

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

6836-78

2/22/2006

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FEB 22 2006

Mr. Robert Sloan  
Lonza, Inc.  
90 Boroline Road  
Allendale, NJ 07401

Subject: Lonza Formulation R-82  
EPA Registration No.: 6836-78  
Amendment Date: October 3, 2005  
EPA Receipt Date: October 5, 2005

Dear Mr. Sloan,

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

- Add additional organisms, Adenovirus type 7, Feline calicivirus, and Norwalk virus

### Conditions

Revise the label as follows:

- 1) You are not mitigating all the viruses claimed on the label at the proposed  $\frac{1}{2}$  - 1 oz rate. You must either revise the rate to read " $\frac{1}{2}$  - 2 oz per gallon of water" or add the statement, "Use 2 oz per gallon of water to kill Adenovirus Type 5 and Type 7" under each heading claiming "Virucidal" activity.
- 2) The Agency has defined "sanitizer" as a public health claim that must be associated with the mitigation of public health organisms. The use of this term in the "Water Damage Restoration Sanitizer Against Odor-Causing Bacteria and Fungi for Home, Institutional, and Hospital Use" heading and directions is in correlation to the control of nonpublic health organisms. Therefore, the term, sanitizer, must be deleted from the heading and directions.

### Data Summary

	Data Requirement	Means of Support	Status
		<b>CONCURRENCES</b>	
	Virucidal Efficacy Screen - Adenovirus 7	Submitted study, MICH 460716-01	Acceptable, 2 oz / gal (1.64) in 400 hard water, 5% soil for 10 min.
SYMBOL			
SURNAME			
DATE			

Data Requirement	Means of Support	Status
Initial Virucidal Efficacy Test- Feline Calicivirus (surrogate for Norwalk virus)	Submitted study, MRID 466826-01	Acceptable, 1/2 / gal (1:256) in 400 hard water, 5% soil for 10 min
Confirmatory Virucidal Efficacy Test - Feline Calicivirus (surrogate for Norwalk virus)	Submitted study, MRID 466716-03	Acceptable, 1/2 / gal (1:256) in 400 hard water, 5% soil for 10 min

### General Comments

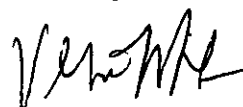
A stamped copy of the label accepted with conditions is enclosed. Submit three (3) copies of your final printed label before distributing or selling the product bearing the revised labeling.

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)

Enclosure: Efficacy Data Evaluation  
Stamped Label

CONCURRENCES							
SYMBOL							
SURNAME							
DATE							

**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 clothing and protective (rubber or chemical resistant) gloves. Harmful if swallowed and / or if 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.

(If container size is 5 gallons or larger, use the following Environmental Hazards statement.)

**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

FEB 22 2006

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. 6836-78

**LONZA FORMULATION R-82**

**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 CaCO<sub>3</sub>) in the presence of 5% serum  
contamination

- 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

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

[Citrus], [Floral], [Fresh], [Lavender], [Lemon], [Lime],  
[Mint], [Peppermint], [Pine], [Woody] [Scent] [Scented]  
[Fragrance] [Odor]

**Active Ingredients:**

Octyl decyl dimethyl ammonium chloride.....	6.510%
Dioctyl dimethyl ammonium chloride .....	2.604%
Didecyl dimethyl ammonium chloride .....	3.906%
Alkyl (C <sub>14</sub> , 50%; C <sub>12</sub> , 40%; C <sub>16</sub> , 10%) dimethyl benzyl ammonium chloride .....	8.680%
[Other] [Inert] Ingredients:.....	78.300%
Total .....	100.000%

**KEEP OUT OF REACH OF CHILDREN**

**DANGER (PELIGRO)**

See [left] [side] [right] [back] panel for Precautionary  
Statements and First Aid

EPA Reg. No. 6836-78  
EPA Est. No. (as indicated on container)  
Net Contents: (insert container size here)

Manufactured by:  
Lonza Inc.  
90 Boroline Road  
Allendale, NJ 07401

(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 R-82:

- 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 nonfood contact 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.

