

833-4

7/22/2013

Page 177

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



Office of Pesticide Programs

JUL 22 2013

SRS International Corporation
c/o Alex C. Fergusson, Inc.
10234 Three Fox Lane, P.O. Box 109
Delaplane, VA 20144

Attention: John A. Todhunter, Agent

Subject: Per-Ox
EPA Registration No. 833-4
Amendment Dated February 18, 2013 and March 26, 2013

The amendment, submitted in connection with registration under section 3(7)(A) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, to add two Public Health Organisms to the label (*Listeria* and *Salmonella*) with supporting efficacy data, 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. Submit two (2) copies of final printed labeling before you release the product for shipment.
3. Refer to the enclosed copy of the Efficacy Review under "CONCLUSION" 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.

If you have any questions concerning this letter, please contact Martha Terry at (703) 308-6341.

Sincerely,

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

Enclosures

287

PER-OX

For Institutional / Industrial sanitizing of previously cleaned non-porous food contact surfaces in:

- Dairies, Wineries, Breweries and Beverage Plants
- Meat and Poultry Processing/Packaging Plants
- Milk and Dairy Products Processing/Packing Plants
- Seafood and Produce Processing/Packing Plants
- Food Processing/Packing Plants
- Egg Processing/Packing Equipment Surfaces
- Eating Establishments

For Institutional / Industrial sanitizing of previously cleaned, hard, non-porous food contact surfaces such as:

- Eating, Drinking, and Food Preparation Utensils
- Countertops and Food Preparation Surfaces
- Tableware
- Plastic, Glass and Metal Bottles (rinse)

For use as a sanitizer on food contact surfaces in contact with products labeled as organic.

For use as a coarse spray for surfaces to be sanitized or disinfected.

Per-Ox is for sanitizing hard, inanimate, non-food contact surfaces. (general environmental surfaces)

Per-Ox is for use in the disinfection of hard, non-porous surfaces in general commercial environments such as:

- Food processing plants
- Pharmaceutical and chemical facilities

For use as an antimicrobial container rinse to control beverage spoilage microorganisms.

Active Ingredients:	Peroxyacetic Acid	5.25%
	Hydrogen Peroxide	22.00%
Inert Ingredients:	<u>72.75%</u>
Total	100.00%

**KEEP OUT OF REACH OF CHILDREN
DANGER**

See Left Panel for Additional Precautionary Statements

**ACCEPTED
with COMMENTS
EPA Letter Dated:**

JUL 22 2013

Under the authority of the Administrator,
EPA Letter Dated: July 22, 2013, the pesticide
amended, for the pesticide,
registered under EPA Reg. No.

833-4

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FIRST AID	
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 – 20 minutes • Remove contact lenses, if present, after the first 5 minutes then continue rinsing eyes. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 – 20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
<p>Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.</p> <p>This product is not to be used as a terminal sterilant / high-level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into contact with the bloodstream or normally sterile areas of the body, or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile area of the body. This product may be used to clean or decontaminate critical or semi-critical medical devices prior to sterilization or high-level disinfection.</p>	

EPA Registration No.: 833-4
EPA Est. No.: 833-PA-1

NET CONTENTS: 53.5 GALLONS
LOT NO.:

CHEMTREC EMERGENCY 800-424-9300
(Chemtrec Customer Number: CCN837)

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Fungic,
amended, for the pesticide,
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Precautionary Statements Hazards to Humans and Domestic Animals

DANGER – Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. May be fatal if absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear protective eyewear (goggles, face shield or safety glasses), chemical resistant apron or coveralls and chemical resistant gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.

Physical or Chemical Hazards – Strong oxidizing agent. Mix only with water. Not combustible but at temperatures exceeding 156 °F, decomposition occurs releasing oxygen. The oxygen released could initiate or promote combustion of other materials.

Environmental Hazards – This pesticide is toxic to birds, mammals, fish and aquatic life. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with 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 effluents 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 EPA.

Storage and Disposal

Do not Contaminate Water, Food, or Feed by Storage and Disposal

Pesticide Storage

NEVER RETURN Per-Ox 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 with large volumes of water. Avoid damage to containers. Keep containers closed at all times when not in use. Keep containers 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 leaks 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.

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* EPA Letter Dated:
JUL 22 2013

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

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Disposal

Pesticide Disposal

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.

Product to be discarded should be disposed of as a hazardous waste after contacting the appropriate local, state, or Federal agency to determine proper procedures.

