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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 14 2011



Office of Pesticide Programs

Evonik Degussa Corporation
375 Interpace Parkway
P.O. Box 677
Parsippany, N. J. 07054-0677

Attention: Tiana Rosamila

Subject: Peraclean® 5
EPA Registration No. 54289-3
Amendment Dated February 2, 2011

The amendment, submitted in connection with registration under section 3(7)(A) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, to delete the healthcare claims due to the result of ATP results is acceptable, provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(5) and sec. 4 uses when the Agency requires all registrants of similar products to submit such data.
2. Refer to the enclosed copy of the Efficacy Review under "CONCLUSIONS" and "LABELING" for further comments.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the "accepted" product labeling is enclosed for your records. Submit two (2) copies of final printed labeling before you release the product for shipment.

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

Sincerely,

Marshall Swindell
Product Manager 33
Regulatory Management Branch 1
Antimicrobials Division (7510P)

Enclosure

DIRECTIONS FOR USE

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

SANITIZATION

NOTE: FOR MECHANICAL OPERATIONS prepared use solution may not be used for subsequent sanitizing but may be reused for other purposes such as cleaning. FOR MANUAL OPERATIONS fresh sanitizing solutions should be prepared at least daily or more often if the solution becomes diluted or soiled. PERACLEAN® 5 peroxyacetic acid sanitizer is recommended for use on pre-cleaned surfaces such as equipment, pipelines, tanks, vats, fillers, evaporators, pasteurizers and aseptic equipment in dairies, breweries, wineries, beverage and food processing/packing plants, egg processing/packing equipment surfaces, and ealing 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 a 99.999% reduction of survivors after a 60 second exposure period in the AOAC Germicidal and Detergent Sanitizing Action of Disinfectants study.

SANITIZING FOOD CONTACT SURFACES

Effective against *Staphylococcus aureus* and *Escherichia coli*, *Pseudomonas Aeruginosa* (ATCC 15442) *Salmonella typhimurium* (ATCC 23564). Prior to sanitizing, remove gross food particles, then wash with a detergent solution, followed by a potable water rinse. Sanitize with a concentration of 1.0 to 1.5 fl. oz. PERACLEAN® 5 dissolved in 5 gallons of water (0.16 to 0.22% w/v concentration). This will provide 88 to 130 ppm of peroxyacetic acid. At this dilution PERACLEAN® 5 is effective against *Staphylococcus aureus* and *Escherichia coli* and *Salmonella typhimurium* (ATCC 23564). For use against *Pseudomonas Aeruginosa* prepare a sanitizing solution by adding 2.1 to 2.3 fl. oz. PERACLEAN® 5 dissolved in 5 gallons of water. This will provide 180-200 ppm of peroxyacetic acid. Use immersion, coarse spray or circulation techniques as appropriate to the equipment. All surfaces should be exposed to the sanitizing solution for a period of at least 60 seconds or more if specified by governing sanitary code. Drain thoroughly and allow to air dry. Do not rinse.

SANITIZING, EATING, DRINKING, AND FOOD PREP UTENSILS

Remove gross food particles by a pre-scrape, a pre-flush and, when necessary, a presoak treatment. Wash with a recommended detergent. Rinse with clean water. Sanitize in a solution of 1.0 to 1.5 fl. oz. PERACLEAN® 5 dissolved in 5 gallons of water. Immerse all utensils for at least 60 seconds or contact time specified by governing sanitary code. Drain and air dry.

SANITIZING TABLEWARE

For sanitizing tableware in low temperature warewashing machines, inject PERACLEAN® 5 into the final rinse water at a concentration of 1.0 to 1.5 fl. oz. PERACLEAN® 5 dissolved in 5 gallons of water. Do not exceed 0.16 to 0.22% w/v. Air dry. This will provide 88 to 130 ppm of peroxyacetic acid. To insure that the PERACLEAN® 5 sanitizer concentration does not fall below 48 ppm peroxyacetic acid, 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.

