

54289-3

3/26/2014

1/5



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

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Tiana Rosamilia, Product Regulatory Services  
Evonik Industries  
299 Jefferson Rd  
Parsippany, NJ 07054

MAR 26 2014

Subject: Notification; Per PR-Notice 98-10  
Product Name: PERACLEAN 5%  
EPA Registration Number: 54289-3  
Application Date: January 6, 2014

Dear Ms. Rosamilia:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated November 18, 2013 for the product referenced above. The Antimicrobials Division (AD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the addition of pre-treatment prior to sanitization of food-contact surfaces, falls within the scope of PRN 98-10 and is acceptable. A copy of this notification will be placed in our PERACLEAN 5% records.

If you have any questions regarding this letter, please contact Amaris Johnson at [johnson.amaris@epa.gov](mailto:johnson.amaris@epa.gov) or call (703) 305-9542.

Sincerely,

A handwritten signature in black ink that reads "A. Johnson for".

Marshall Swindell  
Product Manager 33  
Regulatory Management Branch I  
Antimicrobial Division (7510P)  
Office of Pesticide Programs



United States Environmental Protection Agency Washington, DC 20460

Registration [ ] Amendment [x] Other [ ]

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number: Evonik Corporation/ 54289-3
2. EPA Product Manager: Marshall Swindell
3. Proposed Classification: [x] None [ ] Restricted
4. Company/Product (Name): Evonik Corporation- PERACLEAN 5
5. Name and Address of Applicant: 299 Jefferson Rd Parsippany NJ 07054
6. Expedited Review: In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. Product Name

Section - II

[x] Amendment - Explain below. [ ] Final printed labels in response to Agency letter dated
[ ] Resubmission in response to Agency letter dated
[ ] Notification - Explain below. [ ] "Me Too" Application.
[ ] Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Evonik is requesting a fast track review of our label to add a statement with regards to Pre-treatment cleaning prior to sanitization.

Section - III

1. Material This Product Will Be Packaged In: Child-Resistant Packaging, Unit Packaging, Water Soluble Packaging, 2. Type of Container: Metal, Plastic, Glass, Paper, Other
3. Location of Net Contents Information: Label, Container
4. Size(s) Retail Container
5. Location of Label Directions: On Label, On Labeling accompanying product
6. Manner in Which Label is Affixed to Product: Lithograph, Paper glued, Stenciled, Other

Section - IV

1. Contact Point: Name: Tiana Rosamilia, Title: Manager, Telephone No.: 443-609-4654
Certification: I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete.
2. Signature: Tiana Rosamilia
3. Title: Manager
4. Typed Name: Tiana Rosamilia
5. Date: 01-06-2014
6. Date Application Received (Stamped)



ATTN: Marshall Swindell

Office of Pesticide Programs  
One Potomac Yard  
2777 S. Crystal Drive  
Arlington VA 22202

January 6, 2014  
Tiana M. Rosamilia  
Product Regulatory Services  
Phone +443-609-4654  
Fax +1 973 929-8040  
Tiana.Rosamilia@evonik.com

Evonik Corporation  
www.evonik.com

Re: Amendment of PERACLEAN™ 5 to add statement of Pre-treatment

Dear Mr. Swindell:

Evonik Corporation is submitting 3 copies of our proposed amendment to add the following statement:

PRE-TREATMENT PRIOR TO SANITIZATION OF FOOD-CONTACT SURFACES  
Peraclean 5 can be used as a pre-treatment on food contact prior to sanitization. For use dilute 3.5 -7.0 fl. oz of PERACLEAN® 5 in 5 gallons of water, this will provide 300-600 ppm peroxyacetic acid. Let soak for 15 minutes and follow with a potable water rinse.

Please feel free to call me at 443-609-4654 if there are any questions or concerns.

Respectfully submitted,

Tiana M. Rosamilia

cc: [illegible]

**DIRECTIONS FOR USE:** It is a violation of FIFRA labeling.

**PRE-TREATMENT:** Prior to sanitization of food-contact surfaces, Peraclean 5 can be used as a pre-treatment on food contact prior to sanitization. For use dilute 3.5-7.0 fl. oz. of PERACLEAN 5 in 5 gallons of water, this will provide 300-600 ppm peroxyacetic acid. Let soak for 15 minutes and follow with a potable water rinse.

