



LICENSED

PERIOD 2014-2016 LIC. NO. 9203.408

52958

Net Contents: 50 U.S. gal/189.3 L

OCTAVE®

SANITIZER/DISINFECTANT

Acid Liquid Sanitizer for Food Processing Equipment in Dairies, Dairy Farms, Breweries, Wineries, Beverage and Food Processing Plants

Disinfectant for Farms, Livestock Quarters, Poultry Premises, Poultry Hatcheries, Veterinary Clinics, Animal Life Science Laboratories, Animal Care Facilities and Industrial Facilities

ACTIVE INGREDIENTS:

Hydrogen Peroxide.....	7.52%
Peroxyoctanoic Acid.....	0.94%
Octanoic Acid.....	2.72%

OTHER INGREDIENTS:	88.82%
TOTAL:	100.00%

**KEEP OUT OF REACH OF CHILDREN
DANGER**

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: CORROSIVE: Causes irreversible eye damage and skin burns. Harmful if swallowed or inhaled. Avoid breathing spray mist. Do not get in eyes, on skin or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses), protective clothing and rubber gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

**FOR COMMERCIAL USE
STRONG OXIDIZING AGENT**

For Directions for Use and Storage & Disposal information, please see back label.

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 SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

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 INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

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

**FOR EMERGENCY MEDICAL INFORMATION IN USA OR CANADA, CALL: 1-800-328-0026.
FOR EMERGENCY MEDICAL INFORMATION WORLDWIDE, CALL: 1-651-222-5352 (IN THE USA).**

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: This pesticide is toxic to birds, fish, and aquatic invertebrates. 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 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.



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For precautionary statements and first aid information, please see front label.

DIRECTIONS FOR USE

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

SANITIZATION

Octave acid sanitizer is recommended for use on pre-cleaned, hard, non-porous surfaces such as equipment, pipelines, tanks, vats, fillers, evaporators, pasteurizers and aseptic equipment in dairies, dairy farms, 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 ounce *Octave* concentrate per 4.50 – 6.00 gallons of water (0.130-0.174 v/v or 1300 ppm - 1740 ppm product). At this dilution *Octave* is effective as a food contact surface sanitizer against *Staphylococcus aureus* and *Escherichia coli*, as well as food pathogens *Escherichia coli* 0157:H7, *Listeria monocytogenes*, *Salmonella typhimurium*, *Campylobacter jejuni*, *Candida albicans*, *Enterobacter sakazakii*, and *Vibrio cholerae*. At the same dilution *Octave* is effective at reducing common spoilage microorganisms *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 1 minute unless a longer time is specified by the governing sanitary code. Drain thoroughly and allow to air dry. Do not rinse. Surface is not required to be completely dry prior to use.

FINAL SANITIZING BOTTLE RINSE

Octave may be used as a final sanitizing rinse for returnable and non-returnable bottles (e.g. glass or PET) at 1.0 ounce *Octave* concentrate per 4.50 – 6.00 gallons of water (0.130-0.174% v/v or 1300 ppm – 1740 ppm product). At this dilution *Octave* is effective against *Staphylococcus aureus* and *Escherichia coli*, as well as food pathogens *Escherichia coli* 0157:H7, *Listeria monocytogenes*, *Salmonella typhimurium*, *Campylobacter jejuni*, *Candida albicans*, *Enterobacter sakazakii*, and *Vibrio cholerae*. At the same dilution *Octave* is effective at reducing common spoilage microorganisms *Saccharomyces cerevisiae*, *Pediococcus damnosus*, and *Lactobacillus malefermentans*. All surfaces should be exposed to the sanitizing solution for a period of not less than 1 minute. Drain thoroughly. No rinse necessary.

CONTINUOUS TREATMENT OF CONVEYORS

Wash, rinse and sanitize conveyor equipment. During processing, apply *Octave* at a concentration of 1.0 ounce *Octave* concentrate per 4.50 – 6.00 gallons of water (0.130-0.174% v/v or 1300 ppm – 1740 ppm product) to a conveyor with Mikro Master or other suitable feeding equipment. At this dilution *Octave* is effective against *Staphylococcus aureus* and *Escherichia coli*, as well as food pathogens *Escherichia coli* 0157:H7, *Listeria monocytogenes*, *Salmonella typhimurium*, *Campylobacter jejuni*, *Candida albicans*, *Enterobacter sakazakii*, and *Vibrio cholerae*. At the same dilution *Octave* is effective at reducing common spoilage microorganisms *Saccharomyces cerevisiae*, *Pediococcus damnosus*, and *Lactobacillus malefermentans*. Controlled volumes of *Octave* are applied to return portion of conveyor through nozzles so located as to permit maximum drainage of *Octave* from equipment and to prevent puddles on top of belt. During interruptions in operations, coarse spray the processing equipment with *Octave* solution at not more than 0.174% v/v concentration. Conveyor equipment must be free of product when applying coarse spray. Conveyor surface should be exposed to the sanitizing solution for a period of not less than 1 minute.

