



KMI
CLEANING SOLUTIONS

BioSide™ HS-15%

Conforms to USDA/FSIS Sanitation Performance
Standards Compliance §416.4(a), A-1 and A-8 Guidelines.

February 1, 2018

To: KMI Cleaning Solutions

Re: CONTINUING PRODUCT QUALITY FDA GUARANTEE

The article(s) comprising all shipments or other deliveries hereafter made by Enviro Tech Chemical Services Inc, Modesto, CA or Helena, AR, to or on the order of your company, are hereby guaranteed as to their continuous and mandated compliance, as of the date of such shipment, as specified by the Federal Food, Drug and Cosmetic Act or any amendment thereto or within the meaning of any state food or drug law, and specifically the Food Additives Amendment thereto, and furthermore that:

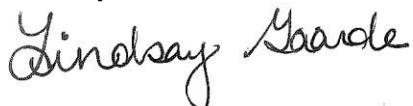
1. They are articles which may, under the Provisions of Sections 404 and 505 of the Federal Act, be introduced into interstate commerce.
2. All products offered or delivered from our company shall be fully approved for food plant usage in accordance with the Code of Federal Regulations, Title 21 (specifically 178.1010), and the USDA (previously known as D2 standard) where applicable.
3. No ingredients or packaging used in the manufacture of products intended for use as "Food Grade" shall contain materials or ingredients derived from genetically modified or altered organisms, nor will the ingredients used be of a quality or origin suspected of being an allergen.
4. All ingredients used in our products, where food contact is eminent or possible, will be derived from the appropriate food grade ingredients.
5. This article is safe and effective under conditions of use as described on product label instructions, and if continued to be used, handled and stored properly, will not adulterate food products or create unsanitary conditions.

This guarantee is continuing and shall be in full force and effect until revoked in writing, and shall include the following items purchased from Enviro Tech Chemical Services, Inc.:

1. BioSide HS 15%

Intended use: for general water treatment or cleaning of food contact surfaces and direct disinfection of meat and poultry carcasses. These products may be used in Federally inspected meat, poultry, seafood, fruit, vegetable, pulp and paper, beverage, and egg plants, if used in accordance with label instructions. These products also meet all guidelines established by the USDA for use in these federally inspected facilities.

Sincerely,



LINDSAY GAARDE

Regulatory Affairs/QA Unit
EnviroTech Chemical Services Inc.
209 581-9576 x 1107 Direct-209 232-2234

BioSide™ HS 15%

(ANTIMICROBIAL SOLUTION)

BioSide™ HS 15% is a peroxyacetic acid-based microbiocide developed for Equipment Sanitizing and Disinfection, and Bacteria, Fungi, Slime and Odor Control in: Pulp and Paper Mill Systems, Fruit and Vegetable Process Water Systems, Oil and Gasfield Water Systems, and Bacterial and Algae Control in Recirculating, Agricultural, and Wastewater Treatment Systems.

ACTIVE INGREDIENT:

Peroxyacetic Acid	15.0%
Hydrogen Peroxide	22.0%
TOTAL	100.0%

EPA Registration No: 63838-2
EPA Est. No. 63838-CA-01: 63838-AR-001

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

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

FIRST AID

IF IN EYES	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> Call a 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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> 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 INHALED	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
QUESTIONS? 1-209-581-9576	Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
NOTE TO PHYSICIAN:	Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER CORROSIVE: Do not enter an enclosed area without proper respiratory protection, or when uncoupling of product transfer hoses. Causes irreversible eye damage and skin burns. May be fatal if inhaled or absorbed through skin. Harmful if swallowed. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Wear goggles, face shield, rubber gloves and protective clothing with long sleeves when handling. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse.

