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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JAN 28 1998

Ecolab Inc.
Ecolab Center
St. Paul, MN 55102

Attn: Ann M. Oxford

Subject: KX-6049
EPA Registration No. 1677-158
Amendment Dated June 18, 1997 And
Letter Dated August 8, 1997

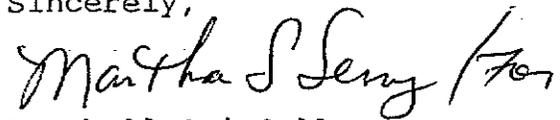
The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, to include the label claims for additional test viruses, non-food contact data, food contact surface sanitizing data and fungicidal data, is acceptable, provided that you make the following label changes before you release the product for shipment bearing the amended labeling.

1. For our records provide the Agency with a chemical composition of the product listed as "Liquid K". Liquid K was used in combination with your product K-6049 to form the foam sanitizing solution for nonfood contact surfaces.
2. On page 4, and after Reovirus, add "...on hard inanimate surfaces..."
3. For the fungicidal directions, expand the use directions to indicate the appropriate use areas (e.g., such as shower room floors, locker room benches, shower stalls, or bath mats).

A stamped copy of the labeling is enclosed for your records. Submit two (2) copies of the final printed labeling before you release the product for shipment.

If you have any questions concerning this letter, please contact Martha Terry at (703) 308-6217.

Sincerely,



Marshall Swindell
Product Manager (33)
Regulatory Management Branch 1
Antimicrobial Division (7510W)

Enclosure

CONCURRENCES

SYMBOL							
SURNAME							
DATE							

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KX-6049

ACID LIQUID SANITIZER FOR FOOD PROCESSING EQUIPMENT
in Dairies, Dairy Farms, Breweries, Wineries, Beverage and Food Processing Plants

DISINFECTANT
Hospitals, Health Care Facilities, Animal Care Facilities, Veterinary Facilities, Farms, Livestock Quarters,
Poultry Premises, and Poultry Hatcheries

STERILANT FOR ASEPTIC MANUFACTURING AND PACKAGING EQUIPMENT

Active Ingredients:

Hydrogen Peroxide.....	6.9%
Peroxyacetic Acid.....	4.4%
Octanoic Acid	3.3%

Inert Ingredients 85.4%

KEEP OUT OF REACH OF CHILDREN DANGER

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: CORROSIVE. Causes eye and skin damage. May be harmful or fatal if swallowed. Do not get in eyes, on skin or on clothing. Wear chemical goggles, rubber gloves and protective clothing when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse. Do not breathe vapor or spray mist.

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Flush immediately with cool water. Remove contact lenses. Continue flushing for 15 minutes, holding eyelids apart. Get prompt medical attention.

IF ON SKIN: Immediately wash with plenty of soap and water. Get medical attention.

IF SWALLOWED: Promptly drink large quantities of water. Avoid alcohol. DO NOT induce vomiting. Never give anything by mouth to an unconscious person. CALL A POISON CONTROL CENTER OR PHYSICIAN IMMEDIATELY.

FOR EMERGENCY MEDICAL INFORMATION, CALL TOLL-FREE 1-800-328-0026

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

PHYSICAL AND CHEMICAL HAZARDS: Strong oxidizing agent. Corrosive. Do not use in concentrated form. Mix only with water according to label instructions. Never bring concentrate in contact with other sanitizers, cleaners or organic substances.

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.

FOR AGRICULTURE OR COMMERCIAL USE ONLY
STRONG OXIDIZING AGENT

EPA Reg. No. 1677-158
EPA Est. 60156-IL-1

Ecolab Food & Beverage Division
Ecolab Inc. 370 N. Wabasha St.
St. Paul, MN 55102

Net Contents: 50 U.S. Gals. (189 L)

4 U.S. Gals. (15.1 L)

300 U.S. Gals. (Notes)

ACCEPTED
with COMMENTS
in EPA Letter Dated:

JAN 28 1998

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

1677-158

U.S. Patent No. 5200189 and 5314687
Other Patents Pending

DIRECTIONS FOR USE

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

SANITIZATION

KX-6049 is recommended for use on pre-cleaned surfaces such as equipment, pipelines, tanks, vats, fillers, evaporators, pasteurizers and aseptic equipment in dairies, breweries, wineries, beverage and food processing plants. This product is effective as a sanitizer when solution is prepared in water of up to 500 ppm hardness as CaCO_3 .

SANITIZING FOOD CONTACT SURFACES

Prior to sanitizing, remove gross food particles, then wash with a detergent solution, followed by a potable water rinse. Sanitize with a concentration of 1 to 2 ounces **KX-6049** per 6 gallons of water (0.13 - 0.26% v/v concentration). At this dilution **KX-6049** is effective against *Staphylococcus aureus*, *Escherichia coli*, *Escherichia coli* 0157:H7, *Listeria monocytogenes*, *Salmonella typhimurium* (milk isolate), *Pseudomonas aeruginosa*, and *Vibrio cholerae* as well as beverage spoilage organisms such as *Aspergillus niger*, *Saccharomyces cerevisiae*, *Pediococcus damnosus* and *Lactobacillus buchneri*. Use immersion, coarse spray or circulation techniques as appropriate to the equipment. All surfaces should be exposed to the sanitizing solution for a period of not less than one minute unless otherwise specified by governing sanitary code. Drain thoroughly. Do not rinse.

At a temperature of 120 F. **KX-6049** can be used as a food contact sanitizer at 1 oz. per 14 gallons water (0.055% v/v concentration). At this concentration **KX-6049** is effective against *Staphylococcus aureus* and *Escherichia coli*. All surfaces should be exposed to the sanitizing solution for a period of not less than one minute, unless otherwise specified by governing sanitary code. Drain thoroughly. Do not rinse.

