



Oxonia Active®

PRODUCT DESCRIPTION

Oxonia Active® is a EPA-registered, peroxyacetic acid, antimicrobial agent with broad antimicrobial activity for use in a number of sanitizing applications in the dairy, beverage and food processing industries, as well as for sterilization of aseptic processing and packaging equipment.

BENEFITS

Promotes Quality Assurance

- ▲ Enhances finished product quality when used in a total Ecolab product and professional services program, since it provides kill against pathogenic organisms, even spore-forming microorganisms. See directions for use for list of organisms.
- ▲ pH range tolerant – effective sanitizing activity at acidic to neutral pH.
- ▲ Helps protect processing equipment investment – use solutions non-corrosive to 304, 316 stainless steel and aluminum surfaces when used at recommended concentrations.
- ▲ Compatible with most plastic and rubber materials used in processing operations.
- ▲ Effective against environmental microorganisms that can adversely affect shelf-life. See directions for use for list of organisms.

Saves Time and Money

- ▲ Non-foaming formulation minimizes CIP cycle time and improves CIP efficiency.
- ▲ Convenient to use – provides acidified rinse and sanitizer in one step – no post-rinse required.

Environmental Implications

- ▲ Low phosphorus formulation minimizes phosphate-related effluent fees.
- ▲ Active ingredients rapidly break down after use into water, oxygen and acetic acid.

PROPERTIES

Form	liquid, clear
Color	colorless
Odor	pungent, acetic acid
Foam	none
Spec. Grav. @ 68°F (20°C).....	1.120
Pounds per gallon.....	9.33 (4.23kg)
100% solution pH	<1

pH 1% solution 2.5

ACTIVE INGREDIENTS:

Hydrogen Peroxide	27.5%
Peroxyacetic Acid	5.8%

INERT INGREDIENTS: 66.7%

TOTAL:..... 100.0%

EPA Reg. No. 1677-129

DIRECTIONS FOR USE

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

Sanitization: Oxonia Active acid sanitizer 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 CaCO₃.

NOTE: FOR MECHANICAL OPERATIONS prepared use solution 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.

Sanitizing Food Contact Surfaces: Prior to sanitizing, remove gross food particles, and then wash with a detergent solution, followed by a potable water rinse. Sanitize with a concentration of 1.0 to 1.4 ounces Oxonia Active concentrate per 4 gallons of water (0.20-0.28% v/v concentration). At this dilution Oxonia Active is effective against *Staphylococcus aureus*, *Escherichia coli*, *Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella typhimurium*, *Pseudomonas aeruginosa*, and *Vibrio cholerae*. Also effective against organisms found in the brewing industry, *Saccharomyces cerevisiae*, *Pediococcus damnosus* and *Lactobacillus malefermentans*. 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 a longer time is specified by the governing sanitary code. Drain thoroughly and allow to air dry. Do not rinse.

Sanitizing Non-Food Contact Surfaces: Preclean surfaces as directed above. Sanitize

non-food contact surfaces such as floors, walls, tables, chairs, benches, drains, troughs, and drip pans with 1 oz Oxonia Active per 8 gal water. At this concentration the product is effective against *Staphylococcus aureus*, *Enterobacter aerogenes*, *Escherichia coli*, *Listeria monocytogenes*, *Salmonella typhimurium*, *Pseudomonas aeruginosa*, and *Saccharomyces cerevisiae*. Also effective against organisms found in the brewing industry, *Pediococcus damnosus* and *Lactobacillus malefermentans*. All surfaces should be exposed to the sanitizing solution for a period of not less than 5 minutes. Drain thoroughly and allow to air dry. No rinse necessary.

Foam Sanitizing Non-Food Contact Surfaces:

Oxonia Active is an effective foam sanitizer of precleaned non-food contact surfaces, such as boots, floors, walls, drains, and associated equipment. For this application, prepare a solution of 0.2% v/v (1 oz per 4 gallons water) Oxonia Active and 0.13% v/v (0.7 oz per 4 gallons water) Liquid K. For example, in four gallons of water, add 1 ounce of Oxonia Active and 0.7 ounces of Liquid K. Liquid K is the only approved foam generator. Apply solution as a foam using recommended equipment such as a Super Foamer. Wet surfaces thoroughly. At this concentration, the product is effective against *Staphylococcus aureus*, *Enterobacter aerogenes*, and *Listeria monocytogenes*. Surfaces should be exposed to the sanitizing foam for a period of not less than 5 minutes. No rinse is necessary. Contact your Ecolab representative for information on Liquid K and a recommended foamer.

