

MAY 11 2000 4/8

Kleenbak Corporation
P.O. Box 446
Allendale, NJ 07401-446

Attention: Ernest W. Haug, President

Subject: BioSide HS 15%
EPA Registration No. 72152-2
Amendment Dated April 3, 2000

The amendment referred to above, submitted in connection with registration under the FIFRA sec. 3(c)(7)(A), to include specifications for fruit and vegetable processing water treatment and the "coatings preservation" claim, is acceptable, provided that you:

1. Submit and/or cite all data required for registration/re-registration of your product under FIFRA sec.3(c)(5) and sec 4 when the Agency requires all registrants of similar products to submit such data.
2. Submit five (5) copies of your final printed labeling before you release the product for shipment.

A stamped copy of the label is enclosed for your records.

If you have any questions concerning this letter, please contact Martha Terry at (703) 308-6217.

Sincerely,

Martha S Terry

Marshall Swindell
Product Manager 33
Regulatory Management Branch 1
Antimicrobial Division 7510C

Enclosure

CONCURRENCES							
SYMBOL							
SURNAME							
DATE							

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BioSide™ HS 15% (Peroxyacetic Acid Solution)

BioSide™ HS 15% is a peroxyacetic acid-based sanitizer/disinfectant developed the following uses:

Institutional/Industrial Sanitizing of
Previously Cleaned Non-Porous
Food Contact Surfaces in:

- Dairies
- Wineries
- Breweries
- Food and Beverage Plants
- Disinfecting Poultry Premises
- Poultry Hatcheries
- Animal Housing Facilities

Hard Surface Disinfection in:

- Hospitals
- Health Care Facilities
- Schools
- Colleges
- Veterinary Clinics
- Animal Life Science Laboratories
- Industrial Facilities
- Office Buildings
- Recreational Facilities
- Retail and Wholesale Establishments

Bacteria, Fungi, and Slime
Control in:

- Pulp and Paper Mill Systems
- Cooling Water Systems
- Coatings Preservation
- Dispersed Pigments
- On Fresh Cut, Post Harvest, and Processed Fruits an Vegetables

Active Ingredients:

Peroxyacetic Acid	15.0%
Hydrogen Peroxide	22.0%

Inert Ingredients:

63.0%

Total:

100%

EPA Registration No. 72152-2
EPA Est. No.

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Fungicide, and Rodenticide Act as
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Before Using This Product, Please Read This Entire Label Carefully

KEEP OUT OF REACH OF CHILDREN

DANGER

STATEMENT OF PRACTICAL TREATMENT

If in eyes: Hold eyes open and flush with a steady, gentle stream of water for 5 minutes. Get medical attention.

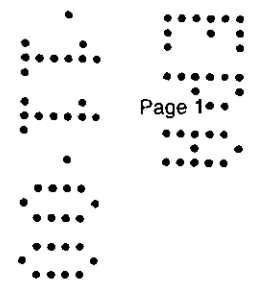
If on skin: Wash with plenty of soap and water. Get medical attention.

If swallowed: Call a doctor or get medical attention. Do not induce vomiting or give anything by mouth to an unconscious person. Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol.

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

Manufactured By:

Kleenbak Corporation
PO Box 446
Allendale, New Jersey 07401-446



PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. 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 of spray mist. Do not get in eyes, on skin, or on clothing. Direct contact with product can cause irreversible damage to eyes. 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. Product must be diluted in accordance with label directions prior to use. BioSide™ HS 15% 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 should 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.

DIRECTIONS FOR USE

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

SANITIZATION

BioSide™ HS 15% peroxyacetic acid sanitizer is recommended for use on pre-cleaned surfaces such as equipment, pipelines, tanks, vats, filters, evaporators, pasteurizers, and aseptic equipment in dairies, brewers, wineries, beverage and food processing/packing plants, egg processing/packing equipment surfaces, and eating establishments. 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 survivors after 30 seconds exposure period in the AOCA Germicide and Detergent Sanitizing Action of Disinfectants study.

