



## Antimicrobial Solution

# PERASHIELD 15%

EPA Registration No: 63838-2-102118 | EPA Est. No. 63838-CA-01: 63838-AR-001

PeraShield 15% is a peroxyacetic acid-based microbiocide developed for Bacteria, Fungi, Slime and Odor Control in Fruit and Vegetable Process Water Systems and Agricultural Water Treatment Systems.

### Active Ingredients

Peroxyacetic Acid	15.0%
Hydrogen Peroxide	22.0%
Inert Ingredients	63.0%
<b>Total</b>	<b>100%</b>

Before Using This Product, Please Read This Entire Label Carefully

## KEEP OUT OF REACH OF CHILDREN

## DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand this label, find someone to explain it to you in detail.)

# UN3109

Organic Peroxide Type F, Liquid (<=25% Peracetic Acid with <=26% Hydrogen Peroxide) 5.2(8)

### 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 skin. Harmful if swallowed. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Wear goggles, face shield, rubber gloves and protective clothing with long sleeves when handling. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse. Do not enter an enclosed area without proper respiratory protection, or when uncoupling of product transfer hoses. Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination N, R, or P filters; or a NIOSH-approved gas mask with OV canisters; or a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters when handling concentrate product.

### PERSONAL PROTECTIVE EQUIPMENT

Handlers who may be exposed to the undiluted product through mixing, loading, application, or other tasks must wear: coveralls over long-sleeved shirt and long pants, rubber gloves, chemical resistant footwear plus socks, and protective eyewear (goggles or face shield). Handlers who may be exposed to the diluted product through application or other tasks must wear: long-sleeved shirt and long pants, and shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining PPE. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### FIRST AID:

<b>IF IN EYES</b>	• 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 • Call a poison control center or doctor for treatment advice
<b>IF ON SKIN OR CLOTHING</b>	• 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
<b>IF INHALED</b>	• 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 treatment advice
<b>IF SWALLOWED</b>	• 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
<b>QUESTIONS? 1-209-581-9576</b>	Have the product container or label with you when calling a poison control center or doctor or going for treatment
<b>NOTE TO PHYSICIAN</b>	Probable mucosal damage may contraindicate the use of gastric lavage.

### PHYSICAL OR CHEMICAL HAZARDS

**STRONG OXIDIZING AGENT. CORROSIVE:** Mix only with water below 140° F. 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 must be used when applying indoors because pets may be at risk. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of the National Pollutant Discharge System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage plant authority.

### USER SAFETY RECOMMENDATIONS

Users should wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### DIRECTION FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the state or tribal agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and Restricted-Entry Interval (REI). The requirements in this box only apply to the uses of this product that are covered by the Workers Protection Standard. There is a restricted entry of zero (0) hours for this product.

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses. Keep unprotected persons out of treated areas until sprays have dried.

**Note :** All volumes given in ounces are fluid ounces. When used according to the directions for use, this product is compatible with plastic, 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.

### 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 spoilage and decay causing 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 to no more than 500 ppm residual peroxyacetic acid to the use solution in accordance with Food Contact Notification #1738, effective March 28, 2017. This can be accomplished by initially adding 3.8 fl. oz. per 10 gallons of water. The recommended concentration is between 30-300 ppm as peroxyacetic acid (0.23-2.3 fl. oz. per 10 gallons of water). The final concentration necessary to accomplish the intended task will vary from plant-to-plant. The fruits and vegetables can be continuously sprayed or submerged (dipped) in the resulting solution. Periodic or continuous additions of this product to maintain the required concentration may be added as necessary. It is also recommended to apply this product during the washing, chilling, or physical cleaning processes, including the roller-spreader, washer or brush washer manifold, dip tank, or sorting processes. Contact time of 60 seconds is recommended to insure efficacy. A potable water rinse is not required.

