

**DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.  
Note: All volumes given in ounces are fluid ounces.

**SANITIZATION**

KC-610 peroxyacetic acid sanitizer is recommended for use on precleaned surfaces such as equipment, pipelines, tanks, vats, filters, evaporators, pasteurizers, and aseptic equipment in dairies, breweries, wineries, beverage and food processing/packing plants, egg processing/packing equipment surfaces, and eating establishments. This product is effective as a sanitizer when solution is prepared in water of up to 400 ppm hardness as CaCO<sub>3</sub>. This product has demonstrated greater than 99.999% reduction of organisms after 60 seconds exposure period in the AOAC Germicidal and Detergent Sanitizing Action of Disinfectants study.

**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 must be prepared daily or more often if the solution becomes diluted or soiled.

**Sanitizing Food Contact Surfaces:** KC-610 can be used in Federally Inspected Meat and Poultry Facilities as a sanitizer. Prior to sanitizing, remove gross food particles, then wash with a detergent solution, followed by a potable water rinse. Sanitize with a concentration of 10-61 oz. of this product diluted in 6 gallons of water (0.13%-0.79% v/v concentration, or 82-500 ppm active peroxyacetic acid). At this dilution this product is effective against *Staphylococcus aureus*, *Escherichia coli*, *Salmonella enterica*, and *Listeria monocytogenes*. Use immersion, spray or circulation techniques as appropriate to the equipment. All surfaces must remain visibly wet with the sanitizing solution for a period of at least 60 seconds or more if specified by a governing code. Drain any excess solution. Do not rinse.

**Sanitization of Conveyors and Equipment for Meat, Poultry, Seafood, Dairy, Fruit, Nuts and Vegetables:** KC-610 is effective against the gram positive organisms *Staphylococcus aureus* and *Listeria monocytogenes* and gram negative organisms *Salmonella enterica* and *Escherichia coli*.

For use in the static or continuous sanitizing, washing or rinsing of conveyors, slicers, saws, and equipment, apply a solution of this product using 10-61 oz. per 6 gallons of water (82 ppm to 500 ppm active peroxyacetic acid). Apply sanitizer solution to the return portion of the conveyor or equipment using spray or similar means of wetting surfaces, so as to affect draining and prevent puddling. Allow sanitizer to remain visibly wet on the surface for a minimum 60 seconds contact time. No rinse is needed.

**Sanitizing of Casing, or Shell Eggs:** To sanitize clean shell eggs intended for food or food products, spray with a solution of this product by diluting 10-2.4 oz. product with 6 gallons of potable water (providing 82-197 ppm peroxyacetic acid). The solution must be equal to or warmer than the eggs, but not to exceed 130° F. Wet eggs thoroughly and allow to drain. Eggs that have been sanitized with this product may be broken for use in the manufacture of egg products without a prior potable water rinse. Eggs must be reasonably dry before casing or breaking. The sanitizing solution must not be reused for sanitizing eggs.

**Antimicrobial Rinse of Pre-cleaned or New Returnable or Non-Returnable Containers:** To reduce the number of beverage spoilage organisms, including *Byssochlamys fulva*, *Aspergillus niger*, and *Bacillus subtilis* use a 2% to 3% v/v solution, which equals 1120-1700 ppm peroxyacetic acid (2.5-3.8 oz. to 1 gallon of water) of this product at a temperature range of 46-60° C for 15 seconds. Higher dilutions of 1 oz. per gallon of water is effective against *Aspergillus niger* and *Byssochlamys fulva* at 60° C. After adequate draining, rinse interior container surfaces with sterile or potable water.

**Foam Cleaning of Food and Non-Food Contact Surfaces:** As an adjunct to cleaning and sanitizing procedures this sanitizer/disinfectant may be added to PERAFOAM™ and foamed on environmental or equipment surfaces using conventional foam-generating equipment. PERAFOAM™ is the only approved product that may be used. The resultant foam blend can be used on equipment, floors, walls, ceilings, drains, etc. and must be left on surface for a minimum of 1 minute or longer.

**Food Contact Surface Directions for Mixing:** Manually or mechanically blend no more than 1-61 fl. oz. of this product and 6-12 fl. oz. of PERAFOAM™ (foam additive) per 6 gallons of water. The dilution water must not exceed 150° F. Higher concentrations of this product and/or PERAFOAM™ may be used on food contact surfaces, but a potable water rinse is required. When used in organic production, a potable water rinse is required.

