



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Antimicrobials Division (7510P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

10324-230

Date of Issuance:

7/17/18

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

MAGUARD ® 1522

Name and Address of Registrant (include ZIP Code):

Mason Chemical Company  
2744 E. Kemper Rd.  
Cincinnati, OH 45241

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Antimicrobials Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Zeno Bain, Product Manager 33  
Regulatory Management Branch 1  
Antimicrobials Division (7510P)  
Office of Pesticide Programs

Date:

7/17/18

2. You are required to comply with the data requirements described in the DCI identified below:
  - a. Hydrogen Peroxide – GDCI-000595-1127
  - b. You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI or EDSP Order listed above, you may contact the Reevaluation Team Leader (Team 36): <http://www2.epa.gov/pesticide-contacts/contacts-office-pesticide-programs-antimicrobial-division>
3. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 10324-230.”
4. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSF:

- Basic CSF dated February 27, 2018

If you have any questions, please contact Zebora Johnson by phone at (703) 308-7080, or via email at [johnson.zebora@epa.gov](mailto:johnson.zebora@epa.gov).

Enclosure: Accepted Label

# MAGUARD® 1522

(Note to Reviewer: Marketing claims may be used on the front panel.)

**Bactericidal • Virucidal\* • Fungicidal • Tuberculocidal**

**ACTIVE INGREDIENTS:**

Hydrogen peroxide..... 22.0%  
 Peroxyacetic acid ..... 15.0%

**OTHER INGREDIENTS:** ..... 63.0%

**TOTAL:** ..... 100.0%

**KEEP OUT OF REACH OF CHILDREN  
 DANGER {PELIGRO}**

{See [{left} {back} {side} {right} {insert} {panel} {of label} {below}] for {additional} {precautionary statements} {and} {or} {first aid}}.

This label not for use in California.

(Note to Reviewer: First Aid may only appear on a different area of the container label if the Front Panel is less than 12 square inches in total.)

**FIRST AID**

In case of emergency, call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**IF IN EYES:** 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 eye.

**IF ON SKIN:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

**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 a poison control center or doctor immediately 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 mouth-to-mouth, if possible.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

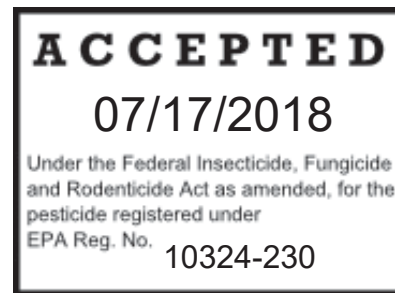
{For [{chemical} {and} {or} {medical} {and} {or} {environmental}] emergencies, call {insert name and/or number of emergency contact} {hours of operation} {24 hours a day} {7 days a week}}.



{See {additional} {sheet} {insert} {inside} {outer container} for {other} {directions for use} {information} {claims} {organisms}}.

Net Contents:

{{Batch} {Lot} No} {Manufacturing Date}:  
 {Product of USA} {Made in the USA}



# MAGUARD® 1522

## ORGANISM LIST

(Note to Reviewer: The list of organisms can be formatted into paragraph form using a comma to separate organisms.)

**DISINFECTION PERFORMANCE:** This product kills the following bacteria in 1 minute with 5% organic soil load and 400 ppm hard water on hard, non-porous surfaces:

*Acinetobacter baumannii* {(ATCC 19606)}  
*Clostridium perfringens* {(ATCC 13124)}  
*Enterococcus faecalis* {Vancomycin-Resistant} {(VRE)} {(ATCC 51575)}  
*Escherichia coli* O157:H7 {(ATCC 35150)}  
*Klebsiella pneumoniae* {(ATCC 4352)}  
*Listeria monocytogenes* {(ATCC 19111)}  
*Mycobacterium bovis* (Tuberculosis surrogate) ‡  
*Pseudomonas aeruginosa* {(ATCC 15442)}  
*Salmonella enterica* {(ATCC 10708)}  
*Salmonella enterica* serovar *Typhimurium* {(ATCC 13311)}  
*Serratia marcescens* {(ATCC 13880)}  
*Shigella dysenteriae* serotype 1 {(ATCC 29026)}  
*Staphylococcus aureus* {(ATCC 6538)}  
*Staphylococcus aureus* {Community-Associated Methicillin Resistant} {(CA-MRSA)} {(Genotype USA300)} {(CI 08001)}  
*Staphylococcus aureus* {Methicillin-Resistant} {(MRSA)} {(ATCC 33592)}  
*Staphylococcus aureus* {Vancomycin-intermediate} {(VISA)} {(ATCC 700787)}§  
*Staphylococcus epidermidis* {Methicillin-Resistant} {(MRSE)} {(ATCC 51625)}  
*Streptococcus pneumoniae* {(ATCC 6304)}§  
*Streptococcus pyogenes* {(ATCC 19615)}  
*Vibrio cholerae* {(ATCC 14035)}  
*Yersinia enterocolitica* {(ATCC 35669)}

