

1677-52

3/14/2013

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

March 14, 2013

Ron Derbyshire  
Manager, NA Biocides  
EcoLab Inc.  
370 N. Wabasha Street  
St Paul, MN 55102-1390

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Subject: XY-12 Liquid Sanitizer  
EPA Reg.#: 1677-52  
Notification Date: March 06, 2013  
Receipt Date: March 8, 2013

Dear Mr. Derbyshire:

This acknowledges the receipt of your notification, submitted under the provision of PR Notice 98-10 and FIFRA section 3(c)(7)(a).

**Proposed Notification:**

Revise Storage and Disposal Statement in compliance with PR Notice 2007-4 for "XY-12 Liquid Sanitizer" product (EPA Reg# 1677-52). Initial proposed label dated 3/6/2013 (pin punch 3/8/13) was updated on 3/14/2013 (pin punch 3/14/13).

**General Comment:**

Based on the review of the material submitted, the updated Storage and Disposal statement for XY-12 Liquid Sanitizer label dated 03/14/2013 (pin punch 3/14/13) is **acceptable**.

This notification and a copy of this letter have been inserted in your file for future reference.

If you have any questions on this letter, please contact David Liem by email at [liem.david@epa.gov](mailto:liem.david@epa.gov) or call at 703-305-1284.

Sincerely

A handwritten signature in black ink, appearing to read "Monisha Harris".

Monisha Harris  
Product Manager (32)  
Regulatory Management Branch II  
Antimicrobials Division (7510P)



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

**Registration**  
 **Amendment**  
 **Other**

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number  1677-52	2. EPA Product Manager  Monisha Harris	3. Proposed Classification  <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
3. Company/Product (Name)  XY-12	PM# 32	
5. Name and Address of Applicant (Include ZIP Code) Ecolab Inc. 370 N. Wabasha Street St. Paul, MN 55102  <input type="checkbox"/> Check if this is a new address	6. <b>Expedited Review.</b> In accordance with FIFRA Section 3 (c) (3) (b) (i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to
<input type="checkbox"/> Resubmission in response to Agency letter dated	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional Page(s) if necessary. (For section I and Section II)  
 Notification of label change per PR Notice 2007-4. This notification is consistent with the guidance in PR Notice 2007-4 and the requirements of EPA's regulations at 40 CFR 156.10, 156.140, 156.144, 156.146 and 156.156. No other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this amended label is not consistent with the requirements of 40 CFR 156.10, 156.140, 156.144, 156.146 and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

**Section - III**

1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" Unit Packaging wgt.   No. per Container	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" Unit Package wgt.   No. Per Container	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* <b>Certification must be submitted</b>			
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container 1 gallon, 5 gallon, 55 gallon, tote	5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____			

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted if necessary to process this application.)		
Name Ron Derbyshire	Title Manager, NA Biocides	Telephone No. (Include Area Code) (651) 293-2948
<b>Certification</b> I certify that the statements which I have made on this form and all attachments are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 	3. Title Manager, NA Biocides	
4. Typed Name Ron Derbyshire	5. Date 03/06/2013	



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NOTIFICATION  
Date Reviewed: 3/14/13  
Reviewed By: J. L. M.

# XY-12

## LIQUID SANITIZER

**Active Ingredient:**

Sodium Hypochlorite ..... 8.4%

**Other Ingredients:** ..... 91.6%

**Total:** ..... 100.0%

(provides a minimum available chlorine of 8%)

### KEEP OUT OF REACH OF CHILDREN DANGER

**FOR INDUSTRIAL USE**

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER: CORROSIVE:** Causes severe skin and eye irritation or chemical burns to broken skin. Causes eye damage. Wear rubber gloves, chemical goggles and protective clothing. Wash after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until odors have dissipated.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and aquatic organisms. (only required for containers 5 gallons and larger): Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other public 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.

**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 the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor for treatment advice. Have a 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.

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

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

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

**PHYSICAL AND CHEMICAL HAZARDS:**

**Strong oxidizing agent:** Mix only with water according to label directions. Mixing this product with chemicals (e.g. ammonia, acids, detergents, etc.) or organic matter (e.g. urine, feces, etc.) will release chlorine gas which is irritating to eyes, lungs and mucous membranes.

**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. Solutions containing an initial concentration of 100 ppm available chlorine must be tested and adjusted periodically to ensure that the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 2 oz. of XY-12 with 13 gallons 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 available chlorine by weight.