ANTIMICROBIAL RINSE OF PRE-CLEANED OR NEW RETURNABLE OR

NON-RETURNABLE CONTAINERS:

To reduce the number of non-pathogenic beverage spoilage organisms. Effective against *Aspergillus versicolor*, *Byssoschlamys fulva*, *Pediococcus damnosus*, *Lactobacillus buchneri*, and *Saccharomyces cerevisiae*.
1. Prepare PERACLEAN® 5 solution by adding 31 fl. oz. to 5 gallons potable water. This provides 2,632 ppm peroxyacetic acid.
2. Apply antimicrobial rinse at a temperature of 40°C to 60°C (104°F to 140°F) and allow a minimum seven-second contact period.
3. Allow containers to drain thoroughly, and then rinse with sterile or potable water.

ACCEPTED
with COMMENTS
EPA Letter Dated:

JUL 14 2011

Under the Federal Insecticide,
Fungicide and Rodenticide Act as
amended for the pesticide,
registered under EPA Reg. No.

54289-3

FINAL SANITIZING BOTTLE RINSE

PERACLEAN® 5 may be used as a final sanitizing rinse for returnable and non-returnable bottles at a 0.16 to 0.22% dilution (1.0 to 1.5 fl. oz. PERACLEAN® 5 dissolved in 5 gallons of water). This will provide 88 to 130 ppm of peroxyacetic acid.

HARD SURFACE DISINFECTION

PERACLEAN® 5 disinfects as it cleans in one operation. PERACLEAN® 5 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 and use sites on this label made from linoleum, non-porous glazed porcelain, plastic (such as polypropylene and polyethylene), stainless steel, or glass.

COMBINATION DISINFECTION AND CLEANING

PERACLEAN® 5 is effective against *Staphylococcus aureus*, *Salmonella choleraesuis*, *Trichophyton mentagrophytes*, and *Escherichia coli* 0157:H7 at 0.23% (1.5 fl. 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 mop, cloth, sponge, brush, scrubber, or coarse spray device, 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.

When used as directed, PERACLEAN® 5 is specifically designed to disinfect, deodorize and clean inanimate, hard, surfaces such as walls, floors, sink tops, and furniture. In addition PERACLEAN® 5 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.

BATCH SANITIZATION (NON-FOOD CONTACT SURFACES) OF ULTRA-

FILTRATION AND REVERSE OSMOSIS (RO) MEMBRANES

PERACLEAN® 5 can be used for the sanitization of ultra filtration, medical and non-medical institutional/industrial reverse osmosis (RO) membranes and their associated distribution systems.

This product has been shown to be an effective disinfectant when tested by AOAC and EPA methods. This product may not eliminate all vegetative microorganisms in reverse osmosis membranes and their associated piping systems due to their construction and/or assembly, but can be relied upon to reduce the number of microorganisms to acceptable levels when used as directed. Check with equipment manufacturer for membrane compatibility with PERACLEAN® 5.

Remove biological or organic fouling from the membrane or other parts of the system with an appropriate cleaner. Flush the system with RO permeate or similar quality water. Remove mineral deposits with suitable acidic cleaner prior to sanitizing the membranes with PERACLEAN® 5. Flush the system again with the RO permeate or similar quality water. Prepare an appropriate volume of 1% solution of the product (1 gallon of PERACLEAN® 5 to 100 gallons of water). This will provide 549 ppm of peroxyacetic acid and 2,967 ppm hydrogen peroxide. Fill the entire water circuit to be sanitized with the dilute solution and allow the solution to reach a minimum of 20°C (68°F). Re-circulate the dilute solution of PERACLEAN® 5 for a minimum of 10 minutes. Allow membrane elements to soak in the solution for a minimum of 20 minutes. Rinse the RO system and test for residuals to ensure that there is less than 3 ppm peroxygen. Diverting product water to drain can reduce residuals.

BATCH SANITIZATION (NON-FOOD CONTACT SURFACES) OF PIPING

SYSTEMS ASSOCIATED WITH RO MEMBRANES

Isolate incompatible equipment from piping system. This includes activated carbon filters and ion exchange equipment. Turn off power to ultraviolet light units. Estimate total volume of water contained in the system (tanks, rinse stations and piping). Prepare an appropriate volume of 1.0 to 1.5% PERACLEAN® 5 by adding 1.0 to 1.5 gallons of the product for every 100 gallons of solution prepared. Use RO permeate or similar quality water for dilution. This will provide 549 to 823 ppm peroxyacetic acid and 2,967 to 4,450 ppm hydrogen peroxide. Re-circulate the dilute PERACLEAN® 5 solution through the system for a minimum of 4 hours. Process usage valves should be opened and closed to expose internals to the PERACLEAN® 5. Completely drain the system of dilute PERACLEAN® 5 solution. Thoroughly rinse the system by filling with RO permeate or similar quality water and recirculate before drainage. Repeat the process until test for residuals indicates there is less than 3 ppm peroxygen.