‡ Indicates a 10-minute contact time is necessary for this claim.

§ Indicates a 3-minute contact time is necessary for this claim.

**VIRUCIDAL\* PERFORMANCE:** This product kills the following viruses in 1 minute with 5% organic soil load and 400 ppm hard water on hard, non-porous surfaces:

Hepatitis B Virus {(HBV)} {(Duck Hepatitis B Virus)} {(Hepadna Virus Testing)}  
Hepatitis C Virus {(HCV)} {(Bovine Viral Diarrhea Virus)} {(American Bioresearch Laboratories)}  
Herpes Simplex Type 1 Virus {(ATCC VR-260)}  
Herpes Simplex Type 2 Virus {(ATCC VR-734)}  
Human Coronavirus Strain 229e {(ATCC VR-740)}  
Human Immunodeficiency Virus Type 1 {(HIV-1)} {(Zeptomatrix Corporation)}  
Human Rotavirus {(ATCC VR-2018)}  
Influenza A {(A/Hong Kong/8/68-H3N2)} Virus {(SPAFAS)}  
Norovirus {(Norwalk-like Virus)} {(Feline Calicivirus)} {(University of Ottawa)}  
Poliovirus Type 1 {(ATCC 1562)} ‡  
Respiratory Syncytial Virus {(ATCC VR-26)}  
Rhinovirus Type 37 {(ATCC 1147)} {(Organon Teknika Corp)}  
Vaccinia Virus {(ATCC VR-156)}

‡ Indicates a 10-minute contact time is necessary for this claim.

**ANIMAL VIRUCIDAL\* PERFORMANCE:** This product kills the following viruses in 1 minute with 5% organic soil load and 400 ppm hard water on hard, non-porous surfaces:

Avian Influenza A Virus {(Turkey/Wis/66-H9N2)} {(SPAFAS)}

**FUNGICIDAL PERFORMANCE:** This product kills the following fungi in 1 minute with 5% organic soil load and 400 ppm hard water on hard, non-porous surfaces:

*Candida albicans* {(ATCC 10231)}  
*Trichophyton mentagrophytes* {(ATCC 9533)}



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*(Note to Reviewer: The Table of Contents will not be on any label. This is for our customer's reference only.)*

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## MARKETING CLAIMS

*(Note to Reviewer: Marketing text is considered optional. Commas and the words "and" "or" can be added to phrases to make text grammatically correct.)*

### **THIS PRODUCT 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:**

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

#### **BACTERIA, FUNGI, AND SLIME CONTROL IN:**

- Pulp and Paper Mill Systems
- Dispersed Pigments
- Cooling Water Systems
- Coatings Preservation

## DIRECTIONS FOR USE

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

For use on hard, non-porous surfaces.

**(Note to Reviewer (General Considerations):** Numbered instructions will be used if label space permits, otherwise they may appear in paragraph format. Unit abbreviations can be spelled out. Equivalent use dilution ratios may be substituted within the directions.)

{Please read entire label and use strictly in accordance with precautionary statements and directions.}

### 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.

This product is a peroxyacetic acid sanitizer recommended for use on precleaned surfaces such as equipment, pipelines, tanks, vats, fillers, evaporators, conveyor belts, pasteurizers and aseptic equipment in dairies, breweries, wineries, beverage and food processing/packing plants, egg processing/packing equipment surfaces, and eating establishments. This product is effective as a sanitizer when solution is prepared in water of up to 400 ppm hardness as CaCO<sub>3</sub>. This product has demonstrated greater than a 99.999% reduction of survivors after a 30 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*.