At 100 ppm available chlorine this product is an effective sanitizer against *Vibrio cholerae*( ATCC 25873), *Escherichia coli* O157:H7 (ATCC 43895), *Listeria monocytogenes* (ATCC 49594), *Salmonella typhi* (ATCC 6539) and *Staphylococcus aureus* (ATCC 6538). 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 available chlorine 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 available chlorine solution (4 oz./13 gallons). 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 concentrations 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, clean all surfaces and remove or carefully protect all food products and packaging materials. Fog desired areas using one quart per 1000 cu. ft. of room area with an XY-12 solution containing 600 ppm of 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 conveyor 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 the 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 available chlorine. Conveyor equipment must be free of product when applying this coarse spray.

**NOTE:** For mechanical operations, prepared use solutions may not be reused for sanitizing but may be re-used for other purposes such as cleaning.

**For manual operations,** fresh sanitizing solutions must be prepared as soon as they become diluted or soiled.

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**BOOSTER FOR ALKALINE DETERGENTS TO CLEAN FOOD PROCESSING EQUIPMENT**

XY-12 is an effective bleach cleaning booster for use with alkaline detergents. For cleaning applications as a detergent booster, use 2 - 12 oz. in 13 gal. water (100 - 1000 ppm active chlorine) to aid in the removal of organic soils. All hard non-porous food contact surfaces treated with this boosted detergent must be rinsed thoroughly with a potable water rinse followed by sanitizing with an approved food contact surface sanitizer.

**GLOVE DIP SANITIZER DIRECTIONS**

To prevent cross contamination from area to area in animal areas and packaging and storage areas of food plants, dip pre-washed (plastic, latex, or other synthetic rubber) non-porous gloved hands into a suitable clean container that contains enough freshly made sanitizing solution to cover the gloved area. Remove gross contamination from gloves before sanitizing. Then place gloved hand in a use-solution 4 oz. of this product with 13 gallons of water to provide approximately 200 ppm available chlorine by weight for 2 minutes. Change the solution in the bath at least daily or more often if the solution appears visibly soiled or contains less than 200 ppm.

**SANITIZING HARD, NON-POROUS OUTSIDE SURFACES OF AIRTIGHT, SEALED PACKAGES CONTAINING FOOD OR NON-FOOD PRODUCTS**

XY-12 may be used as a final sanitizing rinse for hard, non-porous outside surfaces of airtight, sealed packages containing food or non-food products. Prepare sanitizing solution by thoroughly mixing 4 oz. of this product with 13 gallons of water to provide approximately 200 ppm available chlorine by weight. All surfaces must be exposed to the sanitizing solution for a period of not less than 2 minutes. Drain thoroughly. No rinse necessary.

**SANITIZATION OF NONPOROUS NON-FOOD CONTACT SURFACES**

**Rinse Method:** Prepare sanitizing solution by thoroughly mixing 4 oz. of this product with 13 gallons of water to provide approximately 200 ppm available chlorine by weight. Clean surfaces such as floors and walls in the normal manner. Rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. Do not rinse with water after treatment.

**TREATMENT OF POTABLE WATER IN MEAT PROCESSING PLANTS**

For processing water in meat plants, use chlorine level up to 5 ppm available chlorine (1/4 oz. product/38 gal. water) and for processing water in poultry plants, use chlorine level up to 20 ppm available chlorine (1/4 oz. product/10 gal. water).

**DISINFECTION OF NONPOROUS NON-FOOD CONTACT SURFACES**

**Rinse Method:** If the product is to be used immediately, prepare a disinfecting solution by thoroughly mixing 12 oz. of this product with 13 gallons of water to provide approximately 600 ppm available chlorine by weight. If the product will be stored for an extended period of time, between 1 to 8 hours, prepare a disinfecting solution by mixing 14 oz. of this product with 13 gallons of water to provide approximately 700 ppm available chlorine by weight. Clean surfaces, such as floors and walls, in the normal manner. Rinse all surfaces thoroughly with the disinfecting solution, maintaining contact with the solution for at least 10 minutes. Do not rinse with water after treatment.

**DO NOT MIX WITH ANYTHING BUT WATER  
WATER CHLORINATION**

For farm, private or small municipal water chlorination feed solution with a hypochlorinator until an available chlorine residual of at least 0.2 to 0.6 ppm is attained throughout the distribution system. Check water frequently with a chlorine test kit. Bacteriological sampling must be conducted at a frequency no less than that prescribed by the National Primary Drinking Water Regulations. Contact your local health department for further details.

XY-12 is formulated to control algae and slime growth in recirculating cooling water systems and evaporative condensers, as well as cooling tunnels and warmers. It can be used in cooling water for thermal processing and pasteurizing operations in dairies, breweries, soft drink and food canning plants.

