



XY-12®

PRODUCT DESCRIPTION XY-12® is a liquid, sodium hypochlorite sanitizer.

BENEFITS **Saves Money**

- ▲ Versatile, multi-use chlorine sanitizer.

Saves Time

- ▲ Free-rinsing - leaves no sediment, deposits or films to touch up.
- ▲ Convenient to use - easily proportioned through sprayers, feeders, or chlorinators.

Promotes Quality Assurance

- ▲ Enhances finished product quality and shelf life when used in a total Ecolab product and professional services program.

PROPERTIES

Form..... liquid, clear
 Color..... yellow
 Odor chlorine
 Foam none
 Spec. Grav. @ 68°F (20°C) 1.154
 Pounds per gallon..... 9.61 (4.36 kg)
 100% solution pH 12.5
 pH .25% solution 8.3
 Excess alkalinity
 as sodium hydroxide..... 0.7%
 Available chlorine 8.0% by weight

ACTIVE INGREDIENT:

Sodium Hypochlorite.....8.4%

OTHER INGREDIENTS:.....91.6%

TOTAL: 100.0%

(provides a minimum available chlorine of 8%)

EPA Reg. No. 1677-52

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 insure 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*, *Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella typhi* and *Staphylococcus aureus*. 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 *S. diacetilactis* 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.

XY-12®

DIRECTIONS FOR USE CONT.

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 of 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 soiled or measures 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.

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.

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

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: 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.

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 using 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.

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.

Consult your Ecolab Representative for specific use instructions and recommended dispensing equipment.

For cautionary and first aid information, consult the Material Safety Data Sheet (MSDS) or product label.

STATEMENT OF ASSURANCE

This product is effective under the intended conditions of use as outlined on the product label or specified in a Sanitation Standard Operating Procedure (SSOP).

A Letter of Guaranty as indicated in USDA's Sanitation Performance Guideline is available from your Ecolab representative.



NSF Category: Disinfection & Oxidation
Maximum Use Level Per Standard 60: 105 mg/L
(Follow manufacturer's use instructions.)