Prior to sanitizing, remove gross food particles, then wash with a detergent solution, followed by a potable water rinse. Sanitize with a concentration of 0.33-1.87 oz. of this product dissolved in 5 gal. of water (0.053% v/v concentration). This will provide 88-500 ppm of peroxyacetic acid. At this dilution this product is effective against *Staphylococcus aureus* and *Escherichia coli*. Use immersion, coarse spray or circulation techniques as appropriate to the equipment. All surfaces should be exposed to the sanitizing solution for a period of at least 60 seconds or more if specified by governing sanitary code. Drain thoroughly. Do not rinse.

#### SANITIZING, EATING, DRINKING, AND FOOD PREP UTENSILS

Remove gross food particles by a prescrape, a preflush and, when necessary, a presoak treatment. Wash with a recommended detergent. Rinse with clean water. Sanitize in a solution of 0.33-1.87 oz. of this product dissolved in 5 gal. 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 this product into the final rinse water at a concentration of 0.33-1.87 oz. of this product dissolved in 5 gal. of water. Do not exceed 0.053 % v/v. This will provide 88-500 ppm of peroxyacetic acid. Air dry.

To ensure that the concentration of this product 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.

#### FINAL SANITIZING BOTTLE RINSE

This product may be used as a final sanitizing rinse for returnable and non-returnable bottles at a 0.053% dilution (0.33 oz. of this product dissolved in 5 gal. of water). This will provide 88 ppm of peroxyacetic acid.

#### BATCH SANITIZATION (NON-FOOD CONTACT SURFACES) OF ULTRA FILTRATION AND REVERSE OSMOSIS (RO) MEMBRANES

This product 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 this product.

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 this product. Flush the system again with the RO permeate or similar quality water. Prepare an appropriate volume of 1% solution of the product (0.33 gal. of this product to 100 gal. of water). This will provide 568 ppm of peroxyacetic acid and 834 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). Recirculate the dilute solution of this product 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 0.33 to 0.5% of this product by adding 0.33 to 0.5 gal. of the product for every 100 gal. of solution prepared. Use RO permeate or similar quality water for dilution. This will provide 554 to 840 ppm peroxyacetic acid and 813 to 1232 ppm hydrogen peroxide. Recirculate the use solution through the system for a minimum of 4 hours. Process usage valves should be opened and closed to expose internals to the product. Completely drain the system of use 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.

#### **CONTINUOUS/INTERMITTENT ADDITION TO MINIMIZE THE ACCUMULATION OF BIOLOGICAL MATTER BETWEEN INTERMITTENT SANITIZING EPISODES IN PIPING SYSTEMS ASSOCIATED WITH RO MEMBRANES (NON-FOOD CONTACT SURFACES)**

This product, as received or diluted, may be added continuously to the feed water system, between system sanitizing episodes, to aid in minimizing the regrowth/ 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 this product or the solution and periodically monitor residual peroxygen so that the desired effect is obtained. For continuous addition, do not exceed 7 ppm (0.33 oz. of product per 440 gal. of water) of this product. This will give 1 ppm peroxyacetic acid and 1.4 ppm hydrogen peroxide. For intermittent feed, do not exceed 750 ppm (8.5 oz. of product per 100 gal. of water) of this product. This will give 110 ppm peroxyacetic acid and 160 ppm hydrogen peroxide.

### **DISINFECTION**

This product disinfects as it cleans in one operation. This product can be used to disinfect floors, walls and other hard non-porous surfaces such as tables, chairs, countertops, bathroom fixtures, sinks, bed frames, doors, shelves, racks, carts, refrigerators, coolers, glazed tile, linoleum, vinyl, non-porous glazed porcelain, glazed ceramic, plastic (such as polypropylene and polyethylene), stainless steel, glass, aluminum, non-porous baked enamel, chrome, laminated or painted surfaces or sealed stone. This product should not be used on marble or brass surfaces.

#### **FOR HEALTH CARE, INSTITUTIONAL, AND INDUSTRIAL USE.**

Areas of use in hospitals: This product may be used for surgical and obstetrical suites; housekeeping surfaces; physical therapy departments; nursing services; dental facilities; autopsy facilities; intensive care units; pharmacies; and clinical laboratories. Also, use this product in nursing homes, other health-care facilities, schools, colleges, veterinary clinics, animal life science laboratories, industrial facilities, office buildings, recreational facilities, industrial facilities; hotels; retail facilities; office buildings; retail and wholesale establishments.

