Washington, DC 20001

Subject: Lonza Formulation S-21F
 EPA Registration No. 6836-140
 Amendment Date: November 26, 2002
 EPA Receipt Date: November 29, 2002

Dear Ms. Koster,

The amendment submitted in connection with registration under FIFRA section 3(c)(7)(A) is acceptable with the conditions below.

- Response to Agency letter dated October 24, 2002

Conditions

Revise the label as follows:

1. Page 1: Under the "Precautionary Statements," revise the phrase, "protective gloves" to read either "protective (rubber or chemical resistant) gloves" or "rubber or chemical resistant gloves."
2. Page 4: The food contact sanitizer claims in the second column will need to be revised by specifying the use solution; it should read as follows:

Lonza Formulation S-21F at 2 oz. per 5 1/2 gallons of water is an effective sanitizer for use on food contact surfaces in 60 seconds at 150 ppm active and 500 ppm hard water.

Lonza Formulation S-21F at 2 oz. per 4 gallons of water is effective sanitizer for use on food contact surfaces in 60 seconds at 200 ppm active and 500 ppm hard water.

3. Page 4: Delete the organism, *Listeria monocytogenes*. Based on the submitted data, MRID 4564500-03, the number of microbes for the control in the study is 3.6×10^7 CFU/ml (p. 16). This is below the number of microbes for the control (75×10^6 CFU/ml) that is recommended by AOAC for the Germicidal and Detergent Sanitizing Action of Disinfectants method; therefore, the ~~conclusion~~ is acceptable.

SYMBOL							
SURNAME							
DATE							

2/12

Acceptable Data

Data Requirement	Means of Support	Status
Virucidal Effectiveness using BVDV (suurogate for HCV)	Submitted study, MRID 456450-08	Acceptable
Confirmatory Virucidal Effectiveness using BVDV	Submitted study, MRID 456450-09	Acceptable

General Comments

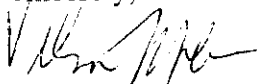
A stamped copy of the labeling accepted with conditions is enclosed. Submit three (3) copies of your final printed label before distributing or selling the product bearing the revised labeling.

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

If the above conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

Should you have any questions or comments concerning this letter, please contact Jacqueline McFarlane at (703) 308-6416.

Sincerely,



Velma Noble

Product Manager (31)

Regulatory Management Branch I
Antimicrobials Division (7510C)

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. Corrosive. Causes irreversible eye damage and skin burns. Do not get in eyes, on skin or on clothing. Wear protective eyewear (goggles, face shield or safety glasses), protective gloves and protective clothing. Harmful if swallowed or absorbed through the skin. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

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

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

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

(Note to reviewer: If container size is 5 gallons or larger, the following Environmental Hazards statements will be used.)

ENVIRONMENTAL HAZARDS

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.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

APR 4 - 2003

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide,
registered under EPA Reg. No. **6836-140**

LONZA FORMULATION S-21F

One-Step Disinfectant

Cleaner - Sanitizer - Fungicide
Mildewstat - Virucide* - Deodorizer
for Homes, Hospitals, Institutional and Industrial Use

Effective in hard water up to 400 ppm hardness
(calculated as CaCO₃) in the presence of 5% serum
contamination

For Farm, School, Dairy, Restaurant, Food Handling and
Processing Areas, Bar 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 Veterinary Practice / Animal Care /
Animal Laboratory Disinfection

For use in federally inspected meat and poultry plants

An effective sanitizer for use on food contact surfaces

- Staphylocidal • Pseudomonacidal • Bactericidal
- Salmonellacidal • Fungicidal • Virucidal*

Active Ingredients:

Octyl decyl dimethyl ammonium chloride.....	1.65%
Dioctyl dimethyl ammonium chloride.....	0.66%
Didecyl dimethyl ammonium chloride.....	0.99%
Alkyl (C ₁₄ , 50%; C ₁₂ , 40%; C ₁₆ , 10%) dimethyl benzyl ammonium chloride.....	2.20%
Inert Ingredients:.....	94.50%
Total:.....	100.00%

KEEP OUT OF REACH OF CHILDREN

DANGER (PELIGRO)

See (left) (side) (right) (back) panel for Precautionary
Statements and First Aid

EPA Reg. No. 6836-140
EPA Est. No. (insert EPA Establishment No. here)
Net Contents (insert container size here)

Manufactured by:
LONZA INC., 17-17 Route 208, Fair Lawn, NJ 07410

4/12

Note to reviewer: The following is considered optional marketing language.

