UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

May 4, 2017

Kevin R. Kutcel
Biosan LLC
26 Freedom Way
Saratoga Springs, NY 12866

Subject: Notification per PRN 98-10 – Revised to Add Pictograms and Change Name of Foaming Agent
Product Name: Oxysan 15 Acid Sanitizer
EPA Registration Number: 91628-2
Application Date: April 12, 2017
Decision Number: 529120

Dear Mr. Kutcel:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Antimicrobials Division (AD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

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.

If you have any questions, you may contact Terria Northern at 703-347-0265 or via email at northern.terria@epa.gov.

Sincerely,

for

John Hebert, Branch Chief
Regulatory Management Branch I
Antimicrobials Division (7510P)
Office of Pesticide Programs

HIGHLIGHTED

OXYSAN 15 ACID SANITIZER

ACTIVE INGREDIENTS:
Peroxyacetic Acid…… 16.00%
Hydrogen Peroxide…… 10.50%
INERT INGREDIENTS: ……. 73.50%
Total:…… 100.00

EPA Registration No. 91628-2 EPA Est. No. 91628-NY-1

KEEP OUT OF REACH OF CHILDREN

STRONG OXIDIZING AGENT
DANGER - PELIGRO

See Side Panel for Additional Precautionary Statements and Usage Directions

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

- 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
    - Countertops and Food Preparation Surfaces
    - Tableware
    - Plastic, Glass and Metal Bottles (rinse)

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
- Oil & Gas
- Water and Sewage Treatment Facilities

NOTIFICATION

91628-2

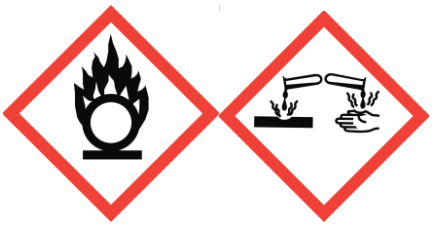
The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

05/04/2017

(Optional Statements)

For Organic Production, Oxysan 15 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 15 Acid Sanitizer is for use as a coarse spray for surfaces to be sanitized.
Oxysan 15 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 15 Acid Sanitizer can be used with Bioclean non-foaming agent, as an antimicrobial container rinse and for hard, nonporous surface sanitization and disinfection.
Oxysan 15 Acid Sanitizer is for sanitizing surfaces such as packinghouse conveyers and harvesting equipment and containers.
Oxysan 15 Acid Sanitizer is for sanitization of hatching eggs.
Oxysan 15 Acid Sanitizer is for sanitization of shell eggs.
Oxysan 15 Acid Sanitizer is for porous and non-porous hard surface sterilization.
Oxysan 15 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 15 Acid Sanitizer is for disinfection of animal and poultry premises, trucks, coops, and crates
Oxysan 15 Acid Sanitizer can be used for reducing pathogenic foodborne bacteria in processing waters for fruits and vegetables.
Oxysan 15 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 15 Acid Sanitizer is for use in process water that contacts raw, post-harvest, fresh-cut and processed fruits and vegetables.
Oxysan 15 Acid Sanitizer is for use in wastewater and sewage effluent disinfectant in public and private treatment facilities.
Oxysan 15 Acid Sanitizer is for use in agricultural water and irrigation systems
Oxysan 15 Acid Sanitizer is for use in commercial and Institutional /Industrial laundry operations for disinfection and sanitization.
Oxysan 15 Acid Sanitizer is for use in oilfield and gas-field well operations.
Oxysan 15 Acid Sanitizer may be used for the non-pesticidal purpose of cleaning room surfaces by fogging.
Oxysan 15 Acid Sanitizer For use as an antimicrobial rinse to control beverage spoilage microorganisms.

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 eyes. • 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 of 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.
If swallowed	• Call a poison control center or doctor for treatment advice. • Call 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 the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.	



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. Stand the container on its 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 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.

Sanitizing Non-Porous Food Contact Surfaces

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

4. Prepare product solution by adding 0.45 to 1.85 fluid ounces to 5 gallons of potable water containing up to 200 ppm hardness as CaCO3. This provides 123 ppm to 500 ppm peroxyacetic acid and 82 ppm to 333 ppm hydrogen peroxide.
5. Fill closed systems with diluted sanitizer solution and allow a contact time of (1) minute.
6. 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.
7. Allow surfaces to drain thoroughly before resuming operation. Allow to air dry for a minimum of 2 minutes.

