



Labeled Sanitizers for Produce: A Look at the New Webtool and Other Produce Safety Updates

Produce Safety
Educators' Call #70
May 29, 2024



Instructions

- All participants are muted.
- There will be time for questions and discussion at the end of the meeting.
- Feel free to use the chat box to ask questions as well!
- This session will be recorded and the presentation will be shared via the listserv and on our website after the call.



Agenda

- Sanitizer tool updates
- Sanitizer lessons learned
- Information related to Revised Subpart E: Agricultural Water
- PSA staffing updates
- Next PSA Educators' Call

Produce Safety ALLIANCE

Produce Safety Alliance EPA-Labeled Sanitizers for Produce
Database updated: 5/8/24

Tool Use Tips:

- Hover over column titles for additional details.
- The search bar can be used to search the tool for any search term (e.g. product name, labeled use, manufacturer).
- The 'compare' function can be used to select and compare specific sanitizers.
- All columns are sortable. Click on the column header (e.g. Labeled for Use on Non-Porous Food Contact Surfaces?) to sort.

A few additional notes:

- More information on pesticide labeling can be found in the ["Introduction to Selecting an EPA-labeled Sanitizer"](#) factsheet.

Total results found: 105

peroxidel

Compare Reset

| | | | | EPA Master Label Details | | | | |
|--------------------------|--------------------------------|--------------------------------|--|--------------------------|--|---|---|---|
| | | | | EPA Master Label | | Preharvest Labeled Uses | Postharvest Labeled Use | |
| Compare | Product Name | Name on EPA Master Label | Active Ingredient (% Strength) | EPA Registration Number | Labeled Use Info Based on Version Date | Labeled For Use in Irrigation Water Systems | Labeled For Use on Non-Porous Food Contact Surfaces | Labeled For Use on Postharvest Water Distribution Systems |
| <input type="checkbox"/> | BioSide HS 15% | BioSide HS 15% | PAA (15.0%), Hydrogen Peroxide (22.0%) | 63838-2 | 2/21/20 | Yes, see page 15 | Yes, see page 5 | Yes, see page 10 |
| <input type="checkbox"/> | PeraGreen 15% | BioSide HS 15% | PAA (15.0%), Hydrogen Peroxide (22.0%) | 63838-2 | 2/21/20 | Yes, see page 15 | Yes, see page 5 | Yes, see page 10 |



What is a Sanitizer?

- A substance that reduces or eliminates bacteria from surfaces and water
- Part of a broader group of substances called antimicrobial pesticides
- Tend to focus on sanitizers used for several purposes:
 - Pre-harvest uses
 - Irrigation water systems
 - Food contact surfaces
 - Postharvest uses
 - Fruit and vegetable washing
 - Food contact surfaces



Illustration by Arvi Matak | © 2022 Cornell University

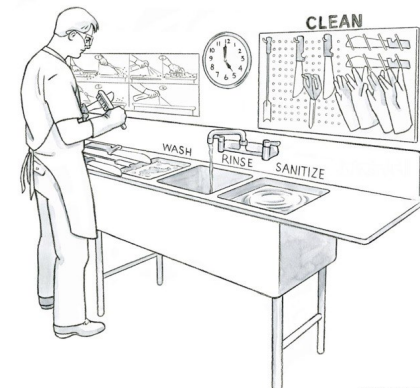


Illustration by Arvi Matak | © 2022 Cornell University



Choosing an Antimicrobial Product, Including Sanitizers

- Chlorine sanitizers are commonly used
 - Affordable and available
 - Corrosive, highly reactive
- Many non-chlorine chemical options
 - Ozone, peroxyacetic acid, hydrogen peroxide, etc.
- Organic formulations are available
 - Tsunami, Spectrum, Sanidate, VigorOx 15 F&V, etc.
 - Check with organic certifier
- Must be labeled for use