Concentrate (Concentrated)
Disinfects (Disinfectant)
Cleans (Cleaner)
Deodorizes (Deodorant)
This product contains no (phosphates or) phosphorous (compounds).

Lonza Formulation S-21F:

- delivers non-acid disinfectant and cleaning performance in an economical concentrate.
- is effective yet economical.
- is an economical concentrate (that can be diluted for use) (with a mop and bucket, trigger sprayers, sponge or by soaking).
- (is a heavy duty disinfectant cleaner that) cleans, disinfects and deodorizes in one labor saving step.
- deodorizes by killing microorganisms that cause offensive odors.
- (improves labor results by) effectively controls (controlling) malodors.
- will disinfect, clean and deodorize surfaces in rest rooms and toilet areas, behind and under sinks and counters, garbage cans and garbage storage areas, and other places where bacterial growth can cause malodors.
- is formulated for use in daily maintenance programs with a balance of detergents, biocides and malodor counteractants that deliver effective cleaning, disinfecting and malodor control.
- is a complete, chemically balanced disinfectant (and sanitizer) (that provides clear use solutions even in the presence of hard water).
- will not leave grit or soap scum.
- is a (versatile) disinfectant and sanitizer for hard, nonporous surfaces in Veterinarian, Animal care and Farm Premise applications.
- is a (versatile) cleaner and broad spectrum disinfectant formulated for use only on non-critical instruments in Ultrasonic Baths (Ultrasonic cleaning units).
- is a (concentrated) (one-step) (Hospital Use) disinfectant cleaner that is effective against a broad spectrum of bacteria, is virucidal* (including HIV-1, the AIDS Virus and Hepatitis B Virus and Hepatitis C Virus), fungicidal, and inhibits the growth of mold and mildew, and their odors, when used as directed.
- is an effective one-step sanitizer-cleaner for use on non-food contact surfaces.
- meets AOAC efficacy standards for hospital disinfectants.
- meets EPA Sanitizer Test standards for non-food contact sanitizers.
- is a proven one-step disinfectant - cleaner - sanitizer - fungicide - mildewstat - virucide* which is effective in water up to 400 ppm hardness in the presence of 5% serum contamination.
- meets AOAC Germicidal & Detergent standards for previously cleaned food-contact surfaces.
- has been cleared by the FDA in 21 CFR §178.1010 for use on food processing equipment, utensils and other food-contact articles.

Cross-contamination is of major housekeeping concern. **LONGA FORMULATION S-21F** has been formulated to aid in the reduction of cross-contamination not only in hospitals, but in schools, institutions and industry.

Use Lonza Formulation S-21F

- in federally inspected Meat & Poultry Plants as a food contact sanitizer and / or disinfectant. This product was authorized by USDA as category D2 under the prior authorization program and its formula has not been changed - a sanitizer for all surfaces not always requiring a rinse.
- as a disinfectant on hard, nonporous surfaces.
- in kitchens, bathrooms and other household areas.
- to clean and disinfect finished floors, sinks and tubs.
- with a mop and bucket, trigger sprayer, sponge or by soaking.
- for non-scratch cleaning of showers and tubs, shower doors and curtains, fixtures and toilet bowls.
- to clean and disinfect nonporous salon / barber tools and instruments: combs, brushes, scissors, blades and manicure instruments.
- for sanitizing and disinfecting of ultrasound transducers, probes, mammography compressor plates and other hard nonporous surfaces.
- to clean and disinfect finished floors. Can be applied with damp mop or autoscrubber. Cleans and disinfects without dulling gloss.
- on coils and drain pans of air conditioning and refrigeration equipment and heat pumps. Follow the directions for sanitization of non-food contact surfaces.
- for Poultry Premise Sanitation (Hatcheries): Egg Receiving Area, Egg Holding Area, Setter Room, Tray Dumping Area, Trays, Buggies, Racks, Egg Flats, Chick Holding Room, Hatchery Room, Chick Processing Area, Chick Loading Area, Poultry Buildings, Ceilings, Sidewalls and Floors, Drinkers and other Poultry House related equipment, and all other hard, nonporous surfaces in the Hatchery environment.
- for Swine Premise Sanitation: Waterers and Feeders, Hauling Equipment, Dressing Plants, Loading Equipment, Farrowing Barns and areas, Nursery blocks, Creep area, Chutes.
- for Farm Premise Sanitation of hard nonporous surfaces: floors, walls, feed racks, mangers, troughs, automatic feeders, fountains and waterers, forks, shovels, scrapers and other nonporous surfaces in barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

APR 4 - 2003

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

(Note to reviewer: The following is considered optional marketing language.)