Cross-contamination is of major housekeeping concern. **LONZA FORMULATION R-82** has been formulated to aid in the reduction of cross-contamination not only in hospitals, but in schools, institutions and industry.

#### Use Lonza Formulation R-82

- in federally inspected Meat & Poultry Plants as a disinfectant or non-food contact sanitizer on all surfaces in inedible product processing areas, nonprocessing areas and / or exterior areas. This product was authorized by USDA as category D1 under the prior authorization program and its formula has not been changed.
- 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.

**Lonza Formulation R-82** is effective at controlling mold and mildew odor on mattresses, pillows and shower curtains.

**Lonza Formulation R-82** can be used in the laundry to control odors on musty bedding and linens. Test on a small inconspicuous area before using.

**Lonza Formulation R-82** may be used on mildew stains in damp areas such as bathrooms, showers, kitchens, basements and laundry rooms.

**Lonza Formulation R-82** may be used in work areas such as tool rooms and garages for odor control and light duty cleaning.

**Lonza Formulation R-82** may be used to remove odors caused by flooding and smoke from fires.

**Lonza Formulation R-82** leaves a clean fresh scent.

**Lonza Formulation R-82** provides long lasting freshness against tough (pet) odors such as odors from litter boxes and pet accidents.

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

**(AREAS OF USE:)**

Use Lonza Formulation R-82 in:

Bathrooms  
Homes [Households]  
Kitchens

Dental offices  
Health Care Facilities  
Hospitals  
Medical Offices  
Nursing homes

Day care centers  
Nurseries

Bars  
Cafeterias  
Convenience stores  
Food processing plants  
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 [Beauty]  
Tanning Salons

Camp grounds  
Play ground equipment

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

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

**(TYPES OF SURFACES:)**

Use Lonza Formulation R-82 on washable hard, nonporous surfaces of:

Appliances, exteriors of  
Bathroom fixtures  
Bathtubs [Fiberglass]  
Cabinets  
Cages  
Chairs  
Coils and drain pans of air conditioning and refrigeration equipment and heat pumps  
Conductive flooring  
Counters [countertops]  
Countertop laminates  
Desks  
Doorknobs  
Floors  
Foot Spas  
Garbage cans  
Highchairs  
Kennel runs  
Microwave ovens, exteriors of  
Outdoor [patio] furniture except cushions and wood frames.  
Refrigerators, exteriors of  
Refrigerated storage and display equipment

Showers  
Shower stalls [Fiberglass]  
Sinks [bathroom] [kitchen] [Fiberglass]  
Stoves [stovetops]  
Tables [Non-wooden picnic tables]  
Tanning beds  
Telephones  
Toilets  
Toilet bowls  
Toilet bowl surfaces  
Tubs [Fiberglass]  
Tiles, glazed  
Ultrasonic baths  
Urinals  
Walls  
Whirlpool bathtubs

Other hard nonporous surfaces made of:

Glazed ceramic  
Glazed enameled surfaces  
Glazed porcelain  
Laminated surfaces  
Metal  
Plastic (such as polystyrene or polypropylene)  
Sealed stone  
Stainless steel  
Upholstery, vinyl and plastic  
Woodwork, finished

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

**Lonza Formulation R-82** 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 R-82** 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 R-82** should be limited to areas where compost and mushrooms are not present.

**LONZA FORMULATION R-82** is a sanitizer for hard nonporous non-food contact surfaces at 1:1024 dilution [200 ppm active, 1/2 oz. per 4 gallons] 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 R-82** eliminates 99.9% of *Staphylococcus aureus* and *Klebsiella pneumoniae* in 60 seconds.

**LONZA FORMULATION R-82** is effective against Citrus Canker Disease (*Xanthomonas axonopodis* pv. *citri*) at 2000-ppm active quat.

**LONZA FORMULATION R-82** is effective against:

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

**LONZA FORMULATION R-82** is a mildewstat at [1:256 dilution] [1/2 oz. per gallon of water] or [1/2 - 1 oz. per gallon of water], and will effectively inhibit the growth of mold and mildew and the odors caused by them when applied to hard nonporous surfaces.