Module 5.2



Selecting an Appropriate Sanitizer: EPA Labels

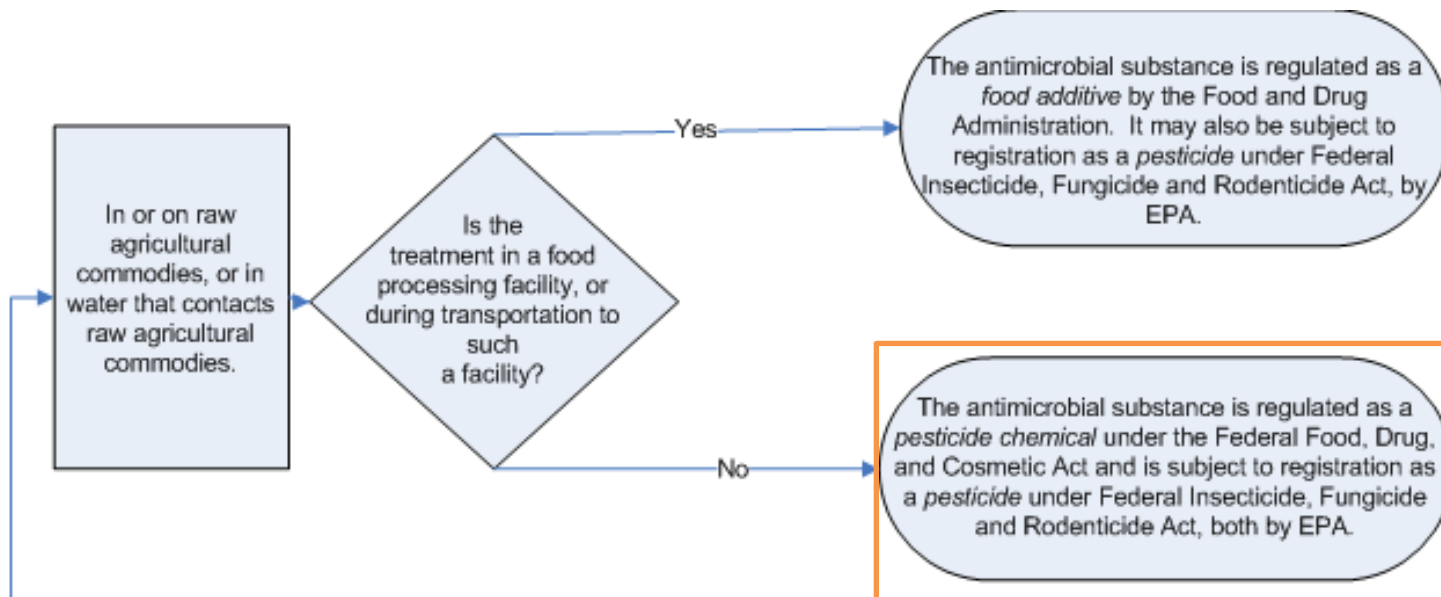
- All pesticides (including sanitizers) are regulated by the EPA through the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
 - Ensures that using a product correctly will limit the product's risk to humans and the environment
- Pesticides (including sanitizers) must be registered and contain an EPA number





Why use EPA-labeled sanitizers?

- FSMA PSR requires that
“Any method you use to treat agricultural water (such as with physical treatment...; **EPA-registered antimicrobial pesticide product**; or other suitable method) must be effective to make the water safe and of adequate sanitary quality for its intended use” (§ 112.43)
- FDA maintains a [decision tree](#) on whether antimicrobials are regulated by EPA or FDA





Why use EPA-labeled sanitizers?

- FSMA PSR requires that
“Any method you use to treat agricultural water (such as with physical treatment...; **EPA-registered antimicrobial pesticide product**; or other suitable method) must be effective to make the water safe and of adequate sanitary quality for its intended use” (§ 112.43)
- FDA maintains a decision tree on whether antimicrobials are regulated by EPA or FDA
- Using an EPA-labeled sanitizer is highly recommended
 - Inspectors are trained to look for EPA-labeled sanitizers
 - Instructions and efficacy data are based on agricultural use scenarios



PSA Sanitizer Web Tool

Cornell CALS College of Agriculture and Life Sciences

Q CALS MENU

Produce Safety Alliance

- TRAINING - PSA CURRICULUM - RESOURCES - FOOD SAFETY MODERNIZATION ACT - THE ALLIANCE - CONNECT WITH US - PSA EN ESPAÑOL