**Fogging:** (Not for Use in California): For raw agricultural commodities, commercially-applied fogging methods may be used provided the dilution rates of the resultant solution does not exceed those prescribed in this section (3.8 fl. oz. per 10 gal of water). A potable water rinse is not required. Conventional corrosion-resistant fogging devices are recommended. Vacate the area of all personnel prior to, during and after fogging until the total peroxide concentration is below 10 ppm, or there is no strong odor present, characteristic of acetic acid.

### AGRICULTURAL OR HORTICULTURAL USES

There is a Restricted-Entry-Interval of zero (0) hours after the use of this product. 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 ensure thorough mixing. If open pouring of this product is required pour product as close to the surface of the water as possible to reduce odor exposure. Spray lines, hoses and tank must be clean before using this product. Make sure no iron or yellow metals are in contact with the spray solution at any time. Only stainless steel or plastic contact materials may be used in your spray rig. Compatibility: This product is compatible as a direct injection or tank-mix with many commonly used pesticides, fertilizers, adjuvants and non-ionic surfactants but has not been fully evaluated with all of these. Do not direct inject or tank mix this product in to the irrigation system or in spray tank with pesticides, surfactants or fertilizers before conducting a compatibility test to show it is physically compatible, effective and noninjurious under your use conditions. Do not tank mix this product with copper or other pesticides containing metals at a dilution rate stronger than 1:100. To ensure compatibility, evaluate them prior to use as follows: Using a suitable container, add proportional amounts of product to water. Add wettable powders first, followed by water dispersible granules, then by liquid flowables and lastly, emulsifiable concentrates. Mix thoroughly and let stand for at least five minutes. If the combination stays mixed or can be remixed, it is physically compatible. Test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application.

### Phytotoxicity Test Procedure:

- Select healthy typical plants of each cultivar or type on which the pesticide will be used.
- Read the pesticide label to determine the application site (roots or leaves), the rate of application (amount per gallon/liter) and the interval of application (number of days between application).
- Use clean spray equipment and perform the test during the time of day when most of your pesticide applications will occur.

- Have one control set of plants which are sprayed with water only. Control sprayed plants must be sprayed under the same conditions as pesticide-sprayed plants.
- Wait for signs of phytotoxicity before determining that a pesticide is safe. Phytotoxic effects can range from slight burning or browning of leaves to death of the plant. Sometimes damage appears as distorted leaves, fruit, flowers, or stems.

**Treatment of Agricultural or Irrigation Water Systems** (sand filters, humidification systems, storage tanks, ponds, reservoirs, canals) (Not for use in New York): 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 fl. oz per 10,000 gallons 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 fl. oz. per 1000 gallons 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. After an irrigation cycle do not flush the lines.

**Greenhouses:** This product can be used to suppress/control algae and slime formations in and around greenhouses. For normal use in various process, irrigation or sprinkler water systems, this product may be used at 1:40,000 to 1:50,000 dilutions (4-33 ppm as peroxyacetic acid). Heavily fouled systems, such as evaporative coolers or irrigation /drip lines may need shock doses of up to 100 ppm as peroxyacetic acid (1:1,600 dilution).

**Pre-Plant Dip Treatment:** (Not for Use in California) Use this product for the control of damping-off, root disease and stem rot disease caused by *Pythium* (root rot) - *Phytophthora* (blights, rots) - *Rhizoctonia* (blight, stem rot) *Fusarium* (root-rot, leaf spot, Pink Snow Mold) - *Thielaviopsis* (black root rot), on seeds, seedlings, bulbs, or cuttings. Remove dead or dying foliage prior to dipping.

- Use 7.4 fl. oz. per 50 gallons of water.
- Immerse plants or cuttings; remove and allow to drain. Do not rinse.
- Excessive foaming or bubbling during the dipping process is an indication of high levels of disease contamination.

**Seed Treatment:** (Not for Use in California) Use this product for the control of damping-off, root disease and stem rot disease caused by *Pythium* (root rot) - *Phytophthora* (blights, rots) - *Rhizoctonia* (blight, stem rot) *Fusarium* (root-rot, leaf spot, Pink Snow Mold) - *Thielaviopsis* (black root rot), on seeds of seed sprouting crops such as mung bean, red clover, soybeans and alfalfa, and on crops grown exclusively for seed for planting.

