

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

September 8, 2017

Kevin Kutcel Agent Agrochem Inc. 3 Duplainville Road Saratoga Springs, NY 12866

Subject: Label Amendment – Increased Dilution Ratio

Product Name: Oxysan Acid Sanitizer EPA Registration Number: 91628-1 Application Date: June 1, 2017 Decision Number: 530503

Dear Mr. Kutcel:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

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Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Terria Northern by phone at 703-347-0265, or via email at northern.terria@epa.gov.

Sincerely,

Zeno Bain, Product Manager 33 Regulatory Management Branch I Antimicrobials Division (7510P) Office of Pesticide Programs

Enclosure: Accepted label



## OXYSAN ACID SANITIZER

Active Ingredients:

EPA Registration No. 91628-1 EPA Est. No. 91628-NY-1

# ACCEPTED

Sep 08, 2017

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 91628-1

# 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 the label, find some one to explain it to you in detail.)

See Side Panel for Additional Precautionary Statements and Usage Directions

For Institutional / Industrial sanitizing of previously cleaned non-porous food contact surfaces in:

- Dairies, Wineries, Breweries and Beverage Plants
- Meat and Poultry Processing / Packaging Plants
- Milk and Dairy Products Processing / Packing Plants
- Seafood and Produce Processing / Packing Plants
- Food Processing / Packing Plants
- Egg Processing / Packing Equipment Surfaces
- Eating Establishments

For institutional / Industrial sanitizing of previously cleaned hard, non-porous food contact surfaces such as:

- Eating, Drinking, and Food Preparation Utensils
- o Countertops and Food Preparation Surfaces
- o **Tableware**
- o Plastic, Glass and Metal Bottles (rinse)
- o Schools
- Industrial Facilities
- Office Buildings
- Veterinary Clinics

For use as a sanitizer on food contact surfaces in contact with products labeled as organic.

For use as a coarse spray for surfaces to be sanitized.

For use as an antimicrobial container rinse to control beverage spoilage microorganisms.

For use in circulation cleaning and institutional/industrial sanitizing of previously cleaned hard, non-porous food-contact surfaces and equipment such as food preparation surfaces, pipelines, tanks, vats, fillers, evaporators, pasteurizers in:

- Dairies, Wineries, Breweries and Beverage Plants
- Meat and Poultry Processing / Packaging Plants



- Milk and Dairy Products Processing / Packing Plants
- Seafood and Produce Processing / Packing Plants
- Food Processing / Packing Plants
- Egg Processing / Packing Equipment Surfaces
- Eating Establishments
- Final Sanitizing Bottle Rinse
- Agriculture and Horticulture Industry

For use as a control in recirculating cooling water and evaporative coolers, reverse osmosis, nano & ultra filtration and Agricultural waters.

## (Optional Statements)

For Organic Production, Oxysan Acid Sanitizer may be used in rinse or wash water on products labeled as organic in food processing facilities on commodities that will be further processed.

For use as a sanitizer on food contact surfaces in contact with products labeled as organic.

Oxysan Acid Sanitizer is for use as a coarse spray for surfaces to be sanitized.

**Oxysan Acid Sanitizer** can be used with Biofoam foaming agents. For food-contact applications the foaming agent must be used in compliance with the applicable regulations under the Federal Food, Drug, and Cosmetic Act.

**Oxysan Acid Sanitizer** can be used with Bioclean non-foaming agent, as an antimicrobial container rinse and for hard, nonporous surface sanitization and disinfection.

**Oxysan Acid Sanitizer** is for sanitizing surfaces such as packinghouse conveyers and harvesting equipment and containers.

Oxysan Acid Sanitizer is for sanitization of hatching eggs.

Oxysan Acid Sanitizer is for sanitization of shell eggs.

Oxysan Acid Sanitizer is for porous and non-porous hard surface sterilization.

**Oxysan Acid Sanitizer** is for use in the disinfection of hard surfaces in general commercial and medical environments and as an antimicrobial rinse of Precleaned or New Returnable or Non-Returnable Containers.

Oxysan Acid Sanitizer is for disinfection of animal and poultry premises, trucks, coops, and crates

Oxysan Acid Sanitizer can be used for reducing pathogenic foodborne bacteria in processing waters for fruits and vegetables.

Oxysan Acid Sanitizer is for use as a dip or spray wash, or fog to control the growth of non-public health microorganisims that may cause decay and/or spoilage on raw, post-harvest and fresh cut, fruits and vegetables.