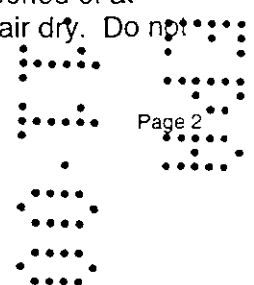
Sanitizing Food Contact Surfaces

Effective against Staphylococcus aureus and Escherichia coli.

Prior to sanitizing, remove gross food particles, then wash with a detergent solution, followed by a potable water rinse. Sanitize with a concentration of 1.5 ounces BioSide™ HS 15% dissolved in 5 gallons of water (0.23% v/v concentration). At this dilution BioSide™ HS 15% is effective against Staphylococcus aureus and Escherichia coli. Use immersion, coarse spray or circulation techniques as appropriate to the equipment. All surfaces should 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.

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Sanitizing Eating, Drinking And Food Prep Utensils

Remove gross food particles by a prescrape, a preflush and when necessary, a presoak treatment. Wash with a recommended detergent.

Rinse with clean water.

Sanitize in a solution of 1.5 ounces BioSide™ HS 15% dissolved in 5 gallons of water. Immerse all utensils for at least 60 seconds or contact time specified by a governing sanitary code.

Drain and air dry.

Sanitizing Tableware

For sanitizing tableware in low temperature warewashing machines, inject BioSide™ HS 15% into the final rinse water at a concentration of 1.5 ounces BioSide™ HS 15% dissolved in 5 gallons of water. Do not exceed 0.23 % v/v. Air dry.

To insure that BioSide™ HS 15% sanitizer concentration does not fall below 0.1%, periodically test the rinse solution with a suitable test kit and adjust the dispensing rate accordingly. Consult your technical service representative for assistance and further information on sanitizing tableware in warewashing machines.

Final Sanitizing Bottle Rinse

BioSide™ HS 15% may be used as a final sanitizer rinse for returnable and non-returnable bottles at a 0.23% dilution (1.5 ounces BioSide™ HS 15% dissolved in 5 gallons of water).

NOTE: FOR MECHANICAL OPERATIONS prepared use solution may not be reused for sanitizing but may be reused for other purposes such as cleaning.

FOR MANUAL OPERATIONS fresh sanitizing solutions should be prepared daily or more often if the solution becomes diluted or soiled.

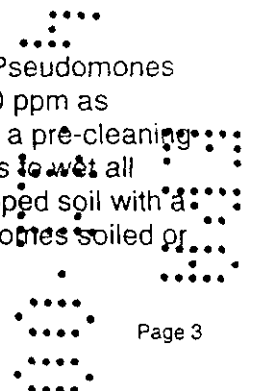
HARD SURFACE DISINFECTION

BioSide™ HS 15% disinfects as it cleans in one operation. BioSide™ HS 15% can be used to disinfect floors, walls and other hard nonporous surfaces such as tables, chairs, countertops, bathroom fixtures, sinks, bed frames, shelves, racks, carts, refrigerators, coolers, tile, linoleum, vinyl, asphalt, porcelain, plastic (such as polypropylene and polyethylene), stainless steel, or glass.

Areas of use in hospitals use BioSide™ HS 15% for surgical and obstetrical suites; housekeeping services; physical therapy departments; nursing services; autopsy facilities. Also use BioSide™ HS 15% in nursing homes, other health-care facilities, schools, colleges, veterinary clinics, animal life science laboratories, industrial facilities, dietary areas, office buildings, recreational facilities, retail and wholesale establishments.