PHYSICAL OR CHEMICAL HAZARDS:

STRONG OXIDIZING AGENT. CORROSIVE: Mix only with potable water below 140° F. Product must be diluted in accordance with label directions prior to use. This product is not combustible; however, at temperatures exceeding 156°F, decomposition occurs releasing oxygen. The oxygen released could initiate combustion.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to birds, fish and aquatic invertebrates. Caution must be used when applying indoors because pets may be at risk. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of the National Pollution Discharge System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage plant authority.

UN 3109

DOT:

, Organic Peroxide Type F,

Liquid (<=25% Peracetic Acid with <=26% Hydrogen Peroxide) 5.2 (8)

STORAGE AND DISPOSAL

Storage: Never return this product 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, spray container with cool water and dilute this product with large volumes of water. Avoid damage to containers. Keep container closed at all times when not in use. **Keep container out of direct sunlight.** To maintain product quality, store at temperatures below 86°F.

Procedure for Leak or Spill: Stop leak if this can be done without risk. Shut off ignition sources: no flames, smoking, flares, or spark producing tools. Keep combustible and organic materials away. Flush spilled material with large quantities of water. Undiluted material must not enter confined spaces.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsates is a violation of Federal Law. If these wastes cannot be disposed by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or Hazardous Waste representative at the nearest EPA Regional Office for guidance. If material has been spilled, an acceptable method of disposal is to dilute with at least 20 volumes of water followed by discharge into suitable treatment system in accordance with all local, state and Federal environmental laws, rules, regulations, standards, and other requirements. Because acceptable methods of disposal may vary by location, regulatory agencies must be contacted prior to disposal. This product which is to be discarded, must be disposed of as hazardous waste after contacting the appropriate local State or Federal agency to determine proper procedures.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Offer for recycling, if available. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Directions For Use

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

Note: All volumes given in ounces are fluid ounces.

SANITIZATION

This peroxyacetic acid sanitizer is recommended for use on precleaned surfaces such as equipment, pipelines, tanks, vats, filters, evaporators, pasteurizers, and aseptic equipment in dairies, breweries, wineries, beverage and food processing/packing plants, and egg processing/packing equipment surfaces. This product is effective as a sanitizer when solution is prepared in water of up to 400 ppm hardness as CaCO_3 . This product has demonstrated greater than 99.999% reduction of *Staphylococcus aureus* and *Escherichia coli* in the AOAC Germicidal and Detergent Sanitizing Action of Disinfectants study.

Sanitizing Food Contact Surfaces: Sanitize with a concentration of 0.7-3.8 fl. oz. of this product diluted in 10 gallons of water (93-500 ppm active peroxyacetic acid). Use immersion, coarse spray or circulation techniques as appropriate to the equipment. All surfaces must be exposed to sanitizing solution for a period of at least 60 seconds or more if specified by a governing code. Drain thoroughly and allow to air dry. Do not rinse.

Sanitization of Conveyors and Equipment for Meat, Poultry, Seafood, Fruit, Nuts and Vegetables: This product is effective against the gram positive organism *Staphylococcus aureus* and gram negative organism *Escherichia coli*. For use in the static or continuous sanitizing, washing or rinsing of conveyors, slicers, saws, and equipment, apply a solution of this product using a recommended 0.7-3.8 fl. oz. per 10 gallons of water (93-500 ppm active peroxyacetic acid). Apply sanitizer solution to the return portion of the conveyor or equipment using coarse spray or similar means of wetting surfaces, so as to prevent puddling. Allow sanitizer to thoroughly wet surface for a minimum of 60 seconds contact time. No rinse is needed.

Final Bottle or Container Rinse: This product may be used as a final sanitizer rinse for returnable and non-returnable bottles or containers at 93-500 ppm active peroxyacetic acid (0.7-3.8 fl. oz. of this product diluted in 10 gallons of water). The container must be drained as much as is practical prior to filling operations.