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 or in 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 areas of the body. This product may be used to pre-clean or decontaminate critical or semi-critical medical devices prior to sterilization or high-level disinfection.

Dilute this product with the appropriate amount of water to an effective concentration of 1135 ppm peroxyacetic acid and 1665 ppm hydrogen peroxide (0.85 oz. per gal. of water). Apply solution with a cloth, mop, sponge, auto-scrubber, or hand pumped trigger sprayer such that all surfaces remain wet for 1 minute to kill bacteria, viruses, and fungi as cited on the label. Use a 3-minute contact time for *Streptococcus pneumoniae* and Vancomycin-Resistant *Enterococcus faecalis*. Use a 10-minute contact time for Poliovirus Type 1 and Tuberculocidal activity. This product is effective against tuberculosis (*Mycobacterium bovis*) at ambient temperature (22°C). Allow surface to air dry. For heavily soiled areas, a preliminary cleaning is required. Prepare a fresh solution daily or more often if the use solution becomes visibly soiled clouded or diluted.

This product is not for use on medical device surfaces.

**BLOODBORNE PATHOGEN INSTRUCTIONS** (*Note to Reviewer: Heading is optional. If instructions used, all indented text must be included.*):

**KILLS HIV-1 (AIDS VIRUS), HBV, AND HCV ON PRE-CLEANED ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD/BODY FLUIDS** in health care settings or other settings in which there is an expected likelihood of soiling of surfaces/ objects with blood or body fluids, and in which the surfaces / objects likely to be soiled with blood or body fluids can be associated with the potential for transmission of Human Immunodeficiency virus Type 1 (HIV-1) (associated with AIDS), Hepatitis B Virus, or Hepatitis C Virus.

**Special Instructions for cleaning and decontamination against HIV-1 (AIDS Virus), HBV, and HCV of surfaces/ objects soiled with blood/body fluids.**

**Personal Protection:** Disposable protective gloves, gowns, face masks, or eye coverings as appropriate must be worn during all cleaning of body fluids, blood and decontamination procedures.

**Cleaning Procedure:** Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application. Contact Time: HIV-1, HBV, and HCV are inactivated after 1 minute of contact.

**Infectious material:** Blood and other bodily fluids should be autoclaved and disposed of according to federal, state and local regulations for infectious waste disposal.

## **HARD SURFACE DISINFECTION**

This product disinfects as it cleans in one operation. This product 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, glazed tile, linoleum, vinyl, non-porous glazed porcelain, plastic (such as polypropylene and polyethylene), stainless steel, or glass.

Areas of use in hospitals: This product may be used for surgical and obstetrical suites; housekeeping services; physical therapy departments; nursing services; autopsy facilities. Also, use this product in nursing homes, other health-care facilities, schools, colleges, veterinary clinics, animal life science laboratories, industrial facilities, dietary areas, office buildings, recreational facilities, retail and wholesale establishments.

**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 or in 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 areas of the body. This product may be used to pre-clean or decontaminate critical or semi-critical medical devices prior to sterilization or high-level disinfection.**

## **COMBINATION DISINFECTION AND CLEANING**

This product is effective against *Staphylococcus aureus*, *Salmonella choleraesuis*, *Pseudomonas aeruginosa*, *Trichophyton mentagrophytes*, and *Escherichia coli* O157:H7 at 0.08% (0.5 oz./5 gal.) in hard water (400 ppm as CaCO<sub>3</sub>) and 5% soil {(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 entrapped soil with a clean wet mop, cloth, or wet vacuum pickup. Prepare a fresh solution daily or when it becomes soiled or diluted.

This product is designed for use in animal hospitals, animal laboratories, kennels, pet shops, zoos, pet animal quarters, poultry premises, poultry hatcheries, and livestock quarters. When used as directed, this product is specifically designed to disinfect, deodorize and clean inanimate, hard, surfaces such as walls, floors, sink tops, furniture, operating tables, kennel runs, cages, and feeding and watering equipment. In addition, this product 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.



## **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 0.08% (0.5 oz./5 gal.) solution of this product 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 matter, 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 a detergent and rinse with water. Saturate surfaces with a 0.08% (0.5 oz./5 gal.) solution of this product 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.