**LONZA FORMULATION R-82** is a [one-step] [Hospital Use] disinfectant at [1:256 dilution] [1/2 oz. per gallon of water] or [1/2 - 1 oz. per gallon of water], Bactericidal according to the current AOAC Use-Dilution Test Method 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*  
*Brevibacterium ammoniagenes* [*Brevibacterium*]  
*Campylobacter jejuni*  
*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*]  
*Legionella pneumophila*  
*Pseudomonas cepacia* [*Pseudomonas*]  
*Salmonella schottmuelleri* [*Salmonella*]  
*Salmonella typhi* [*Salmonella*]  
*Serratia marcescens* [*Serratia*]  
*Shigella dysenteriae* [*Shigella*]  
*Staphylococcus aureus* - Methicillin-Resistant [MRSA]  
*Staphylococcus aureus* - Multi-Drug Resistant  
*Staphylococcus aureus*-Vancomycin Intermediate Resistant - [VISA]  
*Streptococcus pyogenes* [Strep] [a cause of scarlet fever]  
*Vibrio cholerae*

[Viruses:]

\*Adenovirus Type 5 at 1:64 dilution [2 oz. per gallon of water]  
\*Adenovirus Type 7 at 1:64 dilution [2 oz. per gallon of water]  
\*Hepatitis B Virus [HBV]  
\*Hepatitis C Virus [HCV]  
\*Herpes Simplex Virus Type 1  
\*Herpes Simplex Virus Type 2  
\*HIV-1 [AIDS Virus]  
\*Human Coronavirus  
\*Influenza Type A / Brazil [Influenza]  
\*Norwalk Virus  
\*Respiratory Syncytial Virus [RSV]  
\*Vaccinia [Pox Virus]

[Animal Viruses:]

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

[Fungi:]

*Aspergillus niger*  
*Trichophyton mentagrophytes* [the Athlete's Foot Fungus]  
[A cause of Ringworm of the foot]

Dilution:  
 Disinfection (1:256)..... ½ oz. per gallon of water  
 .....[886 ppm active]  
 Disinfection (1:128)..... 1 oz. per gallon of water  
 .....[1695 ppm active]  
 Disinfection (1:64)..... 2 oz. per gallon of water  
 .....[3390 ppm active]  
 Sanitizer (1:1024)..... ½ oz. per 4 gallons of water  
 .....[200 ppm active quat]

#### **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 Use-Solution:**

(Add) (Mix) ½ oz. per gallon of water [1:256] or [1/2 - 1 oz. per gallon of water]. For heavy duty use, [add] [mix] 2 oz. per gallon of water [1:64].

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

Apply use-solution to hard, nonporous surfaces, thoroughly wetting 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 the surface; rub with a brush, sponge or cloth. Do not breathe spray.

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

For fungicidal activity, Lonza Formulation R-82 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 R-82 is a one-step fungicide at [½ oz.] or [1/2 - 1 oz.] per gallon in 250 ppm hard water and 5% serum.

At [½ oz.] or [1/2 - 1 oz.] per gallon in 400 ppm hard water, Lonza Formulation R-82 must be used on precleaned surfaces.

For mold and mildew, At [½ oz.] or [1/2 - 1 oz.] per gallon, LONZA FORMULATION R-82 will effectively inhibit the growth of mold and mildew and the odors caused by them when applied to hard, nonporous surfaces. Follow disinfection instructions. Repeat treatment every seven days, or more often if new growth appears.

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

[Note to reviewer: Only one of the following two statements will be used. Supplemental registrants will pick only one time frame for their label up to one year.]

[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. [optional: This product may be used to preclean 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] [Use] ½ oz. or [1/2 - 1 oz. per gallon of water] of Lonza Formulation R-82 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 [½ oz.] or [1/2 - 1 oz.] to the bowl and mix. Brush over exposed surfaces and under the rim, allow to stand for 10 minutes and flush.

#### **From Use Solution:**

Empty toilet bowl [or urinal] and apply [½ oz.] or [1/2 - 1 oz.] per gallon use-solution to exposed surfaces and under the rim with a cloth, mop, sponge or mechanical spray. Brush or swab thoroughly, allow to stand for 10 minutes and flush.