Combination Disinfection and Cleaning: This product is effective against *Staphylococcus aureus* and *Salmonella enterica* at 1.0 oz per 10 gallons of water (130 ppm active peroxyacetic acid) in hard water (400 ppm as CaCO_3) and 5% organic soil on hard nonporous surfaces. For heavily soiled areas a pre-cleaning step is required. Apply solution with a mop, cloth, sponge, brush, or by soaking, spraying, or immersion so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes, then remove excess solution and entrapped soil with a clean wet mop, cloth, wet vacuum pickup or by draining. Prepare a fresh solution daily or when it becomes soiled or diluted.

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 concentrations of peroxyacetic acid solutions.

Batch Sanitation of NF, UF and RO Systems: Isolate incompatible equipment, such as carbon filters and ion exchangers. Clean system with an appropriate cleaner and follow with RO permeate water or potable water. Remove mineral deposits if necessary with an acidic cleaner, and rinse as before. Fill entire system with water and add up to 0.5% of this product by volume. This will equal 680 ppm peroxyacetic acid and 1000 ppm hydrogen peroxide. 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. Rinse the system with RO permeate or potable water until residual peroxyconcentration 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.

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.

BIOFOULING CONTROL IN PULP, PAPER AND PAPERBOARD MILL AND WATER SYSTEMS

Not for use in California. For use in the manufacture of paper and paperboard intended for food or non food contact. This product can be used to control bacteria and fungi in paper, paperboard or non-woven process water and influent water systems. Suitable dosing points include but are not limited to: stock chests, pulpers, the white water loop, white water storage systems and influent water streams. Influent Water Systems: This product should be fed continuously to incoming fresh water streams (nonpotable 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.

Mill Process Waters:

Intermittent Feed: This product may be fed intermittently (for example: 2-3 hours per 8 hour shift) at dosages ranging from 0.5 lbs to 1.2 lb (7-16 fl. oz.) of this product per ton (dry basis) of pulp or paper produced. This dosage is equivalent to 37-90 ppm peroxyacetic acid. Repeat as necessary when the peroxyacetic acid concentration reaches less than 2 ppm.

Continuous Feed: This product should be fed continuously at dosages ranging from 0.11-1.2 lbs (1.5-16 fl. oz.) of this product per ton (dry basis) of pulp or paper produced. This dosage is equivalent to 8.0-90 ppm peroxyacetic acid.

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 SLIME FORMING BACTERIA AND BIOFOULING IN ONCE-THROUGH AND RECIRCULATING COOLING WATER /COOLING TOWERS, EVAPORATIVE CONDENSERS, AIR WASHERS) AND ORNAMENTAL OR RECREATIONAL WATER FEATURES

Severely fouled systems must be cleaned before adding this product. This product must be added in the water system directly, and not mixed with any other chemicals or additives. Never add this product 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 this product. Contamination with other chemicals could result in product decomposition. Add this product to only water at a point in the system where uniform mixing and even distribution will occur.

For shock (slug) treatment for moderately or 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. Thereafter, to maintain control use (1.5-7.5 fl. oz.) of this product per 1000 gallons of process water (2-10 ppm of peroxyacetic acid) as a continuous treatment method. Continuous dosing methods usually require 1.5-5 fl. oz. per 1000 gallons of water (2-7 ppm peroxyacetic acid) to achieve adequate results.

Intermittent dosing treatment usually requires dose cycles of a minimum once per every other day, up to 6 times per 24 hours. Recommended rates for intermittent dose cycles are 5-10 fl. oz. of this product per 1000 gallons of process water (7-14 ppm peroxyacetic acid).

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 2 paragraphs, depending on the type of system and the level of microbiological control desired.

EVAPORATED OR CONDENSED WATER: The 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.