Combination Disinfection and Cleaning

BioSide™ HS 15% is effective against Staphylococcus aureus, Salmonella choleraesuis, Pseudomonas aeruginosa, and Trichophyton mentagrophytes at 0.23% (1.5 oz./5 gal.) in hard water (400 ppm as CaCO₃) and 5% fetal-bovine serum on hard nonporous surfaces. For heavily soiled areas a pre-cleaning step is required. Apply solution with a mop, cloth, sponge, brush, etc... or by soaking so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes, then remove solution and entrapped soil with a clean wet mop, cloth, or wet vacuum pickup. Prepare a fresh solution daily or when it becomes soiled or diluted.



BioSide™ HS 15% is designed for use in animal hospitals, animal laboratories, kennels, pet shops, zoos, pet animal quarters, poultry premises, poultry hatcheries, and livestock quarters. When used as directed, BioSide™ HS 15% is specifically designed to disinfect, deodorize and clean inanimate, hard, surfaces such as walls, floors, sink tops, furniture, operating tables, kennel runs, cages and feeding and watering equipment. In addition BioSide™ HS 15% will deodorize those areas which are generally hard to keep smelling fresh, such as garbage storage areas, empty garbage bins and cans, and any other areas which are prone to odors caused by microorganisms.

All treated equipment that will contact food, feed, or drinking water must be rinsed with potable water before reuse.

For heavily soiled areas, a pre-cleaning step is required. Prepare a fresh solution for each use.

BIOFOULING CONTROL IN PULP AND PAPER MILL SYSTEMS

For use in the manufacture of paper and paperboard intended for non-food contact. BioSide™ HS 15% can be used to control bacteria, fungi, and fresh water organisms 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 and white water storage systems and influent water streams.

Influent Water Systems:

BioSide™ HS 15% should be fed continuously to incoming fresh water streams (nonpotable use only) at dosages ranging from 5-500 ppm.

Mill Process Waters:

Continuous Feed - BioSide™ HS 15% should be fed continuously at dosages ranging from 5-500 ppm. This range may be equivalent to 0.4-40 lbs. BioSide™ HS 15% per ton (dry basis) of pulp or paper produced.

Intermittent Feed - BioSide™ HS 15% should be fed intermittently (6-8 times per day) at dosages ranging from 5-500 ppm. This dosage may be equivalent to 0.4-40 lbs. BioSide HS 15% per ton (dry basis) of pulp or paper produced during the feed period.

Shock Dose - BioSide™ HS 15% should be shock dosed at dosages ranging from 50-5000 ppm. This dosage may be equivalent to 4-82 lbs. BioSide™ HS 15% per ton (dry basis) of pulp or paper produced during the feed period.

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CONTROL OF BACTERIA AND FUNGI IN DISPERSED PIGMENTS

BioSide™ HS 15% can be used in control of bacteria and fungi in the manufacturing and storage of dispersed pigments such as kaolin clay, titanium dioxide, calcium carbonate, calcium sulfate, barium sulfate, magnesium silicate and diatomaceous earth used in paint and paper production.

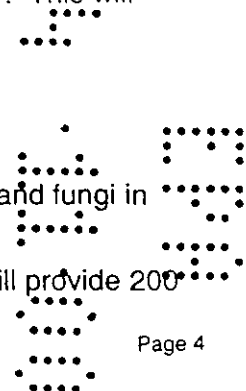
Add 0.3 to 1.5 lbs. (5 to 25 fl. oz.) of BioSide™ HS 15% to each 1000 lbs. of pigment slurry. This will provide 300 to 1500 ppm of product.

CONTROL OF BACTERIA AND FUNGI IN COATING PREPERVATION

Not for use in manufacture of material intended for food contact.

BioSide™ HS 15% can be used as an in-container preservative for the control of bacteria and fungi in water-based coatings such as paper coatings.

Add 0.2 to 1.5 lbs. (5 to 24 fl. oz) of BioSide™ HS 15% to each 1000 lbs. of water. This will provide 200 to 1400 ppm of product.



CONTROL OF SLIME FORMING BACTERIA TO COOLING WATER SYSTEMS (COOLING TOWERS, EVAPORATIVE CONDENSERS).