**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/packaging plants, equipment, processing 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 a 99.999% reduction of survivors after a 60 second exposure period in the AOAC Germicidal and Detergent Sanitizing Action of Desinficants study.

**SANITIZING FOOD CONTACT SURFACES:** Efficacy against *Staphylococcus aureus* (ATCC 6538) and *Escherichia coli* (ATCC 2591), *Pseudomonas Aeruginosa* (ATCC 15442), *Salmoneila typhimurium* (ATCC 33594). 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. of PERACLEAN 5 dissolved in 5 gallons of water (0.16 to 0.22% v/v concentration). This will provide 88 to 130 ppm of peroxyacetic acid. In this dilution PERACLEAN 5 is effective against *Staphylococcus aureus* and *Escherichia coli* and *Salmoneila typhimurium* (ATCC 23594). For use against *Pseudomonas aeruginosa* prepare a sanitizing solution by adding 2.1 to 2.3 fl. oz. of 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-scrub, a pre-rinse and, when necessary, a pre-soak 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% v/v. Air dry. 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 dosing rate accordingly. Consult your technical service representative for additional and further information on sanitizing tableware in warewashing machines.

**FOAM SANITIZATION:** PERACLEAN 5 can be applied as a foam for sanitization for previously clean, hard non-porous food contact surfaces and general environmental (non-food contact) hard non-porous surfaces such as floors, walls, ceilings, drains, and boots. Foam applications can be used where penetration and retention of product for required times is difficult to achieve. For example, uses that include operating conveyor belts and vertical or uneven surfaces.

1. Prepare a dilute PERACLEAN 5 solution by adding 1.2 to 2.3 fl. oz. per 5 gallons of potable water.  
2. After preparing the PERACLEAN 5 solution add 1.2 to 10.0 fl. oz. of AGRHO FM-2011, AGRHO FM-2011 is the only approved foam-generating additive for use with PERACLEAN 5.  
3. Apply the sanitizing solution as a foam using commercially available foam generating equipment. Allow foam to contact surfaces for at least one minute. For foot bath application, allow foam to remain on boot surface for one minute upon exiting the bath.  
4. Drain items and/or surfaces thoroughly.

**ANTIMICROBIAL RINSES OF PRE-CLEANED OR NEW RETURNABLE OR NON-RETURNABLE CONTAINERS:** To reduce the number of non-pathogenic beverage spoilage organisms. Effective against: *Aspergillus versicolor* (ATCC 6677), *Byssochlamys fulva* (ATCC 10099), *Pedococcus dalmatensis* (ATCC 29359), *Lactobacillus buchneri* (ATCC40045), and *Saccharomyces cerevisiae* (ATCC041058). 1. Prepare PERACLEAN 5 solution by adding 3 fl. oz. to 5 gallons potable water. This provides 2,632 ppm peroxyacetic acid. 2. Apply antimicrobial rinses 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.

**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 DISINFECTANT:** PERACLEAN 5 disinfects as it cleans in one operation. PERACLEAN 5 can be used to disinfect floors, walls and other hard non-porous surfaces such as tables, chairs, countertops, bathroom fixtures, sinks, bed frames, shelves, racks, carts, refrigerators, coolers, ice chests and freezers. For use on floors, walls, ceilings, and other hard surfaces use a dilute solution of 1.0 to 1.5 fl. oz. PERACLEAN 5 in 5 gallons of water (0.16 to 0.22% v/v concentration). This will provide 88 to 130 ppm of peroxyacetic acid.

