PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGEROUS CORROSIVE. Do not enter an enclosed area without proper respiratory protection. 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 it in eyes, on skin, or on clothing. Wear goggles and face shield and rubber gloves when handling. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash before reuse.

Physical or Chemical Hazards: Strong oxidizing agent. Corrosive. Mix only with water at ambient temperature. Product must be diluted in accordance with label directions prior to use. This product is not combustible, however, its aqueous solution may become highly alkaline. Caution should be used when applying indoors because pets may be at risk. Do not discharge effluent containing this product into lakes, streams, or other waterways unless in accordance with the requirements of the National Pollution Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to use. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage plant authority.

Storage and Disposal
Storage: Never return the entire original container after it has been removed. Avoid all containers, especially dirty nests, pupal chambers, and larvae. Equipment or containers of any kind should be thoroughly cleaned before reuse. Exposed surfaces should be thoroughly cleaned with water. If the product cannot be used for disposal of contaminated water, do not dispose of this product in landfills. Store in a cool, dry place. Do not store near food or feed. Do not pour into drains or sewers. Do not mix with other chemicals. Do not mix with any other pesticides. Do not store in plastic containers unless they are thoroughly cleaned and rinsed thoroughly with water. Storage in plastic containers can result in the release of contaminants into the environment. For long-term storage, store in a dry, cool place away from direct sunlight.

Inert Ingredients: Hydrogen Peroxide 22.0%. Total 100.0%

EPA Registration No: 63838-2 EPA Est. No. 63838-CA-01, 60156-IL-01

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

KEEP OUT OF REACH OF CHILDREN

DANGER

BioSide HS 15% (ANTIMICROBIAL SOLUTION)

FOR USE IN ORGANIC PRODUCTION:

BioSide HS 15% is a peroxycarboxylic acid-based microbiocide developed for Equipment Sanitizing and Disinfecting of Bacteria, Viruses, and Mold. It is a fruit and vegetable process water systems, oil and gasfield water systems, and bacteria and algae control in recirculating, agricultural, and wastestream water treatment systems.

ACTIVE INGREDIENT:

Peroxycarboxylic Acid 15.0%

INERT INGREDIENTS:

Hydrogen Peroxide 22.0%

TOTAL 100.0%

Continuous or Intermittent Addition: For continuous addition (dosing) for RO systems, use 2-5 ppm of active peroxycarboxylic acid, which equals 1.5-7.5 fl oz. of this product per 1000 gallons of process water.

BIOCOILING CONTROL IN PAPER, PAPERBOARD AND PAPER MILL WATER SYSTEMS:

(not for use in California) For use in the manufacture of paper and paperboard intended for food or non-food contact. BioSide HS 15% may 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 choppers, pulpers, the white water loop, white water storage systems and influent water streams.

Continuous Feed - BioSide HS 15% is to be fed continuously to incoming fresh water streams (inappropriate use only) at dosages ranging from 0.11-2.0 lbs (1.2-7.5 fl oz. of this product per 1000 gallons of raw or process water (2.0-36 ppm peroxycarboxylic acid). Adjust dosage as necessary to maintain microbiological control. Mill Process Waters - BioSide HS 15% may 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 choppers, pulpers, the white water loop, white water storage systems and influent water streams.

Continuous Feed - BioSide HS 15% should be fed continuously at dosages ranging from 0.11-1.2 lbs (1.5-16.0 fl oz. of this product per 1000 gallons of raw or process water (2.0-36 ppm peroxycarboxylic acid). Adjust dosage as necessary to maintain microbiological control. Mill Process Waters - BioSide HS 15% may 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 choppers, pulpers, the white water loop, white water storage systems and influent water streams.

BioSide HS 15% may be used in the sanitization of paper stock and inks used in inkjet and laser printing systems. This product is not for use in kidney dialysis equipment. Do not use the intermittent or continuous addition of BioSide HS 15% in heat tolerant solutions with a pH of 4.5 or lower. Application solutions with a pH of 7.0 or lower cannot be used to destroy all microorganisms in RO or NF clarification systems and their associated piping systems. This product is not for use in kidney dialysis equipment. Do not use the intermittent or continuous addition of BioSide HS 15% in heat tolerant solutions with a pH of 4.5 or lower. Application solutions with a pH of 7.0 or lower cannot be used to destroy all microorganisms in RO or NF clarification systems and their associated piping systems.

BATCH SANITIZATION OF NF, UF, AND RO SYSTEMS: Isolate incompatible equipment such as carbon filters and ion exchange systems with an appropriate cleaning and follow with RO permeate water or potable water. Remove mineral deposits if necessary with an acidic cleaner and rinse as before. Fill entire systems with BioSide HS 15% and allow to react for up to 0.5% of this product by volume. This will equal 680 ppm peroxycarboxylic acid and 1000 ppm hydrogen peroxide. Rinse thoroughly with a spray system or by hand before cleaning or disinfecting equipment. Parts are in contact with the solution. Rinse the system with RO permeate or potable water until residual peroxycarboxylic acid is below 0.1 ppm.

