

PM 32 1617-52 10/1
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JUL 9 1993

Ms. Ann Oxford, Specialist, Regulatory Services
Klenzade, Division of Ecolab Inc.
Ecolab Center
St. Paul, MN 55102

Dear Mr. Oxford:

SUBJECT: XY-12 Liquid Sanitizer
EPA Registration No. 1677-52
Your Amendment Application Dated November 30, 1992

This is in response to your amendment application noted above requesting approval to add the control of the microorganism Vibrio cholerae. The following comments apply.

The submitted bactericidal data are acceptable to support effectiveness of the product as a sanitizer (for food contact surfaces against Vibrio cholerae (ATCC 25873) for hard non-porous inanimate surfaces at a dilution of 100ppm available chlorine (1oz./6 gallons) (0.13% concentration) when diluted in 500ppm of synthetic hard water (as CaCO₃) at 25° C for a exposure time of 30 seconds.

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy of the labeling is enclosed for your records. Five copies of the finished labeling must be submitted before you release the product for shipment bearing the amended labeling.

Sincerely,



Ruth G. Douglas
Product Manager 32
Antimicrobial Program Branch
Registration Division (H-7504C)

CONCURRENCES						
SYMBOL	H-7504C					
SURNAME	R. Douglas					
DATE	6-28					

H132

1677-52

KLENZADE®**XY-12®
LIQUID SANITIZER**

EPA REG. NO. 1677-52
EPA EST. 1677-IL-2
ACTIVE INGREDIENT:
SODIUM HYPOCHLORITE 8.4%
INERT INGREDIENTS 91.6%
FOR INDUSTRIAL USE ONLY

**KEEP OUT OF REACH
OF CHILDREN
DANGER**

See side panel for additional
Precautionary Statements.

NET CONTENTS
1 U.S. GALLON (3.78 l)

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: Wash with plenty of soap and water.
IF SWALLOWED, drink large amounts of water. DO
NOT induce vomiting. Call a physician or poison
control center immediately.

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

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

DANGER: Corrosive, may cause severe skin and
or chemical burns to broken skin. Causes eye damage.
Wear gloves, chemical goggles and protective clothing
handling. Avoid breathing vapors. Vacate poorly ventilated
areas as soon as possible. Do not return until strong odor
dissipated.

PHYSICAL OR CHEMICAL HAZARDS:

STRONG OXIDIZING AGENT: Mix only with water.
Follow label directions. Mixing this product with chemicals
(e.g., ammonia, acids, detergents, etc.) or organic materials
(e.g., feces, etc.) will release chlorine gas which is irritating to
lungs and mucous membranes.

ACCEPTED
with COMMENTS
EPA Letter Dated:
JUL 9 1993

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
this product is being
registered for use as a disinfectant.
1677-52

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DIRECTIONS FOR USE:

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

NOTE: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

SANITIZING NONPOROUS FOOD CONTACT EQUIPMENT-RINSE METHOD

A solution of 100 ppm available chlorine may be used in the sanitizing solution if a chlorine test kit is available. Solution containing an initial concentration of 100 ppm av. Cl must be tested and adjusted periodically to insure that the av. Cl does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 2 oz of XY-12 with 13 gal of water. If no test kit is available, prepare a sanitizing solution by mixing 4 oz of XY-12 with 13 gallons of water to provide approximately 200 ppm av. Cl by weight.

Clean all surfaces with proper detergent and rinse with water. Just prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. If solution contains less than 50 ppm av. Cl as determined by a suitable test kit, either discard the solution or add sufficient product to reestablish a 200 ppm residual. Allow equipment to drain thoroughly. Do not rinse and do not soak overnight.

SANITIZING POROUS FOOD CONTACT EQUIPMENT-RINSE METHOD

Prepare a 600 ppm solution by thoroughly mixing 3 oz of this product in 3 gal water. Clean surfaces in the normal manner. Rinse all surfaces thoroughly with the 600 ppm solution, maintaining contact for at least 2 minutes. Prior to using equipment, rinse all surfaces with a 200 ppm av. Cl solution (4 oz /13 gal). Do not rinse and do not soak overnight.

BACTERIOPHAGE CONTROL

XY-12 will significantly reduce the incidence of *Streptococcus cremoris* and *Streptococcus diacetylactis* bacteriophage in cheese manufacturing establishments by fogging at a concentration of 600 ppm available chlorine. Fogging should be used as a supplement to acceptable manual cleaning and sanitizing of room surfaces as described above.

Directions for fogging:

Prior to fogging, food products and packaging materials must be removed from the room or carefully protected. Fog desired areas using one quart per 1000 cu. ft. of room area with an XY-12 solution containing 600 ppm available chlorine. Vacate the area of all personnel for a minimum of 2 hours after fogging. All food contact surfaces must then be thoroughly rinsed with an XY-12 solution at 200 ppm of available chlorine. Allow surfaces to drain thoroughly before operations are resumed.