**Non-Food Contact Surface Directions for Mixing:** Manually or mechanically blend 1-12 fl. oz. of this product and 6-36 fl. oz. of PERAFOAM™ (foam additive) per 6 gallons of water. The dilution water must not exceed 150° F. When used in organic production, a potable water rinse is required. Note: When using a foam additive, PERAFOAM™ is the only approved product that may be used.

**Drain Cleaning and Sanitizing:** For use in open or closed drains such as in food, beverage, dairy, pharma and health care industries. Manually or mechanically blend 4-12 fl. oz. of this product with 1-12 fl. oz. of PERAFOAM™ (foam additive) per gallon of water and foam surfaces thoroughly using conventional foam-generating equipment. The dilution water must not exceed 150° F. Allow product to contact the surface for at least 10 minutes or more. A water rinse is optional. When used in organic production, a potable water rinse is required.

**Entryway Sanitizing Systems:** To help prevent cross-contamination from treated area to treated area, apply (spray) a sanitizing foam to the entryway. The foam must cover the entire path of the doorway. For effective coverage of footwear and forklift tires, etc., apply a foam layer 0.5-2 inches in depth. Set the system to deliver 1-61 fl. oz. (82-500 ppm active PAA) of this product and 3-12 fl. oz. of PERAFOAM™ (foam additive) per 6 gallons of water. Adjust the PAA concentration by testing the collapsed foam solution using a peroxyacetic acid test kit. Note: When using a foam additive, PERAFOAM™ is the only approved product that may be used.

**Alkaline Detergent Cleaning Adjunct (Booster) to Clean Food Processing Equipment:** KC-610 is an effective cleaning booster (hypochlorite alternative) for use with alkaline detergents. It may be used as a cleaning additive for Clean-In-Place (CIP) operations involving the circulation cleaning of pipelines, tanks, vessels, evaporators, HTSTs, and other food processing equipment. For cleaning applications as a detergent booster, use 1-6 oz. per gallon of water, to assist in the removal of organic soils. All hard nonporous food contact surfaces treated with this boosted detergent must be thoroughly rinsed with potable water followed by sanitizing with an approved food contact surface sanitizer (such as this product).

**NON FOOD CONTACT HARD SURFACE DISINFECTION**

**Combination Disinfection and Cleaning:** KC-610 may clean as it disinfects when used according to the appropriate disinfection directions shown below. This product can be used to disinfect floors, walls and other hard nonporous surfaces such as tables, chairs, countertops, bathroom fixtures, sinks, bed frames, shelves, racks, carts, refrigerators, coolers, tile, linoleum, vinyl, glazed porcelain, and use sites on this label made of plastic, stainless steel, or glass. For areas of use in hospitals, use this product for surgical and obstetrical suites, housekeeping services, physical therapy departments, nursing services, autopsy facilities. Also use this product in nursing homes, other health-care facilities, schools, colleges, veterinary clinics, animal life science laboratories, industrial facilities, dietary areas, office buildings, recreational facilities, retail and wholesale establishments.

This product is effective against *Staphylococcus aureus*, *Salmonella enterica*, *Pseudomonas aeruginosa*, *Trichophyton mentagrophytes* and *Escherichia coli* O157:H7 at 0.38%-3% v/v (2.5-20 oz. per 5 gal) in hard water (400 ppm as CaCO<sub>3</sub>) and 5% organic soil loading on hard nonporous surfaces. For visibly soiled areas a pre-cleaning step is required, followed by a potable water rinse. Apply solution with a mop, cloth, sponge, brush, spray etc... or by soaking or immersion so as to wet all surfaces thoroughly. Allow to remain visibly wet for 10 minutes, then remove solution and entrapped soil with a clean wet mop, cloth, wet vacuum pickup, or by draining. Surfaces that may directly or indirectly contact food must be rinsed with potable water before operations resume. A rinse for non-food contact surfaces is optional. Prepare a fresh solution daily or when it becomes soiled or diluted.

**CONTROL OF SLIME FORMING BACTERIA IN RECIRCULATING AND COOLING WATER SYSTEMS (COOLING TOWERS, EVAPORATIVE CONDENSERS, PASTEURIZERS AND AIR WASHERS)**

Severely fouled systems must be cleaned before adding this product. This product must be added in the system directly and not mixed with any other chemicals or additives. Discontinue the use of chlorine or bromine products prior to using this product. Contamination with other chemicals could result in product decomposition. Add this product at a point in the system where uniform mixing and even distribution will occur.

For slug treatment add 20 oz. of product per 1000 gallons of process water. Repeat as necessary until microbiological control is evident. Thereafter, to maintain control, use 0.3 to 1.5 lbs. (4.0-17.5 fl. oz.) of this product per 1000 gallons of process water (2-9 ppm active peroxyacetic acid) as a continuous or intermittent slug treatment. Continuous dosing methods usually require 2-5 ppm active peroxyacetic acid (4.0-10.2 fl. oz. per 1000 gal of process water) to achieve adequate control.