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For use in federally inspected meat and poultry plants. XY-12 helps prevent staining of meat and poultry product containers, when added to the water used to cook and cool the containers. XY-12 also assists with corrosion control and deposit formation on the surfaces of the processing equipment. XY-12 must be used at the same application rates and in the same manner as described below for Cooling Tower / Evaporative Condenser Water.

### COOLING TOWER / EVAPORATIVE CONDENSER WATER

#### Slug Feed Method –

**Initial Dose:** When system is noticeably fouled, apply 77 to 154 oz. of this product per 10,000 gallons of water in the system to obtain from 5 to 10 ppm available chlorine. Repeat until control is achieved

**Subsequent Dose:** When microbial control is evident, add 16 oz. of this product per 10,000 gallons of water in the system daily, or as needed to maintain control and keep the chlorine residual at 1 ppm.

Badly fouled systems must be cleaned before treatment is begun.

#### Intermittent Feed Method –

**Initial Dose:** When system is noticeably fouled, apply 77 to 154 oz. of this product per 10,000 gallons of water in the system to obtain a 5 to 10 ppm available chlorine. Apply half (or 1/3, 1/4 or 1/5) of this initial dose when half (or 1/3, 1/4 or 1/5) of the water in the system has been lost by blowdown.

**Subsequent Dose:** When microbial control is evident, add 16 oz. of this product per 10,000 gallons of water in the system to obtain a 1 ppm residual. Apply half (or 1/3, 1/4 or 1/5) of this initial dose when half (or 1/3, 1/4 or 1/5) of the water in the system has been lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

#### Continuous Feed Method –

**Initial Dose:** When system is noticeably fouled, apply 77 to 154 oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine.

**Subsequent Dose:** Maintain this treatment level by starting a continuous feed of 16 oz of this product per 10,000 gallons of water lost by blowdown to maintain a 1 ppm residual. Badly fouled systems must be cleaned before treatment is begun.

### PUBLIC WATER SYSTEMS

**New Tanks, Basins, etc. –** Remove all physical soil from surfaces. Place 30 oz. of this product for each 5 cubic feet of working capacity (500 ppm available chlorine). Fill to working capacity and allow to stand for at least 4 hours. Drain and flush with potable water and return to service.

**New Filter Sand –** Apply 120 oz. of this product for each 150 to 200 cubic feet of sand. The action of the product dissolving as the water passes through the bed will aid in sanitizing the new sand.

**New Wells –** Flush the casing with a 50 ppm available chlorine solution of water containing 7.5 oz. of this product for each 100 gallons of water. The solution must be pumped or fed by gravity into the well after thorough mixing with agitation. The well must stand for several hours or overnight under chlorination. It may then be pumped until a representative water sample raw water sample is obtained. Bacterial examination of the water will indicate whether further treatment is necessary.

**Existing Equipment –** Remove equipment from service, thoroughly clean surfaces of all physical soil. Sanitize by placing 32 oz. of this product for each 5 cubic feet capacity (approximately 500 ppm available chlorine). Fill to working capacity and let stand at least 4 hours. Drain and place in service. If the previous treatment is not practical, surfaces may be sprayed with a solution containing 7.5 oz. of this product for each 5 gallons of water (approximately 1000 ppm available chlorine). After drying, flush with water and return to service.

### TREATMENT OF POULTRY PROCESSING WATER

Follow guidelines of local water authority for water potability treatment.

**Continuous Feed:** Using an automatic metering device, continuously feed this product into the water to obtain and/or maintain a level of **5-20 ppm available chlorine (1 oz product per 130 gal. water, to 2 oz product per 65 gallons water)**. Confirm target chlorine level with either a chlorine test kit or an automatic testing device. When the available chlorine level reaches 20 ppm, notify the USDA plant inspector.

**Intermittent Feed:** Start up by adding 1.5 ounces of this product per 1,000 gallons of water for each 1 ppm of available chlorine needed. For subsequent doses, check chlorine level with a chlorine test kit. Add enough of this product to maintain the target chlorine level and confirm this level with a chlorine test kit. Do not pour this product directly on poultry product in the water.

**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

XY-12  
Technical Data Sheet

**Additional Directions for Use:**

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

**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 available chlorine if a chlorine test kit is available. Test and adjust solutions periodically to ensure that the available chlorine does not drop below 50 ppm. If no test kit is available, prepare sanitizing solution to provide 200 ppm available chlorine. Immerse all utensils for at least one minute. Use 2 minute exposure time if required by governing sanitary code.
5. Drain and air dry.