Directions For Fogging: To sanitize hard surfaces as an adjunct to acceptable manual cleaning and disinfecting of room surfaces: Prior to fogging, food products and packaging materials must be removed from the room or carefully protected.

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Fog desired areas using one quart of a 0.3% to 3.0% Oxonia Active solution (3 oz. to 30 oz. per 8 gallons of water) per 1000 cu. ft. of room volume. Vacate the area of all personnel during fogging and until the hydrogen peroxide air concentration is below 0.5 ppm. Allow surfaces to drain thoroughly before operations are resumed. Solutions above 0.5% may be corrosive and are not to be used on all surfaces. Test solutions on surfaces prior to use. All hard non-porous food contact surfaces treated with the disinfectant and fog must be rinsed thoroughly with a potable water rinse.

Sanitizing Non-Food Contact Packaging Equipment:

Prior to use of this product, remove gross soil particles from surfaces. Wash with a recommended detergent solution, rinse thoroughly with potable water. For sanitization against the beverage spoilage organisms *Pediococcus damnosus*, *Lactobacillus malefermentans*, and *Saccharomyces cerevisiae*, apply 0.5 - 4.0% (5 oz. to 40 oz. per 8 gallons of water) of Oxonia Active to surfaces at a temperature of 25 to 45 deg C and allow to remain wet for at least 5 minutes. Allow surfaces to drain thoroughly before operations are resumed.

Sanitize Precleaned or New Returnable or Non-Returnable Bottled Water Containers:

To sanitize precleaned or new returnable or non-returnable containers for bottled water processing, apply Oxonia Active at a concentration of 1.0% to 4.0% (10 oz. to 40 oz. per 8 gallons of water) at a temperature of 40 to 60 deg. C for at least 7 seconds. At these conditions, Oxonia Active is effective against *Staphylococcus aureus*, *Escherichia coli*, *Salmonella typhi*, *Pediococcus damnosus*, *Lactobacillus malefermentans*, and *Saccharomyces cerevisiae*. After thorough draining, rinse interior container surfaces with a disinfected water rinse free of pathogenic bacteria¹.

Sanitize Precleaned or New Returnable or Non-Returnable Bottled Water Containers:

To sanitize precleaned or new returnable or non-returnable containers for bottled water processing, apply Oxonia Active at a concentration of 0.3% to 1.0% (3 oz. to 10 oz. per 8 gallons of water) at a temperature of 40 to 60 deg. C for at least 20 seconds. At these conditions, Oxonia Active is effective against *Staphylococcus aureus*, *Escherichia coli*, and *Pseudomonas aeruginosa*. After thorough draining, rinse interior container surfaces with a disinfected water rinse free of pathogenic bacteria¹.

Antimicrobial Treatment of Water Filters: To reduce the number of the beverage spoilage organisms *Pediococcus damnosus*, *Lactobacillus malefermentans*, and *Saccharomyces cerevisiae*. Clean the water filters with a detergent solution followed by a potable water rinse. Apply Oxonia Active as a 0.5 to 2.0% (5 to 20 fluid ounces per 8 gallons of water) solution at 77°F for a minimum contact time of 5 minutes. After thorough draining, rinse filters with a disinfected water rinse free of pathogenic bacteria¹. Consult filter manufacturer for filter compatibility guidelines. Conduct filter treatment while the process is not in operation.

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.

Antimicrobial Treatment of Reverse Osmosis Water Membranes:

To reduce the number of the beverage spoilage organisms *Pediococcus damnosus*, *Lactobacillus malefermentans*, and *Saccharomyces cerevisiae*. Clean the RO system with a detergent solution followed by a potable water rinse. Apply Oxonia Active as a 0.1 - 0.2% (1 to 2.1 fluid ounces per 8 gallons of water) use solution at 75°F for a minimum contact time of 5 minutes. After treatment with Oxonia Active use solution, rinse membranes thoroughly with a disinfected water rinse free of pathogenic bacteria¹. Do not treat membranes more than once per week. Consult membrane manufacturer for membrane compatibility guidelines. Conduct membrane treatment while the membrane system is off-line.