**Oxysan Acid Sanitizer** is for use in process water that contacts raw, post-harvest, fresh-cut and processed fruits and vegetables.

Oxysan Acid Sanitizer is for use in agricultural water and irrigation systems

Oxysan Acid Sanitizer is for use in commercial and Institutional /Industrial laundry operations for disinfection and sanitization

Oxysan Acid Sanitizer may be used for the non-pesticidal purpose of cleaning room surfaces by fogging.

Oxysan Acid Sanitizer For use as an antimicrobial rinse to control beverage spoilage microorganisms.



Waster Easter File   OXTOAR ACID SARTIZER	
FIRST AID	
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If on skin or clothing	<ul> <li>Take off contaminated clothing</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center of doctor for treatment advice.</li> </ul>
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing. Call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> </ul>
If swallowed	<ul> <li>Call a poison control center or doctor for treatment advice.</li> <li>Call poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

This product is not to be used as a terminal sterilant/high-level disinfectant on any surface or instrument that (1) is introduced directly into the human body, or (2) contacts intact mucous **membranes but which** does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to clean or decontaminate medical devices prior to sterilization or high-level disinfection.



## **Precautionary Statement**

#### **Hazards to Humans and Domestic Animals**

**DANGER:** Corrosive Causes irreversible eye damage. Causes skin burns. Do not get in eyes, on skin or on clothing. Harmful if swallowed. Wear coveralls worn over long-sleeved shirt and long pants, socks, chemical resistant footwear, rubber gloves, and chemical goggles. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**PHYSICAL OR CHEMICAL HAZARDS** - Strong oxidizing agent. Mix only with water. Oxysan Acid Sanitizer is not combustible, but at temperatures exceeding 156 F, decomposition occurs releasing oxygen. The oxygen released could initiate or promote combustion of other materials.

**ENVIRONMENTAL HAZARDS** - This pesticide is toxic to birds, mammals, fish and aquatic life. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to the discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment facility authority. For guidance contact your State Water Board or Regional Office of the EPA.



## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Handlers who may be exposed to the undiluted product through mixing, loading, application, or other tasks must wear: coveralls over long-sleeved shirt and long pants, rubber gloves, chemical resistant footwear plus socks, and protective eyewear (goggles or face shield). Handlers who may be exposed to the diluted product through application or other tasks must wear: long-sleeved shirt and long pants, and shoes plus socks. Follow manufacturer's instructions for cleaning / maintaining PPE. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

## USER SAFETY RECOMMENDATIONS

Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), notification to workers, and Restricted-Entry Interval (REI). The requirements in this box only apply to the uses of this product that are covered by the Worker Protection Standard.

#### For enclosed environments

There is a restricted entry of one (1) hour for this product when applied via fogging or spraying to growing plants, surfaces, equipment, structures and non-porous surfaces in enclosed glasshouses and greenhouses. PPE requirement for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is coveralls worn over long-sleeved shirt and pants, waterproof gloves and shoes plus socks.

There is a restricted entry of zero (0) hours for pre-plant dip, seed treatment, soil drench, mop, sponge, dip, soak, rinse or other non-spraying application methods when used in enclosed environments such as glasshouses and greenhouses.

## For field applications:

Keep unprotected persons out of treated areas until sprays have dried.

## Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses. Keep unprotected persons out of treated areas until sprays have dried.



## **Storage and Disposal**

Do Not Contaminate Water, Food or Feed by Storage and Disposal.

#### **Pesticide Storage**

**NEVER RETURN OXYSAN ACID SANITIZER 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, douse container with cool water and dilute with large volumes of water.

Avoid damage to containers. Keep closed at all times when not in use. Keep container out of direct sunlight. To maintain product quality, store at temperatures below 86 F. Do not store on wooden pallets.

#### **Procedure for Leak or Spill**

Stop leaks 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**

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, regulations, standards, and other requirements. Because acceptable methods of disposal may vary by location, regulatory agencies should be contacted prior to disposal.

Product to be discarded should be disposed of as hazardous waste after contacting the appropriate local, state, or Federal agency to determine proper procedures.

#### **Container Handling**

Non-refillable containers greater than or equal to five gallons.

Nonrefillable container. Do not reuse or refill this container. Offer for recycling. If available. Triple rinse container (or equivalent) promptly after emptying. 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 back and forth, ensuring at least one complete revolution, for 30 seconds. Turn the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times Empty rinsate into application equipment or mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Empty drums are not returnable to Biosan LLC unless special arrangements have been made. Dispose of drums in accordance with local state, and Federal regulations.