FOR DISINFECTION AND MICROBIAL CONTROL IN EFFLUENT TREATMENT SYSTEMS

Use this product to treat sewage and wastewater effluent systems associated with public and private wastewater treatment plants. This product may be applied alone at any point in the treatment train, such as debulking control, or may effectively be used in conjunction with other systems, such as Ultra Violet (UV) light. Doses for UV systems will typically be 1-4 ppm (as active PAA). Initially apply this product at the rate of 3.2-66.4 gal per million gallons of water to be treated (0.5-10 ppm as peracetic acid). The PAA dosage will depend on the quality of water, contact (holding) time, and the degree of microbial control necessary. The PAA concentration will rapidly decline after treatment, but the maximum amount of PAA that may be discharged into the receiving body of water is limited to 1 ppm as active PAA, or as required for local discharge requirements. Consult your Enviro Tech representative for recommendations regarding an accurate test kit or on-line analyzer.

OIL, GAS AND SECONDARY OIL RECOVERY SYSTEMS, DRILLING MUDS AND PACKING FLUID

This product may be used to treat water used in primary or secondary oil and gas recovery systems to control anaerobic sulfide-forming bacteria and aerobic slime-forming bacteria. This product may be used in fresh or recycled water, secondary recovery systems, muds or fluids. This product controls biofilm and slime deposits on products associated with oilfield and gasfield systems which are susceptible to contamination. It also controls slime deposits downhole in water-bottoms. Add sufficient amount of this product to achieve satisfactory biological control. Initial recommended dosing levels of 5 to 100 ppm as active peroxyacetic acid are suggested. A dosage of 3.75 fl. oz. per 1000 gallons of water yields approximately 5 ppm of peroxyacetic acid.

TREATMENT OF FRUIT AND VEGETABLE PROCESS WATER SYSTEMS

The product can be used in water or ice that contacts raw or fresh, post-harvest or further processed fruits and vegetables for the control of bacteria and fungi in commercial operations and packinghouses.

Batch, Continuous or Spray System Processes: Fill vessel containing fruits and vegetables with known amount of water. Ensure that water is circulating in vessel if using the submergence method. Add this product to no more than 533 ppm (wt/wt) total product (80 ppm residual peroxyacetic acid) to the use solution. This can be accomplished by initially adding 53.3 grams (47.3 ml) of this product per 100 liters of water, or 1.0 fl. oz. per 16.4 gallons of water. The fruits and vegetables can be continuously sprayed (using coarse spray) or submerged (dipped) in the resulting solution. Periodic or continuous additions of this product to maintain the required concentration may be added as necessary. It is also recommended to apply this product during the washing, chilling, or physical cleaning processes, including the roller-spreader, washer or brush washer manifold, dip tank, or sorting processes. Contact time of 60 seconds is recommended to insure efficacy. A potable water rinse is not required.

AGRICULTURAL or HORTICULTURAL USES

There is a Restricted-Entry-Interval of zero (0) hours after the use of this product. This product must never be mixed or combined with any other pesticide or fertilizer. Upon soil contact this 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 of 1 ppm or more of active peroxyacetic acid. Meter this product into pressurized pipes using a plastic or stainless steel injection/backflow device installed far enough upstream from the equipment to ensure thorough mixing. For open flowing bodies of water, apply this product as far upstream as possible to allow adequate mixing prior to the flow entering any larger body of water. If open pouring of this product is required pour product as close to the surface of the water as possible to reduce odor exposure.

Treatment of Agricultural or Irrigation Water Systems: (sand filters, humidification systems, storage tanks, ponds, reservoirs, canals): For the control of sulfides, odor, slime and algae in water systems, apply this product at 2-10 ppm active peroxyacetic acid. This feed rate equals 15-75 fl. oz. per 10,000 gallons of water. Repeat dose as necessary to maintain control, which will vary with seasonal conditions. For prevention of algae, some systems may require continuous low level dosing during warm sunny periods (2-5 ppm peroxyacetic acid).

Drip Irrigation Systems: To clean slime and algae from drip system filters, tapes and emitters, meter this product at the rate of 7.5-15 fl. oz. per 1000 gallons of water (10-20 ppm peroxyacetic acid). When required during normal irrigation cycles, use this product at the recommended dose for a minimum of 30 minutes. After an irrigation cycle do not 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).