CONTROL OF SLIME FORMING BACTERIA AND BIOFILM IN COOLING WATER SYSTEMS:

COOLING TOWERS, EVAPORATIVE CONDENSERS, AIR WASHERS AND ORNAMENTAL OR RECREATIONAL FISH PENS: Feed this product check with manufacturer to confirm compatibility of membranes with various types or concentrations of peroxycarboxylic acid solutions.

Batch Sanitization of NF, UF, and RO Systems: Isolate incompatible equipment such as carbon filters and ion exchange systems with an appropriate cleaning and follow with RO permeate water or potable water. Remove mineral deposits if necessary with an acidic cleaner and rinse as before. Fill entire systems with BioSide HS 15% and allow to react for up to 0.5% of this product by volume. This will equal 680 ppm peroxycarboxylic acid and 1000 ppm hydrogen peroxide. Rinse thoroughly with a spray system or by hand before cleaning or disinfecting equipment. Parts are in contact with the solution. Rinse the system with RO permeate or potable water until residual peroxycarboxylic acid is below 0.1 ppm.
treatment method. Continuous dosing methods usually require 1.5-5 fl. oz. per 1000 gallons of water (2-7 ppm peroxycetic acid) to achieve adequate results. Intermittent dosing treatment usually require dose cycles of a minimum one per day, up to 6 times per 24 hours. Recommended rates for intermittent dose cycles are 5-10 fl. oz. of BioSide™ HS 15% per 1000 gallons of process water (5-14 ppm peroxycetic 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 with the appropriate cleaner. Continuous dosing methods will require 2-7 ppm and intermittent dosing methods require 7-14 ppm (as peroxycetic acid), as described in the previous 2 paragraphs, 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 wastewater 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 debubbling control, or may 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 2.9-58 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 or gas recovery systems to control amenable sulfate-reducing bacteria and aerobic sulfate-oxidizing bacteria. BioSide HS 15% may be used in seawater or fresh water, recycled or disposal/recovery systems, muds or fluids. BioSide HS 15% controls biofilm and slime deposits on pumps, pipework, heat exchangers, and filters associated with oilfield and gasfield systems. It also controls slime deposit downhole in formations. Add sufficient amount of BioSide HS 15% to achieve satisfactory biological control, initial recommended dosing levels of 1 to 25 ppm as active peroxycetic acid are suggested. This product may be used upstream in conjunction with other disinfection systems, such as with Ultra Violet (UV) light. Typical doses for UV systems range from 1-5 ppm as peroxycetic acid. A dosage of one fluid ounce per 1000 gallons of water yields approximately 1.4 ppm of peroxycetic acid.

TREATMENT OF FRUIT AND VEGETABLE PROCESS WATER SYSTEMS: BioSide HS 15% 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 volume of water. Ensure that water is circulating in vessel if using the submergence method. Add this product to no more than 533 ppm (w/w) total product (80 ppm residual peroxycetic acid) to the use solution. This can be accomplished by initially adding 3.3 grams (4.7 fl oz) 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. Contact time of 60 seconds is recommended to insure efficacy. A probable water rise is not required. This product is not intended for use in primary flames prior to the point of startup dewatering stage.

AGRICULTURAL OR HORTICULTURAL USES: There is a Restricted-Entry-Interval of zero (0) hours after the use of this product. This product should never be mixed or combined with any other pesticide or fertilizer. Upon soil contact this diluted product degrades 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 peroxycetic acid. Meter this product into pressurized pipes using a plastic or stainless steel injection/bulkflow 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 piping 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 (used filters, humidification systems, storage tanks, ponds, reservoirs, canals): For the control of sulfides, color, slime and algae in water systems, apply this product at 2-10 ppm active peroxycetic acid. This feed rate equals 2-75 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 during warm summer periods (2-5 ppm peroxycetic 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 peroxycetic acid). When required during normal irrigation cycles, use this product at the recommended dose for a minimum of 30 minutes. Thereafter, the irrigation cycle should be discontinued and the line should not be flushed.

Commercial Greenhouses: This product can be used to suppress/control fungi, algae and slime formations in and around greenhouse structures, including ventilation/cooling and watering systems, coolers, storage rooms, walkways, floors/mats, and on other insulating surfaces. For normal use in various processes, irrigation or quick/low watering systems, this product may be used at 1-40,000 to 15,000 dilutions (4-53 ppm as peroxycetic acid). Heavily fouled systems, such as evaporative coolers or irrigation/drip lines may need shock doses of up to 100 ppm as peroxycetic acid (1:1,600 dilution).

NSF60 #DA02920

Manufactured By:
Enviro Tech Chemical Services, Inc. 500 Winmore Way,
Modesto, CA 95358 209-581-9576
Rev: #033-Fed-V6-12-10-8x14
Lot #: (may show elsewhere) Net Contents: lbs

UN3109, Organic Peroxide, Type F, Liquid (peroxycetic acid), 5.2, (8), PGII