**CONSUMPTION DISINFECTANT AND CLEANING:** PERACLEAN 5 is effective against *Staphylococcus aureus*, *Salmonella choleraesuis* (ATCC 10708), *Trichophyton mentagrophytes* (ATCC 9533), and *Escherichia coli* O157:H7 (ATCC 35150) at 0.23% (1.5 fl. oz. in 5 gal.) in hard water (400 ppm as CaCO3) and 5% fetal bovine serum on hard non-porous 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 re-rinse 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 membranes 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 823 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 PLUMBING 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 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 internally 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:

Hard Surface Disinfection In:	Active Ingredients:	Total:
Industrial Facilities	Hydrogen Peroxide	26.5%
Office Buildings	Peroxyacetic Acid	4.9%
Recreational Facilities	Left Ingredients:	68.6%
Retail and Wholesale Establishments		
Dairies		
Wineries		
Batteries, Fungi, and Slims		
Food and Beverage Plants		100%
Disinfecting Poultry Premises		
Poultry Hatcheries		
Animal Housing Facilities		
Reverse Osmosis Membranes and Ultra Filtration		

Net contents as stated on container  
EPA Reg No: 54289-3  
EPA ESTAB. NO: 70547-IL-001 70253-CA-002

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

**FIRST AID:** 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.  
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.  
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.

**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 165°F, decomposition occurs releasing oxygen. The oxygen released could ignite combustion.  
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:** 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 rinse 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 BIOLOGICAL MATTER BETWEEN INTERMITTENT SANITIZING EVENTS.**  
SYSTEMS ASSOCIATED WITH RO MEMBRANES: Do Not Use for Any Applications Involving Food or Drinking Water. PERACLEAN 5, as received or diluted, may be added to feed water system, between system sanitizing episodes, to the re-growth/accumulation of biological matter. The peroxygen system which will be effective will vary with the design and use of the system. Adjust the addition rate of PERACLEAN 5 periodically monitor residual peroxygen so that the desired level of peroxyacetic acid does not exceed 20 ppm (1 fl. oz. of gallons of water) PERACLEAN 5. This will give 1 ppm per 6.3 ppm hydrogen peroxide. For fluid nutrient feed, do not exceed 0.3 ppm peroxyacetic acid. For fluid nutrient feed, do not exceed 0.3 ppm peroxyacetic acid and 530, 2,967, 4,450, 6,825 ppm peroxide.

**POULTRY HATCHERY DISINFECTANT:** Remove all poultry and feeds from premises, trucks, coops and all litter and droppings from floors, walls and surfaces of fac traversed by poultry. Empty all troughs, racks and other feed appliances. Thoroughly clean all surfaces with a detergent and Saturate surfaces with a 0.23% (1.5 fl. oz. in 5 gal.) solution of PERACLEAN 5 for 10 minutes. Ventilate buildings, coops and all other set or dried. Thoroughly scrub treated feed racks, troughs, 2 set or dried. Thoroughly scrub by employ equipment until treatment foountains and waterers with a detergent and rinse with pot reuse. See your technical representative for specific recommendations and rinsing requirements.

**DISINFECTION AND DEODORIZING OF ANIMAL HOUSING FACILITIES (KENNELS, HUTCHES, ETC.):** Do not use in milking stalls, milking parlors, or milk house and enclosures. Remove litter, waste matter, and gross soil and surfaces of barns, pens, stalls, chutes and other facilities occupied or traversed by animals. Empty all troughs, racks and watering equipment. Thoroughly clean all surfaces with water. Saturate surfaces with a 0.23% (1.5 fl. oz.) in 5 gal. PERACLEAN 5 for a period of 10 minutes. Immerse all other types of equipment used in handling and restraining animals, forks, shovels, and scrapers used for removing litter and buildings, cars, boats, and other closed spaces. Do not use employ equipment until treatment has been absorbed, set, or scrub at treated feed racks, troughs, drinkers, automatic waterers with soap or detergent, and rinses with potable water.

**EGG SANITIZING OR HATCHING EGGS:** Prepare a solution of PERACLEAN 5 by diluting 1.0 fl. oz. with 5 gallons of water. As eggs are gathered or prior to set as a coarse spray so as to lightly wet all shell surfaces. NOTE: This product at its use dilution is compatible with aluminum surfaces. If product is intended to be used on it is recommended that you apply product to a smaller test compatibility before proceeding with its use.