- Use 7.4 fl. oz. per 50 gallons of water.
- Immerse seeds and let soak for two minutes; remove and allow to drain. Do not rinse. Plant seed according to seed package directions.

**Soil Applications:** (Not for Use in California) Use this product at 16.4-33 fl. oz. per 100 gal of water (220-440 ppm active peroxyacetic acid) for the control of soil-borne diseases such as *Fusarium*, *Phytophthora*, *Pythium*, *Verticillium*, *Thielaviopsis*, and *Rhizoctonia*. This product can be applied by drench, flood, drip or sprinkler irrigation systems. Best results may be obtained by application prior to and during the seeding or transplant operations. Wait one day before inoculating the soil with beneficial microbes.

**Foliar Applications:** (Not for Use in California) This product may be used to cure or prevent bacterial and fungal diseases on growing agricultural crops, including all grains, herbs, spices, row crops, berries, fruit and nut trees, vines (such as grapes) and tobacco. Typical use rates are 5.8-49.5 fl. oz. of this product per 100 gal of water (77-663 ppm active peroxyacetic acid) applied at 30-100 gal of mixed solution per acre of foliage. Curative (or rescue) treatment requires the lower dilution rates, while preventative treatments use the higher dilution rates. Apply curative treatments for 2-3 days and then resume weekly preventative treatments thereafter. Good coverage and wetting of the foliage is required. Not all plant diseases have been tested, but some of the common diseases controlled are: *Algae*, *Alternaria* spp., *Anthraconose*, *Aphanomyces*, *Bacterial Blight*, *Black Spot*, *Botrytis* (gray mold), *Brown Spot*, *Copper Spot*, *Dollar Spot*, *Early and Late Blights*, *Erwinia* spp. (such as bacterial wilt), *Fairy Ring*, *Fusarium Root Rot and Blight*, *Fruit, Black, Brown, Stem and Sour Rots*, *Leaf and Bacterial Spots*, *Plasmopora*, *Powdery and Downy mildews*, *Phytophthora Blight/Rots*, *Pink Snow Mold*, *Pseudomonas* and *Xanthomonas* spp. (such as bacterial angular leaf spot, bacterial leaf spec, black soft rot), *Pythium* spp., *Rhizoctonia* spp., *Rusts*, *Scabs*, *Scum*, *Slime Molds*, *Smut*, *Summer Patch*, *Stripe Smut*, *Take-all Patch*, and *Thielaviopsis*. A nonionic spreader (surfactant) adjuvant is recommended. Contact your local supplier or farm supply.

## STORAGE AND DISPOSAL

**Storage:** Never return this product 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, spray container with cool water and dilute this product with large volumes of water. Avoid damage to containers. Keep container closed at all times when not in use. Keep container out of direct sunlight. To maintain product quality, store at temperatures below 86°F.

**Procedure for Leak or Spill:** Stop leak if this can be done without risk. Shut off ignition sources: no flames, smoking, flares, or spark producing tools. Keep combustible and organic materials away. Flush spilled material with large quantities of water. Undiluted material must not enter confined spaces.

**Pesticide Disposal:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or Hazardous Waste representative at the nearest EPA Regional Office for guidance. If material has been spilled, an acceptable method of disposal is to dilute with at least 20 volumes of water followed by discharge into suitable treatment system in accordance with all local, state and Federal environmental laws, rules, regulations, standards, and other requirements. Because acceptable methods of disposal may vary by location, regulatory agencies must be contacted prior to disposal. This product which is to be discarded, must be disposed of as hazardous waste after contacting the appropriate local State or Federal agency to determine proper procedures.

**Container Disposal:** Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Offer for recycling, if available. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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 the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**Container Handling (Containers equal to or less than 5 gallons):** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. 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 1/4 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 the procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

### DISTRIBUTED BY

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### LOT #

24 HR EMERGENCY CHEMTREC NUMBER  
800-424-9300

### NET CONTENTS

515 lbs/53.91 gals.

### PRODUCT CODE

63-QA38A