

# 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 potable water at 60-80° F. Product must be diluted in accordance with label directions prior to use. PERASAN® 'A' 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 should 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.

### Storage and Disposal

**Storage:** Never return 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 decomposition, isolate container, douse container with cool water and dilute PERASAN® 'A' 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 should 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 should be contacted prior to disposal. PERASAN® 'A', which is to be discarded, should 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.

### Directions For Use

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

### Sanitization

PERASAN® 'A' 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 should 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 1.0-2.4 oz. PERASAN® 'A' diluted in 6 gallons of water (0.13-0.31% v/v concentration, or 82-197 ppm active peroxyacetic acid). At this dilution, PERASAN® 'A' is effective against Staphylococcus aureus, Escherichia coli, Salmonella choleraesius, and Listeria monocytogenes. Use immersion, coarse spray or circulation techniques as appropriate to the equipment. All surfaces should 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, Fruit, Nuts and Vegetables:** PERASAN® 'A' is effective against the gram negative and gram positive organisms Staphylococcus aureus, Salmonella choleraesius, Escherichia coli and Listeria monocytogenes. 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 to 2.4 oz per 6 gallons of water (82 ppm to 197 ppm active peroxyacetic acid). Apply sanitizer solution to the return portion of the conveyor or equipment using coarse 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 PERASAN® 'A' 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

# PERASAN® 'A'

## (ANTIMICROBIAL SOLUTION)

### FOR USE IN ORGANIC PRODUCTION:

PERASAN® 'A' 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 Egg Facilities, and Animal Housing.

**Hard Non-Porous Surface Disinfection in:** Hospitals, Schools, Industrial Facilities, Office Buildings, Veterinary Clinics.

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

### ACTIVE INGREDIENT:

Peroxyacetic Acid	5.6%
Hydrogen Peroxide	26.5%

### INERT INGREDIENTS

TOTAL	100%
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EPA Registration No. 63838-1

EPA Establishment No. 63838-CA-01; 60156-IL-01

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

## KEEP OUT OF REACH OF CHILDREN

# DANGER

### FIRST AID:

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip 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 and shoes. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**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 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.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

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 coarse spray or flood so as to lightly wet egg shell surfaces. Allow to drain dry.

**Fogging in Filling, Packaging, and Dispensing Rooms or Areas:** PERASAN® 'A' is used as an adjunct to acceptable manual cleaning and disinfection of room surfaces. Prior to fogging remove food products and packaging materials from the room or area or carefully protect them. Fog desired areas using one quart of a 0.3% to 1.5% solution of this product (2.0-10 oz PERASAN® 'A' per 5 gallons of water) per 1000 cu. ft. of room area. Conventional corrosion resistant fogging devices are recommended. Vacate the area of all personnel prior to, during and after fogging until the hydrogen peroxide concentration is below 0.5 ppm, or there is no strong odor present, characteristic of acetic acid. Allow surfaces to drain thoroughly before operations are resumed. For food contact surfaces, concentrations above 2.4 oz. of this product per 6 gallons of water require a sterile or sanitizing rinse prior to resuming operations.

**Final Sanitizing Bottle Rinse:** PERASAN® 'A' may be used as a final sanitizer rinse, followed by adequate draining for returnable and non-returnable bottles at a 0.13%-0.31% dilution (1.0 oz.-2.4 oz. PERASAN® 'A' diluted in 6 gallons of water), which yields 82-197 ppm active peroxyacetic acid.

**Antimicrobial Rinse of Precleaned or New Returnable or Non Returnable Containers:** To reduce the numbers 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 PERASAN® 'A' 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 PERASAN® 'A' 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 should be left on surface for a minimum of 1 minute or longer. On food contact surfaces do not exceed 2.4 oz of PERASAN® 'A' per 6 gallons of water. **Directions for mixing:** Manually or mechanically blend 1-2.4 fl. oz of this product and 6-12 fl. oz. of PERAFOAM™ (foam additive) per 6 gallons of water. The dilution water should not exceed 150° F.

**Non Food Contact Hard Surface Disinfection:** PERASAN® 'A' is effective against Staphylococcus aureus, Salmonella choleraesius, Pseudomonas aeruginosa, Trichophyton mentagrophytes and Escherichia coli O157:H7 at 0.23%-3% v/v (1.5-20 oz./5 gal.) in hard water (400 ppm as CaCO<sub>3</sub>) 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 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 should be cleaned before adding the PERASAN® 'A' solution. PERASAN® 'A' should be added to 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 PERASAN® 'A' 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. (4-17.5 fl. oz.) of PERASAN® 'A' per 1000 gallons of process water (2-9 ppm active peroxyacetic acid) as a continuous or intermittent slug treatment. Continuous dosing methods usually require 2.0-5.0 ppm active peroxyacetic acid (4.0-10.2 fl. oz. per 1000 gal of process water) to achieve adequate control.

**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.

**Reverse Osmosis (RO) Nano and Ultra Filtration (UF) Cleaning-Sanitization:** PERASAN® 'A' may be used in the sanitization of Nano Filtration (NF) and Ultra Filtration (UF) and Reverse Osmosis (RO) 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 the membrane manufacturer to confirm compatibility of membranes with various types or 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 peroxygen 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. PERASAN® 'A' 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.

**Agricultural or Horticultural Uses:** There is a Restricted-Entry-Interval of zero (0) hours after the use of this product. This product should never be mixed or combined with any other pesticide or fertilizer. Upon soil contact this product decomposes rapidly to oxygen, carbon dioxide and water. This product may be harmful to fish if exposed on a continuous basis at concentrations of 0.5 ppm or more of active peroxyacetic acid. Meter this product into pressurized pipes using a plastic or stainless steel injection/backflow device installed far enough upstream from the target equipment to ensure thorough mixing. For open flowing bodies of water, apply this product as far upstream as possible to allow adequate mixing prior to the flow entering any larger body of water. If open pouring of this product is required pour product as close to the surface of the water as possible to reduce odor exposure.

**Treatment of Irrigation Water Systems** (sand filters, humidification systems, storage tanks, ponds, reservoirs, canals): For the control of odor, sulfides, slime and algae in water systems, apply this product at 0.4-2 oz. per 100 gal of water (2-10 ppm peroxyacetic acid). This feed rate equals 0.3-1.5 gal. per 10,000 gallons of water. Repeat dose as necessary to maintain control, which will vary with seasonal conditions. For prevention of algae some systems may require continuous low level dosing during warm sunny periods. NOTE: This product at its use dilution 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.

**Fruit and Vegetable Water Treatment:** This product may be used to help control spoilage or decay-causing bacteria and fungi in water or ice that contacts raw, unprocessed fruits and vegetables. The commodity should be continuously sprayed, using coarse spray, or submerged using a solution containing 1 oz. PERASAN® 'A' per 20 gallons of water. Adjust dose as necessary to maintain no more than 25 ppm active peroxyacetic acid. Remove excess water or allow to drain. If using the submersion method, replace with a fresh solution as necessary or when it becomes visibly soiled. A final potable water rinse is not necessary.

Manufactured By: Enviro Tech Chemical Services, Inc.

500 Winmoore Way, MODESTO, CA

24 hr Emergency ChemTrec No.: 800-424-9300

Rev. Code 035-caFed-V6a-7-10

Net: \_\_\_\_\_ 500\_lbs \_\_\_\_\_

LOT #:

**DOT: UN3149, Hydrogen peroxide and peroxyacetic acids mixtures, stabilized with acids, water and <=6 percent peroxyacetic acid, 5.1(8), PG II**