**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 or follow with a potable water rinse.

To ensure 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 product 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.

**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.

**SWIMMING POOL WATER DISINFECTION**

For a new pool or spring start-up, superchlorinate with 75 to 150 oz. of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test



kit. Adjust and maintain pool water pH between 7.2 to 7.6. Adjust and maintain the alkalinity of the pool to between 50 and 100 ppm.

To maintain the pool, add manually or by a feeder device 16 oz. of this product for each 10,000 gallons of water to yield an available chlorine residual between 0.6 to 1.0 ppm by weight. Stabilized pools should maintain a residual of 1.0 to 1.5 ppm available chlorine. Test the pH, available chlorine residual and alkalinity of the water frequently with appropriate test kits. Frequency of water treatment will depend upon temperature and number of swimmers.

Every 7 days, or as necessary, superchlorinate the pool with 75 to 150 oz. of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Do not reenter pool until the chlorine residual is between 1.0 to 3.0 ppm. Re-entry into treated pools is prohibited at levels above 4 ppm due to risk of bodily harm.

At the end of the swimming pool season or when water is to be drained from the pool, chlorine must be allowed to dissipate from treated pool water before discharge. Do not chlorinate the pool within 24 hours prior to discharge.

**WINTERIZING POOLS** - While water is still clear and clean, apply 4 oz. of product per 1000 gallons, while filter is running, to obtain a 3 ppm available chlorine residual as determined by a suitable test kit. Cover pool, prepare heater, filter and heater components for winter by following manufacturer's instructions.

**SPAS/HOT-TUBS** - Apply 7 oz. of product per 1000 gallons of water to obtain a free available chlorine concentration of 5 ppm, as determined by a suitable chlorine test kit. Adjust and maintain pool water pH between 7.2 and 7.8. Some oils, lotions, fragrances, cleaners, etc. may cause foaming or cloudy water as well as reduce the efficiency of the product.

To maintain the water, apply 7 oz. of product per 1000 gallons of water over the surface to maintain a chlorine concentration of 5 ppm. Re-entry into treated pools is prohibited at levels above 5 ppm due to risk of bodily harm.

After each use, shock treat with 11 oz. of this product per 500 gallons of water to control odor and algae.

During extended periods of disuse, add 4 oz. of product daily per 1000 gallons of water to maintain a 3 ppm chlorine concentration.

**COMMERCIAL LAUNDRY SANITIZING**

Using the appropriate Ecolab dispenser, inject 4 oz. XY-12 to 13 gallons of water to yield 200 ppm available chlorine to the bleach step of the wash process. 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.

**LAUNDRY BLEACH**

Add 2 oz. product per 10 gallons of wash water (125 ppm available chlorine).

**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 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 eggs product without a prior potable water rinse. Eggs must be thoroughly dry before casing or breaking. The solution must not be reused for sanitizing eggs.

**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.

**XY-12 ADDITIONAL DIRECTIONS FOR USE**

A solution of sodium hypochlorite for control of organisms causing decay of apples, asparagus, cabbage, carrots, cauliflower, celery, cherries, citrus, cucumbers, lettuce, mushrooms, nectarines, onions, peaches, pears, peppers, potatoes, and radishes after harvest.

**APPLICATION**

For the recommended concentration of available chlorine for various commodities to be treated see the attached table. To obtain a 100 ppm solution of chlorine, add 1.2 gallons XY-12 to 1,000 gallons of water. For other application rates use appropriate dilutions. Rinse treated fruit with potable water.

**FOR CITRUS CANCKER QUARANTINE:**

Use of XY-12 at 200 ppm is achieved by adding 2.4 gallons XY-12 to 1,000 gallons of water. Apply for two minutes using a suitable coarse spray or dip tank treatment.

NOTE: This product degrades with age. Use of monitoring chlorine level and increasing dosage, as necessary, is recommended to obtain the required level of available chlorine. Since chlorine reacts readily with dirt and organic matter in dip tanks, the concentration must be checked at least three to four times each day by use of colorimetric kit or titrimetric kit. Once opened, use the entire contents of the container within 30 days.