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

Octave may be used as a final sanitizing rinse for hard, non-porous outside surfaces of airtight, sealed packages containing food or non-food products at a 1 oz *Octave* per 4.50 – 6.00 gallons of water (0.130% - 0.174% v/v dilution or 1300 – 1740 ppm product). Apply use solution using a cloth, mop, sponge, coarse sprayer, or by immersion. All surfaces should be exposed to the sanitizing solution for a period of not less than 1 minute. Drain thoroughly. No rinse necessary.

SANITIZING HARD, NON-POROUS, NON-FOOD CONTACT SURFACES

Prior to use of this product, remove gross soil particles from surfaces. Wash with a recommended detergent solution, rinse thoroughly with potable water. Sanitize hard, non-porous, non-food contact surfaces such as floors, walls, tables, chairs, benches, drains, troughs, and drip pans with 1.0 to 5 ounces *Octave* concentrate per 6.5 gallons of water (0.12% - 0.5% v/v concentration or 1200 – 5000 ppm product). Apply use solution using a cloth, mop, sponge, coarse sprayer, or by immersion. At this concentration the product is effective as a non-food contact surface sanitizer against the following organisms: *Staphylococcus aureus*, *Enterobacter aerogenes*, *Listeria monocytogenes*, *Salmonella typhimurium*, *Pseudomonas aeruginosa*, *Enterobacter sakazakii*, *Escherichia coli* 0157:H7 and *Campylobacter jejuni*. This product is also effective against the beverage spoilage organisms *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

Octave in conjunction with *Liquid K* is an effective foam sanitizer of pre-cleaned non-food contact surfaces, such as boots, floors, walls, drains, and associated equipment. Prepare a solution of 1 to 5 ounces *Octave* concentrate per 6.5 gallons of water (0.12% - 0.5% v/v concentration or 1200 – 5000 ppm product) and 1.4 ounces per 8 gallons (0.13% v/v concentration or 1300 ppm product) *Liquid K*. For example, in eight gallons of water, add 1.0 ounce of *Octave* and 1.4 ounces of *Liquid K*. *Liquid K* is the only approved foam generator. At this concentration the product is effective as a non-food contact surface sanitizer against the following organisms: *Staphylococcus aureus*, *Enterobacter aerogenes*, *Listeria monocytogenes*, *Salmonella typhimurium*, *Pseudomonas aeruginosa*, *Enterobacter sakazakii*, *Escherichia coli* 0157:H7 and *Campylobacter jejuni* as well as beverage spoilage organisms, *Pediococcus damnosus* and *Lactobacillus malefermentans*. Apply solution as a foam using recommended equipment such as a Super Foamer. Wet surfaces thoroughly. Surfaces should be exposed to the sanitizing foam for a period of not less than 5 minutes. Drain thoroughly and allow to air dry. No rinse is necessary. Contact your Ecolab representative for information on 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. Fog desired areas using one quart of a 0.39% - 0.78% v/v (3900 – 7800 ppm product) *Octave* solution (1 - 2 oz. per 2 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 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. Sanitize non-food contact packaging equipment with 1.0 to 5.0 ounces *Octave* concentrate per 8 gallons of water (0.1% - 0.5% v/v concentration or 1000 – 5000 ppm product). Apply use solution using a cloth, mop, sponge, coarse sprayer, or by immersion. At this concentration the product is effective as a non-food contact surface sanitizer against the following organisms: *Staphylococcus aureus*, *Enterobacter aerogenes*, *Listeria monocytogenes*, *Salmonella typhimurium*, *Pseudomonas aeruginosa*, *Enterobacter sakazakii*, *Escherichia coli* 0157:H7 and *Campylobacter jejuni* as well as beverage spoilage organisms, *Pediococcus damnosus* and *Lactobacillus malefermentans*. All surfaces should be exposed to the sanitizing solution for a period of not less than 5 minutes. Allow surfaces to drain thoroughly before operations are resumed. Drainage may be followed by a potable or sterile water rinse.

ANTIMICROBIAL RINSE OF PRECLEANED OR NEW RETURNABLE OR NON-RETURNABLE CONTAINERS REQUIRING A FINAL POTABLE WATER RINSE

To reduce the number of beverage spoilage organisms, *Lactobacillus malefermentans*, *Saccharomyces cerevisiae*, *Pediococcus damnosus*, and *Penicillium digitatum* apply *Octave* at a concentration of 1 to 8 ounces concentrate per 3 gallons of water (0.26 - 2.1% v/v or 2600-21,000 ppm product) at a temperature of 40 to 65 °C for at least 7 seconds. After thorough draining, rinse surfaces with a disinfected water rinse free of pathogenic bacteria¹ or sterile water.

