



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

February 24, 2020

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

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

Subject: Notification per PRN 98-10 – Addition of Note to Reviewer Language
Product Name: Oxysan 25
EPA Registration Number: 91628-4
Application Date: 2/5/2020
Decision Number: 559576

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 Perri Moeller at 703-347-8618 or via email at Moeller.Perri@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Steven Snyderman".

Steven Snyderman, Acting Product Manager 33
Regulatory Management Branch 1
Antimicrobials Division (7510P)
Office of Pesticide Programs

Highlighted

OXYSAN 25

Alternate Brand Names:

Oxysan 25 Acid
OXYSAN 25 OG
OXYSAN 25 WW
OXYSAN 25 AG

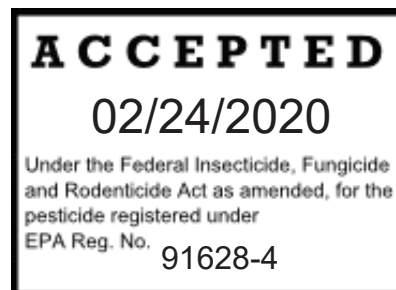
ACTIVE INGREDIENTS:

Peroxyacetic Acid: 24.5%

Hydrogen Peroxide: 6.0%

OTHER INGREDIENTS:69.5%

Total: 100.00

EPA Registration No. 91628-4
EPA Est. No. 91628-NY-1


KEEP OUT OF REACH OF CHILDREN

STRONG OXIDIZING AGENT

**DANGER

POISON-PELIGRO**

| 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 or doctor for treatment advice. |
| If swallowed | 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 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-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. |
| <p>Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.</p> <p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. For general information on products use, etc., call National Pesticides Information Center at 1-800-858-7378. You may also contact the poison control center at 1-800-222-1222 for emergency medical treatment information.</p> | |

(See Side Panel for Additional Precautionary Statements and Usage Directions)

(Note to Reviewer: The following optional referral statement may be organized in any order to be grammatically correct.)

[See][Consult][Additional][attached][ProductInformation][Bulletin][Sheet][insert][booklet][label] for [other][additional][directions for use][information] [claims][organisms][applications] [and] [proper][use directions].

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 someone to explain it to you in detail.)

Precautionary Statement

Hazards to Humans and Domestic Animals

DANGER: CORROSIVE Causes irreversible eye damage and skin burns. Fatal if swallowed, inhaled or absorbed through skin. Do not get in eyes, on skin or on clothing. Wear goggles, wear coveralls worn over long sleeve shirt and long pants, socks, chemical-resistant footwear, chemical-resistant gloves (Barrier Laminate, or Butyl Rubber, or Nitrile Rubber, or Neoprene Rubber, or natural Rubber, or Polyethylene, or Polyvinyl Chloride (PVC), or Viton, selection Category A), and chemical-resistant apron. Wear a NIOSH approved respirator with any N, R,P filter with NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter, with NIOSH approval number prefix TC-21c. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before use.

PHYSICAL OR CHEMICAL HAZARDS - Strong oxidizing agent. Mix only with water. OXYSAN 25 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 REQUIREMENTS

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.

OXYSAN 25 is a peracetic acid based micro-biocide for use in Oilfield & Gas Field Well Operations, Biofouling control in Pulp & Paper Water Systems, Control of Slime Forming Bacteria and Biofouling of Non-Public Health Recirculating, Agricultural, Wastewater Treatment plants and Fruit & Vegetable process Waters to control Non-Public Health Bacteria, Fungi, Slime and Odor.

(Optional Statements)

(Note to Reviewer: The following marketing claims may be used with the prefix "This product or "This product is {a} {an}").)

OXYSAN 25 may be used in rinse or wash water to control growth of non-public health microorganisms.

OXYSAN 25 can be used as a coarse spray.

OXYSAN 25 can be used with Biofoam foaming agents.

OXYSAN 25 can be used with Bioclean non-foaming agent, as an antimicrobial container rinse and on hard, nonporous surfaces.

OXYSAN 25 can be used on surfaces such as packinghouse conveyers and harvesting equipment and containers.

OXYSAN 25 can be used on hard non-porous surfaces.

OXYSAN 25 can be used on hard non-porous surfaces and as a rinse of Precleaned or New Returnable or Non-Returnable Containers.

OXYSAN 25 can be used in process water that contacts raw, post-harvest, and processed fruits and vegetables to control growth of non-public health microorganisms.

OXYSAN 25 is for use as a microbial control in wastewater and sewage effluent in public and private treatment facilities.

OXYSAN 25 is for use in agricultural water and irrigation systems

OXYSAN 25 is for use in oilfield and gas-field well operations.