(AREAS OF USE:)

Use Lonza Formulation S-21F in:

Bathrooms
Homes (households)
Kitchens

Dental offices
Hospitals
Medical Offices
Nursing homes

Day care centers
Nurseries

Bars
Cafeterias
Convenience stores
Egg Processing plants
Food processing plants
Food preparation areas
Food storage areas
Institutional kitchens
Restaurants
USDA inspected food processing facilities

Athletic facilities
Barber shops
Business and office buildings
Colleges
Correctional facilities
Dressing rooms
Exercise facilities
Factories
Hotels
Institutional facilities
Institutions
Locker rooms
Motels
Prisons
Public facilities
Public rest rooms
Schools
Shower and bath areas
Salons

Camp grounds
Play ground equipment

Animal laboratories
Dairy farms
Hog farms
Kennels
Poultry farms
Pet animal quarters
Pet shops
Turkey farms
Zoos

Airplanes
Boats
Buses
Campers
Cars
Emergency vehicles
Mobile homes
Ships
Taxis
Trailers
Trains
Transportation terminals

(TYPES OF SURFACES:)

Use Lonza Formulation S-21F on washable hard, nonporous surfaces of:

Appliances
Bathroom fixtures
Bathtubs
Cabinets
Cages
Chairs
Coils and drain pans of air conditioning and refrigeration equipment and heat pumps
Conductive flooring
Counters (countertops)
Countertop laminates
Desks
Doorknobs
Exhaust fans
Floors
Garbage cans
Highchairs
Kennel runs
Microwave ovens
Outdoor furniture
Refrigerators
Refrigerated storage and display equipment
Showers
Shower stalls
Sinks (bathroom, kitchen)
Stoves (stovetops)

Tables, (picnic tables)
Telephones
Toilets
Toilet bowls
Toilet bowl surfaces
Tubs
Tiles, glazed
Ultrasonic baths
Urinals
Walls
Whirlpool bathtubs

Beer fermentation and holding tanks
Blenders
Bottling or premix dispensing equipment
Chopping blocks, plastic and other nonporous
Cooking utensils
Coolers
Cutlery
Cutting Boards, plastic and other nonporous
Dishes
Eating Utensils
Food processors
Glassware
Ice Chests
Kitchen equipment
Refrigerator bins used for meat, fruit, vegetables and eggs
Silverware
Slurpy Machines
Tupperware®

Other hard nonporous surfaces made of:
Fiberglass
Formica®
Glazed ceramic
Glazed enameled surfaces
Glazed porcelain
Metal
Plastic (such as polystyrene or polypropylene)
Sealed stone
Stainless steel
Upholstery, vinyl and plastic
Woodwork, finished

ACCEPTED
with COMMENTS
in EPA Letter Dated:

APR 4 - 2000

6/12

Note to reviewer: The following is considered optional marketing language.

Use Lonza Formulation S-21F

- as a commercial sanitizer on dishes, glassware, and utensils.
- as a sanitizer in bottling and beverage dispensing equipment.
- as a sanitizer in sanitary filling of bottles and cans.
- in sanitizing bottles or cans in the final rinse application, and for external spraying of filler and closing machines.
- as a sanitizer in beer fermentation and holding tanks.
- as a Food-Grade Shell Egg sanitizer, with best results achieved in water temperatures ranging from 78°-110°F. **LONZA FORMULATION S-21F** may be applied through automatic washing systems, immersion tanks, foaming apparatus and low-pressure sprayers.

Lonza Formulation S-21F is a phosphate free, germicidal detergent effective in the presence of a moderate amount of organic soil on hard nonporous surfaces found at mushroom farms. **Lonza Formulation S-21F** has been designed for use between mushroom crops. Areas of intended use include breezeways and track alleys before spawning, inside and outside walls of mushroom houses, lofts, floors, storage sheds and casing rings. Use of **Lonza Formulation S-21F** should be limited to areas where compost and mushrooms are not present.