Container Disposal

Nonrefillable containers less than 5 gallons. Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth ensuring at least one complete revolution for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty rinsate into application equipment or mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Empty drums are not returnable unless special arrangements have been made. Dispose of drums in accordance with local, state, and Federal regulations.

Directions For Use

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

For use in circulation cleaning and institutional / industrial sanitizing of previously cleaned hard, non-porous food-contact surfaces and equipment, such as food preparation surfaces, pipelines, tanks, vats, filters, evaporators, pasteurizers and aseptic equipment in:

- Dairies, Wineries, Breweries and Beverage Plants
- Meat and Poultry Processing / Packaging Plants
- Milk and Dairy Products Processing / Packing Plants
- Seafood and Produce Processing / Packing Plants
- Food Processing / Packing Plants
- Egg Processing / Packing Equipment Surfaces
- Eating Establishments
- Final Sanitizing Bottle Rinse

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Sanitizing Hard, Non-Porous Food Contact Surfaces

An effective sanitizer against *Staphylococcus aureus*, *Escherichia coli* and *Salmonella typhimurium*.

Clean equipment immediately after use.

1. Remove gross particulate matter with a warm water flush.
2. Wash equipment with detergent or cleaning solution.
3. Rinse equipment with potable water.
4. Prepare product solution by adding 1.0 to **2.25** fluid ounces to 5 gallons potable water. This provides 90 to **200** ppm peroxyacetic acid and 378 to **852** ppm hydrogen peroxide.
5. Fill closed systems with diluted sanitizer solution and allow a contact time of one (1) minute. If sanitizing at temperatures of 5°C (40°F) or lower, use **2.25** fluid ounces of product to 5 gallons of potable water.
6. If sanitizing against *Listeria monocytogenes*, use 1.25 to **2.25** fluid ounces of this product to 5 gallons potable water. This will provide 112 to **200** ppm of peroxyacetic acid and 454 to **852** ppm of hydrogen peroxide.
7. For open or not completely closed systems, use a coarse spray, mop/wipe or flood technique to apply solution to the surface and allow a contact time of one (1) minute.
8. Allow surfaces to drain thoroughly before resuming operation.

General Environmental (Non-Food Contact) Surfaces Sanitization

Per-Ox is an effective sanitizer on inanimate, hard, non-food contact surfaces against *Staphylococcus aureus* and *Klebsiella pneumoniae*. Sanitization of surfaces such as floors, walls, tables, chairs, benches, drains, etc. can be accomplished using the following procedure:

1. Wash surface/item with a detergent or cleaning solution.
2. Rinse surface/item with potable water.
3. Prepare sanitizer solution by adding 1 to 10 fluid ounces of Per-Ox to 15 gallons of potable water to prepare a solution containing 30 to 300 ppm peroxyacetic acid and 126 to 1262 ppm hydrogen peroxide.
4. Immerse items in diluted sanitizer solution or apply diluted sanitizer solution to surface/item using a mop, wipe, coarse spray, or flood technique. Allow contact for at least 5 minutes.
5. Allow items and/or surfaces to drain adequately or air dry.

3. Rinse thoroughly with potable water.
4. Prepare product solution by adding 1.0 to **2.25** fluid ounces to 5 gallons potable water. This provides 90 to **200** ppm peroxyacetic acid and 378 to **852** ppm hydrogen peroxide.
5. Immerse all items for at least 2 minutes or for a contact time as specified by the local governing sanitation code.
6. If sanitizing against *Listeria monocytogenes*, use 1.2 to **2.25** fluid ounces of this product to 5 gallons potable water. This will provide 112 to **200** ppm of peroxyacetic acid and 454 to **852** ppm of hydrogen peroxide.
7. Place all sanitized items on a rack or drainboard to drain adequately. Air dry if items will not be reused immediately.

Sanitizing Tableware

For sanitizing tableware in low to ambient temperature warewashing machines, inject the diluted product solution (1.0 to **2.25** fluid ounces of the product to 5 gallons of potable water) into the final rinse water. Allow treated surfaces to air dry.

Final Sanitizing Bottle Rinse

May be used as a final sanitizing rinse for plastic, glass or metal returnable and non-returnable bottles / cans.

1. Wash bottles with detergent or cleaning solution and rinse with potable water.
2. Rinse bottles with a solution prepared by mixing 1.0 to **2.25** fluid ounces of product to 5 gallons of potable water.
3. Allow to drain adequately.