OXYSAN 25 OG

OXYSAN 25 WW

OXYSAN 25 AG

The regular use of this product at the recommended pH ranges will prevent the formation of Milkstone, Beerstone, or Mineralstone deposits.

Performs acid wash and antimicrobial rinse in one labor saving step which can save water, time and energy.

Saves Time

Liquid formula allows for automatic dispensing and control. This helps reduce over-usage and saves employee time

Removes mineral soils

Removes mineral based soils

Removes milk stone

Removes calcium phosphate

Removes mineral fouling soils

Improved flux due to removal of mineral soils

Proven to remove mineral soils

Proven to remove mineral soils at lower temperatures

Can be applied through foaming apparatus, low-pressure sprayers. Follow manufacturers' Instructions when using this equipment.

Is easily dispersed in hot or cold water to form a completely uniform solution.

Will not leave grit or soap scum. CLEANING AND DEODORIZATION MARKETING CLAIMS (Note to Reviewer: The following marketing claims may be used with the prefix "This product".)

Cleans {and shines} {by {removing} {dirt} {grime} {and food soils In food preparation and processing areas}} {like dirt, grease and food stains}.

Cleans rodent soiled areas.

Removes dirt.

Removes [{Milkstone}{Beerstone}]

Removes stains.

Use of this product will control unpleasant [{malodors} {odors}].

The reduction of biofouling bacteria improves flux

The reduction of biofouling bacteria can lead to improved flux

The reduction of biofoulants leads to improved flux

The reduction of biofoulants leads to improved flux resulting in increased production capacity

Performs acid rinse and antimicrobial rinse in labor saving step.

Convenient to use - provides acidified wash and antimicrobial rinse in one labor saving step

This product is an economical concentrate that can be used with a mop and bucket, sponge, or by soaking.

This product will not leave a grit or soap scum.

Use This product on the multi-touch surfaces responsible for cross-contamination between treated surfaces.

This product is a concentrate formulation designed for use in commercial, institutional, and industrial operations.

This product controls the growth of odor-causing and non-public health slime forming bacteria.

This product may be applied through automatic washing systems, immersion tanks, foaming apparatus, low-pressure sprayers and fogging (wet misting) systems. (Fogging and foaming not approved for use in California)

This product is formulated to effectively eliminate offensive odors caused by mold and mildew.

Deodorizer

Easy to use

Leaves no residue

A post-harvest treatment for the prevention and control of non-public health plant pathogenic diseases on all fruits and vegetables and other agricultural crops in dump tanks, hydro coolers and process waters.

A treatment for the prevention and control of non-public health plant pathogenic diseases on surfaces, equipment and structures used in processing post-harvest commodities.

Controls the growth of odor-causing and non-public health slime forming bacteria

A treatment for the prevention and control of algae & cyanobacteria in waters

Effective over a wide range of pH conditions

Controls odors

Keeps water clean

Use on water gardens, ornamental ponds, waterfalls, fountains, or stone water features

Liquid algaecide for treating waterscapes

Will not harm plants

Contains no metals

For pristine water

Controls algae blooms

Algaecide

Rids water of algae

Treats, controls, and prevents algae

Removes algae from your water

Algae control

Reduces algae growth

Inhibits growth of many types of algae

For algae-free water

Eliminates algae

Optional Graphics

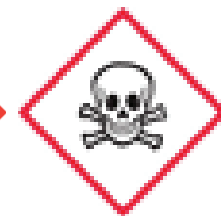


Hologram

1.



2.



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.

§ 156.206 General statements.

(a) Application restrictions. Each product shall bear the statement: “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.” This statement shall be near the beginning of the DIRECTIONS FOR USE section of the labeling under the heading AGRICULTURAL USE REQUIREMENTS.

(d) State restrictions. Each product shall bear the statement: “For any requirements specific to your [State](#), consult the agency in your [State](#) responsible for [pesticide](#) regulation.” This statement shall be under the heading AGRICULTURAL USE REQUIREMENTS in the labeling.

(e) Spanish warning statements. If the product is classified as toxicity category I or toxicity category II according to the criteria in [§ 156.62](#), the signal word shall appear in Spanish in addition to English followed by the statement, “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 someone to explain it to you in detail.)” The Spanish signal word “PELIGRO” shall be used for products in toxicity category I, and the Spanish signal word “AVISO” shall be used for products in toxicity category II. These statements shall appear on the label close to the English signal word.

Storage and Disposal

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

Pesticide Storage

NEVER RETURN OXYSAN 25 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.

Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Office for guidance.

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.

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.

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 25 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 1-10 fl. oz of this product per 1000 gallons of raw or process water. This will provide 2-19 ppm peroxyacetic acid and 1-5ppm hydrogen peroxide. Adjust dosage as necessary to maintain microbiological control. Not to exceed use rates listed.