## WATER TREATMENT

### BIFOULING CONTROL IN PULP AND PAPERMILL SYSTEMS

For use in the manufacture of paper and paperboard intended for food contact and non-food contact. This product can be used to control bacteria, fungi, and fresh water organisms in paper, paperboard, or nonwoven 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.

Contamination with other chemicals could result in product decomposition.

- Add this product at a point in the system where uniform mixing and even distribution will occur.
- Use 0.1 to 0.5 lb. (1.4 to 6.85 oz.) of this product per 1000 gal. of solution as a continuous or intermittent slug treatment. This will provide 1.8 to 9 ppm peroxyacetic acid (12 to 60 ppm of this product). Repeat treatment as required to maintain control.

### 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* (ATCC 9577), *Byssochlamys fulva* (ATCC 10099), *Pediococcus damnosus* (ATCC 29358), *Lactobacillus buchneri* (ATCC 4005), and *Saccharomyces cerevisiae* (ATCC 47058).

1. Prepare use solution by adding 9.85 oz. to 5 gal. 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.

### TREATMENT OF FRUIT AND VEGETABLE PROCESS WATER SYSTEMS

This product can be used in water or ice that contacts raw or fresh, post-harvest or further processed fruits and vegetables for the control of bacteria and fungi in commercial operations and packinghouses.

**BATCH, CONTINUOUS OR SPRAY SYSTEM PROCESSES:** Fill vessel containing fruits and vegetables with known amount of water. Ensure that water is circulating in vessel if using the submersion method. Add this product at a rate no more than 80 ppm peroxyacetic acid to the use solution. This can be accomplished by initially adding 1.0 oz. of this product per 16.4 gal. of water. The fruits and vegetables can be continuously sprayed (using coarse spray) or submerged (dipped) in the resulting solution. Periodic or continuous addition of this product to maintain the required concentration may be added as necessary. Contact time of 60 seconds is recommended to insure efficacy. A potable water rinse is not required. This product is not intended for use in primary flumes prior to the point of the first dewatering stage.

### FOR DISINFECTION OF SEWAGE AND WASTEWATER EFFLUENTS IN TREATMENT PLANTS

Use this product to treat sewage and wastewater effluent related to public and private wastewater treatment plants. This product can be applied directly to the effluent or may be used with an appropriate activator such as hydrogen peroxide or other technology. This product may be applied to effluent water discharged from trickle bed or percolating fluidized bed filters. The application rate for individual facilities will depend on the degree of bioloading of the effluent stream to be discharged and the local microbial discharge limit. Adjust application rate to meet the need of the individual facility.

1. Add this product to effluent water at a concentration of 0.5 ppm to 15 ppm. Allow contact time of approximately 15 to 60 minutes.
2. The maximum amount of peroxyacetic acid that can be discharged from the treatment facility is 1 ppm. Use an appropriate peroxyacetic acid test kit analyzer to ensure that this level is not exceeded.

### INFLUENT WATER SYSTEMS

This product should be fed continuously to incoming fresh water streams (non-potable use only) at dosages ranging from 10 to 975 ppm peroxyacetic acid (65 to 6500 ppm of this product).

### MILL PROCESS WATERS

- **Continuous Feed:** This product should be fed continuously at dosages ranging from 10 to 975 ppm peroxyacetic acid (65 to 6500 ppm of this product). This range is equivalent to 0.13 to 13 lbs. of this product per ton (dry basis) of pulp or paper produced.
- **Intermittent Feed:** This product should be fed intermittently (6 to 8 times per day) at dosages ranging from 10 to 975 ppm peroxyacetic acid (65 to 6500 ppm of this product). This range is equivalent to 0.13 to 13 lbs. of this product per ton (dry basis) of pulp or paper produced.
- **Shock Dose:** This product should be shock dosed at dosages ranging from 98 to 2048 ppm peroxyacetic acid (648 to 13,638 ppm of this product). This range is equivalent to 1.3 to 27.3 lbs. of this product per ton (dry basis) of pulp or paper produced.

