

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER CORROSIVE:** Causes irreversible eye damage and skin burns. Do not enter an enclosed area without proper respiratory protection. 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, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.

### Physical or Chemical Hazards

**Strong oxidizing agent.** Corrosive. Mix only with potable water below 140° F. Product must be diluted in accordance with label directions prior to use. PERASAN C-5 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 Pollutant 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 PERASAN C-5 to the original container after it has been removed. Avoid all contaminants, especially dirt, caustic, reducing agents, and iron or yellow 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 C-5 with large volumes of water. Sodium carbonate (soda ash) may be broadcast over the affected area to neutralize the spilled product. Avoid damage to containers. Keep container closed at all times when not in use. To maintain product quality, store this product in a cool, dry area, away from direct sunlight and heat.

**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. If material has been spilled, an acceptable method of disposal is sprinkle area with soda ash, then 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.

**Pesticide Disposal:** Non refillable container. Do not use this container to hold materials other than pesticides or dilute pesticides (rinsates). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Clean container promptly after emptying. Offer for recycling if available. PERASAN C-5, 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:** >5 gallon plastic drums: Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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. Offer for recycling if available. Or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## Directions For Use

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

### Sanitization

PERASAN C-5 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. This product is effective as a sanitizer when solution is prepared in water of up to 200 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 1.0-5.6 oz. PERASAN C-5 diluted in 5 gallons of water (90-500 ppm active peroxyacetic acid). At this dilution, PERASAN C-5 is effective against microorganisms including Staphylococcus aureus, Escherichia coli (E. coli), Salmonella enterica, and Listeria monocytogenes. Use immersion, coarse spray or circulation techniques as appropriate for 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 with potable water.**

**Sanitization of Conveyors and Equipment for Meat, Poultry, Seafood, Fruit, Nuts and Vegetables:** For use in the static or continuous sanitizing, washing or rinsing of conveyors, slicers, saws, and equipment, apply a solution of this product using 1.0-5.6 oz. PERASAN C-5 diluted in 5 gallons of water. 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.**

# PERASAN® C-5

## (ACID SANITIZER/DISINFECTANT)

### FOR USE IN ORGANIC PRODUCTION:

PERASAN® C-5 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, Hospitals, Schools, Industrial Facilities, Office Buildings, Veterinary Clinics.

**Bacteria, Slime, Odor and Algae Control in:** Air Washers, Reverse Osmosis and other Membrane Filtration Systems.

### ACTIVE INGREDIENT:

|                   |       |
|-------------------|-------|
| Peroxyacetic Acid | 5.0%  |
| Hydrogen Peroxide | 22.4% |

### INERT INGREDIENTS

|       |      |
|-------|------|
| TOTAL | 100% |
|-------|------|

EPA Reg. No. 63838-13

EPA Est. No. 63838-CA-01; 60156-AR-001

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

## KEEP OUT OF REACH OF CHILDREN

# DANGER

### 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 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 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 INHALED:

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

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

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

For emergency information on this product, call the National Pesticide Information Center at 1-800-858-7378 6:30 AM to 4:30 PM PST. During other times, call the Poison Control Center at 1-800-222-1222. Both numbers are 7 days/week.

**Sanitizing of Casing, Shell or Hatching Eggs:** To sanitize clean shell eggs intended for food or food products, spray with a solution of PERASAN C-5 by diluting 1.0-2.3 oz. PERASAN C-5 diluted in 5 gallons of water. 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 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 C-5 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 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 5.6 oz. of this product per 5 gallons of water require a sterile or sanitizing rinse prior to resuming operations.

**Final Sanitizing Bottle Rinse:** PERASAN C-5 may be used as a final sanitizer rinse, followed by adequate drying or draining for returnable and non-returnable bottles at 1.0-5.6 fl. oz. PERASAN C-5 diluted in 5 gallons of water, which yields 90-500 ppm active peroxyacetic acid.

**Foam Cleaning of Food and Non-Food Contact Hard Surfaces:** As an adjunct to cleaning and sanitizing procedures this product may be added to the foaming cleaner 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 1-5 minutes or longer. On food contact surfaces do not exceed 5.6 oz of this product per 5 gallons of water. A potable water rinse is not required. **Directions for mixing:** Manually or mechanically blend 1-5.6 fl. oz of this product and 5-10 fl. oz. of PERAFOAM (foam additive) per 5 gallons of water. The dilution water should not exceed 140° F.

**Non Food Contact Hard Surface Disinfection:** PERASAN C-5 is effective against Staphylococcus aureus ATCC 6538), and Salmonella enterica (ATCC 10708) at 0.39%-3% v/v (2.5-20 fl 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, or coarse spray, 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.

**Sanitization of Granular Activated Carbon Beds and Dionizing (DI) System Resin Beds:** *Not for use in California.* This product can be used to reduce or eliminate most microbiological contamination of Granular Activated Carbon (GAC) beds and Dionizing (DI) Systems without negatively affecting the GAC or DI resin if used as directed. All new systems must be soaked in process water for at least 12 hours before sanitizing. Drain and refill system with a solution containing 150-450 ppm (as peroxyacetic acid) by mixing 9.5-29 fl. oz. of this product in 10 gal of water. Typically, the system would be backwashed and circulated through the GAC or resin beds during and/or after adding this product. Add this product as quickly as possible to the backwash process if a metering pump is used. Backwash and circulate for 20-30 minutes. Stop the backwash process and allow system to stand for 60 minutes. Drain system. Refill with fresh water and soak for 1-4 hrs or more, which should be a long enough period for all residual peroxygen to dissipate. Small amounts of sodium metabisulfite may be used to neutralize any trace amounts of peroxygen. For potable water systems, total residual peroxide should be less than 0.5 ppm before operations resume.

**Air Washer Treatment:** 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. 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 and Other Filtration Membrane Cleaning-Sanitization:** PERASAN C-5 may be used in the sanitization of all types of membrane systems, including sizes from Ultra Filtration (UF) through 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 1.1% 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 fl oz per 5 gallons of water (94-190 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 94 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 (41-100 ppm product), which equals 2.0-5.1 oz. PERASAN C-5 per 430 gallons of process water. For occasional intermittent feed, do not exceed 94 ppm active peroxyacetic acid, which equals 1 fl 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.

**Fruit and Vegetable Water Treatment:** This product may be used to control bacterial and fungal/mold microorganisms 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 1.1 oz. PERASAN C-5 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 (209-581-9576)  
24 hr Transportation Emergency ChemTrec No.: 800-424-9300

**Code: 038/ V4**

Net: \_\_\_\_\_ LOT #:

**UN3149; Hydrogen peroxide and peroxyacetic acid mixtures, stabilized, with acids, water and not more than 5% peroxyacetic acid; 5.1(8), PG II**