LONZA FORMULATION S-21F is a sanitizer for hard nonporous non-food contact surfaces at 1:256 dilution (200 ppm active, 2 oz. per 4 gallons of water) according to the method for Sanitizers - Non-Food Contact Surfaces, modified in the presence of 500 ppm hard water plus 5% organic serum in 60 seconds against:

Klebsiella pneumoniae *Staphylococcus aureus*

LONZA FORMULATION S-21F eliminates 99.9% of *Staphylococcus aureus* and *Klebsiella pneumoniae* in 60 seconds.

LONZA FORMULATION S-21F is effective against Citrus Canker Disease (*Xanthomonas axonopodis* pv. citri) at 2000-ppm active quat.

LONZA FORMULATION S-21F is effective against:

Avian Infectious Bronchitis Virus
Avian Influenza Virus
Canine Distemper Virus
Newcastle's Disease Virus
Pseudorabies Virus

LONZA FORMULATION S-21F is a mildewstat at 1:64 dilution (2 oz. per gallon) and will effectively inhibit the growth of mold and mildew and the odors caused by them when applied to hard nonporous surfaces

Lonza Formulation S-21F

EPA Reg. No. 6836-140

EPA draft label 11-19-02

Response to Agency Letter Dated 10-24-02

(Note to reviewer: Language in () is optional or interchangeable)

LONZA FORMULATION S21F is an effective sanitizer for use on food contact surfaces at 2 oz. per 4 - 5 ½ oz. per gallon of water (200 - 150 ppm active quat) up to 600 ppm hardness in 60 seconds against:

Escherichia coli
Staphylococcus aureus

LONZA FORMULATION S21F is an effective sanitizer for use on food contact surfaces at 2 oz. per 4 - 5 ½ gallons of water (200 - 150 ppm active quat) in waters up to 500 ppm hardness in 60 seconds against:

Campylobacter jejuni
Escherichia coli
Listeria monocytogenes
Staphylococcus aureus

LONZA FORMULATION S21F is an effective sanitizer for use on food contact surfaces at 2 oz. per 4 gallons of water (200 active quat) in waters up to 500 ppm hardness in 60 seconds against:

Campylobacter jejuni
Escherichia coli
ESBL *Escherichia coli* - (Extended spectrum beta-lactamase producing *E. coli*)
Listeria monocytogenes
Staphylococcus aureus
Yersinia enterocolitica

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

To prevent cross-contamination, kitchenware and food-contact surfaces of equipment 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 or production-line basis, utensils and the food-contact surfaces of equipment 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 amount of food particle accumulation.

LONZA FORMULATION S-21F fulfills the criteria of Appendix F of the Grade "A" Pasteurized Milk Ordinance 1999 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.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

APR 4 - 2003

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide,
registered under EPA Reg. No. 6836-140

(Note to reviewer: The following is considered optional marketing language.)

LONZA FORMULATION S-21F is a (one-step) (Hospital use) disinfectant at 1:64 dilution (2 oz. per gallon), Bactericidal according to the current AOAC Use-Dilution Test Method, Fungicidal according to the AOAC Fungicidal Test and Virucidal* according to the virucidal qualification modified in the presence of 400 ppm hard water plus 5% organic serum against:

(Bacteria:)

Pseudomonas aeruginosa (*Pseudomonas*)
Staphylococcus aureus (*Staph*)
Salmonella choleraesuis (*Salmonella*)

Acinetobacter baumannii (*Acinetobacter*)
Brevibacterium ammoniagenes (*Brevibacterium*)
Campylobacter jejuni (*Campylobacter*)
Enterobacter aerogenes
Enterococcus faecalis (*Enterococcus*)
Enterococcus faecalis - Vancomycin resistant (VRE)
Escherichia coli (*E. coli*)
ESBL *Escherichia coli* - (Extended spectrum beta-lactamase producing *E. coli*)
Klebsiella pneumoniae (*Klebsiella*)
Pseudomonas cepacia (*Pseudomonas*)
Salmonella schottmuelleri (*Salmonella*)
Salmonella typhi (*Salmonella*)
Serratia marcescens
Shigella dysenteriae (*Shigella*)
Staphylococcus aureus Methicillin-Resistant (MRSA)
Staphylococcus aureus Multi-Drug Resistant
Staphylococcus aureus - Vancomycin Intermediate Resistant - (VISA)
Streptococcus pyogenes (*Strep*)
Vibrio cholerae

(Viruses:)