HOME / PRODUCE SAFETY ALLIANCE

Resources

Resources

General Resources

Sanitation

- 
- ▲ [Introduction to Selecting an EPA-Labeled Sanitizer](#) (URLs updated 10/13/22)
 - ▲ [Produce Safety Alliance EPA-Labeled Sanitizers for Produce - Web Tool](#)
 - ▲ [Video Tutorial: PSA EPA-Labeled Sanitizers for Produce Web Tool](#)
 - ▲ [United Fresh—Guidance on Environmental Monitoring and Control of Listeria for the Fresh Produce Industry](#)
 - ▲ [Cleaning vs. Sanitizing](#) (URLs updated 10/13/22)



PSA EPA-Labeled Sanitizers for Produce Web Tool

- Tool was designed as a resource to help produce growers (and those who support them) review and select sanitizers based on their EPA label
 - Originally released in 2017 as an Excel file; limitations on usability
- Adapted the resource into a web tool
- Funded in part by the Local Food Safety Collaborative (LFSC)
- <https://resources.producesafetyalliance.cornell.edu/sanitizer/>

Total results found: 105

Type to search (e.g., product name, active ingredient)

Compare

| EPA Master Label Details | | | | | | | | | | | | | | |
|--------------------------|---|---|---|-------------------------|--|---|---|---|---|------------------------------------|---|--------------------------------------|---|-------|
| | | | | EPA Master Label | | Preharvest Labeled Uses | Postharvest Labeled Uses | | | Efficacy Statement | Product Information | | | |
| Compare | Product Name | Name on EPA Master Label | Active Ingredient (% Strength) | EPA Registration Number | Labeled Use Info Based on Version Date | Labeled For Use in Irrigation Water Systems | Labeled For Use on Non-Porous Food Contact Surfaces | Labeled For Use on Postharvest Water Distribution Systems | Labeled for Use in Fruit and Vegetable Wash Water | Labeled to Control Human Pathogens | Organic Materials Review Institute (OMRI) Listing | Quantity Purchasable per EPA Label | Manufacturer/Distributor | Notes |
| <input type="checkbox"/> | Agechlor 310 | Agechlor 310 | Sodium hypochlorite (12.5%) | 2792-62 | 5/23/12 | No | Yes, see page 7 | No | Yes, see page 7 | No | Not listed | Gallons: 55 | Decco US Post-harvest, Inc. | None |
| <input type="checkbox"/> | Alpet D2 Surface Sanitizer | Alpet D2 | Isopropyl Alcohol (58.6%); Quaternary Ammonium (0.0075%, see label) | 73232-1 | 4/21/20 | No | Yes, see page 6 | No | No | For Food Contact Surfaces | Not listed | Information not available | Best Sanitizers, Inc. | None |
| <input type="checkbox"/> | Alpet D2 Quat-Free Surface Sanitizer | Alpet D2 Quat-Free Surface Sanitizer | Ethanol (82.5%); Isopropanol (7.5%) | 73232-4 | 8/16/21 | No | Yes, see page 5 | No | No | For Food Contact Surfaces | Allowed with restrictions | Information not available | Best Sanitizers, Inc. | None |
| <input type="checkbox"/> | Anthium Dioxide | Anthium Dioxide | Chlorine dioxide (5.0%) | 9150-2 | 4/8/20 | Yes, see page 22 | Yes, see page 23 | Yes, see page 12 | Yes, see page 9 | No | Not listed | Information not available | International Dioxide, Inc. | None |
| <input type="checkbox"/> | Antimicrobial Fruit & Vegetable Treatment | Antimicrobial Fruit and Vegetable Treatment | Lactic Acid (17.3%); Quaternary Ammonium (1.2%, see label) | 1677-234 | 10/31/17 | No | No | No | Yes, see page 6 | For Washing Fruits and Vegetables | Not listed | Ounces: 4, 64, 96 Gallons: 1, 2.5, 4 | Ecolab, Inc. | None |