## Directions for Use

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State, consult the agency in your State responsible for pesticide regulation.

Note: All volumes given in ounces are fluid ounces.

#### SANITIZATION

Oxysan Acid Sanitizer is recommended for use in circulation cleaning and institutional/industrial sanitizing of previously cleaned hard, non-porous food-contact surfaces and equipment such as food preparation surfaces, pipelines, tanks, vats, fillers, evaporators, pasteurizers, and aseptic equipment in:

- \* Dairies, Wineries, Breweries and Beverage Plants
- \* Meat and Poultry Processing / Packaging Plants
- \* Milk and Dairy Products Processing / Packing Plants
- \* Seafood and Produce Processing / Packing Plants
- \* Food Processing / Packing Plants
- \* Egg Processing / Packing Equipment Surfaces
- \* Eating Establishments
- \* Final Sanitizing Bottle Rinse

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

Sanitizing Hard, Non-porous Food Contact Surfaces

An effective sanitizer against Staphylococcus aureus, Escherichia coli, and Salmonella typhimurium.

Clean equipment immediately after use:

- 1. Remove gross particulate matter with a warm water flush.
- 2. Wash equipment with detergent or cleaning solution.
- 3. Rinse equipment with potable water. Prepare product solution by adding 1.7-3.0 fluid ounces to 5 gallons water. This provides 149-438 ppm peroxyacetic acid and 598-1,054 ppm hydrogen peroxide. Fill closed systems with diluted sanitizer solution and allow a contact time of (1) minute.
- 4. For open or not completely closed systems, use a coarse spray, mop/wipe or flood technique to apply the solution to the surface and allow a contact time of one (1) minute.
- 5. Allow surfaces to drain thoroughly before resuming operation. Do not rinse.

#### Eating Establishment Sanitizing

- 1. An effective sanitizer against Staphylococcus aureus, Escherichia coli, and Salmonella Typhimurium.
- 2. Scrape/prewash plates, utensils, cups, glasses, etc. whenever possible.
- 3. Wash all items with a detergent.
- 4. Rinse thoroughly with potable water



- 5. Prepare product solution by adding 1.7-3.0 fluid ounces to 5 gallons water. This provides 149-438 ppm peroxyacetic acid and 598-1,054 ppm hydrogen peroxide. Immerse all items for at least (1) minute.
- 6. Place all sanitized items on rack or drain board to drain adequately. Air dry if items will not be reused immediately.

## Sanitizing Tableware

For sanitizing tableware in low to ambient temperature ware washing machines, inject the diluted product solution (1.7 fluid ounces of the product to 5 gallons of water with a water hardness up to 200ppm) into the final rinse water, allow contact time of (1) minute. Allow treated surfaces to air dry.

## Final Sanitizing Bottle Rinse

May be used as a final sanitizing rinse for plastic, glass or metal returnable and non-returnable bottles / cans.

- 1. Wash bottles with detergent or cleaning solution and rinse with potable water.
- 2. Rinse bottles with a solution prepared by mixing 1.7-3.0 fluid ounces of product to 5 gallons of water with a water hardness up to 200ppm. Allow contact time of (1) minute.
- 3. Allow to drain adequately.

## Sanitization of Casing, Shell or Hatching Eggs

- 1. Prepare a dilute solution by adding 1.7-2.0 fluid ounces of product to 5 gallons of water with a water hardness up to 200ppm. This provides 149-175 ppm peroxyacetic acid and 598-703 ppm hydrogen peroxide. The solution must be equal to or warmer than the eggs, but not to exceed 130° F. 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.
- 2. Apply dilute solution as eggs are gathered or prior to setting, as a coarse spray or flood so as to lightly wet all egg shell surfaces. Allow contact time of (1) minute.
- 3. Allow to drain dry.

# Sanitization of Conveyors, Peelers, Slicers and Saws for

Meat, Poultry, Seafood, Fruits and Vegetables

An effective sanitizer against Staphylococcus aureus, Escherichia coli and Salmonella Typhimurium. For use in the static or continuous washing, rinsing and sanitizing of conveyor equipment, peelers, collators, slicers, saws, etc.

- 1. Remove all products from equipment if during treatment the sanitizer will directly contact the items.
- 2. Prepare sanitizer solution by adding 1.7-3.0 fluid ounces to 5 gallons of water with a water hardness up to 200ppm.
- 3. Apply sanitizer solution to the return portion of the conveyor or to the equipment by using a coarse spray or other means of wetting the surfaces. Allow contact time of (1) minute. Control the volume of solutions so as to permit maximum drainage and to prevent puddles. The conveyor may still be damp when food contact occurs.
- 4. Allow equipment to drain adequately before reusing, a dry surface is not required. No rinse is needed.