PERACLEAN® 5 (PEROXYACETIC ACID SOLUTION)

PERACLEAN® 5 IS A PEROXYACETIC ACID-BASED SANITIZER/ DISINFECTANT DEVELOPED FOR 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 •Reverse Osmosis Membranes and Ultra Filtration	Hard Surface Disinfection in: •Industrial Facilities •Office Buildings •Recreational Facilities •Retail and Wholesale Establishments Bacteria, Fungi, and Slime Control in: •Pulp and Paper Mill Systems •Dispersed Pigments •Cooling Water Systems •Coolings Preservation	Active Ingredients: Hydrogen Peroxide 26.5% Peroxyacetic Acid 4.9% Inert Ingredients: 68.6% Total: 100% Net contents as stated on container EPA Reg No: 54289-3 EPA ESTAB. NO: 70547-IL-001 70253-CA-002
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Label not for use in California

Before Using This Product, Please Read This Entire Label Carefully.
KEEP OUT OF REACH OF CHILDREN
DANGER

FIRST AID

If in eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call 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 to 20 minutes. Call poison control center or doctor for treatment advice.

If swallowed: 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. Call poison control center or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

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

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

PHYSICAL AND CHEMICAL HAZARDS

STRONG OXIDIZING AGENT. Corrosive. Mix only with water. Product must be diluted in accordance with label directions prior to use. PERACLEAN® 5 is not combustible; however, at temperatures exceeding 158°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 a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the US Environmental Protection Agency.

STORAGE AND DISPOSAL

Storage and Disposal: Do not contaminate water, food, or feed by storage and disposal.

PESTICIDE STORAGE: Store in original containers in a cool, well-ventilated area, away from direct sunlight. Do not allow product to become overheated in storage. This may cause increased degradation of the product, which will decrease product effectiveness. In case of spill, flood area with large quantities of water. Do not store in a manner where cross-contamination with other pesticides or fertilizers could occur.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Open dumping is prohibited. If wastes cannot be disposed of according to label directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container unless the directions for use allow a different (concentrate) product to be diluted in the container.

Containers 5 gallons or greater: Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty remaining contents into application equipment or mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth ensuring at least 1 complete revolution, for 30 seconds. Stand container on its end and tip back and forth several times. Empty rinsate into application equipment, mix tank, or store for disposal. Then offer for recycling, or dispose in a sanitary landfill, or incineration if allowed by state and local authorities by burning.

EVONIK INDUSTRIES

Manufactured by:
Evonik Degussa Corporation
379 Interpace Parkway, P.O. Box 677
Parsippany, New Jersey 07054-0677

OMRI Listed

CONTINUOUS/INTERMITTENT ADDITION TO BIOLGICAL MATTER BETWEEN INTERMITTENT SYSTEMS ASSOCIATED WITH RO MEMBRANES Do Not Use for Any Applications Involving Foo PERACLEAN® 5, as received or diluted, m feed water system, between system sanitizin the re-growth/accumulation of biological matte system which will be effective will vary with the of the system. Adjust the addition rate of PEF periodically monitor residual peroxygen so th For continuous addition, do not exceed 20 p gallons of water) PERACLEAN® 5. This will g 5.3 ppm hydrogen peroxide. For intermittent fe fl. oz. of product per 100 gallons of water) PEI ppm peroxyacetic acid and 530 ppm hydrogen

LOGGING PERACLEAN® 5 is for sanitizing hard roc acceptable manual cleaning and disinfection o 1. Prior to fogging, remove or carefully protect materials. 2. Ensure room is properly ventilated. Vacate logging and for a minimum of 2 hours after fo; odor characteristic of acetic acid, before havir Do not enter room until hydrogen peroxide cc and are below 1ppm, on a time weighted av; 3. Fog areas using one quart of a 0.3% solut water) per 1,000 cu. ft. of room volume. All before operations are resumed.