PSA EPA-Labeled Sanitizers for Produce Web Tool

- Updates include:
 - Addition of product labels, when available
 - More accurate in identifying labeled uses for each sanitizer product
 - Hyperlink to manufacturer/distributor contact information
 - Search bar
 - Compare function

Total results found: 105

Type to search (e.g., product name, active ingredient)

Compare Reset

| | | | | EPA Master Label Details | | | | | | |
|--------------------------|-----------------------------|-----------------------------|--|--------------------------|--|---|---|---|---|------------------------------------|
| | | | | EPA Master Label | | Preharvest Labeled Uses | Postharvest Labeled Uses | | | Efficacy Statement |
| Compare | Product Name | Name on EPA Master Label | Active Ingredient (% Strength) | EPA Registration Number | Labeled Use Info Based on Version Date | Labeled For Use in Irrigation Water Systems | Labeled For Use on Non-Porous Food Contact Surfaces | Labeled For Use on Postharvest Water Distribution Systems | Labeled for Use in Fruit and Vegetable Wash Water | Labeled to Control Human Pathogens |
| <input type="checkbox"/> | Agchlor 310 | Agchlor 310 | Sodium hypochlorite (12.5%) | 2792-82 | 5/23/12 | No | Yes, see page 7 | No | Yes, see page 7 | No |
| <input type="checkbox"/> | Alpet D2 Surface Sanitizer | Alpet D2 | Isopropyl Alcohol (58.6%); Quaternary Ammonium (0.0075%, see label) | 73232-1 | 4/21/20 | No | Yes, see page 6 | No | No | For Food Contact Surfaces |



Walkthrough of the Tool

- Tool is divided into three sections, all viewable from one screen
- First section includes
 - Product name
 - Name on EPA Master Label
 - Active Ingredient (including the % strength for each)
- Both product labels and EPA labels are clickable hyperlinks (when available)

Total results found: 105

Type to search (e.g., product name, active ingredient)

Compare Reset

| Compare | Product Name | Name on EPA Master Label | Active Ingredient (% Strength) |
|--------------------------|--------------------------------------|--|---|
| <input type="checkbox"/> | Agchlor 310 | Agchlor 310 | Sodium hypochlorite (12.5%) |
| <input type="checkbox"/> | Alpet D2 Surface Sanitizer | Alpet D2 | Isopropyl Alcohol (58.6%); Quaternary Ammonium (0.0075%, see label) |
| <input type="checkbox"/> | Alpet D2 Quat-Free Surface Sanitizer | Alpet D2 Quat-Free Surface Sanitizer | Ethanol (62.5%); Isopropanol (7.5%) |



EPA Master Label Details

- Content of the tool centers around EPA Master label details
 - Individual product labels could not always be found
 - Product labels may also differ by state
- Label details are broken into four sections:
 - Pre-harvest (e.g., irrigation water systems)
 - Postharvest (food contact surfaces, postharvest water distribution systems, fruit and vegetable wash water)

| EPA Master Label Details | | | | | | |
|--------------------------------|---|--|--|--|--|---|
| EPA Master Label | | Preharvest Labeled Uses | Postharvest Labeled Uses | | | Efficacy Statement |
| <u>EPA Registration Number</u> | <u>Labeled Use Info Based on Version Date</u> | <u>Labeled For Use in Irrigation Water Systems</u> | <u>Labeled For Use on Non-Porous Food Contact Surfaces</u> | <u>Labeled For Use on Postharvest Water Distribution Systems</u> | <u>Labeled for Use in Fruit and Vegetable Wash Water</u> | <u>Labeled to Control Human Pathogens</u> |
| 2792-62 | 5/23/12 | No | Yes, see page 7 | No | Yes, see page 7 | No |
| 73232-1 | 4/21/20 | No | Yes, see page 6 | No | No | For Food Contact Surfaces |