Sanitizing of Hatching Eggs

1. Prepare a dilute solution prepared by mixing 1.0 to **2.25** fluid ounces of product to 5 gallons of potable water.
2. Apply dilute solution as eggs are gathered or prior to setting, as a coarse spray or flood so as to lightly wet all egg shell surfaces.
3. Allow to drain dry.

Sanitizing of Conveyors, Peelers, Slicers and Saws for Meat, Poultry, Seafood, Fruits and Vegetables

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Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide,
registered under EPA Reg. No.
833-4

Per-Ox (833-4): Amendment to Increase Actives Concentration in Use Dilution -
DRAFT Amended Label RIGHT Panel / BOTTOM HALF / Changes Highlighted

technique. Allow contact for at least 5 minutes.
Allow items and/or surfaces to drain adequately or air dry.

Hard Surface Disinfection

Per-Ox is an effective broad spectrum disinfectant against Gram positive and Gram negative bacteria including *Staphylococcus aureus* and *Salmonella enterica* and may be used to clean, disinfect, and deodorize hard, non-porous inanimate surfaces such as:

- Food processing equipment and facilities.
- Floors, walls, and other non-porous surfaces such as tables, chairs, counter tops, garbage cans/bins, bathroom fixtures, sinks, shelves, racks, carts, refrigerators, coolers, glazed tile, linoleum, vinyl, glazed porcelain, plastic (such as polypropylene and polyethylene), stainless steel or glass.
- Chemical and pharmaceutical processing facilities and equipment.

To disinfect surfaces that may be contaminated with Gram positive or Gram negative bacteria including *Staphylococcus aureus* and *Salmonella enterica* use the following procedure:

1. Prepare a Per-Ox disinfecting solution by adding 3.2 to 30 oz. of the product of Per-Ox to 5 gallons of potable water. This will provide 288 to 2700 ppm of peroxyacetic acid and 1211 to 11,340 ppm hydrogen peroxide.
2. Remove gross filth from surfaces to be disinfected by cleaning with a suitable detergent or cleaner. Rinse surface with potable water.
3. Apply Per-Ox disinfecting solution by wiping, mopping, or as a coarse spray. Allow at least 10 minutes contact time, then air dry.
4. Applications on food-contact surfaces require a sterile or potable water rinse following disinfection.

Eating Establishment Sanitizing

effective sanitizer against *Staphylococcus aureus*, *Escherichia coli* and *almonella typhimurium*.

1. Scrape/prewash plates, utensils, cups, glasses, etc. whenever possible.
2. Wash all items with a detergent.

(Note: this section continues at top of next column (i.e.: Right Panel TOP Half)

Sanitizing of Conveyors, Peelers, Slicers and Saws for Meat, Poultry, Seafood, Fruits and Vegetables

An effective sanitizer against *Staphylococcus aureus*, *Escherichia coli* and *Salmonella typhimurium*.

For use in the static or continuous washing, rinsing, and sanitizing of conveyor equipment, peelers, collators, slicers, saws, etc.

1. Remove all products from equipment if during treatment the sanitizer will directly contact the items.
2. Prepare sanitizer solution by adding 1.0 to **2.25** fluid ounces to 5 gallons of potable water.
3. Apply sanitizer solution to the return portion of the conveyor or to the equipment by using a coarse spray or other means of wetting the surfaces. Treat for at least 1 minute. Control the volume of solution so as to permit maximum drainage and to prevent puddles. The conveyor may still be damp when food contact occurs.
4. If sanitizing against *Listeria monocytogenes*, use 1.2 to **2.25** fluid ounces of this product to 5 gallons potable water. This will provide 112 to **200** ppm of peroxyacetic acid and 454 to **852** ppm hydrogen peroxide.
5. Allow equipment to drain adequately before reusing, a dry surface is not required.

Antimicrobial Rinse of Pre-Cleaned or New Returnable or Non-Returnable Containers:

To reduce the number of nonpathogenic beverage spoilage organisms such as *Aspergillus versicolor*, *Byssoschlamys fulve*, *Pediococcus damnosus*, *Lactobacillus buchneri* and *Saccharomyces cerevisiae*.

1. Prepare solution by adding 7.0 to 30 fluid oz. to 5 gallons of potable water. This will provide 632 to 2707 ppm of peroxyacetic acid and 2650 to 11,354 ppm hydrogen peroxide.
2. Apply solution, allowing a minimum contact time of 5 seconds.
3. Allow containers to drain thoroughly, and then rinse with sterile or potable water.



Alex C. Ferguson
5000 LETTERKENNY RD.
CHEMBERSBURG, PA 17201
Tel: 1-800-345-1329

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833-4