Severely fouled systems should be cleaned before adding the BioSide™ HS 15% solution. BioSide™ HS 15% should be added in the system directly and not mixed with any other chemicals or additives. Contamination with other chemicals could result in product decomposition.

Add BioSide™ HS 15% at a point in the system where uniform mixing and even distribution will occur.

Use 0.3 to 1.5 lbs. (5 to 24 fl. oz) of BioSide™ HS 15% per 1000 gallons of solution as a continuous or intermittent slug treatment. This will provide 300 - 1500 ppm of product. Repeat treatment as required to maintain control.

DISINFECTION OF POULTRY PREMISES, TRUCKS, COOPS AND CRATES

Remove all poultry and feeds from premises, trucks, coops and crates. Remove all litter and droppings from floors, walls and surfaces of facilities occupied or traversed by poultry. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with a detergent and rinse with water. Saturate surfaces with a 0.23% (1.5 oz./gal.) solution of BioSide™ HS 15% for a period of 10 minutes. Ventilate buildings, coops and other closed spaces. Do not house poultry or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub treated feed racks, troughs, automatic feeders, fountains and waters with a detergent and rinse with potable water before reuse. See your technical representative for specific recommendations for all cleaning and rinsing requirements.

Disinfection And Deodorizing Of Animal Housing Facilities (Barns, Kennels, Hutches, Etc.)

Remove animals and feed from facilities. Remove litter, waste matter, and gross soils. Empty all troughs, rack and other feeding ad watering equipment. Wash surfaces with a recommended alkaline detergent, by manual, foam, or spray application. Rinse with water. Apply a 0.23% (1.5 oz./5 gal.) solution of BioSide™ HS 15% with a mop, brush or coarse spray. Wet all surfaces and allow to remain wet for 10 minutes. Ventilate buildings and other closed spaces. Allow to air dry before reintroducing animals.

For Sanitizing Of Hatching Eggs

Prepare a solution of BioSide™ HS 15% by diluting 1.5 ounces BioSide™ HS 15% with 5 gallons of water. As eggs are gathered or prior to setting, apply solution as a coarse spray so as to lightly wet all shell surfaces.

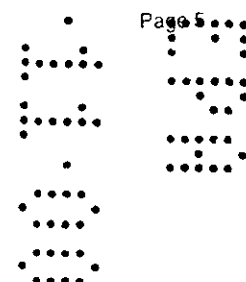
NOTE: This product at its use dilution is compatible with stainless steel and aluminum surfaces. If product is intended to be used on any other surface, it is recommended that you apply product to a smaller test area to determine compatibility before proceeding with its use.

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FOR TREATMENT OF PROCESS WATER STREAMS

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Batch Systems with no makeup water added:

Fill vessel containing fruits or vegetables with known amount of water.

Ensure that water is recirculating in vessel.

Add BioSide™ HS 15% to no more than 533 ppm (wt/wt) total product (80 ppm residual peroxyacetic acid) in use solution. This can be accomplished by initially adding 53.3 grams (47.3 mls) BioSide™ HS 15% per 100 liters of water, or 1.0 fluid ounce per 16.4 gallons of water.

Contact time of 45 seconds minimum is recommended.

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Continuous systems with constant circulation of makeup water:

Initial Dose: (brings the process water up to an initial properly dosed level of BioSide™ HS 15%)

Ensure that system is recirculating with known amount of water in vessels and piping.

Add initial dose of BioSide™ HS 15% on more than 533 ppm (wt/wt) total product (80 ppm residual peroxyacetic acid) in use solution. This can be accomplished by initially adding 53.3 grams (47.3 mls) BioSide™ HS 15% per 100 liters of water, or 1.0 fluid ounce per 16.4 gallons of water.

Contact time of 45 seconds minimum is recommended.

Continuous Dose: (ensures steady rate dosing of BioSide™ HS 15% is maintained.)