Additional Product Information

- Organic Materials Review Institute (OMRI) column identifies whether produce is listed for organic use
- Amount purchasable
- Manufacturer/Distributor contact information is hyperlinked, when available
 - Intent is to make accessing information easy for the user

| Product Information | | | |
|---|----------------------------------|---|-------|
| Organic Materials Review Institute (OMRI) Listing | Amount Purchasable per EPA Label | Manufacturer/Distributor | Notes |
| Not listed | Gallons: 55 | Decco US Post-harvest, Inc. | None |
| Not listed | Information not available | Best Sanitizers, Inc. | None |
| Allowed with restrictions | Information not available | Best Sanitizers, Inc. | None |



A note about EPA labels and Product Labels

- EPA master labels list *all* approved uses for a given product

AgChlor 310 EPA master label cover sheet; 17 pages total



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

February 2, 2024

Carla J. Figueroa
SciReg, Inc.
Agent for
AGLOR 310
Electronic Transmittal: [cfigueroa@SciReg.com]

Subject: Label Amendment – Label Amendment to Comply with current PR Notice and Policies, Revise Application Rates, Add Crops, and Revise Container Handling Text

Product Name: AGLOR 310
EPA Registration Number: 2792-62
Received Date: 06/12/2020
Action Case Number: 00218587

Dear Carla J. Figueroa:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. Pursuant to 40 CFR 156.10(a)(6) you must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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 FIFRA and is subject to review by the Agency. See FIFRA section 2(p)(2). 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) lists 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, FIFRA section 12(a)(1)(B). 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



A note about EPA labels and Product Labels

- EPA master labels list *all* approved uses for a given product
- However, products may be sold under sub-labels, or split-labels
 - Contain labeled uses and directions for only a portion of the approved uses on the EPA master label

DECCO

AGCLOR® 310

A solution of Sodium Hypochlorite for control of organisms causing decay of apples, asparagus, cabbage, carrots, cauliflower, celery, cherries, citrus, cucumbers, lettuce, mushrooms, nectarines, onions, peaches, pears, peppers, potatoes, prunes, quinces, and radishes after harvest.

Active Ingredient: Sodium hypochlorite..... 12.5%
Other Ingredients..... 87.5%
TOTAL..... 100.0%
Net Weight 55 Gallons EPA Est. No. 2792-A-1

DANGER

KEEP OUT OF REACH OF CHILDREN
SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

| FIRST AID | |
|-------------------------|--|
| 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. |
| 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 further 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 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 eye. Call a poison control center or doctor for further treatment advice. |

EMERGENCY TELEPHONE NUMBERS:
CHEMTEL: 800-424-9090
MEDICAL: 303-425-5716
Rocky Mountain Poison Control Center
Have the product container or label with you when calling a poison control center or doctor or going to a treatment center.

NOTE TO PHYSICIAN:
Probably maximal damage may occur during the use of gastric lavage.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Corrosive. May cause severe skin and eye irritation. May cause severe skin or chemical burns to broken skin. Causes eye irritation. Do not get eyes, on skin or clothing. Wear goggles or face shield and rubber gloves when handling this product. Wash thoroughly after handling. Remove and wash contaminated clothing promptly. Avoid breathing vapors and mist. Use with adequate ventilation. Vacate poorly ventilated areas as soon as possible. Do not return until odors have dissipated.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and aquatic organisms. 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 EPA.

PHYSICAL AND CHEMICAL HAZARDS: STRONG OXIDIZING AGENT. Mix only with water according to label directions. Mixing this product with gross filth such as feces, urine, etc., or with ammonia, acids, oil, detergent, toilet bowl cleaners, rust removers, vinegar, or other chemicals may release hazardous gases irritating to eyes, lungs, and mucous membranes.

PRECAUTIONS FOR USE:
NOTICE TO USER: It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. This labeling must be in the possession of the user at the time of pesticide application.

STORAGE AND DISPOSAL
Agclor degrades with light. Store at temperature above 70°F in a cool, dry, well ventilated area away from direct sunlight.
In case of spill, flood with large quantities of water. Empty container thoroughly with water and other fluids to the manufacturer or discard by placing in trash collection. Product or residue that cannot be used, should be diluted with water and disposed of in a sanitary sewer. Do not contaminate food or feed by storage, disposal, or cleaning of equipment.