Manufactured By: ENVIRO TECH CHEMICAL SERVICES, Inc. 500 Wimmore Way, Modesto, CA 95358
209-581-9576 or www.envirotech.com 24 hr Emergency ChemTrec No.: 800-424-9300

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LOT #:

Net contents: 45 Lbs/4.75 Gals

33-JK100

V8z



BioSide™ HS 15%

(ANTIMICROBIAL SOLUTION)

EPA Registration No: 63838-2

EPA Est. No. 63838-CA-01: 63838-AR-001



DIRECTIONS FOR USE

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

Note: All volumes given in ounces are fluid ounces.

SANITIZATION

This peroxyacetic acid sanitizer is recommended for use on precleaned surfaces such as equipment, pipelines, tanks, vats, filters, evaporators, pasteurizers, and aseptic equipment in dairies, breweries, wineries, beverage and food processing/packing plants, and egg processing/packing equipment surfaces. This product is effective as a sanitizer when solution is prepared in water of up to 400 ppm hardness as CaCO₃. This product has demonstrated greater than 99.999% reduction of *Staphylococcus aureus* and *Escherichia coli* in the AOAC Germicidal and Detergent Sanitizing Action of Disinfectants study.

Sanitizing Food Contact Surfaces: Sanitize with a concentration of 0.7-3.8 fl. oz. of this product diluted in 10 gallons of water (93-500 ppm active peroxyacetic acid). Use immersion, coarse spray or circulation techniques as appropriate to the equipment. All surfaces must be exposed to sanitizing solution for a period of at least 60 seconds or more if specified by a governing code. Drain thoroughly and allow to air dry. Do not rinse.

Sanitization of Conveyors and Equipment for Meat, Poultry, Seafood, Fruit, Nuts and Vegetables: This product is effective against the gram positive organism *Staphylococcus aureus* and gram negative organism *Escherichia coli*. For use in the static or continuous sanitizing, washing or rinsing of conveyors, slicers, saws, and equipment, apply a solution of this product using a recommended 0.7-3.8 fl oz. per 10 gallons of water (93-500 ppm active peroxyacetic acid). Apply sanitizer solution to the return portion of the conveyor or equipment using coarse spray or similar means of wetting surfaces, so as to prevent puddling. Allow sanitizer to thoroughly wet surface for a minimum 60 seconds contact time. No rinse is needed.

Final Bottle or Container Rinse: This product may be used as a final sanitizer rinse for returnable and non-returnable bottles or containers at 93-500 ppm active peroxyacetic acid (0.7-3.8 fl. oz. of this product diluted in 10 gallons of water). The container must be drained as much as is practical prior to filling operations.

Combination Disinfection and Cleaning: This product is effective against *Staphylococcus aureus* and *Salmonella enterica* at 1.0 oz per 10 gallons of water (130 ppm active peroxyacetic acid) in hard water (400 ppm as CaCO₃) and 5% organic soil on hard nonporous surfaces. For heavily soiled areas a pre-

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cleaning step is required. Apply solution with a mop, cloth, sponge, brush, or by soaking, spraying, or immersion so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes, then remove excess solution and entrapped soil with a clean wet mop, cloth, wet vacuum pickup or by draining. Prepare a fresh solution daily or when it becomes soiled or diluted.

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 680 ppm peroxyacetic acid and 1000 ppm hydrogen peroxide. 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. 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.

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.

BIOFOULING CONTROL IN PULP, PAPER AND PAPERBOARD MILL AND WATER SYSTEMS

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Mill Process Waters: Intermittent Feed - This product may be fed intermittently (for example: 2-3 hours per 8 hour shift) at dosages ranging from 0.5 lbs to 1.2 lb (7-16 fl. oz.) of this product per ton (dry basis) of pulp or paper produced. This dosage is equivalent to 37-90 ppm peroxyacetic acid. Repeat as necessary when the peroxyacetic acid concentration reaches less than 2 ppm.