#### **For Heavy Duty Use:**

Empty toilet bowl [or urinal] and apply 2 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 R-82 at [1/2 oz.] or [1/2 - 1 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 2 oz. per gallon.

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

Mix 1 oz. [30 ml] of LONZA FORMULATION R-82 per gallon of water [1/4 oz. [7.5 ml] of LONZA FORMULATION R-82 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 [ / VIRUCIDAL]  
DIRECTIONS:**

Use LONZA FORMULATION R-82 to disinfect hard nonporous, non-critical objects compatible with Ultrasonic cleaning units.

Pour fresh use-solution of [1/2 oz.] or [1/2 - 1 oz.] per gallon of water directly into bath chamber. Preclean 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] [BATH(S)]  
[FOOT SPAS]:**

After using the [whirlpool (unit) (bath)] [foot spa], drain and refill with fresh water to (just cover the intake valve) (cover the highest jet) (2 inches above the highest jet). Add [1/2 oz.] or [1/2 - 1 oz.] of Lonza Formulation R-82 for each gallon of fresh water added. Start the pump to circulate the solution. Wash down the sides, [[deck,] [seat of chair lift,] [any related equipment,]] and any uncovered surfaces on the [bath] [unit] [foot spa] with a clean swab, brush or sponge. Treated surfaces must remain wet for 10 minutes. After the [unit] [bath] [foot spa] has been thoroughly disinfected, drain the solution from the [unit] [bath] [foot spa] and rinse the disinfected surfaces with fresh water. Wipe dry with a clean sponge or cloth or allow to air dry. Repeat for heavily soiled units.

**SANITIZATION OF [WHIRLPOOL (BATH(S) (UNITS))  
[FOOT SPAS]:**

After using the [whirlpool (unit) (bath)] [foot spa], drain and refill with fresh water to [just cover the intake valve] [cover the highest jet] [2 inches above the highest jet]. Add 1/2 oz. of Lonza Formulation R-82 for each 4 gallons of fresh water added. Start the pump to circulate the solution. Wash down the sides, [[deck,] [seat of chair lift,] [any related equipment,]] and any uncovered surfaces on the [bath] [unit] [foot spa] with a clean swab, brush or sponge. Treated surfaces must remain wet for at least [60 seconds] [one minute]. After the [unit] [bath] [foot spa] has been thoroughly sanitized, drain the solution from the [unit] [bath] [foot spa]. Wipe dry with a clean sponge or cloth or allow to air dry. Repeat for heavily soiled units.

**\*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 or HBV or HCV must be thoroughly cleaned from surfaces and objects before application of LONZA FORMULATION R-82.

**Contact time:** Leave surface wet for 1 minute (60 seconds) for HIV-1 and 10 minutes for HBV and HCV with [1/2 oz.] or [1/2 - 1 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] 1/2 oz. of Lonza Formulation R-82 per 4 gallons 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. Do not use in food preparation, food handling and food storage areas. This product is not to be used on glassware, dishware, cookware or utensils.

**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 1/2 oz. of Lonza Formulation R-82 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 / [VIRUCIDAL] DIRECTIONS:**

For cleaning and disinfecting hard nonporous surfaces: equipment used for feeding or watering animals, 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 [1/2 oz.] or [1/2 - 1 oz.] of LONZA FORMULATION R-82 per gallon of water [or equivalent dilution] for a period of 10 minutes. Wipe or allow to air dry. Immerse all animal handling and restraining equipment as well as forks, shovels, and scrapers used to remove 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 [1/2 oz.] or [1/2 - 1 oz.] of LONZA FORMULATION R-82 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, 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.

**POULTRY AND SWINE PREMISE DISINFECTION / [VIRUCIDAL] DIRECTIONS:**

Remove all animals and feeds from premises, vehicles and enclosures such as coops and crates. Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Use [1/2 oz.] or [1/2 - 1 oz.] of LONZA FORMULATION R-82 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, coops and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent, and rinse with potable water before reuse.