Meter no more than 533 ppm (wt/wt) BioSide™ HS 15% total product (80 ppm residual peroxyacetic acid) in proportion to the fresh makeup water added to the system. For example makeup water flow rates of 16.4 gallons per minute would require a maximum of 1 fluid ounce (29.6 mls) per minute of BioSide™ HS 15%. Makeup water flow rates of 100 liters per minute would require a maximum of 53.3 grams (47.8 mls) per minute of BioSide™ HS 15%. Contact time of 45 seconds minimum is recommended.

Fruits and vegetables which are to be further processed must be rinsed with potable water.

FOR TREATMENT OF FRUIT AND VEGETABLE SURFACES : Mix BioSide™ HS 15% with water either batchwise or continuously to no more than 533 ppm (wt/wt) total product (80 ppm residual peroxyacetic acid) in use solution.

This can be accomplished by initially adding 53.3 grams (47.3 mls) BioSide™ HS 15% per 100 liters of water, or 1.0 fluid ounce per 16.4 gallons of water. The fruits and vegetables can be sprayed or submerged in the resulting solution for a minimum contact time of 45 seconds, followed adequate draining. Fruits and vegetables which are to be further processed must be rinsed with potable water. BioSide™ HS 15% can be used on the following types of fresh post harvest and further processed fruits and vegetables:

Vegetables

Root and tuber vegetables: Carrot, potato, radish, rutabaga, sweet potato, yam, sugar beet.

Leaves of root and tuber vegetables: Turnip greens and sugar beet

Bulb vegetables: Onion (dry bulb and green), leek, garlic, shallot

Leafy vegetables: Lettuce (head and leaf), celery, fennel, endive, escarole, parsley, radicchio, rhubarb, spinach

Brassica leafy vegetables: Broccoli, Brussel sprouts, cabbage, cauliflower, mustard greens

Legumes (succulent or dried), bean (green, kidney, lima, mung, navy, pinto, snap, wax), pea (chickpea, lentil, dwarf, garden, English, field, edible pea pod) and soybean

Fruiting vegetables: Pepper (bell, pimento, hot, sweet) tomato, tomatillo, eggplant

Cucurbits: Cucumber, melon (cantaloupe, crenshaw, honeydew, honey ball, mango, muskmelon, pineapplemelon, watermelon) summer squash, pumpkins, winter squash

Fruits

Citrus fruits: Sweet and sour orange, lemon, lime, tangelo, tangerine, mandarin, citrus citron, kumquats, grapefruit

Pome fruits: Apples and pears

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Stone fruits: Sour or sweet cherry, peach, nectarine, plum, prune
Small fruits and berries: Blackberries, blueberries, red and black raspberries
Tree nuts: Almond, Brazil, filbert, cashew, pecan, walnut (black & English), macadamia, chestnut

Cereal grains: Corn, barley, oats, rice, wheat, triticale, wild rice
Herbs and Spices: Basil, chives, coriander, dill, lemongrass, marjoram, sage, savory, tarragon, thyme
Miscellaneous: Asparagus, avocado, artichoke, banana, cranberry, fig, grape, kiwifruit, mango, mushroom, okra, peanut, persimmon, pineapple, strawberry, water chestnut, watercress

Storage and Disposal

Storage: Never return BioSide™ HS 15% 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 BioSide™ HS 15% 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. Do not store on wooden pallets.

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 should not enter confined spaces.

Pesticide Disposal: Pesticide wastes are acutely 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 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 should be contacted prior to disposal. BioSide™ HS 15% which is to be discarded, should be disposed of as hazardous waste after contacting the appropriate local state or Federal agency to determine proper procedures.

Container Disposal: >5 gallon plastic drums: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by State and local authorities, by burning. If burned, stay out or smoke.

>5 gallons plastic tote bin liners: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration or, if allowed by State and local authorities, by burning. If burned, stay out or smoke.

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