Continuous Feed - This product should be fed continuously at dosages ranging from 0.11-1.2 lbs (1.5-16 fl. oz) of this product per ton (dry basis) of pulp or paper produced. This dosage is equivalent to 8.0-90 ppm peroxyacetic acid.

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 SLIME FORMING BACTERIA AND BIOFOULING IN ONCE-THROUGH AND RECIRCULATING COOLING WATER (COOLING TOWERS, EVAPORATIVE CONDENSERS, AIR WASHERS) AND ORNAMENTAL OR RECREATIONAL WATER FEATURES

Severely fouled systems must be cleaned before adding this product. This product must be added in the water system directly, and not mixed with any other chemicals or additives. Never add this product 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 this product. Contamination with other chemicals could result in product decomposition. Add this product to only water at a point in the system where uniform mixing and even distribution will occur.

For shock (slug) treatment 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. Thereafter, to maintain control use (1.5-7.5 fl. oz.) of this product per 1000 gallons of process water (2-10 ppm of peroxyacetic acid) as a continuous treatment method. Continuous dosing

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methods usually require 1.5-5 fl. oz. per 1000 gallons of water (2-7 ppm peroxyacetic acid) to achieve adequate results.

Intermittent dosing treatment usually require dose cycles of a minimum once per every other day, up to 6 times per 24 hours. Recommended rates for intermittent dose cycles are 5-10 fl. oz of this product per 1000 gallons of process water (7-14 ppm peroxyacetic acid).

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 2 paragraphs, depending on the type of system and the level of microbiological control desired.

Evaporated or Condensed Water: This product may be used to treat SWEET or COW water (e.g. condensate of whey) collected from evaporated or condensing water systems in food or dairy plants. Continuous dosing methods will require 2-7 ppm and intermittent dosing methods require 7-14 ppm (as peroxyacetic acid) as described in the previous paragraph, depending on the type of system and the level of microbiological control desired.

FOR DISINFECTION AND MICROBIAL CONTROL IN EFFLUENT TREATMENT SYSTEMS

Use this product to treat sewage and wastewater effluent systems associated with public and private wastewater treatment plants. This product may be applied alone at any point in the treatment train, such as debulking control, or may effectively be used in conjunction with other systems, such as Ultra Violet (UV) light. Doses for UV systems will typically be 1-4 ppm (as active PAA). Initially apply this product at the rate of 3.2-66.4 gal per million gallons of water to be treated (0.5-10 ppm as peracetic acid). The PAA dosage will depend on the quality of water, contact (holding) time, and the degree of microbial control necessary. The PAA concentration will rapidly decline after treatment, but the maximum amount of PAA that may be discharged into the receiving body of water is limited to 1 ppm as active PAA, or as required for local discharge requirements. Consult your Enviro Tech representative for recommendations regarding an accurate test kit or on-line analyzer.

OIL, GAS AND SECONDARY OIL RECOVERY SYSTEMS, DRILLING MUDS AND PACKING FLUID

This product may be used to treat water used in primary or secondary oil and gas recovery systems to control anaerobic sulfide-forming bacteria and aerobic slime-forming bacteria. This product may be used in fresh or recycled water, secondary recovery systems, muds or fluids. This product controls biofilm and

BioSide™ HS 15%

(ANTIMICROBIAL SOLUTION)

EPA Registration No: 63838-2

EPA Est. No. 63838-CA-01: 63838-AR-001



slime deposits on products associated with oilfield and gasfield systems which are susceptible to contamination. It also controls slime deposits downhole in water-bottoms. Add sufficient amount of this product to achieve satisfactory biological control. Initial recommended dosing levels of 5 to 100 ppm as active peroxyacetic acid are suggested. A dosage of 3.75 fl. oz. per 1000 gallons of water yields approximately 5 ppm of peroxyacetic acid.