Antimicrobial Rinse of Pre-Cleaned or New Returnable or Non-Returnable Containers:

To reduce the number of nonpathogenic beverage spoilage organisms such as Aspergillus versicolor, Byssochlamys fulva, Pediococcus damnosus. Lactobacillus buchneri. and Saccharomyces cerevisiae.

- 1. Prepare solution by adding 7.0 to 30 fluid oz. to 5 gallons of water with a water hardness up to 200ppm. This will provide 614 to 2630 ppm of peroxyacetic acid and 2614 to 11,200 ppm hydrogen peroxide.
- 2. Apply solution, allowing a contact time of (1) minute.
- 3. Allow containers to drain thoroughly and then rinse with sterile or potable water.



Entryway Sanitizing Systems (Not for Use in California):

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 Biofoam (foam additive) per 6 gallons of water. Adjust the PAA concentration by testing the collapsed foam solution using a peroxyacetic acid test kit.

## DISINFECTION OF ANIMAL AND POULTRY PREMISES, TRUCKS, COOPS AND CRATES

This product is designed for use in animal hospitals, animal laboratories, kennels, pet shops, zoos, pet animal quarters, poultry premises, poultry hatcheries, and livestock quarters. When used as directed, this product is specifically designed to disinfect, deodorize and clean inanimate, hard, surfaces such as walls, floors, sink tops, furniture, operating tables, kennel runs, cages and feeding equipment. In addition, this product will deodorize those areas which are generally hard to keep smelling fresh, such as garbage storage areas, empty garbage bins and cans, and any other areas which are prone to odors caused by microorganisms.

#### Disinfection of Poultry Premises:

For heavily soiled areas, a pre-cleaning step is required. Prepare a fresh solution for each use. Remove all poultry and feeds from premises, trucks, coops and crates. Remove all litter and droppings from floors, walls and surfaces of facilities occupied or traversed by poultry. 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 0.38-1.25% v/v (2.5-8.0 fl oz. per 5gal) solution of this product for a period of 10 minutes. Thoroughly scrub treated feed racks, troughs, automatic feeders, fountains and waters with a detergent and rinse with potable water before reuse. Ventilate buildings, coops and other closed spaces. Do not house poultry or employ equipment until treatment has been absorbed, set or dried. All treated equipment that will contact food, feed, or drinking water must be rinsed with potable water before reuse. See your technical representative for specific recommendations for all cleaning and rinsing requirements.

Disinfection And Deodorizing Of Animal Housing Facilities (Barns, Kennels, Hutches, Etc.): Remove animals and feed from premises, vehicles, and enclosures. Remove litter, waste matter 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 equipment. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces by applying a 0.38% (2.5 fl oz. per 5 gal) solution of this product with a mop, brush or coarse spray. Wet all surfaces and allow to remain wet for 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 and other closed spaces. Do not house livestock 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.

# 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.

#### 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 regimen 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

This product 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 peracetic 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 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.



#### 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 in commercial operations and packinghouses. For the target commodity, use continuous spray (coarse spray) or submerge using a solution containing 4 oz. of this product per 20 gallons of water (100 ppm peroxyacetic acid). Adjust dose as necessary to obtain satisfactory efficacy.

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.

#### NON PESTICIDAL CLEANING

All surfaces must be disinfected prior to fogging.

Fogging in Filling, Packaging, and Dispensing Rooms or Areas (Not for Use in California): 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. Ensure room is properly ventilated. Vacate all personnel from room during fogging and for a minimum of 2 hours after fogging. Ensure there is no strong odor characteristic of acetic acid before having personnel return to work area. Do not enter room until hydrogen peroxide concentrations are correctly tested and are below 0.5 ppm on a time weighted average. Fog area using one quart of a 0.13% solution of this product (1 fl. oz. of this product per 6 gallons of water) per 1,000 cu. ft. of room volume. Allow surfaces to drain thoroughly before operations are resumed.

UN3098, Oxidizing liquid, corrosive, n.o.s., 5.1 (8), PG II

Manufactured by: BIOSAN, INC., 26 FREEDOM WAY, SARATOGA SPRINGS, NY 12866 TEL: 518-886-9827

CHEMTREC EMERGENCY 800-424-9300