DISINFECTION OF POULTRY PREMISES, TRUCKS,

POULTRY HATCHERY DISINFECTION

Remove all poultry and feeds from premises, tr all litter and droppings from floors, walls and traversed by poultry. Empty all troughs, racks appliances. Thoroughly clean all surfaces with Saturated surfaces with a 0.23% (1.5 fl. oz./5 g for a period of 10 minutes. Ventilate buildings, Do not house poultry or employ equipment un set or dried. Thoroughly scrub treated feed ra fountains and waterers with a detergent and use. See your technical representative for cleaning and rinsing requirements.

DISINFECTION AND DEODORIZING OF ANIMAL F

KERNELS, HUTCHES, ETC.)

Do not use in milking stalls, milking parlors, cresylic acid, and pine oils). Remove animals a and enclosures. Remove litter, waste matter, i and surfaces of barns, pens, stalls, chutes occupied or traversed by animals. Empty all t and watering equipment. Thoroughly clean rinse with water. Saturate surfaces with a 0.2 PERACLEAN® 5 for a period of 10 minutes. other types of equipment used in handling an forks, shovels, and scrapers used for removi buildings, cars, boats, and other closed spa scrub equipment until treatment has been ap employ all treated feed racks, mangers, trough and waterers with soap or detergent, and rinse

FOR SANITIZING OF HATCHING EGGS

Prepare a solution of PERACLEAN® 5 with 5 gallons of water. As eggs are gathered as a coarse spray so as to lightly wet all shell s NOTE: This product at its use dilution is con aluminum surfaces. If product is intended to it is recommended that you apply product to a compatibility before proceeding with its use.

BIOFOULING CONTROL IN PULP AND PAPERMILL

For use in the manufacture of paper and paper and non-food contact. PERACLEAN® 5 can b and fresh water organisms in paper, paperboa and influent water systems. Suitable dosing p to: stock chests, pulpers, the white water loop s and influent water streams.

INFLUENT WATER SYSTEMS

PERACLEAN® 5 should be fed continuously t (non-potable use only) at dosages ranging fr acid (200 to 20,000 ppm PERACLEAN® 5).

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PERACLEAN® 5

(PEROXYACETIC ACID SOLUTION)

PERACLEAN® 5 IS A PEROXYACETIC ACID-BASED SANITIZER/
DISINFECTANT DEVELOPED FOR THE FOLLOWING USES:

Institutional/Industrial Sanitizing of Previously Cleaned Non-Porous Food Contact Surfaces in: <ul style="list-style-type: none">•Dairies•Wineries•Breweries•Food and Beverage Plants•Disinfecting Poultry Premises•Poultry Hatcheries•Animal Housing Facilities•Reverse Osmosis Membranes and Ultra Filtration	Hard Surface Disinfection in: <ul style="list-style-type: none">•Industrial Facilities•Office Buildings•Recreational Facilities•Retail and Wholesale Establishments	Active Ingredients: <ul style="list-style-type: none">Hydrogen Peroxide 26.5%Peroxyacetic Acid 4.9%Inert Ingredients 68.6% Total: 100%
Bacteria, Fungi, and Slime Control in: <ul style="list-style-type: none">•Pulp and Paper Mill Systems•Dispersed Pigments•Cooling Water Systems•Coatings Preservation		
Net contents as stated on container		
EPA Reg No: 54289-3		
EPA ESTAB. NO: 70547-JL-001 70253-CA-002		

Label not for use in California

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

KEEP OUT OF REACH OF CHILDREN

DANGER

FIRST AID

If in eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call 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 to 20 minutes. Call poison control center or doctor for treatment advice.

If swallowed: 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. Call poison control center or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

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

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

PHYSICAL AND CHEMICAL HAZARDS

STRONG OXIDIZING AGENT. Corrosive. Mix only with water. Product must be diluted in accordance with label directions prior to use. PERACLEAN® 5 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 a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the US Environmental Protection Agency.

STORAGE AND DISPOSAL

Storage and Disposal: Do not contaminate water, food, or feed by storage and disposal.

PESTICIDE STORAGE: Store in original containers in a cool, well-ventilated area, away from direct sunlight. Do not allow product to become overheated in storage. This may cause increased degradation of the product, which will decrease product effectiveness. In case of spill, flood area with large quantities of water. Do not store in a manner where cross-contamination with other pesticides or fertilizers could occur.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Open dumping is prohibited. If wastes cannot be disposed of according to label directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container unless the directions for use allow a different (concentrated) product to be diluted in the container.