TREATMENT OF FRUIT AND VEGETABLE PROCESS WATER SYSTEMS

This product can be used in water or ice that contacts raw or fresh, post-harvest or further processed fruits and vegetables for the control of bacteria and fungi in commercial operations and packinghouses.

Batch, Continuous or Spray System Processes: Fill vessel containing fruits and vegetables with known amount of water. Ensure that water is circulating in vessel if using the submersion method. Add this product to no more than 533 ppm (wt/wt) total product (80 ppm residual peroxyacetic acid) to the use solution. This can be accomplished by initially adding 53.3 grams (47.3 mls) of this product per 100 liters of water, or 1.0 fl. oz. per 16.4 gallons of water. The fruits and vegetables can be continuously sprayed (using coarse spray) or submerged (dipped) in the resulting solution. Periodic or continuous additions of this product to maintain the required concentration may be added as necessary. It is also recommended to apply this product during the washing, chilling, or physical cleaning processes, including the roller-spreader, washer or brush washer manifold, dip tank, or sorting processes. Contact time of 60 seconds is recommended to insure efficacy. A potable water rinse is not required.

AGRICULTURAL or HORTICULTURAL USES

There is a Restricted-Entry-Interval of zero (0) hours after the use of this product. This product must never be mixed or combined with any other pesticide or fertilizer. Upon soil contact this 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 of 1 ppm or more of active peroxyacetic acid. Meter this product into pressurized pipes using a plastic or stainless steel injection/backflow device installed far enough upstream from the equipment to ensure thorough mixing. For open flowing bodies of water, apply this product as far upstream as possible to allow adequate mixing prior to the flow entering any larger body of water. If open pouring of this product is required pour product as close to the surface of the water as possible to reduce odor exposure.

Treatment of Agricultural or Irrigation Water Systems: (sand filters, humidification systems, storage tanks, ponds, reservoirs, canals): For the control of sulfides, odor, slime and algae in water systems, apply this product at 2-10 ppm active peroxyacetic acid. This feed rate equals 15-75 fl. oz per 10,000 gallons of water. Repeat dose as necessary to maintain control, which will vary with seasonal conditions.

BioSide™ HS 15%
(ANTIMICROBIAL SOLUTION)
EPA Registration No: 63838-2
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For prevention of algae, some systems may require continuous low level dosing during warm sunny periods (2-5 ppm peroxyacetic acid).

Drip Irrigation Systems: To clean slime and algae from drip system filters, tapes and emitters, meter this product at the rate of 7.5-15 fl. oz. per 1000 gallons of water (10-20 ppm peroxyacetic acid). When required during normal irrigation cycles, use this product at the recommended dose for a minimum of 30 minutes. After an irrigation cycle do not 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).

Manufactured By: ENVIRO TECH CHEMICAL SERVICES, Inc. 500 Winmoore Way, Modesto, CA 95358
209-581-9576 or www.envirotech.com 24 hr Emergency ChemTrec No.: 800-424-9300
UN 3109, Organic Peroxide Type F, Liquid (<=25% Peracetic Acid with <=26% Hydrogen Peroxide) 5.2 (8)



BioSide™ HS-15% (Peroxyacetic Acid Solution)

EPA Number: 63838-2

Applications

Food grade sanitizer used in the dairy, food and beverage processing industry for CIP pipeline cleaning, fruit and vegetable washing, and sanitizing. Appropriate for organic production sanitizing as approved by the NOP. It is also used in the treatment of cooling water, oilfield process water and wastewater. Additional uses are for slime and biofouling control in the pulp & paper industry, agricultural irrigation, dispersed pigments and coatings industries.