APPLICATION: For recommended concentration of available chlorine by various commodities to be treated see table on right panel. To obtain a 100 ppm solution of chlorine, add 0.75 gallons of AGCLOR to 1,000 gallons of water. Use of DECCO BLENDER 311 to control pH is highly recommended (6-7% gallons).

For other application rates, use appropriate dilutions.

For citrus carrier quarantines:
Use of AGCLOR at 200 ppm at pH 6.0 to 7.5 is achieved by adding 1.5 gallons of AGCLOR to 1,000 gallons of water along with 1.5 gallons of DECCO BLENDER 311. Apply for two minutes using a suitable spray or dip tank treatment.

NOTE: This product degrades with age. Monitoring chlorine level and increasing dosage, as necessary, is recommended to obtain the required level of available chlorine. Since chlorine reacts readily with air and other organic matter in dip tanks, chlorine concentration should be checked at least three to four times each day by use of a colorimetric or titrimetric kit or indicator paper. Once applied, use the entire contents of the container within 30 days.

FOR THE SANITATION OF NONPOROUS FOOD CONTACT SURFACES

RINSE METHOD: A solution of 200 ppm available chlorine may be used in the sanitizing solution if a chlorine test kit is available. Solutions containing an initial concentration of 100 ppm available chlorine must be tested and adjusted periodically to insure that the available chlorine level is below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 1 oz. of this product with 10 gallons water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 2 oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight.

Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. If solution contains less than 50 ppm available chlorine, as determined by a suitable test kit, either discard the solution or add sufficient product to reestablish a 200 ppm residual. Do not rinse equipment with water after treatment and do not soak equipment overnight.

Sanitizers used in automated systems may be used for general cleaning, but may not be reused for sanitizing purposes.

Recommended levels of chlorine:

| Commodity | ppm of available chlorine to use |
|--|----------------------------------|
| Apple | 150-200 |
| Artichokes | 100-150 |
| Asparagus | 125-150 |
| Brussels Sprouts | 100-150 |
| Carrots | 100-200 |
| Calliflower | 200-400 |
| Cauliflower | 75-100 |
| Cherry | 100-110 |
| Chopped Cabbage | 80-100 |
| Chopped Lettuce | 200 |
| Citrus (spray, food, dip, drench) | 200-250 |
| Cucumbers | 75-100 |
| Cyperus | 100-150 |
| Headed Lettuce | 100-120 |
| Headed Nectarines & Plums | 50-100 |
| Pears (without buffer) | 200-300 |
| Peppers | 200-400 |
| Potatoes | 65-125 |
| Pomegranate(sprays, food, dip, drench) | 200 |
| Radishes | 100-150 |
| Spinach (hydroponic) | 30-75 |
| Tomatoes | 300-350 |

NOTE:

- Concentration given for use in flow through washer systems only.
- After treatment, the washed produce must be removed by a centrifugation process.
- After treatment with the chlorinated water, the mushrooms must be treated with an approved anti-oxidant to prevent browning.
- For treating potatoes in a dump tank use 100-150 ppm Cl₂.
- For treating potatoes in a pit system use 100-150 ppm Cl₂.
- For treating tomatoes in a dump tank system use 70-100 ppm Cl₂.
- For Hydrocole use 10 ppm.

WARRANTY AND DISCLAIMER

DECCO US POST-HARVEST INC. warrants that this material conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use, subject to the risks referred to therein. DECCO US POST-HARVEST INC. MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY, TO THE EXTENT ALLOWED BY APPLICABLE LAW, IN NO CASE SHALL DECCO US POST-HARVEST INC. OR SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, BUSINESS REPUTATION, OR CUSTOMERS, LABOR COST, OR OTHER EXPENSES INCURRED IN REPAIRING, SORTING OR REPROCESSING.

DECCO US POST-HARVEST INC. and seller offer this product and the buyer shall accept it subject to the foregoing conditions of sale and warranty which may be varied only by agreement in writing signed by a duly authorized representative of DECCO US POST-HARVEST INC.