**Hatcheries:** Use [1/2 oz.] or [1/2 - 1 oz.] of LONZA FORMULATION R-82 per gallon of water to treat hatcheries, setters, trays, racks, carts, sexing tables, delivery trucks and other hard nonporous 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:** Treat all vehicles including mats, crates, cabs and wheels with water and LONZA FORMULATION R-82. Use [1/2 oz.] or [1/2 - 1 oz.] of LONZA FORMULATION R-82 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 cross contamination 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 1/2 oz. per 4 gallons of water use-solution for 60 seconds prior to entering area. Change the solution in the bath daily or when solution appears diluted or soiled.

**(THIS USE IS NOT APPROVED IN CALIFORNIA)**

**Shoe Foam Sanitizing Directions:**

To prevent cross contamination into animal areas and the packaging and storage areas of food plants. Apply a foam layer approximately 1/2 to 2 inches thick made from a solution of 1/2 oz. of LONZA FORMULATION R-82 per 2 - 5 1/2 gallons of water [400 - 150 ppm active quat] [or equivalent dilution], at all entrances to buildings, hatcheries, production and packaging rooms by using a foam generating machine or aerator to apply the foam layer. Follow the foaming directions as specified by the manufacturer of the foam generator or aerator. Scrape waterproof work [boots] [shoes]. Stand or walk through foamed area for 60 seconds prior to entering area. Wash and replace Foam Area at least daily or more often if the Foam Area 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 [1/2 oz.] or [1/2 - 1 oz.] 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.

**FOGGING DEVICE HATCHERY ROOM SANITIZER /  
FOGGING DEVICE INCUBATOR AND HATCHER  
SANITIZER DIRECTIONS:**

Remove all animals and feed from premises, vehicles and enclosures. Remove all litter and manure from floors, walls and surfaces of the room to be treated. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap and detergent and rinse with water. Close room off so fog is confined to room to be treated.

[For Hatchery Room: Mix one part of product to five parts water (1/2 gallon to 2 1/2 gallons of water). Insert nozzle of fogger through suitable opening to room. With the setting in maximum output, for one minute for each 4000 cubic feet of space in the room].

[For Incubator and Hatcher: Mix 6 oz per 122 oz of water. Fog 3 - 8 oz into setters and hatchers immediately after transfer. Repeat daily in setters and every 12 hours in hatchers. Discontinue hatchers treatment at least 24 hours prior to pulling the hatch. It is acceptable to fog setters and hatchers with 1/2 oz per gallon on an hourly or every other hourly basis. If this solution is used, fog for 30-90 seconds once per hour or once every 2 hours.]

When fogging is completed, ventilate buildings, and other closed spaces. Do not allow people to contact or breathe this fog. Do not house livestock or employ equipment until treatment has been absorbed or dried. Do not enter until fog has settled approx. 30 - 60 minutes after fogging is completed. Thoroughly scrub all treated feed racks, mangers, troughs, and rinse with potable water before reuse.

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

**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 [1/4 oz.] or [1/2 - 1 oz.] of Lonza Formulation R-82 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 1 oz. of Lonza Formulation R-82 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 CANKER DISEASE CONTROL:**

For prevention of Citrus Canker Disease through 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, and field harvesting equipment including cargo area, wheels, tires, undercarriage, hood, roof, fenders, and any other hard non-porous part of the equipment that can be taken into infested areas.

Thoroughly clean all hard nonporous surfaces with soap or detergent and rinse with water. Then saturate surfaces with a 1:109 use-dilution. [1.2 oz. of Lonza Formulation R-82 per gallon of water or 6 oz. of Lonza Formulation R-82 per 5 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.

12.7.15

**Lonza Formulation R-82** is effective at eliminating odors on porous surfaces such as upholstery, drapes, carpets, bedding, shower curtains, mattresses and non-porous surfaces such as walls and floors. Excellent for fire restoration.

Other suggested Uses: Homes, Veterinary Clinics, Fish Markets, Kennels, Trash Compactors, Offices, Beauty Salons, Locker Rooms, Health Spas, Conference rooms, Elevators, Smoking Areas, Lounges, Day Care Centers, Dry Cleaners, Theaters, Farms, Auditoriums and Churches.