**DIRECTIONS FOR USE CONTINUED ON RIGHT PANEL**



## KC-610 (ANTIMICROBIAL SOLUTION)

KC-610 is a peroxyacetic acid-based sanitizer/disinfectant developed for the following uses:

**Institutional/Industrial Sanitizer and Disinfectant for Previously Cleaned Hard Non-Porous Food Contact Surfaces in:** Dairies, Wineries, Breweries, Food and Beverage Plants, Poultry and Egg Facilities, and Animal Housing.

**Hard, Non-Porous Surface Disinfection in:** Industrial Facilities.

**Bacteria, Slime, Odor and Algae Control in:** Recirculating Cooling Water and Evaporative Coolers, Reverse Osmosis, Nano and Ultra Filtration, and Agricultural Waters.

**Active Ingredients:** Peroxyacetic Acid.....

Hydrogen Peroxide.....

**CLEANING:** To remove sessile bacteria from cooling systems it is necessary to clean slime and slime-forming bacteria from the surfaces of all areas of water contact. This can be accomplished by treating the recycled water with 7.5-22.4 lbs. (102-306 fl. oz.) of this product per 1000 gal of water (50-150 ppm active peroxyacetic acid) for 4-8 hours during normal tower operating cycles. This procedure can be used for online or offline cleaning. When finished bleed down the system until the PAA level is <5-10 ppm, then normal chlorine or bromine or PAA treatments can begin. This treatment must be done at least once or twice each year depending on exposure conditions.

**Air Washers:** This product may be used to control bacteria and biofouling in industrial air washing/scrubbing systems. The air washer must have operational and effective mist elimination systems. Prior to use of this product, heavily fouled systems must be pre-cleaned using the appropriate cleaner. Continuous dosing methods will require 2-7 ppm and intermittent dosing methods require 7-14 ppm (as peroxyacetic acid), as described in the previous paragraph, depending on the type of system and the level of microbiological control desired.

**Evaporated or Condensed Water:** This product may be used to treat SWEET or COW water (e.g. condensate of whey) collected from evaporated or condensing water systems in food or dairy plants. Typically, the dosing regime would be using intermittent or continuous methods at 2-14 ppm as peroxyacetic acid.

**REVERSE OSMOSIS (RO), ULTRA FILTRATION (UF) AND OTHER MEMBRANE CLEANING-SANITIZING**

KC-610 may be used in the sanitization of ultra filtration (UF) and reverse osmosis (RO) membranes and other similar type membranes and their associated piping systems. This product may be added continuously in food, beverage, and drinking water systems for RO (reverse osmosis) systems only and in accordance with the instructions below. This product is not for use in kidney dialysis equipment. This product may not totally eliminate all vegetative microorganisms in RO or NF or UF membranes and their associated piping systems due to their construction or assembly, but can be relied upon to reduce the number of microorganisms to acceptable levels when used as directed. Prior to using this product check with membrane manufacturer to confirm compatibility of membranes with various types or concentration of peroxyacetic acid solutions.

**Batch Sanitation of NF, UF and RO Systems:** Isolate incompatible equipment, such as carbon filters and ion exchangers. Clean system with an appropriate cleaner and follow with RO permeate water or potable water. Remove mineral deposits if necessary with an acidic cleaner, and rinse as before. Fill entire system with water and add up to 1% of this product by volume (620 ppm peroxyacetic acid) for heavily fouled systems. The typical sanitization use solution dosing of this product is 1-2 oz. per 5 gallons of water (98-195 ppm peroxyacetic acid). Recirculate the sanitizing solution through the piping and membrane system at 20° C for 10 minutes minimum, or up to 4 hours, depending on the severity of cleaning to be done. Open and close process valves and solenoids to be sure all parts are in contact with the solution. For occasional intermittent feed, do not exceed 98 ppm active peroxyacetic acid, which equals 1 oz. of this product per 5 gallons of feed water. Do not use the intermittent feed method for on-line use for potable water or direct food contact systems. Rinse the system with RO permeate or potable water until residual peroxigen concentration is below 1 ppm.

**RO Continuous or Intermittent Addition:** For continuous addition methods for RO systems, use 2-5 ppm active peroxyacetic acid (36-90 ppm as product), which equals 1.8-4.5 oz. of this product per 430 gallons of process water. For occasional intermittent feed, do not exceed 98 ppm active peroxyacetic acid, which equals 1 oz. of this product per 5 gallons of feed water. Do not use the intermittent feed method for on-line use in potable water or direct food contact systems.