SANITIZING EATING, DRINKING, AND FOOD PREP UTENSILS

1. Remove gross food particles by a prescrape, preflush and, when necessary, a presoak treatment.
2. Wash with detergent.
3. Rinse with clean water.
4. Sanitize in a solution of 1 to 2 ounces **KX-6049** per 6 gallons of water (0.13 - 0.26% v/v concentration). Immerse all utensils for at least 1 minute or contact time specified by governing sanitary code.
5. Drain and air dry.

SANITIZING TABLEWARE

For sanitizing tableware in low-temperature warewashing machines, inject **KX-6049** into the final rinse water at a concentration of 0.055% v/v (1 oz. per 14 gallons of water) at 120 deg F. Allow 1 minute contact. Air dry.

To insure that the **KX-6049** concentration does not fall below 0.055%, periodically test the rinse solution with a suitable test kit and adjust the dispensing rate accordingly. Consult your local Ecolab Specialist for technical assistance and further information on sanitizing tableware in warewashing machines.

FINAL SANITIZING BOTTLE RINSE

KX-6049 may be used as a final sanitizing rinse for returnable and non-returnable bottles (e.g. glass or PET) at a 0.13% dilution (1 oz to 6 gallons).

NOTE: FOR MECHANICAL OPERATIONS prepared use solutions may not be reused for sanitizing but may be reused for other purposes such as cleaning.
FOR MANUAL OPERATIONS fresh sanitizing solutions should be prepared at least daily or more often if the solution becomes diluted or soiled.

CONTINUOUS TREATMENT OF CONVEYORS FOR MEAT AND POULTRY OR FRUITS AND VEGETABLES

Wash, rinse and sanitize conveyor equipment. During processing, apply **KX-6049** at a 0.26% v/v (2 oz per 6 gallons water) concentration to conveyor with Mikro Master or other suitable feeding equipment. Controlled volumes of sanitizer are applied to return portion of conveyor through nozzles located as to permit maximum drainage of sanitizer from equipment and to prevent puddles on top of belt. During interruptions in operations, coarse spray equipment, peelers, collators, slicers and saws with Mikro Master dispensed **KX-6049** solution of 0.26% v/v concentration. Conveyor equipment must be free of product when applying this coarse spray.

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DISINFECTION

KX-6049 disinfects as it cleans in one operation. KX-6049 can be used to disinfect floors, walls and other hard, nonporous environmental surfaces such as tables, chairs, countertops, bathroom fixtures, sinks, bed frames, shelves, racks, carts, refrigerators, coolers, tile, linoleum, vinyl, asphalt, porcelain, plastic (such as polypropylene and polyethylene), stainless steel, or glass.

Use KX-6049 in hospitals, nursing homes, other health-care facilities, schools, colleges, veterinary clinics, animal life science laboratories, industrial facilities, dietary areas, office buildings, recreational facilities, retail and wholesale establishments.

COMBINATION DISINFECTION AND CLEANING

KX-6049 is effective against *Staphylococcus aureus*, *Salmonella choleraesuis*, and *Pseudomonas aeruginosa* at 0.2% (1 oz/4 gl) in hard water (500 ppm as CaCO₃), 5% blood serum and dried soap film residue on hard nonporous surfaces. For heavily soiled areas a precleaning step is required. Apply solution with mop, cloth, sponge, brush, scrubber, or coarse spray device or by soaking so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes, then remove solution and entrapped soil with a clean wet mop, cloth, or wet vacuum pickup. Prepare a fresh solution daily or when it becomes soiled or diluted.

VIRUCIDAL

At 0.2% (1 oz/4 gl) KX-6049 is effective against Influenza B, Influenza A(H3N2), Influenza A (H1N1), Influenza A (H10N7) and Reovirus when used at 20 deg C with a 10 minute contact time in the presence of 500 ppm hard water and organic soil. Apply as directed under disinfection.

FUNGICIDAL

At 0.2% (1oz/4gl) the product is effective against *Trichophyton mentagrophytes* (Athletes Foot Fungi) and *Candida albicans* (pathogenic yeast) in the presence of protein (5% blood serum) and soap scum in 500 ppm hard water with a 10 minute contact time. Apply as directed under disinfection.

STERILIZATION OF MANUFACTURING, FILLING, AND PACKAGING EQUIPMENT IN ASEPTIC PROCESSES

Prior to use of this product, remove gross soil particles from processing surfaces, then wash with a recommended detergent solution, followed by a thorough potable water rinse. Prepare a 5% sterilizing solution of KX-6049. Circulate, coarse spray, or flood the sterilizing solution as appropriate to the equipment. All surfaces should be exposed to the sterilizing solution for 30 minutes. This product is effective against *Clostridium sporogenes* and *Bacillus subtilis* at 5% (25 oz/4 gl) in 100 ppm hard water and 5% organic load at 20 deg C.

Rinse surfaces completely with either a sterile water or potable water rinse. For food-contact surfaces, follow with a sanitizing solution of KX-6049. Allow surfaces to drain thoroughly prior to any food product contact.

This product is not for use as a sterilant on medical devices.

NOTE: This product in its use solutions is compatible with stainless steel and aluminum surfaces. If product is intended to be used on any other surface, it is recommended that you apply product to a smaller test area to determine compatibility before proceeding with its use.

STORAGE & DISPOSAL**DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL**

STORAGE: Product should be kept cool and in a vented container to avoid any explosion hazard.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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

(Totes) Verify that the tote is empty. Do not rinse or clean. Seal tote and contact Ecolab for return.

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