Non-Pathogenic Spoilage Organisms

Oxysan 15 Acid Sanitizer is effective against non-pathogenic spoilage organisms, and yeasts.

Clean equipment immediately after use:

1. Remove gross particulate matter with warm water flush.
2. Wash equipment with detergent or cleaning solution.
3. Rinse equipment with potable water.
4. Prepare Oxysan 15 Acid Sanitizer solution by adding 0.45 to 1.85 fl. oz. to 5 gallons of potable water. This provides 124 to 500ppm peroxyacetic acid and 82 to 333 of hydrogen peroxide.
5. Fill closed systems with diluted sanitizer solution for a contact time of one (1) minute.
6. For open or not completely closed systems, use a coarse spray, mop/wipe or flood technique to apply the solution to the surface for a contact time of at least one (1) minute. Allow surfaces to drain thoroughly before resuming operation.

Sanitization of Conveyors, Peelers, Slicers and Saws for Meat, Poultry, Seafood, Fruits and Vegetables

An effective sanitizer against Staphylococcus aureus, Escherichia coli, and Salmonella enterica.
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 product solution by adding 0.45 to 1.85 fluid ounces to 5 gallons of potable water containing up to 200 ppm hardness as CaCO3. This provides 123 ppm to 500 ppm peroxyacetic acid and 82 ppm to 333 ppm hydrogen peroxide.
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 for at least (1) minute or for a contact time as specified by the local governing sanitizing code. 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, and allow to air dry for a minimum of 2 minutes.

Eating Establishment Sanitizing

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

1. Scrape/prewash plates, utensils, cups, glasses, etc.
2. Wash all items with a detergent.
3. Rinse thoroughly with potable water
4. Prepare product solution by adding 0.45 to 1.85 fluid ounces to 5 gallons of potable water containing up to 200 ppm hardness as CaCO3. This provides 123 ppm to 500 ppm peroxyacetic acid and 82 ppm to 333 ppm hydrogen peroxide.

5. Immerse all items for at least (1) minute or for a contact time as specified by the local governing sanitizing code.
6. Place all sanitized items on rack or drain board to drain adequately. Air dry if items will not be reused immediately. Allow to air dry for a minimum of 2 minutes.

Sanitizing Tableware

For sanitizing tableware in low to ambient temperature washing machines, inject the prepared product solution (by adding 0.45 to 1.85 fluid ounces to 5 gallons of potable water containing up to 200 ppm hardness as CaCO3) into the final rinse water. Prepare product solution by adding 0.45 to 1.85 fluid ounces to 5 gallons of potable water containing up to 200 ppm hardness as CaCO3. This provides 123 ppm to 500 ppm peroxyacetic acid and 82 ppm to 333 ppm hydrogen peroxide. Immerse all items for at least (1) minute or for a contact time as specified by the local governing sanitizing code. Allow to air dry for a minimum of 2 minutes.

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. Prepare product solution by adding 0.45 to 1.85 fluid ounces to 5 gallons of potable water containing up to 200 ppm hardness as CaCO3. This provides 123 ppm to 500 ppm peroxyacetic acid and 82 ppm to 333 ppm hydrogen peroxide.
3. Allow to drain adequately. Allow to air dry for a minimum of 2 minutes.

Sanitizing Milking Equipment by Cluster Dipping

1. Clean the external surfaces of the milking systems after each use.
2. Manually, or automatically rinse and sanitize all system components using a Oxysan 15 Acid Sanitizer prepared by mixing 0.41-0.94 fl. oz. to 5 gallons of potable water. Ensure solution fills clusters.
3. Allow surfaces to remain wet for at least one (1) minute. Shake off well after dipping and allow to air dry. Do not rinse.

Sanitization of Egg Shells Intended for Food

1. Prepare product solution by adding 0.45 to 1.85 fluid ounces to 5 gallons of potable water containing up to 200 ppm hardness as CaCO3. This provides 123 ppm to 500 ppm peroxyacetic acid and 82 ppm to 333 ppm hydrogen peroxide.
2. Apply dilute solution as eggs are gathered or prior to setting, as a coarse spray so as to lightly wet all egg shell surfaces. Allow contact for at least (1) minute or for a contact time as specified by the local governing sanitizing code.
3. Allow to drain dry. Allow to air dry for a minimum of 2 minutes.