### TREATMENT OF FRUIT AND VEGETABLE PROCESS WATER SYSTEMS

KC-610 can be used in water or ice that contacts raw or fresh, post-harvest or further processed fruits and vegetables (in accordance with FCN 1738) for the control of spoilage and decay causing bacteria and fungi in commercial operations and packinghouses.

**Batch, Continuous or Spray System Processes:** Fill vessel containing fruits and vegetables with known amount of water. Ensure that water is circulating in vessel if using the submersion method. Add this product to no more than 500 ppm residual peroxyacetic acid to the use solution in accordance with Food Contact Notification #738, effective March 28, 2017. This can be accomplished by initially adding 10.0 fl. oz. per 10 gallons of water. The recommended concentration is between 30-300 ppm as peroxyacetic acid (0.60-6.0 fl. oz. per 10 gallons of water). The final concentration necessary to accomplish the intended task will vary from plant-to-plant. The fruits and vegetables can be continuously sprayed or submerged (dipped) in the resulting solution. Periodic or continuous additions of this product to maintain the required concentration may be added as necessary. It is also recommended to apply this product during the washing, chilling, or physical cleaning processes, including the roller-spreader, washer or brush washer manifold, dip tank, or sorting processes. Contact time of 60 seconds is recommended to insure efficacy. A potable water rinse is not required.

### FOGGING – NON-PUBLIC HEALTH (Not for Use in California)

KC-610 can be applied by fogging to control the growth of non-public health spoilage and decay causing bacteria on hard, non-porous surfaces in dairies, beverage and food plants including meat and poultry processing facilities. All surfaces must be pre-cleaned prior to fogging.

**Directions for Fogging in Dairies, Beverage and Food Handling Plants (including meat and poultry processing facilities):** Prior to fogging, food products and packaging material must be removed from the room or carefully protected. The room or building must be vacant of all personnel during and at least two hours after the fogging treatment. Calculate the volume of the room to determine volume of solution needed to fog (one quart per 1000 cu. ft. of room area). Prepare a solution containing 1.0-1.4 fl. oz. per 4 gallons of water and fog using a mechanical fogging apparatus. Fog product for length of time necessary to fill room based on fogging apparatus manufacturer directions. Surfaces must remain undisturbed for 5 minutes after room fill is achieved before initiating aeration of the room.

**Do not enter the treated area for a minimum of 2 hours [or 8 air exchanges (ACH)] after fogging is completed. If the room or building must be entered prior to complete aeration, the individual must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long sleeves, and long pants.**

The fog generated is irritating to the eyes, skin and mucous membranes. Wear a dust mist respirator when mixing the use solution and pouring it into the mechanical fogging apparatus. All food contact surfaces must be thoroughly rinsed with potable water prior to sanitizing with an EPA approved food contact sanitizer.

### STORAGE AND DISPOSAL

**Do not contaminate water, food, or feed by storage or disposal.**

**Storage:** Never return this product to the original container after it has been removed. Avoid all contaminants, especially dirt, caustic, reducing agents, and metals. Contamination and impurities will reduce shelf life and can induce decomposition. In case of a decomposition, isolate container, spray container with cool water and dilute this product with large volumes of water. Avoid damage to containers. Keep container closed at all times when not in use. Keep container out of direct sunlight. To maintain product quality, store at temperatures below 86° F.

**Procedure for Leak or Spill:** Stop leak if this can be done without risk. Shut off ignition sources: no flames, smoking, flares, or spark producing tools. Keep combustible and organic materials away. Flush spilled material with large quantities of water. Undiluted material must not enter confined spaces.

**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 by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or Hazardous Waste representative at the nearest EPA Regional Office for guidance. If material has been spilled, an acceptable method of disposal is to dilute with at least 20 volumes of water followed by discharge into suitable treatment system in accordance with all local, state, and Federal environmental laws, rules, regulations, standards, and other requirements. Because acceptable methods of disposal may vary by location, regulatory agencies must be contacted prior to disposal. This product which is to be discarded, must be disposed of as hazardous waste after contacting the appropriate local state or Federal agency to determine proper procedures.

**Container Disposal:** (Containers greater than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Recap 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

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Manufactured for: PSSI Chemical Innovations

3729 Peddle Hollow Rd., Kieler, WI 53812

Net Contents: 53.5 gal (500 lbs)

300 gal (2,805 lbs)



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# UN3098

Oxidizing liquid, corrosive, n.o.s.  
(contains hydrogen peroxide and peroxyacetic acid mixture, stabilized), 5.1(8), PG II