*Adenovirus Type 5 (Adenovirus) at 1:16 dilution (8 oz. per gallon of water)
*Hepatitis B Virus (HBV)
*Hepatitis C Virus (HCV)
*Herpes Simplex Virus Type 1 (Herpes)
*Herpes Simplex Virus Type 2 (Herpes)
*HIV-1 (the AIDS Virus)
*Influenza Type A / Brazil (Influenza)
*Respiratory Syncytial Virus (RSV)
*Vaccinia (Pox Virus)

(Animal Viruses:)

Avian Influenza virus
Avian Infectious Bronchitis Virus
Canine Distemper Virus
Newcastle's Disease Virus
Pseudorabies Virus

(Fungi:)

Trichophyton mentagrophytes (the Athlete's Foot Fungus)
Aspergillus niger

Dilution:

Disinfection (1:64)..... 2 oz. per gallon of water
Sanitizer (1:256)..... 2 oz. per 4 gallons of water
..... (200 ppm active)
Sanitizer (1:352)..... 2 oz. per 5½ gallons of water
..... (150 ppm active)

DIRECTIONS FOR USE

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

Before use in federally inspected meat and poultry food processing plants and dairies, food products and packaging materials must be removed from the room or carefully protected.

Preparation of Disinfectant Use-Solution:

Add (mix) 2 oz. per gallon of water (1:64).
For heavy duty use, add (mix) 8 oz. per gallon of water (1:16).

DISINFECTION / VIRUCIDAL* / FUNGICIDAL / MOLD AND MILDEW CONTROL DIRECTIONS:

Apply use-solution to hard, nonporous surfaces, thoroughly wetting the surfaces, with a cloth, mop, sponge, sprayer or by immersion. Treated surfaces must remain wet for 10 minutes. Wipe dry with a cloth, sponge or mop or allow to air dry. For heavily soiled areas, a preliminary cleaning is recommended.

For sprayer applications, use a coarse spray device. Spray 6 - 8 inches from surface; rub with brush, sponge or cloth. Avoid breathing spray.

For fungicidal activity, Lonza Formulation S-21F is an effective fungicide against Trichophyton mentagrophytes (the athlete's foot fungus) in areas such as locker rooms, dressing rooms, shower and bath areas and exercise facilities.

Lonza Formulation S-21F is a one-step fungicide at 2 oz. per gallon in 250 ppm hard water and 5% serum.
At 2 oz. per gallon in 400 ppm hard water, Lonza Formulation S-21F must be used on precleaned surfaces.

For mold and mildew Repeat treatment every seven days, or more often if new growth appears.

Rinse all surfaces that come in contact with food such as countertops, appliances, tables and stovetops with potable water before reuse. Do not use on utensils, glassware and dishes as a disinfectant.

Prepare a fresh solution daily or more often if the solution becomes visibly dirty or diluted.

**ACCEPTED
with COMMENTS
in EPA Letter Dated:**

APR 4 - 2003

Lonza Formulation S-21F

EPA Reg. No. 6836-140

EPA draft label 11-19-02

Response to Agency Letter Dated 10-24-02

(Note to reviewer: Language in () is optional or interchangeable)

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide
registered under EPA Reg. No. 6836-140

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

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

or

This product is not for use on medical device surfaces.

TO CLEAN AND DEODORIZE: Mix 2 oz. per gallon of water to clean and deodorize surfaces. Apply using a cloth, mop, sponge or sprayer. Wipe or allow to air dry.

NON-ACID TOILET BOWL AND URINAL DISINFECTANT / CLEANER DIRECTIONS:

Remove gross filth prior to disinfection.

From Concentrate:

Add 2 oz. to the bowl. Thoroughly brush or swab over exposed surfaces and under the rim with a cloth, mop or sponge. Allow to stand for 10 minutes and flush.

From Use Solution:

Empty toilet bowl or urinal and apply a 2 oz. per gallon use-solution to exposed surfaces and under the rim with a cloth, mop, sponge or sprayer. Brush or swab thoroughly, allow to stand for 10 minutes and flush.

For Heavy Duty Use:

Empty toilet bowl or urinal and apply an 8 oz. per gallon use-solution to exposed surfaces including under the rim with a cloth, mop, sponge or sprayer. Brush or swab thoroughly, allow to stand for 10 minutes and flush.

FOR USE ON FINISHED FLOORS: To limit gloss reduction use **LONZA FORMULATION S-21F** at 2 oz. per gallon. Apply with a damp mop or autoscrubber. Allow surface to remain wet for 10 minutes. Wipe or allow to air dry. Do not use on floor finish at 8 oz. per gallon.