**BIOFILMS CONTROL IN PULP AND PAPERMILL SYSTEMS:** For use in the manufacture of paper and paperboard infant and non-food contact. PERACLEAN 5 can be used to control and fresh water organisms in paper, paperboard, or non-water and nutrient water systems. Suitable dosing points include to stock chests, pulpers, the white water loop and white water and influent water streams.

**INFLUENT WATER STREAMS:** PERACLEAN 5 should be fed continuously to incoming flow (non-potable use only) at dosages ranging from 10 to 100 acid (200 to 2,000 ppm PERACLEAN 5).

45

**EVONIK INDUSTRIES**  
Manufactured by:  
Evonik Corporation  
299 Jefferson Rd  
Parsippany, New Jersey 07054-0677  
**OMRI Listed**

# PERACLEAN® 5 IS A PEROXYACETIC ACID SOLUTION/ DISINFECTANT DEVELOPED FOR THE FOLLOWING USES:

<p><b>Industrial/Institutional Sanitizing of Previously Cleaned Non-Porous Food Contact Surfaces In:</b></p> <ul style="list-style-type: none"> <li>Dairies</li> <li>Wineries</li> <li>Breweries</li> <li>Food and Beverage Plants</li> <li>Disinfecting Poultry Premises</li> <li>Poultry Hatcheries</li> <li>Animal Housing Facilities</li> <li>Reverse Osmosis Membranes and Ultra Filtration</li> </ul>	<p><b>Hard Surface Disinfection In:</b></p> <ul style="list-style-type: none"> <li>Industrial Facilities</li> <li>Office Buildings</li> <li>Recreational Facilities</li> <li>Retail and Wholesale Establishments</li> </ul>	<p><b>Active Ingredients:</b></p> <ul style="list-style-type: none"> <li>Hydrogen Peroxide 26.5%</li> <li>Peroxyacetic Acid 4.9%</li> <li>Plant Ingredients 68.6%</li> <li>Total 100%</li> </ul>
<p><b>Control In:</b></p> <ul style="list-style-type: none"> <li>Food and Beverage Plants</li> <li>Disinfecting Poultry Premises</li> <li>Poultry Hatcheries</li> <li>Animal Housing Facilities</li> <li>Reverse Osmosis Membranes and Ultra Filtration</li> </ul>	<p><b>Net Contents as stated on container:</b></p> <p>EPA Reg No: 54289-3</p> <p>EPA ESTAB. NO: 70547-IL-001</p> <p>70253-CA-002</p>	

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

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

**FIRST AID**

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 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 or on skin or on clothing. Wear goggles and 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 pests 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. 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, foot 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.



Manufactured by:  
 Evonik Corporation  
 259 Johnson Rd  
 Parsippany, New Jersey 07054-0677



**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-accumulation of biological matter. The peroxigen residual in the system which will be effective with very low design and usage characteristics of the system. Adjust the addition rate of PERACLEAN® 5 to the solution and periodically monitor residual peroxigen so that the desired effect is obtained. For continuous addition, do not exceed 70 ppm (1.1 oz. of product per 440 gallons of water) PERACLEAN® 5. This will give 1 ppm peroxyacetic acid and 0.3 ppm hydrogen peroxide. For intermittent feed, do not exceed 2,000 ppm (23.1 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. Prior to fogging, remove or carefully protect all food products and packaging materials. 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 concentration is approximately 10 ppm, on a time weighted average. Fog areas using one quart of a 0.2% solution (3.5 fl. oz. per 100 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**

Remove all poultry and feeds from premises, trucks, coops and crates. Remove all litter and droppings from floors, walls and surfaces of facilities, including all litter and droppings from floors, walls and other feeding and watering appliances. Thoroughly clean all surfaces with a detergent and rinse with water. Saturate surfaces with 0.2% (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.

**DISINFESTATION AND DECONTAMINATION OF ANIMAL HOUSING FACILITIES (BARS, KENNELS, HURDLES, ETC.)**

Do not use in milking stalls, milking parlors, or milk houses (for pheromones, cresylic acid, and alkali oils). Remove animals and feed from premises, vehicles and enclosures. Remove litter, waste matter, and gross soils from floors, walls and surfaces of bars, 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 barriers, 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, pens, 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 and 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.