Surfaces Treated to Control the Spread of Citrus Canker

Use Oxysan 15 Acid Sanitizer to control the spread of citrus canker between inanimate surfaces and inanimate surfaces to plants. This product is for sanitizing surfaces such as packinghouse conveyers and harvesting equipment and containers. This product is not for treatment of infected plants.

NON PESTICIDAL CLEANING

All surfaces must be disinfected prior to fogging.

Fogging in Filling, Packaging, Processing, Storage, Warehouse, and Worker Welfare Rooms or Areas:

Prior to fogging remove food products and packaging materials from the room or area or carefully protect them. Fog desired areas using 32 – 64 fl. oz of use dilution per 1000 cu. ft. using equipment with an automated timer. 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.

Biofouling Control in Pulp. Paper and Paperboard Mill and Water Systems

For use in the manufacture of paper and paperboard intended for food and non-food contact. Oxysan 15 Acid Sanitizer can be used to control bacterial, fungal and yeast growth in pulp, paper and paperboard or non-woven process water and influent systems.

Influent Water Systems: This product should be fed continuously to incoming fresh water streams for non-potable use only, at dosages ranging from 0.11- 2.0 lbs (1.5-27 fl. oz) of this product per 1000 gallons of raw or process water (2.0-36 ppm peroxyacetic acid). Adjust dosage as necessary to maintain microbiological control.

1. **Severely fouled systems:** should be cleaned before initial treatment with Oxysan 15 Acid Sanitizer. Refer to the plant operations manual for directions for cleaning severely fouled systems. The product should be added directly to the system and not mixed with any other chemicals or additives. Other chemicals can be added separately. Contamination with other chemicals could result in product decomposition.
2. **Add the Oxysan 15 Acid Sanitizer:** at a point in the system where it can be mixed uniformly with the pulp, e.g., the beater, hydro-pulper, fan pump, broke pump etc.
3. **Intermittent feed method:** Apply 0.5 lb. to 1.2 lb. (7 to 16 fluid ounces) of Oxysan 15 Acid Sanitizer per ton (dry basis) of pulp or paper produced for two to three hours every eight-hour shift. Maintain a concentration that provides adequate control. Daily rate could change depending on the severity of the biofouling.
4. **Continuous feed method:** Initially, use the intermittent feed method to achieve control. When control is accomplished, apply Oxysan15 Acid Sanitizer continuously at the rate determined adequate for intermittent control. Then reduce the rate of addition to the lowest level sufficient to maintain control. Depending on the severity of the biofouling, control usually can be maintained using a continuous rate of 0.2 to 1.2 lb. (2.6 to 16 fluid ounces) of Oxysan 15 Acid Sanitizer solution per ton (dry basis) of pulp or paper produced on a continuous basis. This will provide 15 to 90 ppm of peroxyacetic acid and 10 to 60 ppm of hydrogen peroxide.

Mill Process Waters:

Intermittent Feed: Apply 0.5 lb. to 1.2 lb. (7 to 16 fluid ounces) of Oxysan 15 Acid Sanitizer per ton (dry basis) of pulp or paper produced for two to three hours every eight-hour shift. Maintain a concentration that provides adequate control. Daily rate could change depending on the severity of the biofouling.

Continuous Feed: Initially, use the intermittent feed method to achieve control. When control is accomplished, apply Oxysan15 Acid Sanitizer continuously at the rate determined adequate for intermittent control. Then reduce

the rate of addition to the lowest level sufficient to maintain control. Depending on the severity of the biofouling, control usually can be maintained using a continuous rate of 0.2 to 1.2 lb. (2.6 to 16 fluid ounces) of Oxysan 15 Acid Sanitizer solution per ton (dry basis) of pulp or paper produced on a continuous basis. This will provide 15 to 90 ppm of peroxyacetic acid and 10 to 60 ppm of hydrogen peroxide.