Add the OXYSAN 25: 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.

Mill Process Waters:

1. **Intermittent Dosing:** Apply 4.1- 9 fluid ounces of OXYSAN 25 per ton (dry basis) of pulp or paper produced for two to three hours every eight-hour shift. This dosage is equivalent to 37-72 ppm peracetic acid and 8-18 ppm hydrogen peroxide. Maintain a concentration that provides adequate control. Daily rate could change depending on the severity of the biofouling.
2. **Continuous Dosing:** Initially, use the intermittent feed method to achieve control. When control is accomplished, apply OXYSAN 25 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 1-9 fluid ounces of OXYSAN 25 solution per ton (dry basis) of pulp or paper produced on a continuous basis. This will provide 9-72 ppm of peroxyacetic acid and 2-18 ppm hydrogen peroxide.
3. **Shock (slug) Dose:** This product may be used to shock dose systems requiring a high level of biofouling control. Use rates ranging from 8.5-60 fl. oz. of this product per ton (dry basis) of pulp or paper produced may be necessary. This dosage is equivalent to 77-479 ppm peroxyacetic acid and 130 ppm hydrogen peroxide. Shock dose every 1-3 hrs. as necessary until biofouling control is evident. Thereafter, revert to continuous or intermittent feed methods.



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 25 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 25 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. Other chemicals should be added separately. Never add OXYSAN 25 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 25. Contamination with other chemicals could result in product decomposition. Add the OXYSAN 25 solution only to water at a point in the system where uniform mixing and even distribution will occur.

Intermittent dose method: Apply 3-6.5 fluid ounces of OXYSAN 25 solution per 1000 gallons of water in the system. This will provide 7-12 ppm peracetic acid and 1-3 ppm hydrogen peroxide. Repeat until control is achieved. Intermittent dose treatment usually requires dose cycles of minimum once every other day, up to six times per 24 hours.

Continuous dose method: Apply 0.5- 3.0 fl. oz. of OXYSAN 25 per 1000 gallons of water in the system. This provides 1-6 ppm peracetic acid and 1 ppm hydrogen peroxide. The dose rate may have to be adjusted to account for losses due to blowdown and evaporation.

Shock (Slug) Dose: For moderately to severely fouled systems add 3-12.5 fl. oz. of this product per 1000 gallons of process water provides 7-24 ppm peracetic acid and 1-5 ppm hydrogen peroxide. Repeat as necessary until microbiological control is evident.

Air Washers: OXYSAN 25 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 1-6 ppm and intermittent dosing methods require 7-12 ppm of peracetic acid depending on the type of system and the level of microbiological control desired as stated above.

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 1-6 ppm and intermittent dosing methods require 7-16 ppm as peracetic acid as described in the previous paragraph, depending on the type of system and the level of microbiological control desired as stated above.



For Non-Public Health Microbial Control in Sewage and Wastewater Effluent Treatment Plants.

Use OXYSAN 25 to treat sewage and wastewater effluent related to public and private wastewater treatment plants. OXYSAN 25 can be applied directly to the effluent at any point, such as debulking control or may be used with an appropriate activator such as hydrogen peroxide or other technology such as Ultra Violet (UV). Typical doses for UV system will be 1-4 ppm of OXYSAN 25.

1. Add OXYSAN 25 at the rate of 2-55 gal per 1million gallon of water to be treated (1-13 ppm peracetic acid and 3 ppm hydrogen peroxide) may be applied to effluent water discharged from trickle bed or percolating fluidized bed filters. 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. The application rate for individual facilities will depend on the degree of bio loading control necessary, water quality and contact time of the effluent stream to be discharged and the local microbial discharge limit. Adjust application rate to meet the need of the individual facility.

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 25 can be for control of slime forming and spoilage bacteria, yeast and fungi and anaerobic sulfate reducing bacteria, *Desulfovibrio vulgaris* and aerobic slime forming bacteria, that lead to reservoir souring and metal corrosion. This product may be used in fresh or recycled water, secondary recovery systems, muds or fluids.

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 2.5- 40.5 fluid ounces per 1000 gallons of water produces 5.0-78 ppm of Peracetic acid and 1 -19 ppm hydrogen peroxide. Dosing levels of 5 to 78 ppm of peroxyacetic are recommended.

Flooding, injection and Produced Water:

Water Flooding Operations: add initially at 2.0- 46 fluid ounces per 1000 gallons of water produces 4-88 ppm of Peracetic acid and 1-22 ppm hydrogen peroxide. 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 88 ppm of Peracetic Acid and 22 ppm hydrogen peroxide when diluted in the formation water. Any additional top-up water should be treated as required.