Antimicrobial Treatment of Food Processing Membranes:

To reduce the number of the spoilage organisms *Pediococcus damnosus*, *Lactobacillus malefermentans*, *Saccharomyces cerevisiae*, *Sphingomonas paucimobilis*, and *Aureobacterium esteraromaticum*.

Ultrafiltration Membranes: Use 2 to 2.5 ounces of Oxonia Active per 8 gallons of water (2,000 - 2,500 ppm v/v) at 75° degrees F for a minimum contact time of 5 minutes. Membranes can be treated daily. Conduct membrane treatment while food processing is not in operation. After treatment with Oxonia Active use solution, rinse membranes thoroughly with disinfected water free of pathogenic bacteria¹.

Reverse Osmosis Membranes: Use 0.9 to 1.1 ounces of Oxonia Active per 8 gallons of water (900-1,100 ppm v/v) at 75° degrees F for a minimum contact time of 5 minutes. Do not treat membranes more than once per week. Conduct membrane treatment while food processing is not in operation. After treatment with Oxonia Active use solution, rinse membranes thoroughly with disinfected water free of pathogenic bacteria¹. Oxonia Active is not intended for use in Nanofiltration Systems.

Antimicrobial Rinse of Precleaned or New Returnable or Non-Returnable Containers:

To reduce the number of the beverage spoilage organisms *Pediococcus damnosus*, *Lactobacillus malefermentans*, and *Saccharomyces cerevisiae*, apply Oxonia Active at a concentration of 1.0% to 4.0% (10 oz. to 40 oz. per 8 gallons of water) at a temperature of 40 to 60 deg C for at least 7 seconds. After thorough draining, rinse interior container surfaces with a disinfected water rinse free of pathogenic bacteria¹.

Antimicrobial Rinse of Precleaned or New Returnable or Non-Returnable Containers with the Addition of a Surfactant (Use not approved in the States of California, Tennessee and Washington):

To reduce the number of beverage spoilage organisms, *Pediococcus damnosus*, *Lactobacillus malefermentans*, and *Saccharomyces cerevisiae*, apply Oxonia Active as follows. Add 0.5 to 5 oz. of surfactant product to 8 gallons of prepared Oxonia Active solution. Prepare Oxonia Active at a concentration of 1.0 to 4.0% (10 to 40 oz. per 8 gallons of water) solution. Use the surfactant OxyRinse 7014. Apply at a temperature of 40 to 60 deg C with a contact time of at least 7 seconds. After thorough draining, rinse interior container surfaces with a disinfected water rinse free of pathogenic bacteria¹.

Booster for Alkaline Detergents to Clean Food Processing Equipment:

Oxonia Active is an effective oxygen bleach cleaning booster for use with alkaline detergents. For cleaning applications as a detergent booster, use 0.5 - 2.5% v/v total product (0.64 - 3.2 oz. per gallon of detergent use solution) 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.

Booster for Acid Detergents to Clean Food Processing Equipment:

Oxonia Active is an effective oxygen bleach cleaning booster for use with acidic detergents. For cleaning applications as a detergent booster, use 0.5 - 2.5% v/v total product (0.64 - 3.2 oz. per gallon of detergent use solution) 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.

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 sterilizing solution by diluting 6.4 ounces Oxonia Active concentrate per each gallon of water (50 mL/liter) (5.0% v/v). Circulate, coarse spray, or flood the sterilizing solution through the system. All surfaces should be exposed to the sterilizing solution for a minimum exposure time based on the product solution temperature. The following time and temperature relationships are required:

Oxonia Active Concentration	Temperature	Time
5%	68°F (20°C)	6 hours
5%	122°F (50°C)	20 minutes
5%	176°F (80°C)	5 minutes

Thoroughly rinse food contact surfaces with either a sterile water or potable water rinse. For food-contact surfaces, follow with a sanitizing solution of Oxonia Active. Allow surfaces to drain thoroughly prior to any food product contact.

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

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.

¹A disinfected water rinse free of pathogenic bacteria is equivalent to a water rinse using water disinfected by ozone, ultraviolet radiation, chlorine dioxide, filtration, chlorine or chlorine compounds.