Shock (slug) Dose: This product may be used to shock dose systems requiring a high level of biofouling control. Use rates ranging from 1-8 lbs (13.5-108 fl. oz.) of this product per ton (dry basis) of pulp or paper produced may be necessary. This dosage is equivalent to 75-600 ppm peroxyacetic acid. Shock dose every 1-3 hrs as necessary until biofouling control is evident. Thereafter, revert to continuous or intermittent feed methods.

Control of Bacteria and Fungi in Dispersed Pigments

Oxysan 15 Acid Sanitizer can be used to control bacteria and fungi in the manufacture and storage of dispersed pigments used in paint and paper production such as kaolin day, titanium dioxide, calcium carbonate, calcium sulfate, barium sulfate, magnesium silicate and kieselguhr.

Apply 0.2 to 1.2 lb. (2.6 to 16 fluid ounces) (90 to 545 grams) of Oxysan 15 Acid Sanitizer solution to each 1,000 lb. (454 Kg) of fluid. This will provide 200 to 1200 ppm of product (30 to180 ppm of peroxyacetic acid and 20 to 120 ppm of hydrogen peroxide).

Control of Slime Forming Bacteria and Biofouling in Recirculating Cooling Water Systems (Cooling Towers, Evaporative Condensers, Air Washers) Non-Food Contact Water Systems and Ornamental or Recreation Water Features.

Oxysan 15 Acid Sanitizer is for use in treating raw (make-up) and process waters, closed and opened loop systems such as heat exchanges, wet scrubbers, cooling towers, evaporative condensers and recirculating industrial process waters, such as pulp and paper mill water systems.

Severely fouled systems: should be cleaned before adding the Oxysan 15 Acid Sanitizer solution. (Refer to the system operation manual for directions to clean severely fouled systems). The product should be added directly to the system and not mixed with any other chemicals or additives. additives. Other chemicals should be added separately.

Never add Oxysan 15 Acid Sanitizer into any feeding device, such as shot feeders, filter housings, by-pass feeders, or miscellaneous piping of any kind, because dangerous acute decomposition can occur.

Discontinue the use of chlorine or bromine products prior to using Oxysan 15 Acid Sanitizer. Contamination. Contamination with other chemicals could result in product decomposition.

Add the Oxysan 15 Acid Sanitizer solution only to water at a point in the system where uniform mixing and even distribution will occur.

Intermittent feed method: When the system is noticeably fouled, apply 0.8 to 1.2 lb. (10 to16 fluid ounces) of Oxysan 15 Acid Sanitizer solution per 1000 gallons of water in the system. Repeat until control is achieved. When microbial control is evident, add 0.5 lb. to 1.2 lb. (7-16 fluid ounces) of the solution per 1000 gallons of water in the system every day, or as needed, to maintain control. The daily dose rate could vary depending upon the severity of the biofouling.

Continuous feed method: When the system is just noticeably fouled, apply 0.2 to 1.2 lb. (2.6 to 16 fluid ounces) of Oxysan 15 Acid Sanitizer solution per 1000 gallons of water in the system. When microbial control is achieved, start adding Oxysan 15 Acid Sanitizer solution continuously at a rate of 1.0 lb. (14 fluid ounces) per 1000 gallons of water provides 17 ppm peroxyacetic acid and 12 ppm of hydrogen peroxide. Then reduce the rate of addition to a level, sufficient to maintain control. The dose rate may have to be adjusted to account for losses due to blowdown and evaporation. Add 1.4 fluid ounces of Oxysan 15 Acid Sanitizer for every 100 gals of make-up water.

Shock (Slug) Dose: For moderately to severely fouled systems add 5-20 fl. oz. of this product per 1000 gallons of process water (7-27 ppm peroxyacetic acid). Repeat as necessary until microbiological control is evident.

Air Washers: Oxysan 15 Acid Sanitizer 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 an appropriate cleaner. Continuous dosing methods will require 2-7 ppm and intermittent dosing methods require 7-14 ppm (as peroxyacetic acid) depending on the type of system and the level of microbiological control desired.

Control of Bacteria and Fungi in Coating Preservation

Do not use for coatings preservation applications involving Direct or Indirect food contact. Oxysan 15 Acid Sanitizer can be used as an in-container preservative for the control of bacteria and fungi in water-based coatings such as paper coatings.