Hydrostatic Systems: Apply 2.0-46 fluid ounces per 1000 gallons of water produces 4-88 ppm of Peracetic acid and 1-22ppm hydrogen peroxide. Systems may be treated up to 88 ppm of peroxyacetic per 1000 gallons of water 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 2.0-46 fluid ounces per 1000 gallons of water produces 4-88 ppm of Peracetic acid and 1-22 ppm hydrogen peroxide. Systems may be treated 88 ppm of Peroxyacetic 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 25 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 25 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 25 to control sulfides, odor, slime, and algae in sand filters, humidification systems, storage tanks, ponds, reservoirs, canals. Apply OXYSAN 25 at 10.5 to 48 fluid ounces per 10,000 gallons of water. This provides 2 ppm to 9 ppm peroxyacetic acid and 2 ppm hydrogen peroxide. 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 9 ppm of OXYSAN 25).

Drip Irrigation Systems: To clean slime and algae from drip system filters, tapes and emitters, add OXYSAN 25 at 5.2 to 9 fluid ounces per 1000 gallons. This provides 11 ppm to 17 ppm peracetic acid and 4 ppm hydrogen peroxide. 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: OXYSAN 25 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: 60,000 to 1:7300 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: 2400 dilution).

Soil Applications: Use OXYSAN 25 at 10.4-19 fl. oz. per 100 gal of water to produce 22-364 ppm peracetic acid and 45-90 ppm hydrogen peroxide for the control of soil-borne diseases such as Fusarium, Phytophthora, Pythium, Verticillium, Thielaviopsis, and Rhizoctonia. This product can be applied by drench, flood, drip or sprinkler irrigation systems. Best results may be obtained by application prior to and during the seeding or transplant operations. Wait one day before inoculating the soil with beneficial microbes

Foliar Applications: OXYSAN 25 may be used to cure or prevent bacterial and fungal diseases on growing agricultural crops. Typical use rates are 3.32-29.5 fl. oz. of this product per 100 gal of water to produce 73-565 ppm peracetic acid and 15-138 ppm hydrogen peroxide. Apply at 30-100 gal of mixed solution per acre of foliage. Curative (or rescue) treatment requires the lower dilution rates, while preventative treatments use the

Higher dilution rates. Apply curative treatments for 2-3 days and then resume weekly preventative treatments thereafter. Good coverage and wetting of the foliage is required. Not all plant diseases have been tested, but some of the common diseases controlled are: Alternaria spp., Anthracnose, Aphanomyces, Bacterial Blight, Black Spot, Botrytis (gray mold), Brown Spot, Copper Spot, Dollar Spot, Early and Late Blights, Erwinia spp., Fairy Ring, Fusarium Root Rot and Blight, Fruit, Black, Brown, Stem and Sour Rots, Leaf and Bacterial Spots, Plasmopara, Powdery and Downy mildews, Phytophthora Blight/Rots, Pink Snow Mold, Pseudomonas and Xanthomonas spp., Pythium spp., Rhizoctonia spp., Rusts, Scabs, Scum, Slime Molds, Smut, Summer Patch, Stripe Smut, Take-all Patch, and Thielaviopsis.

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

This product may be used in the treatment 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 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 peracetic acid solutions.

Batch Treatment of NF, UF and RO Systems: Isolate incompatible equipment, such as carbon filters and ion exchangers. Clean system with an appropriate cleaner and follows 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 0.25% of this product by volume (0.32 fluid ounces per one gallon of water). This will equal 612 ppm peracetic acid and 150 ppm hydrogen peroxide. Recirculate the 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. Rinse the system with RO permeate or potable water until residual peracetic acid concentration is below 1 ppm.

Continuous or Intermittent Addition: For continuous addition (dosing) for RO systems, add 0.9-2.0 fl. oz. of this product per 1000 gallons of process water. This provides 2-4 ppm of peroxyacetic acid and 1 ppm hydrogen peroxide., For occasional intermittent feed, do not exceed 93 ppm active peracetic acid, which equals 42.5 fl. oz. of this product per 1000 gallons of feed water. Intermittent dosing of this product is not allowed for use in NF or UF systems for on-line food or drinking water applications.

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.

Note: May cause bleaching of treated surfaces

Note: Before using OXYSAN 25 on metal surfaces, it is recommended that the diluted solution be tested on a small area to determine compatibility.

In all applications always prepare new solution daily to ensure effectiveness. Do not re-use solutions. Dispose of un-used solutions responsibly.

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

Manufactured by: BIOSAN LLC ,26 Freedom Way, Saratoga Springs, NY 12866, (518) 886-9827
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