**DISINFESTATION 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 fish water organisms in paper, paperboard, or non-woven process water and effluent 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. 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 WAREHOUSE**

PERACLEAN® 5 can be used in the control of bacteria and fungi in the manufacture and storage of dispersed pigments such as lead dioxide, calcium carbonate, calcium sulfate, titanium sulfate, silicate and diatomaceous earth used in paint and paper production slurry. This will provide 14.6 to 73.5 ppm peroxyacetic acid (1.500 ppm PERACLEAN® 5).

**MILL PROCESS WATERS**

Continuous Feed - PERACLEAN® 5 should be fed continuously (6 to 10 ppm 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 4.0 lbs. PERACLEAN® 5 per ton (dry basis) of pulp or paper produced during the feed period. Intermittent Feed - PERACLEAN® 5 should be shock dosed at dosages ranging from 80 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**

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.

**ADJUTANT FOR FOGGING**

PERACLEAN® 5 at a point in the system where uniform mixing and even distribution will occur. Use 0.3 to 1.5 fl. oz. (4.1 to 20.6 fl. oz.) of PERACLEAN® 5 per 1,000 gallons of solution as a continuous or intermittent fog 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 public health microorganisms that may cause decay and/or spoilage on raw post-harvest fruits and vegetables during the post-harvest process. Post-harvest fruits and vegetables during the post-harvest process. 1. Harvest fruits and vegetables during the post-harvest process. 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 10 ppm on a time weighted average. 3. Fog areas using one quart of a 0.2% solution (3.5 fl. oz. per 100 gallons of water) per 1,000 cu. ft. of room volume. Allow surfaces to drain thoroughly before operations are resumed.

**SURFACES TREATED TO CONTROL SPREAD OF CITRUS CANKER**

PERACLEAN® 5 can be used to control the spread of citrus canker between infirmate surfaces and maintain 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 infested plants. Xanthomonas campestris (axonopodis) pathogens citrus canker (surround). 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 contact spray. 3. Allow sanitizer to contact surface for at least one minute. 4. Allow to air dry, do not rinse.

**CONTROL OF BACTERIA AND FUNGI IN WAREHOUSE**

PERACLEAN® 5 can be used in the control of bacteria and fungi in the manufacture and storage of dispersed pigments such as lead dioxide, calcium carbonate, calcium sulfate, titanium sulfate, silicate and diatomaceous earth used in paint and paper production slurry. This will provide 14.6 to 73.5 ppm peroxyacetic acid (1.500 ppm PERACLEAN® 5).

**MILL PROCESS WATERS**

Continuous Feed - PERACLEAN® 5 should be fed continuously (6 to 10 ppm 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 4.0 lbs. PERACLEAN® 5 per ton (dry basis) of pulp or paper produced during the feed period. Intermittent Feed - PERACLEAN® 5 should be shock dosed at dosages ranging from 80 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**

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.

**ADJUTANT FOR FOGGING**

PERACLEAN® 5 at a point in the system where uniform mixing and even distribution will occur. Use 0.3 to 1.5 fl. oz. (4.1 to 20.6 fl. oz.) of PERACLEAN® 5 per 1,000 gallons of solution as a continuous or intermittent fog 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 public health microorganisms that may cause decay and/or spoilage on raw post-harvest fruits and vegetables during the post-harvest process. Post-harvest fruits and vegetables during the post-harvest process. 1. Harvest fruits and vegetables during the post-harvest process. 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 10 ppm on a time weighted average. 3. Fog areas using one quart of a 0.2% solution (3.5 fl. oz. per 100 gallons of water) per 1,000 cu. ft. of room volume. Allow surfaces to drain thoroughly before operations are resumed.

**SURFACES TREATED TO CONTROL SPREAD OF CITRUS CANKER**

PERACLEAN® 5 can be used to control the spread of citrus canker between infirmate surfaces and maintain 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 infested plants. Xanthomonas campestris (axonopodis) pathogens citrus canker (surround). 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 contact spray. 3. Allow sanitizer to contact surface for at least one minute. 4. Allow to air dry, do not rinse.