SALON / BARBER INSTRUMENTS AND TOOLS DISINFECTION (BACTERICIDE) / VIRUCIDE / FUNGICIDE DIRECTIONS:

Mix 4 oz. (120 mL) of **LONZA FORMULATION S-21F** per gallon of water (1 oz. [30 mL] of Lonza Formulation S-21F per quart of water) to disinfect hard, nonporous instruments and tools. Completely immerse combs, brushes, rollers, 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. Fresh solution should be prepared daily or more often if solution becomes diluted or soiled.

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

ULTRASONIC BATH DISINFECTANT DIRECTIONS:

Use **LONZA FORMULATION S-21F** to disinfect hard nonporous non-critical objects compatible with Ultrasonic cleaning units.

Pour fresh use-solution of 2 oz. of Lonza Formulation S-21F per gallon of water directly into bath chamber. Pre-clean heavily soiled objects. Place objects into unit and operate for a minimum of 10 minutes, according to the manufacturer's directions.

Remove objects and wash with sterile water (sterile water for injection) or allow to air dry. Prepare fresh solution for each use.

DISINFECTION OF WHIRLPOOL UNITS:

After using the whirlpool unit, drain and refill with fresh water to just cover the intake valve. Add 2 oz. of **Lonza Formulation S-21F** for each gallon of fresh water added. Start the pump to circulate the 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.

ACCEPTED
with **COMMENTS**
in EPA Letter Dated:

APR 4 - 2003

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide
registered under EPA Reg. No. 6836-140

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

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

PERSONAL PROTECTION: Clean up should always be done wearing protective gloves, gowns, masks and eye protection.

CLEANING PROCEDURE: Blood and other body fluids containing HIV-1 or HBV or HCV must be thoroughly cleaned from surfaces and objects before application of LONZA FORMULATION S-21F.

CONTACT TIME: Leave surface wet for 1 minute (60 seconds) for HIV-1 and 10 minutes for HBV and HCV with a 2 oz. per gallon use-solution. Use a 10-minute contact time for disinfection against all other viruses, bacteria and fungi claimed.

DISPOSAL OF INFECTIOUS MATERIAL: Blood, body fluids, cleaning materials and clothing should be autoclaved and disposed of according to local regulations for infectious waste disposal.

TO SANITIZE NON-FOOD CONTACT SURFACES:

Add (mix) 2 oz. of Lonza formulation S-21F per 4 gallons of water (½ oz. of Lonza Formulation S-21F per gallon of water) to sanitize hard nonporous surfaces. Treated surfaces must remain wet for 60 seconds. Wipe dry with a sponge, mop or cloth or allow to air dry.

TO SANITIZE BARBER / SALON INSTRUMENTS AND TOOLS:

Immerse precleaned barber / salon instruments and tools (such as combs, brushes, razors, scissors, blades and manicure instruments) in a use-solution of 2 oz. of Lonza Formulation S-21F 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 diluted, 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.

VETERINARY PRACTICE / ANIMAL CARE / ANIMAL LABORATORY / ZOOS / PET SHOP / KENNELS DISINFECTION DIRECTIONS:

For cleaning and disinfecting hard nonporous surfaces: equipment used for animal food or water, utensils, instruments, cages, kennels, stables, 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. Empty all feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use-solution of 2 oz. of LONZA FORMULATION S-21F per gallon of water (or equivalent dilution) for a period of 10 minutes. Wipe or allow to air dry. 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. Rinse all surfaces that come in contact with food, including equipment used for feeding or watering, with potable water before reuse. Ventilate buildings and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried.

FARM PREMISE USE:

Remove all animals and feed from premises, vehicles and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate all surfaces with a use-solution of 2 oz. of LONZA FORMULATION S-21F per gallon of water (or equivalent dilution) for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels and scrapers used for removing litter and manure. Ventilate buildings, cars, trucks, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent, and rinse with potable water before reuse.

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POULTRY AND SWINE PREMISE DISINFECTION DIRECTIONS:

Remove all animals and feeds from premises, vehicles, and enclosures such as coops and crates. Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Use 2 oz. of LONZA FORMULATION S-21F per gallon of water. Saturate surfaces with the recommended disinfecting solution for 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure. Ventilate buildings, cars, trucks, coops and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent, and rinse with potable water before reuse.