Recommended levels of chlorine:

<u>Commodity</u>	<u>ppm of available chlorine to use</u>	
Apple	150-200	
Artichokes	100-150	
Asparagus	125-150	
Brussel sprouts	100-150	
Carrots	100-200	
Cauliflower	300-400	
Cherry	75-100	
Celery	100-110	c c c c c
Chopped Cabbage <sup>2</sup>	80-100	c c c c c
Chopped Lettuce <sup>2</sup>	80-100	c c c c c
Cucumbers	300-350	c c c c c
Green Onions	75-120	c c c c c
Lemon and Grapefruit	40-50	c c c c c
Melons <sup>5</sup>	100-150	c c c c c
Mushrooms <sup>3</sup>	100-120	c c c c c
Oranges (in drencher)	20-30	c c c c c
Peaches and Nectarines and Plums	50-100	c c c c c
Pears (without buffer)	200-300	c c c c c
Peppers <sup>1,4</sup>	300-400	c c c c c
Potatoes <sup>1,4</sup>	65-125	c c c c c
Radishes	100-150	
Stonefruit (Hydrocooler)	30-75	
Tomatoes	300-350	

**NOTE:**

1. Concentration given for use in a flow through washer system only.
2. After treatment the adhered moisture must be removed by a centrifugation process.
3. After treatment with the chlorinated water, the mushrooms must be treated with 0.2% sodium bisulfite (anti-oxident) treatment to prevent browning.

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- 4. For treating peppers in a dump tank, use 100-135 ppm Cl<sub>2</sub>; for treating potatoes in a pit system, use 100-150 ppm Cl<sub>2</sub>; for treating tomatoes in a dump tank system, use 70-120 ppm Cl<sub>2</sub>.
- 5. For hydrocooler, use 10 ppm.

**DISINFECTANT FOR PHARMACEUTICAL AND COSMETIC INDUSTRIES**

**DISINFECTING PHARMACEUTICAL AND COSMETIC SURFACES**

XY-12 is recommended for use on pre-cleaned, hard, non-porous, environmental surfaces such as floors, walls and processing equipment in pharmaceutical and cosmetic processing facilities.

Prior to disinfection, clean surfaces in the normal manner. Prepare disinfecting solution by thoroughly mixing 12 ounces of this product with 13 gallons of water to provide approximately 600 ppm available chlorine by weight. Rinse all surfaces with the disinfecting solution, maintaining contact with the solution for at least 10 minutes. Product contact surfaces must be rinsed with sterile water.

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

**STORAGE & DISPOSAL**

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

**PESTICIDE STORAGE:**

Store this product in a cool, dry area, away from direct sunlight and heat to avoid deterioration. Keep this product in a tightly close container, when not in use. In case of spill, flood area with large quantities of water. Product or rinsate that cannot be used be diluted with water before disposal in a sanitary sewer.

**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 HANDLING AND DISPOSAL:**

For containers 5 gallons or less. Non-refillable container. Do not reuse or refill this container. Triple rinse as follows: Fill container ¼ full with water and recap. Shake for 10 seconds. Drain for 10 seconds after the flow begins to drip. Follow Pesticide Disposal instructions for rinsate disposal. Repeat procedure two more times. Then offer for recycling or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

For containers >5-55-gallons. Non-refillable container. Do not reuse or refill this container. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat procedure two more times. Then offer for recycling or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

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

Net Contents:	1 U.S. Gal. (3.78 L)
	5 U.S. Gals. (18.9 L)
	55 U.S. Gals. (207.9 L)
	300 U.S. Gals. (1134 L) - tote

EPA Reg. No. 1677-52

12/12

EPA Est.: 1677-IL-2 (J), 1677-TX-1 (D),  
1677-GA-1 (M), 1677-CA-1 (S), 1677-MN-1 (P),  
70271-CA-2 (C), 1677-CA-2 (R), 1677-WV-1  
(V).

Superscript refers to first letter of date code

Manufactured by:  
Ecolab Inc.  
370 N. Wabasha Street  
St. Paul, MN 55102

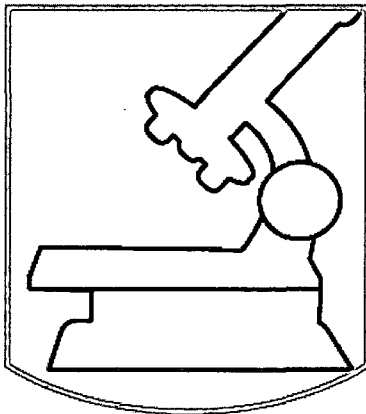


Certified To  
NSF/ANSI 60

Certified to ANSI/Standard 60  
NSF Category: Disinfection & Oxidation  
Maximum Use Level Per Standard 60: 125 mg/L  
(Follow manufacturer's use instructions.)

Optional marketing language:

- "See side/back panel for First Aid..."



Sanitizer  
Desinfectante