**Deodorizing directions:**

**Nursing Homes, Hospitals, Hotels, Schools, Restaurants:** ½ - 1 oz. in chemical toilets, waste receptacles, bed pans, drainage bottles, diaper pails, hampers, disposals, commodes and air conditioner pans will eliminate odors.

**Mopping Solutions, Automatic Scrubbers:** ½ - 1 oz. per gallon of cleaning solution eliminates undesirable odors.

**Laundry:** ½ - 1 oz. per load added during the final rinse cycle deodorizes all offensive odors.

**Air Freshener/Automotive Uses:** 2 oz. per gallon of water or desired concentration will effectively neutralize damp musty odors caused by mildew in storage areas, basements, closets and bathrooms. Effective on smoking and cooking odors (garlic, fish, onions, etc.). Automobile odors from tobacco, musty carpet smell and beverage smells will be eliminated.

**Carpets:** ½ - 1 oz. per gallon of shampoo solution eliminates odors associated with urine, vomit, smoke, and mildew. Reapply after cleaning for freshening effects. Allow to dry.

**RV Holding Tanks:** Toilet waste: cover bottom of holding tank with water and add ½ - 1 oz. If odors return before time to empty, simply add ½ - 1 oz. to the tank. Kitchen waste: ½ - 1 oz. of Lonza Formulation R-82 to gray water tank as needed to control malodors created by dirty dish water.

**Pet Odors:** Use 2 - 3 oz. per gallon of water or desired concentration, for urine, feces, and vomit, in carpet and upholstery. Clean prior to application then spray onto affected areas. Test hidden area for colorfastness. Allow 10 minutes contact time. Then blot with clean cloth. Allow to dry. Also effective on pet bedding and litter boxes.

**Sewage Backup, Water Damage:** 1 - 2 oz. per gallon of water or desired concentration. Spray over affected areas before and after cleaning and extraction. Allow ten minutes contact time. Use proper ventilation; open windows.

**Cleaning Solution:** Dilute ½ - 1 oz. per gallon of water for cleaning of kitchen counters, tables, walls, bathrooms, toilet seats, mopping floors and large routine applications.

**WATER DAMAGE RESTORATION [REDACTED] AGAINST ODOR-CAUSING BACTERIA AND FUNGI FOR HOME, INSTITUTIONAL, INDUSTRIAL AND HOSPITAL USE:**

This product is particularly suitable for use in water damage restoration situations to [REDACTED] against odor causing bacteria on the following porous and semi-porous materials: carpets, carpet cushions, subfloors, drywall, trim and frame lumber, tackless strip and paneling. Using appropriate dilution, saturate the affected materials with enough product to remain wet for at least 10 minutes.

**Sewer Backup and River Flooding:** During mitigation procedures, dilute ½ - 1 oz. of the concentrate per gallon of water, allowing for the diluting effect of absorbed water within saturated materials. Remove gross filth or heavy soil along with non-salvageable materials. Saturate all affected areas with a coarse spray device before and after cleaning and extraction.

**Carpets, Carpet Cushions and Other Porous Materials such as Subfloors, Drywall, Trim and Frame Lumber, Tackless Strip and Paneling:** For water damage from a clean source, extract excess water. Test hidden area for colorfastness. Dilute ½ - 1 oz. of the concentrate per gallon of water, allowing for the diluting effect of absorbed water within saturated materials. Remove gross filth or heavy soil. Saturate all affected areas with a coarse spray device. Roll, brush or agitate into the materials and allow materials to remain wet for 10 minutes. Follow with a thorough extraction. Dry rapidly and thoroughly.

**Special Instructions For Cleaning [REDACTED] Carpet Against Odor Causing Bacteria:** Use this product in industrial and institutional areas such as homes, motels, hotels, nursing homes, schools, and hospitals. Use on wet-cleanable synthetic fibers. Do not use on wool. Vacuum carpet thoroughly prior to cleaning / sanitizing. Test fabric for colorfastness. **For portable extraction units:** Mix ½ oz. of concentrate per gallon of water. **For truck mounted extraction machines:** Mix ½ - 1 oz. of concentrate per gallon of water and meter at 4 gallons per hour. **For rotary floor machines:** Mix ½ oz. of concentrate per gallon of water and apply at the rate of 300 - 500 sq. ft. per gallon. Do not mix this product with other cleaning products. Follow the cleaning procedures specified by the manufacturer of the cleaning equipment. After using the product, set the carpet pile and protect the carpet from furniture legs and bases while drying. Do not over-wet. If applied to stain resistant nylon carpet, apply a fabric protector according to the manufacturer's directions.

