

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 CaCO₃. 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: This product 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 1.0-6.1 oz. of KC-610 diluted in 6 gallons of water (0.13-0.79% v/v concentration, or 82-500 ppm active peroxyacetic acid). At this dilution KC-610 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 be exposed to 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 1.0-6.1 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 thoroughly wet surface for a minimum 60 seconds contact time. No rinse is needed.

Sanitizing of Casing, Shell or Hatching Eggs: To sanitize clean shell eggs intended for food or food products, spray with a solution of KC-610 by diluting 1.0-2.4 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. For hatching eggs apply the sanitizing solution as eggs are gathered or prior to setting using a spray or flood so as to lightly wet egg shell surfaces. Allow to drain dry.

Final Sanitizing Bottle Rinse: This product may be used as a final sanitizer rinse, followed by adequate draining, for returnable and non-returnable bottles at a 0.13%-0.79% dilution (1.0 oz.-6.1 oz. of this product in 6 gallons of water), which yields 82 ppm-500 ppm active peroxyacetic acid.

Antimicrobial Rinse of Precleaned or New Returnable or Non-Returnable Containers: To reduce the number of beverage spoilage organisms, including *Byssoschlamys 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 *Byssoschlamys 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 KC-610 sanitizer/disinfectant may be added to PERAFOAM™ and foamed on environmental or equipment surfaces using conventional foam-generating equipment. 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. On food contact surfaces do not exceed 6.1 oz. of KC-610 per 6 gallons of water. **Directions for mixing:** Manually or mechanically blend 1-6.1 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. 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. Co-blend this product manually or with a mechanical device at the rate of 4-6 fl. oz. with 1-2 fl. oz. per gallon of water of PERAFOAM in a mechanical foaming device and foam drain surfaces thoroughly. Allow product to contact the slime/biofilm for at least 10 minutes or more. A water rinse is optional. Note: When using a foam additive, PERAFOAM is the only approved product that may be used.

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 1-6.1 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 disinfects as it cleans in one operation. 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.

KC-610 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 fl. oz. per 5 gal) in hard water (400 ppm as CaCO₃) and 5% organic soil loading on hard nonporous surfaces. For heavily soiled areas a pre-cleaning step is required, followed by a potable water rinse. Apply solution with a mop, cloth, sponge, brush, etc. or by soaking or immersion so as to wet all surfaces thoroughly. Allow to remain 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 surface 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.

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.

DIRECTIONS FOR USE CONTINUED ON RIGHT PANEL



Packers Chemical

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.....	5.6%
	Hydrogen Peroxide.....	26.5%
Inert Ingredients:		67.9%
Total:		100.0%

Before Using This Product, Please Read This Entire Label Carefully.

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand this label, find someone to explain it to you in detail.)

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 a 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 by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

QUESTIONS? 1-209-581-9576 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.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER CORROSIVE: Do not enter an enclosed area without proper respiratory protection. Causes irreversible eye damage and skin burns. May be fatal if inhaled or absorbed through skin. Harmful if swallowed. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Wear goggles and face shield and rubber gloves when handling. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse.

PHYSICAL OR CHEMICAL HAZARDS:

STRONG OXIDIZING AGENT. CORROSIVE: Mix only with water below 140°F. Product must be diluted in accordance with label directions prior to use. This product is not combustible; however, at temperatures exceeding 156°F, decomposition occurs releasing oxygen. The oxygen released could initiate combustion.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds, fish and aquatic invertebrates. Caution must be used when applying indoors because pets may be at risk. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of the National Pollution Discharge System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage plant authority.

EPA Registration No. 63838-1-63679

EPA Est. No. 63838-CA-01, 63838-AR-001, 63679-WI-01

Manufactured for: Packers Chemical

3729 Peddle Hollow Rd., Kieler, WI 5381

CHEMTREC EMERGENCY PHONE 1-800-424-9300

Net Contents: 4.8 gal (45 lbs) 53.5 gal (500 lbs) 300 gal (2,805 lbs)

LOT: _____

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 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 of concentrations 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 sanitation 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 KC-610 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 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 #1738, 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 in Filling, Packaging, and Dispensing Rooms or Areas: This product can be applied by fogging to control the growth of non-public health microorganisms that may cause decay and/or spoilage on raw, post-harvest fruits and vegetables during the post-harvest process.

1. Use in secure fruit and vegetable storage system. Vacate all personnel prior to fogging. Post notice of when personnel can re-enter. After application, purge room with fresh air to replace treated air. Ensure room is properly ventilated. Personnel may re-enter 4 hours after system has been properly aired. Ensure there is no strong odor characteristic of vinegar before having personnel return to work area.

2. Fog areas to be treated using 3.0-17.5 fl. oz. of this product into humidified air per 1000 cu. ft. of room volume for a minimum of 4 hours. Inject concentrate into water used for fogging of postharvest fruits and vegetables in storage using any type of fogging equipment including: cold foggers, thermal foggers, low pressure air assisted and high pressure fog systems. Adjust water level accordingly to allow fogging apparatus to fog for a minimum of 4 hours.

POULTRY, SWINE, LIVESTOCK WATERING OPERATING SYSTEMS (Not for Use in California)

After watering lines have been cleaned, use this product at 0.8-1.1 fl. oz. per 100 gallons of water (4-5.7 ppm as peroxyacetic acid) to control algae and bacteria in drinking water and to control mineral build up in watering lines. Stop the use of this product twenty-four (24) hours prior to vaccination via the water line.

STORAGE AND 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 of 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: Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. 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. 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Container Handling: (Containers equal to or less than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat the procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

UN3098

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



ID # 20333
Ver 14.0e Rev 4/12/2019