Add 0.2 to 1.2 lb. (2.6 to 16 fluid ounces) (90 to 545 grams) of Oxysan 15 Acid Sanitizer solution to each 1,000 lbs. (454 Kg) of water (provides 200 to 1200 ppm of product or 30 to 180 ppm peroxyacetic acid and 20 to 120 ppm of hydrogen peroxide).

Foam Sanitization

Oxysan 15 Acid Sanitizer can be applied as a foam for sanitization of previously cleaned, hard, non-porous food-contact surfaces and general environmental (non-food contact) hard, non-porous surfaces such as floors, walls, ceilings, drains and boots. Foam applications can be used where penetration and retention of product for required times is difficult to achieve. Examples include operating conveyor belts, and vertical or uneven surfaces.

1. Prepare a dilute Oxysan 15 Acid Sanitizer solution by adding 0.3 to 0.5 fluid ounces per 4.5 gallons' potable water.
2. After preparing the Oxysan 15 Acid Sanitizer diluted solution, add 1 to 10 fluid ounces of Biofoam ~~HRS TM~~ or add 2 to 20 fluid ounces of Biofoam ~~HRS II~~ per 4.5 gallons of diluted solution. After the Biofoam ~~HRS or HRS II~~ is added, adjust the total solution volume to 5 gallons. Biofoam is ~~HRS and HRS II are~~ the only approved foam-generating additives for use with Oxysan 15 Acid Sanitizer.
3. Apply the sanitizing solution as a foam using commercially available foam generating equipment. Allow foam to contact surfaces at least one (1) minute. For foot bath application, allow foam to remain on the boot surface for one minute upon exiting the bath.
4. Drain items and/or surfaces thoroughly.

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

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

1. Prepare solution by adding 10 fluid oz. to 5 gallons of potable water containing up to 200 ppm hardness as CaCO3 This will provide 2700 ppm of peroxyacetic acid and 1800 ppm hydrogen peroxide.
2. Apply solution. Immerse for at least (1) minute or for a contact time as specified by local governing sanitation codes.
3. Allow containers to drain thoroughly and then rinse with sterile or potable water. Allow to air dry for a minimum of 2 minutes.

Treatment of Processing Waters and Surfaces to Control Growth of Non-Public Health Microorganisms that can Cause Spoilage of Fresh-Cut, Raw Post-Harvest or Processed Fruits, Nuts and Vegetables

1. Ensure that the water is recirculating or mixing in the processing tank or water line.
2. Prepare Oxysan 15 Acid Sanitizer solution by diluting 1.5 -1.9 fl. oz. per 25 gallons of water. Ensure that the solution is thoroughly mixed. This provides 85-100 ppm of peroxyacetic acid and 57-67 ppm of hydrogen peroxide. Allow the solution to circulate at least 45 seconds before adding or treating raw fruits and vegetables.
3. Dose as needed to maintain 85-100 ppm of peroxyacetic acid by adding OxySan 15 Acid Sanitizer to processing water.
4. Allow a minimum contact time of 60 seconds.
5. Do not rinse.
6. Prepare fresh process water daily to ensure effectiveness. Do not reuse water that is badly fouled.
7. Contact your Biosan technical representative for specific fruit and vegetable applications.

Treatment of Raw, Unprocessed Fruit and Vegetable Surfaces

Apply Oxysan 15 Acid Sanitizer as a dip or spray 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 washing process. Oxysan 15 Acid Sanitizer can be applied during physical cleaning processes, including at the roller spreader, washer manifold, and dip tank, on the brushes or elsewhere in the washing process prior to, simultaneously with or as a final rinse prior to packaging.

1. Prepare solution by diluting 1.5 -1.9 fl. oz. per 25 gallons of water. Ensure that the solution is thoroughly mixed. This provides 85-100 ppm of peroxyacetic acid and 57-67 ppm of hydrogen peroxide.
2. Apply the diluted sanitizing solution using a coarse spray or fog directed at the fruits or vegetables, or by submerging the fruits or vegetables in the prepared solution.
3. Allow a minimum contact time of 45 seconds.
4. Do not rinse.
5. Contact your Biosan technical representative for specific fruit and vegetable applications.

Fogging Instructions: Apply Oxysan 15 Acid Sanitizer as a fog 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.