1713 S. California Ave.
Montevita, CA 91016-9120

Revised 9/21/09

- Call these sub-labels “product labels” in the tool

Product Label

Produce Safety
ALLIANCE

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What we learned about EPA Labels vs. Product Labels

- One of the challenges is that people say “the label is the law”
 - Our earlier interpretation was that the EPA Master Label is required
- EPA’s [Introduction to Pesticide Labels website](#) defines a label as: “the written, printed, or graphic matter **on, or attached to, the pesticide** or device or **any of its containers or wrappers**”
 - New understanding is that the product label (and any other attached literature) is the governing document and legally enforceable
- Benefit to the EPA label is that it is available and consistent on a federal level
 - Product labels also differ by state; some farms operate in more than one state



Impact on the PSA Sanitizer Tool





- EPA master labels and product labels were a discussion point in our focus group session
- Product labels were added to the web tool, when available, to increase transparency
 - Tool content still focuses on EPA Master Label
- If a product label was available, labeled uses between the product label and EPA master label were compared
 - Added statement to the notes section if the labeled uses did not match

| Product Information | | | |
|--|---|---|---|
| <u>Organic Materials Review Institute (OMRI) Listing</u> | <u>Quantity Purchasable per EPA Label</u> | <u>Manufacturer/ Distributor</u> | <u>Notes</u> |
| Allowed with restrictions | Information not available | Enviro Tech Chemical Services | <ul style="list-style-type: none">• Allowed uses on Product Label differ from uses on EPA Master Label• EPA Master Label identifies State-level restrictions• EPA Master Label allows for foliar sprays in addition to irrigation water |



Label Walk-Through: Bioside HS 15%

- Accessing the EPA Master Label
- Reviewing labeled uses and efficacy statements
- Accessing the product label
- Comparison of labeled uses between the EPA Master Label and product label

| | | | | EPA Master Label Details | | | | | | |
|--------------------------|---------------------------------------|---|--|--------------------------|--|---|--|---|--|--|
| | | | | EPA Master Label | | Preharvest Labeled Uses | Postharvest Labeled Uses | | | Efficacy Statement |
| Compare | Product Name | Name on EPA Master Label | Active Ingredient (% Strength) | EPA Registration Number | Labeled Use Info Based on Version Date | Labeled For Use in Irrigation Water Systems | Labeled For Use on Non-Porous Food Contact Surfaces | Labeled For Use on Postharvest Water Distribution Systems | Labeled for Use in Fruit and Vegetable Wash Water | Labeled to Control Human Pathogens |
| <input type="checkbox"/> | BioSide HS 15% | BioSide HS 15%  | PAA (15.0%); Hydrogen Peroxide (22.0%) | 63838-2 | 2/21/20 | Yes, see page 15 | Yes, see page 5  | Yes, see page 10 | Yes, see page 9  | For Food Contact Surfaces  |
| <input type="checkbox"/> | Peragreen 15% | BioSide HS 15% | PAA (15.0%); Hydrogen Peroxide (22.0%) | 63838-2 | 2/21/20 | Yes, see page 15 | Yes, see page 5 | Yes, see page 10 | Yes, see page 9 | For Food Contact Surfaces |
| <input type="checkbox"/> | Peroxy Punch 15 | BioSide HS 15% | PAA (15.0%); Hydrogen Peroxide (22.0%) | 63838-2 | 2/21/20 | Yes, see page 15 | Yes, see page 5 | Yes, see page 10 | Yes, see page 9 | For Food Contact Surfaces |
| <input type="checkbox"/> | Shield-Brite PAA 15.0 | BioSide HS 15% | PAA (15.0%); Hydrogen Peroxide (22.0%) | 63838-2 | 2/21/20 | Yes, see page 15 | Yes, see page 5 | Yes, see page 10 | Yes, see page 9 | For Food Contact Surfaces |

Labels for BIOSIDE

You will need Adobe Reader to view some of the files on

Provided below is the information for the Product/Regis

Labels Chemical Alt. Brand Name

| EPA Reg. No. | Product Name | Accepted Date |
|--------------|----------------|---|
| 63838-2 | BIOSIDE HS 15% | February 21, 2020 (PDF) |
| 63838-2 | BIOSIDE HS 15% | October 30, 2018 (PDF) |
| 63838-2 | BIOSIDE HS 15% | July 09, 2018 (PDF) |
| 63838-2 | BIOSIDE HS 15% | December 21, 2017 (PDF) |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