### CONTROL OF SLIME FORMING BACTERIA AND BIFOULING IN ONCE-THROUGH AND RECIRCULATING COOLING WATER (COOLING TOWERS, EVAPORATIVE CONDENSERS, AIR WASHERS) AND ORNAMENTAL OR RECREATIONAL WATER FEATURES

Severely fouled systems must be cleaned before adding this product. This product must be added in the water system directly, and not mixed with any other chemicals or additives. Never add this product into any feeding device, such as shot feeders, filter housings, by-pass feeders, or miscellaneous piping of any kind, because dangerous acute decomposition can occur. Discontinue the use of chlorine or bromine products prior to using this product. Contamination with other chemicals could result in product decomposition. Add this product to only water at a point in the system where uniform mixing and even distribution will occur.

For shock (slug) treatment for moderately to severely fouled systems add 5-20 oz. of this product per 1000 gal. of process water (7-27 ppm peroxyacetic acid). Repeat as necessary until microbiological control is evident. Thereafter, to maintain control use (1.5-7.5 oz.) of this product per 1000 gal. of process water (2-10 ppm of peroxyacetic acid) as a continuous treatment method. Continuous dosing methods usually require 1.5-5 oz. per 1000 gal. of water (2-7 ppm peroxyacetic acid) to achieve adequate results.

Intermittent dosing treatment usually require dose cycles of a minimum once per every other day, up to 6 times per 24 hours. Recommended rates for intermittent dose cycles are 5-10 fl. oz of this product per 1000 gal. of process water (7-14 ppm peroxyacetic acid).

## AGRICULTURAL OR HORTICULTURAL USES

There is a Restricted-Entry-Interval of zero (0) hours after the use of this product. This product should never be mixed or combined with any other pesticide or fertilizer. Upon soil contact this diluted product decomposes rapidly to oxygen, carbon dioxide and water. This product may be harmful to fish if exposed on a continuous basis at concentrations of 1 ppm or more of active peroxyacetic acid. Meter this product into pressurized pipes using a plastic or stainless steel injection/backflow device installed far enough upstream from the equipment to insure thorough mixing. For open flowing bodies of water, apply this product as far upstream as possible to allow adequate mixing prior to the flow entering any larger body of water. If open pouring of this product is required, pour product as close to the surface of the water as possible to reduce odor exposure.

### TREATMENT OF AGRICULTURAL OR IRRIGATION WATER SYSTEMS (SAND FILTERS, HUMIDIFICATION SYSTEMS, STORAGE TANKS, PONDS, RESERVOIRS, CANALS):

For the control of sulfides, odor, slime and algae in water systems, apply this product at 2-10 ppm active peroxyacetic acid. This feed rate equals 15-75 oz. of this product per 10,000 gal. of water. Repeat dose as necessary to maintain control, which will vary with seasonal conditions. For prevention of algae, some systems may require continuous low-level dosing during warm sunny periods (2-5 ppm peroxyacetic acid).

Drip Irrigation Systems: To clean slime and algae from drip system filters, tapes and emitters, meter this product at the rate of 7.5-15 oz. of this product per 1000 gal. of water (10-20 ppm peroxyacetic acid). When required during normal irrigation cycles, use this product at the recommended dose for a minimum of 30 minutes. Thereafter, the irrigation cycle should be discontinued and the line should not be flushed.

### FOR TREATMENT OF RAW, UNPROCESSED FRUIT AND VEGETABLE SURFACES

This product 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 washing 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 washing process prior to, simultaneously with or after detergent wash.

1. Prepare use solution by diluting 1 oz. of this product per 16 gal. of potable water. This will provide 85 ppm peroxyacetic acid and 125 ppm hydrogen peroxide.
2. Apply the use solution using a coarse spray directed at the fruits or vegetables, or by soaking the fruits and vegetables in the use 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.

### FOR THE TREATMENT OF PROCESSED FRUITS AND VEGETABLES AND PROCESS WATERS TO CONTROL GROWTH OF NON-PUBLIC HEALTH MICROORGANISMS THAT CAN CAUSE SPOILAGE

1. Prepare use solution by diluting 1.5 oz. of this product per 25 gal. of potable water. This will provide 80 ppm peroxyacetic acid and 117 ppm hydrogen peroxide.
2. Apply the use solution as a spray or dip. Allow a contact time of at least 45 seconds. No rinse following application is required. This use complies with the requirements of 21 CFR 173.315 (a) 5.
3. The treated produce can be drain dried without a potable water rinse.
4. Do not reuse solution after treatment.