Commercially-applied fogging methods may be used, provided, the dilution rate of the resultant solution does not exceed those prescribed in this section (85-100 ppm 100% Peracetic acid in the use solution). Conventional corrosion-resistant fogging devices are recommended. Applicable for use on all types of post-harvest commodities.

1. Vacate all personnel from the room during fogging.

2. Fog areas using one quart per 1,000 cu. ft. of room area with a 0.06% Oxysan 15 Acid Sanitizer solution per 1,000 cu. ft. of room volume.
3. Exit the area or space immediately and remain outside the treated area or space until the area or space is thoroughly ventilated and until fog or mist has dispersed.
4. Do not enter room until hydrogen peroxide concentrations are tested and are below 1 ppm on a time weighted average. Reentry times may vary.
5. Contact your Biosan technical representative for specific fruit and vegetable application

Treatment of Fresh Cut Processed Fruit and Vegetable Surfaces and Process Water to Control Growth of Non-Public Health Microorganisms that Can Cause Spoilage

Add Oxysan 15 Acid Sanitizer at a dilution of 1.5 fluid ounces per 25 gallons of water. Ensure that the solution is thoroughly mixed. This provides 80 ppm of peroxyacetic acid and 50 ppm of hydrogen peroxide.

1. Apply the prepared solution as a spray or dip. Allow a minimum contact time of 45 seconds. No rinse following application is required. This use complies with the requirements at 21 C.F.R. 173.315 (a) (5).
2. A potable water rinse is not required following application of the diluted solution.

Non-Pathogenic Spoilage Organisms

Oxysan 15 Acid Sanitizer is effective against non-pathogenic spoilage organisms, and yeasts. Clean equipment immediately after use:

1. Remove gross particulate matter with warm water flush.
2. Wash equipment with detergent or cleaning solution.
3. Rinse equipment with potable water.
4. Prepare Oxysan 15 Acid Sanitizer solution by adding 0.41-0.94 fl. oz. to 5 gallons of potable water. This provides 109-250 ppm peroxyacetic acid and 73-167 ppm of hydrogen peroxide.
5. Fill closed systems with diluted sanitizer solution for a contact time of one (1) minute.
6. For open or not completely closed systems, use a coarse spray, mop/wipe or flood technique to apply the solution to the surface for a contact time of at least one (1) minute. Allow surfaces to drain thoroughly before resuming operation.

Disinfection and Microbial Control in Sewage and Wastewater Effluent Treatment Plants.

Use Oxysan 15 Acid Sanitizer to treat sewage and wastewater effluent related to public and private wastewater treatment plants. Oxysan 15 Acid Sanitizer can be applied directly to the effluent or may be used with an appropriate activator such as hydrogen peroxide or other technology such as Ultra Violet (UV). Oxysan 15 Acid Sanitizer may be applied to effluent water discharged from trickle bed or percolating fluidized bed filters.

The application rate for individual facilities will depend on the degree of bio loading of the effluent stream to be discharged and the local microbial discharge limit. Adjust application rate to meet the need of the individual facility.

1. Add Oxysan 15 Acid Sanitizer to effluent water at a concentration of 0.5 ppm to 15 ppm. Allow contact time of approximately 15 to 60 minutes.
2. The maximum amount of Peracetic acid that can be discharged from the treatment facility is 1 ppm. Use an appropriate Peracetic acid test kit analyzer to ensure that this level is not exceeded. Contact your Biosan representative for assistance establishing treatment regimes.

Water Damage Restoration

Use Oxysan 15 Acid Sanitizer to control the growth of odor causing bacteria in water damage restoration situations. This product is suitable for use on hard, non-porous surfaces, along with the following porous and semi-porous materials: carpets, carpet cushion, sub floors, drywall, trim, frame lumber, tackless strip and paneling.

Sewer Backup and River Flooding

During mitigation procedures prepare a solution of Oxysan 15 Acid Sanitizer by adding 0.35 fl. oz. of the product to 1 gallon of potable water, allowing for the diluting effect of absorbed water within the saturated materials. Remove heavy soil or gross filth from surfaces by cleaning with the Oxysan 15 Acid Sanitizer solution by wiping, mopping, or as a coarse spray. Saturate all affected materials with the solution using a coarse spray before cleaning and extraction. Allow surfaces and materials to remain wet with solution for ten (10) minutes. Follow with a thorough extraction. Dry rapidly and thoroughly. Use proper ventilation.