Hatcheries: Use 2 oz. of LONZA FORMULATION S-21F per gallon of water to treat the following hard nonporous surfaces: hatchers, setters, trays, racks, carts, sexing tables, delivery trucks and other hard surfaces. Leave all treated surfaces wet for 10 minutes or more. Wipe dry with a clean cloth or sponge or allow to air dry.

Vehicles: Clean all vehicles including mats, crates, cabs and wheels with high pressure water and LONZA FORMULATION S-21F. Use 2 oz. of LONZA FORMULATION S-21F per gallon of water to treat all vehicles. Leave all treated surfaces wet for 10 minutes or more. Wipe dry with a clean cloth or sponge or allow to air dry.

Shoe Bath Sanitizer Directions: To prevent tracking harmful organisms into animal areas, shoe baths containing one inch of freshly made solution should be placed at all entrances to buildings and hatcheries. Scrape waterproof work boots and place in a 2 oz. per 4 gallons of water solution for 60 seconds prior to entering area. Change the solution in the bath daily or more often if solution appears diluted or soiled.

Dressing Plant Disinfectant Directions: 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 heavy soils prior to application. Saturate all surfaces with a 2 oz. of Lonza Formulation S-21F per gallon of water solution. Scrub to loosen all soils. Surfaces must remain wet for 10 minutes, then thoroughly rinsed with potable water before operations are resumed.

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 cleaning and disinfection, use 2 oz. of Lonza Formulation S-21F per gallon of water (or equivalent dilution). Apply use solution with a cloth, mop, sponge, sprayer or by immersion to thoroughly wet the surfaces. Treated surfaces should be allowed to remain wet for 10 minutes. Wipe or allow to air dry. For heavily soiled areas, preclean first. Prepare a fresh solution for each use or more often if solution becomes visibly diluted, clouded or soiled.

For Heavy Duty Cleaning: When greater cleaning is desired, use 8 oz. of Lonza Formulation S-21F per gallon of water. Heavily soiled areas may require repeated cleaning before treatment.

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

CITRUS CANCER DISEASE CONTROL:

For prevention of Citrus Canker Disease though treatment of precleaned equipment. Effective against *Xanthomonas axonopodis* pv. citri (Citrus Canker Disease) at 2000 ppm active quat. Treatments can be applied to trucks, attached trailers, field harvesting equipment including cargo area, wheels, tires, undercarriage, hood, roof, fenders, and any other part of the transportation equipment that can be taken into infested areas.

Thoroughly clean all surfaces with soap or detergent and rinse with water. Then saturate surfaces with a 1:27.5 use-dilution (4¾ oz. of Lonza Formulation S-21F per gallon of water or 19 oz. of Lonza Formulation S-21F per 4 gallons of water) (or equivalent dilution) (2000 ppm active quat) for a period of 10 minutes. Allow to air dry. All surfaces that come in contact with food or crop must be rinsed with potable water before reuse. To prevent the spread of Citrus Canker Disease by this artificial means of transportation, treatments are made by trigger spraying, dipping or brushing. Clothing should be either rinsed or laundered before reuse. Footwear should be rinsed before reuse.

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TO SANITIZE FOOD CONTACT SURFACES:

or

TO SANITIZE FOOD PROCESSING EQUIPMENT AND OTHER HARD SURFACES IN FOOD PROCESSING LOCATIONS, DAIRIES, RESTAURANTS AND BARS:

Use Lonza Formulation S-21F to sanitize hard nonporous surfaces of food processing equipment, dairy equipment, food utensils, dishes, silverware, glasses, sink tops, countertops, refrigerated storage and display equipment and other hard surfaces.

Prior to application, remove gross food particles and soil by a pre-flush, or pre-scrape and, when necessary, pre-soak. 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.

Apply a use-solution of 2 oz. of **Lonza Formulation S-21F** per 4 - 5½ gallons of water (or equivalent dilution) (200 - 150 ppm active) to pre-cleaned hard surfaces thoroughly wetting surfaces with a cloth, mop, sponge, coarse sprayer or by immersion. Surfaces must remain wet for at least 60 seconds (one minute) followed by adequate draining and air drying. Do not rinse. Prepare a fresh solution for each use. For mechanical application, use- solution may not be reused for sanitizing applications but may be reused for other purposes such as cleaning.

Apply to sink tops, countertops, refrigerated storage and display equipment and other stationary hard nonporous surfaces by cloth, sponge or brush or coarse spray.