Properties

BioSide™ HS 15% has a high oxidation potential and is very reactive. It exhibits excellent bactericidal and fungicidal activity against a wide range of microorganisms in cold or warm water. Product is stable for a minimum of 1 year under normal conditions. It ultimately degrades to oxygen, water, and acetic acid (vinegar).

Chemical Composition

BioSide™ HS 15% is an equilibrium mixture of peracetic acid, hydrogen peroxide, acetic acid, proprietary ingredients, and water.

Peracetic acid (% wt.)	14.8-15.7
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H ₂ O ₂ (% wt.)	21.5-22.5
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Acetic acid (% wt.)	15.8-16.6
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Physical Properties

Density 20°C (68°F), (g/ml)	1.135 (9.47 lbs/gal)
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Vapor Pressure (mbar), 20°C (68°F)	27
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pH (10% solution), 20°C (68 °F)	<1
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Flash Point (DIN 51584)	> 98° C (207° F)
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Freezing Point	< -29° C (-20° F)
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Appearance

Clear, colorless liquid (pungent vinegar-like odor)

Storage

The BioSide™ HS 15% container must be stored in an upright position.

The storage area should be well ventilated and **shaded from sunlight** as well as protected from sources of radiant heat. Contamination of the product, especially heavy metal ions and alkali, must be avoided.

Shelf Life

At least 1 year without notable losses of active oxygen if stored properly.

Packaging

5 gal (45 lb), 53 gal (500 lb), 300 gal (2840 lb)

Available in HDPE plastic pails, drums and totes.

Transport (DOT)

UN3109, Organic peroxide type F, liquid (<=25% peracetic acid with <=26% hydrogen peroxide), 5.2 (8)

#33

ENVIRO TECH CHEMICAL SERVICES, Inc. 500 Winmoore Way, Modesto, CA 95358 (209) 581-9576

All information and statements contained herein are believed to be accurate at the time of publication, but Enviro Tech Chemical Services, Inc. makes no warranty with respect thereto, including but not limited to any results to be obtained or the infringement of any proprietary rights. Use or application of such information or statements is at user's sole discretion, without any liability on the part of Enviro Tech. Nothing herein shall be construed as a license or recommendation for use which infringes upon any proprietary rights. Use of this product shall be the sole responsibility of user, and Enviro Tech shall not be liable in any way for said use, other than reimbursement for the actual cost of product.





וְעַד הַרְבָּנוּמָן דָּעַת רָא'יט

Council of Orthodox Rabbis of Greater Detroit

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Presidium

Rabbi Moshe Wainkrantz
Director

Rabbi Beryl Broyde
Rabbi Yosef Krupnik
K-COR – Kashrus Division

December 16, 2021

To Whom It May Concern:

The following cleaning products, manufactured by **KMI Cleaning Solutions**, 157 Beadle Lake Road, Battle Creek, MI 49014, and by **Arrow Chemical Products Inc.**, 2067 Saint Ann Street, Detroit, MI 48216, which are going to be used at Kosher tank wash facilities throughout the country, are certified Kosher and Pareve, and are under the supervision of the Council of Orthodox Rabbis of Greater Detroit. Both plants have been visited by our Kashruth administrator, Rabbi Krupnik, and will continue to be inspected throughout the year.

- **Kleen Strip Powder**
- **D-8000 Powdered Detergent**
- **Breakaway Detergent**
- **191 Performance**
- **TW-22**
- **Work Horse**
- **Citra Clean**
- **Alligator**
- **X-20**
- **Swish**
- **Orange Gator**
- **Sudz**
- **Passivator**
- **Citric Passivator**
- **Metal Prep**

The products are a family of detergents based on Kosher Pareve approved acids (sulfuric acid, phosphoric acid, etc.) and other chemicals approved as Kosher and Pareve.

This certificate is valid through December 31, 2022.

Sincerely,

Rabbi Moshe Wainkrantz
 Director, Council of Orthodox Rabbis of Greater Detroit