Antimicrobial use with Aqueous Treatment Fluids in Subterranean Oilfield and Gas Field Well Operations such as Well Drilling, Formation Fracturing, Productivity Enhancement and Secondary Recovery

Oxysan Acid Sanitizer can be for control of slime forming and spoilage bacteria, yeast and fungi and anaerobic sulfate reducing bacteria, Desulfovibrio vulgaris, that lead to reservoir souring and metal corrosion.

This product must be introduced through a closed mixed/loading and delivery transfer system equipped with a metering device that Is appropriate for its intended use.

Drilling Muds, Fracturing Fluids, Well Squeezed Fluids

For the preservation of drilling muds, workover and completion fluids and other product susceptible to contamination, pre-mix with the fluid or add directly at the point of use at 3. 75 fluid ounces per 1000 gallons of water (5 ppm of Peroxyacetic and 3.3. ppm. of Hydrogen Peroxide) to 75.5 fluid ounces per 1000 gallons of water (100 ppm of Peroxyacetic Acid and 66 ppm of Hydrogen Peroxide) as required. Depending on the severity of the contamination, initial application may be added up to 755 fluid ounces per 1000 gallons of water (1000 ppm of Peroxyacetic Acid and 670 ppm of Hydrogen Peroxide).

Flooding, injection and Produced Water

Water Flooding Operations: add initially at 3.75 fluid ounces per 1000 gallons of water (5 ppm of Peroxyacetic acid and 3.3 ppm of Hydrogen Peroxide) to 75.5 fluid ·ounces per 1000 gallons of water (100 ppm of Peroxyacetic Acid and 66 ppm of Hydrogen Peroxide) and repeat until control is achieved. Subsequent treatment may be continued on a weekly basis or as required.

Injection Wells: The well that are associated with gas storage systems may be treated up to 100 ppm of Peroxyacetic Acid and 66 ppm of Hydrogen Peroxide when diluted in the formation water. Any additional top-up water should be treated as required.

Hydrostatic Systems: Apply 3.75 fluid ounces per 1000 gallons of water (5 ppm of Peroxyacetic acid and 3.3 ppm of Hydrogen Peroxide) to 75.5 fluid ounces per 1000 gallons of water (100 ppm of Peroxyacetic and 66 ppm of Hydrogen Peroxide) depending on the water quality and the duration of the shut-in.

Pipeline and Tank Maintenance

For microbial control in water-bottoms in crude and refined hydrocarbon storage tanks, piping, and transportation systems. Apply 3 .7 5 fluid ounces per 1000 gallons of water (5 ppm of Peroxyacetic and 3.3 ppm of Hydrogen Peroxide) to 75.5 fluid ounces per 1000 gallons of water (100 ppm of Peroxyacetic and 66 ppm of Hydrogen Peroxide) in the aqueous phase, directly injected into the water-bottom, pipeline or may be added to the hydrocarbon phase. Treatment may be applied daily or monthly for both storage and transportation systems as needed.

Agricultural and Horticultural Uses

A Restricted-Entry-Interval of zero (0) hours is required for Oxysan 15 Acid Sanitizer in agricultural or horticultural uses. This product should not be mixed or combined with any pesticides or fertilizers. Upon soil contact, the diluted product decomposes rapidly to oxygen, carbon dioxide and water. This product may be harmful to fish if exposed on a continuous basis at concentrations greater than 1 ppm of active Peracetic acid. Meter Oxysan 15 Acid Sanitizer into pressurized pipes using a plastic or stainless steel injection/backflow device installed upstream from the equipment to ensure thorough mixing prior to application. For open bodies of water, allow adequate mixing prior to product flow entering anybody of water. If open pouring of this product is required, pour product close to the surface of the water as possible to reduce odor and exposure.

Treatment of Agricultural and Irrigation Water Systems: Use Oxysan 15 Acid Sanitizer to control sulfides, odor, slime, and algae in sand filters, humidification systems, storage tanks, ponds, reservoirs, canals. Apply Oxysan 15 Acid Sanitizer at 15 to75 fluid ounces per 10,000 gallons of water. This provides 2 ppm to10 ppm peroxyacetic acid. Repeat dose as necessary to maintain control. For prevention of algae, some systems may require continuous low level dosing during warm, sunny periods (2 ppm to 5 ppm peroxyacetic acid).