Containers 5 gallons or greater: Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty remaining contents into application equipment or mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth ensuring at least 1 complete revolution, for 30 seconds. Stand container on its end and tip back and forth several times. Empty rinsate into application equipment mix tank, or store for disposal. Then offer for recycling, or dispose in a sanitary landfill, or incineration if allowed by state and local authorities by burning.

CONTINUOUS/INTERMITTENT ADDITION TO MINIMIZE THE ACCUMULATION OF

BIOLOGICAL MATTER BETWEEN INTERMITTENT SANITIZING EPISODES IN PIPING SYSTEMS ASSOCIATED WITH RO MEMBRANES.

Do Not Use for Any Applications Involving Food or Drinking Water Contact.

PERACLEAN® 5, as received or diluted, may be added continuously to the feed water system, between system sanitizing episodes, to aid in minimizing the re-growth/accumulation of biological matter. The peroxygen residual in the system which will be effective will vary with the design and usage characteristics of the system. Adjust the addition rate of PERACLEAN® 5 or the solution and periodically monitor residual peroxygen so that the desired effect is obtained. For continuous addition, do not exceed 20 ppm (1 fl. oz. of product per 440 gallons of water) PERACLEAN® 5. This will give 1 ppm peroxyacetic acid and 5.3 ppm hydrogen peroxide. For intermittent feed, do not exceed 2,000 ppm (23 fl. oz. of product per 100 gallons of water) PERACLEAN® 5. This will give 100 ppm peroxyacetic acid and 530 ppm hydrogen peroxide.

FOGGING

PERACLEAN® 5 is for sanitizing hard room surfaces, as an adjunct to acceptable manual cleaning and disinfection of room surfaces.

1. Prior to fogging, remove or carefully protect all food products and packaging materials.

2. Ensure room is properly ventilated. Vacate all personnel from room during fogging and for a minimum of 2 hours after fogging. Ensure there is no strong odor characteristic of acetic acid, before having personnel return to work area. Do not enter room until hydrogen peroxide concentrations are correctly tested and are below 1 ppm, on a time weighted average.

3. Fog areas using one quart of a 0.3% solution (3.5 fl. oz. per 10 gallons of water) per 1,000 cu. ft. of room volume. Allow surfaces to drain thoroughly before operations are resumed.

DISINFECTION OF POULTRY PREMISES, TRUCKS, COOPS, AND CRATES

POULTRY/HATCHERY DISINFECTION

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 fl. oz./5 gal.) solution of PERACLEAN® 5 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 waterers 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 (BARN, KENNELS, HUTCHES, ETC.)

Do not use in milking stalls, milking parlors, or milk houses (for phenolics, cresylic acid, and pine oils). Remove animals and feed from premises, vehicles, and enclosures. Remove litter, waste material, and gross soils from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering equipment. Thoroughly clean all surfaces with detergent and rinse with water. Saturate surfaces with a 0.23% (1.5 fl. oz./5 gal.) solution of PERACLEAN® 5 for a period of 10 minutes. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure. Ventilate buildings, cars, boats, and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set, or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent, and rinse with potable water before reuse.

FOR SANITIZING OF HATCHING EGGS

Prepare a solution of PERACLEAN® 5 by diluting 1.0 fl. oz. PERACLEAN® 5 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.

BIOFOULING CONTROL IN PULP AND PAPERMILL SYSTEMS

For use in the manufacture of paper and paperboard intended for food-contact and non-food contact. PERACLEAN® 5 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

PERACLEAN® 5 should be fed continuously to incoming fresh water streams (non-potable use only) at dosages ranging from 10 to 978 ppm peroxyacetic acid (200 to 20,000 ppm PERACLEAN® 5).

CONTROL OF BACTERIA AND FUNGI IN NON-FOOD

CONTACT DISPERSED PIGMENTS

PERACLEAN® 5 can be used in the control of bacteria and fungi in the manufacture 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. (4.1 to 20.6 fl. oz.) of PERACLEAN® 5 to each 1,000 lbs. of pigment slurry. This will provide 14.6 to 73.5 ppm peroxyacetic acid (300 to 1,500 ppm PERACLEAN® 5).