## OIL FIELD, GAS PRODUCTION AND TRANSMISSION PIPELINE AND SYSTEMS

**For antimicrobial use with aqueous treatment fluids in subterranean oilfield and gas-field well operations such as well drilling, formation fracturing, productivity enhancement and secondary recovery.**

This product can be used for control of slime forming and spoilage bacteria, yeast and fungi, and anaerobic sulfate reducing bacteria that lead to reservoir souring and metal corrosion. This product must be introduced through a closed mixed/loading and delivery transfer system equipped with a metering device that is appropriate for its intended uses.

### DRILLING MUDS, FRACTURING FLUIDS, WELL SQUEEZED FLUIDS

For the preservation of drilling muds, workover and completion fluids and other products susceptible to contamination, pre-mix with the fluid or add directly at the point of use at 3.75 oz. of this product per 1000 gal. of water (5 ppm) to 75 oz. per 1000 gal. of water (100 ppm) as required. Depending on the severity of the contamination, initial application may be added up to 749 oz. of this product per 1000 gal. of water (1000 ppm).

## FLOODING, INJECTION AND PRODUCED WATER

For Water Flooding operations, add initially at 3.75-75 oz. of this product per 1000 gal. of water (5-100 ppm) and repeat until control is achieved. Subsequent treatment may be continued on a weekly basis or as required. Injection wells associated with gas storage systems may be treated up to 100 ppm when diluted in the formation water. Any additional top-up water should be treated as required.

For hydrostatic systems, apply 3.75 -75 oz. of this product per 1000 gal. of water (5-100 ppm) depending on the water quality and the duration of the shut-in.

## PIPELINE AND TANK MAINTENANCE

For microbial control in water-bottoms in crude and refined hydrocarbon storage tanks, piping and transportation systems. Apply 3.75-75 oz. of this product per 1000 gal. of water (5-100 ppm) in the aqueous phase, directly injected into the water-bottom, pipeline or may be added to the hydrocarbon phase. Treatment may be applied daily or monthly for both storage and transportation systems as needed.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original containers in a cool, well-vented 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 HANDLING:

*(Note to Reviewer: One or more of the following paragraphs for Container Handling will be selected, depending on packaging use/type.)*

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

*{For non-refillable containers equal to or less than 5 gal.}*

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

*{For non-refillable containers greater than 5 gal.}*

Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand container on its end and tip back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat the procedure two more times. Then offer for recycling or dispose in a sanitary landfill, or by incineration, if allowed by state and local authorities by burning.

## 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 OR CHEMICAL HAZARDS

**STRONG OXIDIZING AGENT.** Corrosive. Mix only with water. Product must be diluted in accordance with label directions prior to use. This product 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.



### **{SPANISH ADVISORY STATEMENTS}**

*(Note to Reviewer: This statement is optional except when used on labels with agricultural uses.)*

{SI USTED NO ENTIENDE LA ETIQUETA, BUSQUE A ALGUIEN PARA QUE SE LA EXPLIQUE A USTED EN DETALLE.  
IF YOU DO NOT UNDERSTAND THE LABEL, FIND SOMEONE TO EXPLAIN IT TO YOU IN DETAIL.}



### **GRAPHICS AND ICONS**

*(Note to Reviewer: These are representative icons for use sites/application methods listed in the location/surfaces section of this label that may appear on the label with the appropriate directions for use, PPE or package type.)*

{Baby Drowning in Bucket  
Warning Graphic}

{Made in USA Logo/Flag}

{Recycling Logo}

{Mixing Chemical Warning  
Graphic}



### **{WARRANTY STATEMENT}**

*(Note to Reviewer: This statement is optional.)*

Read Product Material Safety Data Sheet prior to use, PRODUCT WARRANTY, DISCLAIMER AND LIMITATION OF LIABILITY ARE FOUND on the Product Material Safety Data Sheet. Unless inconsistent with applicable law, use of Product signifies agreement with these provisions.

Lea la Hoja de Seguridad del Producto antes de usarlo. LA GARANTIA DEL PRODUCTO, DECLINACION Y LIMITACION DE RESPONSABILIDAD SE ENCUENTRAN en la Hoja de Seguridad del Producto. A menos de que sea inconsistence con la ley, el uso del product significa acuerdo con estas disposiconies.