Drip Irrigation Systems: To clean slime and algae from drip system filters, tapes and emitters, add Oxysan 15 Acid Sanitizer at 7.5 to15 fluid ounces per 1000 gallons. This provides 10 ppm to 20 ppm peroxyacetic add. Use this product at the recommended dose for a minimum of 30 minutes during normal irrigation cycles. Upon irrigation cycle completion, discontinue use and flush the lines.

Greenhouses: This product can be used to suppress/control algae and slime formations in and around greenhouses. For normal use in various process, irrigation or sprinkler water systems, this product may be used at 1: 40,000 to 1:5000 dilutions (4-33 ppm as peroxyacetic acid). Heavily fouled systems, such as evaporative coolers or irrigation/drip lines may need shock doses of up to 100 ppm as peroxyacetic acid (1: 1,600 dilution).

Cleaning Poultry, Swine, Livestock Water Systems (When the System is Not in Use): To remove scale, calcium, iron, magnesium, heavy soils, polysaccharides and deposits from vitamins and medications from livestock watering systems use Oxysan 15 Acid Sanitizer at 0.15-0.30 fl. oz. per gallon of water. When used as directed, Oxysan 15 Acid Sanitizer will remove organic and inorganic deposits that reduce water flow and clog nipples. Allow system to run for 6 - 24 hours depending on the conditions. Following the cleaning process, rinse with potable water to remove the cleaning solution from the watering line, nipples and cups. Never mix Oxysan 15 Acid Sanitizer with any other product.

Cleaning Poultry, Swine, Livestock Watering Operating Systems (When Animals Are Present): After water lines have been cleaned, use Oxysan 15 Acid Sanitizer at 0.3-0.45 fl. oz. per 100 gallons of water to control mineral build up in watering lines. Never use Oxysan 15 Acid Sanitizer more than 5 consecutive days to clean the operating system. Never mix Oxysan 15 Acid Sanitizer with any other product. If cleaning the operating system, stop the use of Oxysan 15 Acid Sanitizer twenty-four (24) hours prior to vaccination or medication via the water line.

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.

Disinfection of Animal and Poultry Premises, Trucks, Coops, and Crates

This product can be used 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 (1 – 3 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 1 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.

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.

Reverse Osmosis (RO), Ultra Filtration (UF) and Other Membrane Cleaning

This product may be used in the sanitization of ultra-filtration (UF) and reverse osmosis (RO) membranes and their associated piping systems. This product is not for use in kidney dialysis equipment. Do not use the intermittent or continuous dosing methods for nano or ultra-filtration food or drinking water applications. This product may not totally eliminate all vegetative microorganisms in RO or NF or UF membranes and their associated piping systems due to their construction or assembly, but can be relied upon to reduce the number of microorganisms to acceptable levels when used as directed. Prior to using this product check with membrane manufacturer to confirm compatibility of membranes with various types or concentration of peroxyacetic acid solutions.

Batch Sanitation of NF, UF and RO Systems: Isolate incompatible equipment, such as carbon filters and ion exchangers. Clean system with an appropriate cleaner and follow with RO permeate water or potable water. Remove mineral deposits if necessary with an acidic cleaner, and rinse as before. Fill entire system with water and add up to 0.5% of this product by volume. This will equal 750 ppm peroxyacetic acid and 500 ppm hydrogen peroxide. Recirculate the sanitizing solution through the piping and membrane system at 20º 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. Rinse the system with RO permeate or potable water until residual peroxygen concentration is below 1 ppm.

Continuous or Intermittent Addition: For continuous addition (dosing) for RO systems, use 2-5 ppm of active peroxyacetic acid, which equals 1.5-3.7 fl. oz. of this product per 1000 gallons of process water. For occasional intermittent feed, do not exceed 93 ppm active peroxyacetic acid, which equals 0.7 fl. oz. of this product per 10 gallons of feed water. Continuous or intermittent dosing of this product is not allowed for use in NF or UF systems for on-line food or drinking water applications.

UN 3109, Organic Peroxide Type F, Liquid (Peroxyacetic Acid) 5.2 (8), PG II

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