MILL PROCESS WATERS

Continuous Feed - PERACLEAN® 5 should be fed continuously at dosages ranging from 10 to 978 ppm peroxyacetic acid (200 to 20,000 ppm PERACLEAN® 5). This range is equivalent to 0.4 to 40 lbs. PERACLEAN® 5 per ton (dry basis) of pulp or paper produced.

Intermittent Feed - PERACLEAN® 5 should be fed intermittently (6 to 8 times per day) at dosages ranging from 10 to 978 ppm peroxyacetic acid (200 to 20,000 ppm PERACLEAN® 5). This dosage is equivalent to 0.4 to 40 lbs. PERACLEAN® 5 per ton (dry basis) of pulp or paper produced during the feed period.

Shock Dose - PERACLEAN® 5 should be shock dosed at dosages ranging from 98 to 1,956 ppm peroxyacetic acid (2,000 to 40,000 ppm PERACLEAN® 5). This dosage may be equivalent to 4 to 80 lbs. PERACLEAN® 5 per ton (dry basis) of pulp or paper produced during the feed period.

CONTROL OF SLIME FORMING BACTERIA TO COOLING WATER SYSTEMS

(COOLING TOWERS/ EVAPORATING CONDENSERS)

Severely fouled systems should be cleaned before adding the PERACLEAN® 5 solution. PERACLEAN® 5 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 PERACLEAN® 5 at a point in the system where uniform mixing and even distribution will occur.

Use 0.3 to 1.5 lb. (4.1 to 20.6 fl. oz.) of PERACLEAN® 5 per 1,000 gallons of solution as a continuous or intermittent slug treatment. This will provide 1.8 to 8.8 ppm peroxyacetic acid (36 to 180 ppm PERACLEAN® 5). Repeat treatment as required to maintain control.

FOR TREATMENT OF RAW UNPROCESSED FRUIT AND VEGETABLE SURFACES

PERACLEAN® 5 can be applied by fogging to control the growth of non-public health microorganisms that may cause decay and/or spoilage on raw, post-harvest fruits and vegetables during the post-harvest process.

1. Ensure room is properly ventilated. Vacate all personnel from room during fogging and for a minimum of 2 hours after fogging. Ensure there is no strong odor characteristic of acetic acid before having personnel return to work area. Do not enter room until hydrogen peroxide concentrations are correctly tested and are below 1 ppm on a time weighted average.

2. Fog areas using one quart of a 0.2% solution (3.5 fl. oz. per 16 gallons of water) per 1,000 cu. ft. of room volume. Allow surfaces to drain thoroughly before operations are resumed.

PERACLEAN® 5 can be applied as a dip or spray to control the growth of non-public health microorganisms that may cause decay and/or spoilage on raw, post-harvest fruits and vegetables during the post-harvest process. This product can be applied during physical cleaning processes, including at the roller spreader, washer manifold, dip tank, on the brushes or elsewhere in the post-harvest process prior to, simultaneously with or after detergent wash.

1. Prepare treating solution by diluting 3 to 3.5 fl. oz. per 16 gallons of potable water. This will provide 88 to 100 ppm of peroxyacetic acid.
2. Apply the diluted sanitizer solution using a spray directed at the fruits or vegetables, or by soaking the fruits or vegetables in the solution. Allow a contact time of at least 45 seconds.
3. The treated produce can be drain dried without a potable water rinse.
4. Do not reuse solution after treatment.

SURFACES TREATED TO CONTROL SPREAD OF CITRUS CANCKER

PERACLEAN® 5 can be used to control the spread of citrus canker between inanimate surfaces and inanimate surfaces to plants. This product is for sanitizing surfaces such as packing house conveyors and harvesting equipment and containers. This product is not for treatment of infected plants.

PERACLEAN® 5 is an effective sanitizer against microorganisms such as *Xanthomonas campestris* (axonopodis) pathovars *citrumelo* (citrus canker surrogate)

1. Remove gross contamination with a cleaner or suitable detergent and rinse with potable water.

2. Use PERACLEAN® 5 at a dilution of 9.9 to 16.0 fl. oz. per 50 gallons of water (85-137.2 ppm peroxyacetic acid and 460-742 ppm of hydrogen peroxide) as a general sanitizing course spray.

3. Allow sanitizer to contact surface for at least one minute.

4. Allow to air dry, do not rinse.