Sanitize dishes, silverware, glasses, cooking utensils and other similar size food processing equipment by immersion.

TO SANITIZE BEVERAGE DISPENSING EQUIPMENT:

1. Wash equipment with a compatible detergent and rinse with potable water prior to sanitizing.
2. Fill equipment with a solution of 2 oz. **Lonza Formulation S-21F** per 4 - 5½ gallons of water (or equivalent dilution) (200 - 150 ppm active).
3. Allow solution to remain in equipment for at least 60 seconds.
4. Drain thoroughly before reuse and allow to air dry.

TO SANITIZE SANITARY FILLING EQUIPMENT:

Wash surfaces with a compatible detergent and rinse with potable water prior to sanitizing. Prepare a use-solution of 2 oz. of **Lonza Formulation S-21F** per 4 - 5½ gallons of water (or equivalent dilution) (200 - 150 ppm active) for final washer and rinser applications. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly before reuse and allow to air dry.

TO SANITIZE BEER FERMENTATION AND STORAGE TANKS:

Wash surfaces with a compatible detergent and rinse with potable water prior to sanitizing. Prepare a use-solution of 2 oz. of **Lonza Formulation S-21F** per 4 - 5½ gallons of water (or equivalent dilution) (200 - 150 ppm active) for mechanical or automated systems. Allow surfaces to remain wet for at least 60 seconds. Drain thoroughly and allow to air dry before reuse.

TO SANITIZE EGG SHELLS INTENDED FOR FOOD:

To sanitize previously cleaned food-grade eggs in shell egg and egg product processing plants, spray with a use-solution of 2 oz. of **Lonza Formulation S-21F** per 4 - 5½ gallons of warm water (or equivalent dilution) (200 - 150 ppm active). The solution must be equal to or 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 thorough potable water rinse only if they are to be broken immediately for use in the manufacture of egg products. Eggs must be reasonably dry before casing or breaking. The solution must not be re-used for sanitizing eggs.

Note: Only clean, whole eggs can be used for sanitizing. Dirty, cracked or punctured eggs cannot be sanitized.

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Lonza Formulation S-21F can be used in accordance with the U.S. Public Health Service food service sanitization recommendations.

U.S. PUBLIC HEALTH SERVICE FOOD SERVICE SANITIZATION RECOMMENDATIONS

CLEANING AND SANITIZING: Equipment and utensils shall 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 clean water.
3. Sanitize equipment and utensils by immersion in a use solution of 2 oz. of Lonza Formulation S-21F per 4 - 5½ gallons of water (200 - 150 ppm active quat) (or equivalent dilution) 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 2 oz. of Lonza Formulation S-21F per 4 - 5½ gallons of water (200 - 150 ppm active quat) (or equivalent dilution) by rinsing, spraying or swabbing until thoroughly wet.
5. Allow sanitized surface to drain and air dry. Do not rinse.

WISCONSIN STATE BOARD 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 use-solution of 2 oz. Lonza Formulation S-21F per 4 - 5½ gallons of water (200 - 150 ppm active) (or equivalent dilution). Immerse all utensils for at least two minutes or for contact time specified by governing sanitary code.
5. Place sanitized utensils on a rack or drain board to air-dry

TO SANITIZE BEVERAGE DISPENSING EQUIPMENT:

1. Wash equipment with a compatible detergent and rinse with potable water prior to sanitizing.
2. Fill equipment with a solution of 2 oz. Lonza Formulation S-21F per 4 - 5½ gallons of water (or equivalent dilution) (200 - 150 ppm active quat).
3. Allow solution to remain in equipment for at least 60 seconds.
4. Drain thoroughly and allow to air dry before reuse.

(Note to reviewer: If container is one gallon or less, the following Storage and Disposal statements will be used:)

STORAGE AND DISPOSAL

Store in original container in areas inaccessible to children. Do not store on side. Avoid creasing or impacting of side walls. Do not reuse empty container. Discard in trash or recycle.

(Note to reviewer: If container is greater than one gallon, the following Storage and Disposal statements will be used:)

STORAGE AND DISPOSAL

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

Pesticide Storage

Do not store on side. Avoid creasing or impacting of side walls.

Pesticide Disposal

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray or mixture of 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

(Plastic containers): Triple rinse (or equivalent), then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(Metal Containers): Triple rinse (or equivalent), then offer for recycling or reconditioning, or dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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