FOR CONTINUOUS TREATMENT OF MEAT AND POULTRY OR FRUIT AND VEGETABLE CONVEYORS—wash, rinse and sanitize conveyance equipment. During processing, apply XY-12 at a 200 ppm available chlorine level to conveyors with MIKRO MASTER or other suitable feeding equipment. Controlled volumes of sanitizer are applied to return portion of conveyor through nozzles so located as to permit maximum drainage of sanitizer from equipment and to prevent puddles on top of belt. During interruptions in operations, apply a coarse spray to equipment, peelers, collators, slicers and saws with MIKRO MASTER dispensed XY-12 solution of 200 ppm av. Cl. Conveyor equipment should be free of product when applying this coarse spray.

LAUNDRY SANITIZATION**HOUSEHOLD LAUNDRY SANITIZING**

In Soaking Suds — Thoroughly mix 4 oz. XY-12 to 13 gallons of wash water to provide 200 ppm available chlorine. Wait 5 minutes, then add soap or detergent. Immerse laundry for at least 11 minutes prior to starting the wash/rinse cycle.

In Washing Suds — Thoroughly mix 4 oz. XY-12 to 13 gallons of wash water containing clothes to provide 200 ppm available chlorine. Wait 5 minutes, then add soap or detergent and start the wash/rinse cycle.

COMMERCIAL LAUNDRY SANITIZING

Wet fabrics or clothes should be spun dry prior to sanitization. Thoroughly mix 4 oz. XY-12 to 13 gallons of water to yield 200 ppm available chlorine. Promptly add the solution into the prewash prior to washing fabrics/clothes in the regular wash cycle with a good detergent. Test the level of available chlorine, if solution has been allowed to stand. Add more XY-12 if the available chlorine level has dropped below 200 ppm.

FOOD EGG SANITIZATION

Thoroughly clean all eggs before proceeding. To sanitize clean shell eggs intended for food or food products, apply solution with a coarse spray at 2 oz. of product in 6.5 gallons of water (providing 200 ppm available chlorine). The solution must be equal to or warmer than the eggs, but not to exceed 130 deg F. Wet eggs thoroughly and allow to drain. Eggs that have been sanitized with this chlorine compound may be broken for use in the manufacture of egg products without a prior potable water rinse. Eggs must be thoroughly dry before casing or breaking. The solution must not be reused for sanitizing eggs.

LAUNDRY BLEACH

Add 2 oz. product per 10 gallons of wash water (125 ppm av. Cl).

FRUIT AND VEGETABLE WASHING

Thoroughly clean all fruits and vegetables in a wash tank. Thoroughly mix 8 oz. of product in 200 gallons of water to make a sanitizing solution of 25 ppm available chlorine. After draining the tank, submerge fruits or vegetables for 2 minutes in a second wash tank containing the recirculating sanitizing solution. Coarse spray rinse vegetables with the sanitizing solution prior to packaging. Rinse fruit with potable water only prior to packaging.

Insert: At 100 ppm available chlorine this product is an effective sanitizer against Vibrio cholerae.

**SANITIZING EATING AND DRINKING UTENSILS-
IMMERSION METHOD**

1. Scrape and preflush utensils to remove excess soil.
2. Wash with good detergent or compatible cleaner (see your Ecolab representative for a recommendation.)
3. Rinse with clear water.
4. Sanitize in a solution of 100 ppm av. Cl if a chlorine test kit is available. Test and adjust solution periodically to insure that the av. Cl does not drop below 50 ppm. If no test kit is available, prepare sanitizing solution to provide 200 ppm av. Cl. Immerse all utensils for at least one minute. Use 2 minutes exposure time if required by governing sanitary code.
5. Drain and air dry.

NOTE: FOR MECHANICAL OPERATIONS prepared use solutions may not be re-used for sanitizing but may be re-used for other purposes such as cleaning.

FOR MANUAL OPERATIONS fresh sanitizing solutions should be prepared as soon as they become diluted or soiled.

**TABLEWARE SANITIZER AND DESTAINER FOR
MECHANICAL SPRAY WAREWASHING MACHINES**

For sanitizing tableware in low-temperature warewashing machines, inject XY-12 into the final rinse water at a concentration of 100 ppm available chlorine. Do not exceed 200 ppm. Air dry.

To insure that available chlorine concentration does not fall below 50 ppm, 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.

FORMULATED FOR USE WITH ECOLAB
AUTOMATIC DISPENSING SYSTEMS.

DO NOT USE ON SILVER AND SILVER PLATE.

For brand name products sold for dispensing through computerized systems the following directions for use will appear on the label: For use only with the (Brand Name) Allocation System.

For service or additional information, call 1-800-35-CLEAN (352-5326).

DO NOT MIX WITH ANYTHING BUT WATER

WATER CHLORINATION

For farm, private or small municipal water chlorination, use 0.1 to 0.5 ppm available chlorine. Use chlorine test kit for the determination of proper concentrations and amount of residual chlorine.

AVAILABLE CHLORINE TABLE OF PROPORTIONS

0.5 ppm—1 oz. in 1300 gal. water
50 ppm—1 oz. in 13 gal. water
100 ppm—2 oz. in 13 gal. water/1 oz. in 6.5 gal. water
200 ppm—4 oz. in 13 gal. water/2 oz. in 6.5 gal. water
600 ppm—12 oz. in 13 gal. water

STORAGE AND DISPOSAL:

Store this product in a cool, dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood the area with large quantities of water.

PESTICIDE DISPOSAL: Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.

CONTAINER DISPOSAL: Do not reuse empty containers. Wrap container and put in trash.

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