(Note to reviewer: If the container size 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.

PACKET LABEL TO BE USED WITH MASTER CONTAINER LABEL

FOR DISINFECTION

*Note to reviewer: the following will be used for 1/8 oz of concentrate:*

MIX EACH PACKET WITH [1 QUART] OF WATER

*Note to reviewer: the following will be used for 1 oz of concentrate:*

MIX EACH PACKET WITH [2 GALLONS] OF WATER

*Note to reviewer: the following will be used for 2 oz of concentrate:*

MIX EACH PACKET WITH [4 GALLONS] OF WATER

*Note to reviewer: the following will be used for 4 oz of concentrate:*

MIX EACH PACKET WITH [8 GALLONS] OF WATER

**LONZA FORMULATION R-82**

EPA. Reg. No. 6836-78

EPA. Est. No. (insert EPA Est. No. here)

Net Contents:

Active Ingredients:

Octyl decyl dimethyl ammonium chloride .....	6.510%
Dioctyl dimethyl ammonium chloride .....	2.604%
Didecyl dimethyl ammonium chloride .....	3.906%
Alkyl (C <sub>14</sub> , 50%; C <sub>12</sub> , 40%; C <sub>16</sub> , 10%) dimethyl benzyl ammonium chloride .....	8.680%
(Other) (Inert) Ingredients: .....	78.300%
Total .....	100.000%

KEEP OUT OF REACH OF CHILDREN

DANGER

See outer container for Precautionary Statements and Use directions

Disposal: Do not reuse packet. Wrap and put in trash.

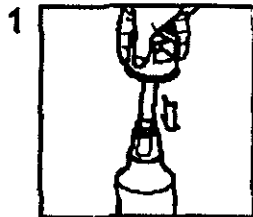
Lonza Inc.  
90 Boroline Road  
Allendale, NJ 07401

[IF OTHER PACKET SIZES ARE DESIRED, NEW PACKET LABEL WILL BE IDENTICAL AND THE ONLY THINGS THAT WILL VARY ARE THE NET CONTENTS, AMOUNT OF WATER TO DILUTE WITH AND PPM ACTIVE QUAT. THOSE 3 ITEMS WILL HAVE TO MATCH OR BE EQUIVALENT TO THE DILUTION CHART THAT IS SHOWN ON PAGE 5.]

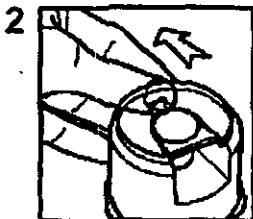
(note to reviewer, the following is optional marketing language to be used with the Dose 'N Fill dispenser and bottle )

- 3M Dose 'N Fill
- 3M Twist 'N Fill
- Makes ready-to-use gallons
- This product is to be diluted only with the Twist 'n Fill Chemical Dispenser.

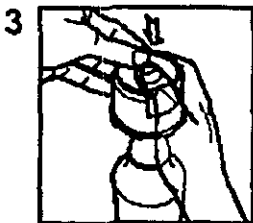
(note to reviewer, the following is a graphic and instructions for Dose 'N Fill dispenser and bottle )



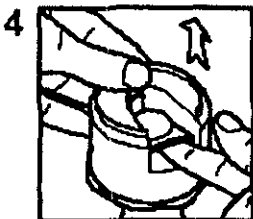
**Insert dispenser into a 32 ounce bottle.**



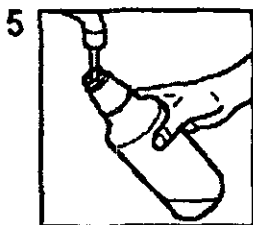
**Move safety tab and hold.**



**Push button down to release and wait 10 seconds until one dose is dispensed.**



**Pull button up to reset.**



**Fill Bottle with cold water.  
Label bottle appropriately.**