To reduce the number of beverage spoilage organisms, *Lactobacillus malefermentans*, *Saccharomyces cerevisiae*, *Pediococcus damnosus* and *Penicillium digitatum*, apply *Octave* at a concentration of 1 to 2 ounces concentrate per 1 gallon of water (0.78 - 1.5% v/v or 7800-15,000 ppm product) at ambient temperature for at least 7 seconds. After thorough draining, rinse surfaces with a disinfected water rinse free of pathogenic bacteria¹ or sterile water.

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.

BACTERIOPHAGE CONTROL

When applied to pre-cleaned surfaces, *Octave* will reduce the incidence of *Lactococcus lactis*, *Lactobacillus bulgaricus* and *Streptococcus thermophilus* bacteriophage in cheese manufacturing establishments by spraying or immersion of equipment at concentrations of 1.0 ounce *Octave* concentrate per 4.50 – 6.00 gallons of water (0.130-0.174% v/v or 1300 ppm – 1740 ppm product). All surfaces should be exposed to the solution for a period of not less than 1 minute. Drain thoroughly. Do not rinse.

GENERAL DISINFECTION

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

COMBINATION DISINFECTION AND CLEANING

Octave is effective as a disinfectant at a concentration of 1.0 – 2.0 ounces *Octave* concentrate per 2.0 gallons (0.39% - 0.78% v/v concentration or 3900 – 7800 ppm product) of hard water (500 ppm as CaCO₃), in the presence of 5% blood serum. At this dilution, *Octave* is effective against *Staphylococcus aureus*, *Salmonella enterica* and *Candida albicans*. For heavily soiled areas a precleaning step is required. Prepare a disinfecting and cleaning solution by diluting 1.0 – 2.0 ounces *Octave* concentrate per 2 gallons of water (0.39% - 0.78% v/v concentration or 3900 – 7800 ppm product). 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, and 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.

POULTRY AND SWINE PREMISE DISINFECTION

- Remove all poultry and animals and feeds from premises, vehicles, and enclosures such as coops and crates.
- Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals.
- Empty all troughs, racks and other feeding and watering appliances.
- Thoroughly clean all surfaces with a detergent and rinse with water.
- Saturate surfaces with a use-solution containing 1.0 - 2.0 ounces *Octave* per 2 gallons of water (0.39%-0.78% v/v concentration or 3900 – 7800 ppm product) for a period of 10 minutes.
- Immerse all halters, ropes and other types of equipment used in handling and restraining animals, as well as forks, shovels and scrapers used for removing litter and manure.

- Ventilate buildings, cars, trucks, coops and other closed spaces. Do not house poultry and animals or employ equipment until treatment has been absorbed, set or dried.
- Thoroughly scrub treated feed racks, troughs, automatic feeders, fountains and waterers with a detergent and rinse with potable water before reuse.

See your Ecolab Representative for specific recommendations for all cleaning and rinsing requirements.

POULTRY HATCHERY DISINFECTION

Use to treat hatchers, setters, trays, racks, carts, sexing tables, delivery trucks and other hard surfaces. Clean out any remaining eggs and chicks. Remove gross soils, such as litter, down, shell fragments or other hatching related debris. Empty all racks and other equipment. Thoroughly wash all surfaces, including floors, walls, conveyors, trays and water systems with a recommended detergent. Rinse thoroughly with water. Prepare a disinfecting and cleaning solution by diluting 1.0 – 2.0 ounces *Octave* concentrate per 2 gallons of water (0.39% - 0.78% v/v concentration or 3900 – 7800 ppm product). Apply solution with a mop, cloth, brush or coarse spray. Wet all surfaces and allow to remain wet for 10 minutes. Ventilate buildings and other closed spaces. Allow to dry before reintroducing eggs.

FARM PREMISE DISINFECTION DIRECTIONS:

- Remove all animals and feed from premises, vehicles, and enclosures.
- Remove all litter, droppings and manure from floors, walls and surfaces of facilities occupied or traversed by animals.
- Empty all troughs, racks and other feeding and watering appliances.
- Thoroughly clean surfaces with soap or detergent by manual, foam, or spray application and rinse with water.
- Saturate surfaces with a use-solution of 1.0 – 2.0 ounces *Octave* per 2 gallons of water (0.39% - 0.78% v/v concentration or 3900 – 7800 ppm product). (or equivalent dilution) and allow to remain wet for a period of 10 minutes.
- Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels and scrapers used for removing litter and manure. Wipe or allow to air dry.
- Ventilate buildings and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried.
- Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent, and rinse with potable water before reuse.

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.

PESTICIDE STORAGE: Store in a cool, dark, dry place in the original container. Always replace covers.

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: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Offer for recycling, if available, or discard in trash.

EPA Reg. No. 1677-207

EPA Est. 1677-MN-1 (P), 60156-IL-1 (SI), 1677-CA-2 (R), 1677-TX-1 (D), 1677-IL-2 (J), 1677-GA-1 (M), 1677-CA-1 (S), 1677-WV-1 (V).

Superscript refers to first letter of date code.