February 21, 2020

Michael Harvey
Enviro Tech Chemical Services, Inc.
500 Winmoore Way
Modesto, CA 95358

Subject: Label Amendment – Adding Uses
Product Name: Bioside HS 15%
EPA Registration Number: 63838-2
Application Date: 11/02/2018
Decision Number: 545795

Dear Mr. Harvey:

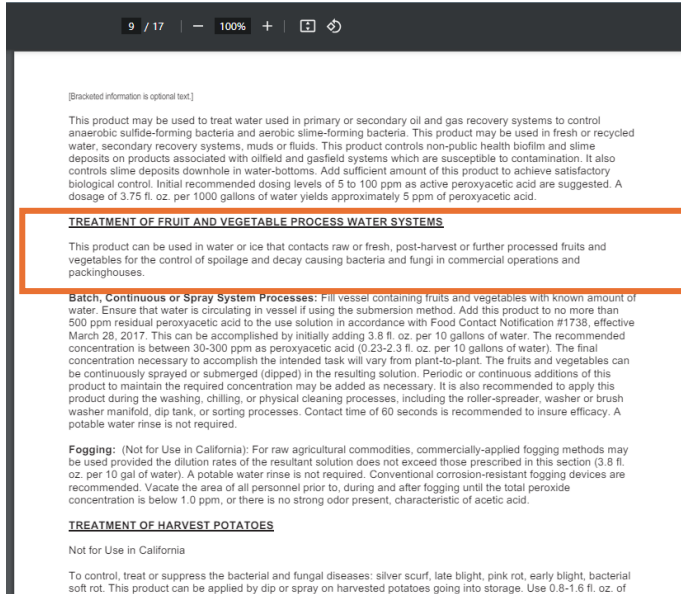
The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Terria Northern by phone at 703-347-0265, or via email at norther.terria@epa.gov.

Bioside HS 15%: Labeled Uses and Efficacy Statements



Treatment of F&V Process Water System

“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.”

SANITIZATION

This peroxyacetic acid sanitizer is recommended for use on precleaned surfaces such as equipment, pipelines, tanks, vats, filters, evaporators, pasteurizers, and aseptic equipment in dairies, breweries, wineries, beverage and food processing/packing plants, and egg processing/packing equipment surfaces. 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 99.999% reduction of *Staphylococcus aureus* and *Escherichia coli* in the AOAC Germicidal and Detergent Sanitizing Action of Disinfectants study.

Sanitizing Food Contact Surfaces: Sanitize with a concentration of 0.7-3.8 fl. oz. of this product diluted in 10 gallons of water (93-500 ppm active peroxyacetic acid and 136-733 ppm active hydrogen peroxide). Use immersion, spray or circulation techniques as appropriate to the equipment. All surfaces must be exposed to sanitizing solution for a period of at least 60 seconds or more if specified by a governing code. Drain thoroughly and allow to air dry. Do not rinse.

Sanitization of Conveyors and Equipment for Meat, Poultry, Seafood, Dairy, Fruit, Nuts and Vegetables: This product is effective against the gram positive organism *Staphylococcus aureus* and gram negative organism *Escherichia coli*. For use in the static or continuous sanitizing, washing or rinsing of conveyors, slicers, saws, and equipment, apply a solution of this product using a recommended 0.7-3.8 fl oz. per 10 gallons of water (93-500 ppm active peroxyacetic acid and 136-733 ppm active hydrogen peroxide). Apply sanitizer solution to the return portion of the conveyor or equipment using spray or similar means of wetting surfaces, so as to prevent puddling. Allow sanitizer to thoroughly wet surface for a minimum 60 seconds contact time. No rinse is needed.

Final Bottle or Container Rinse: This product may be used as a final sanitizer rinse for pre-cleaned returnable and non-returnable bottles or containers at 93-500 ppm active peroxyacetic acid and 136-733 ppm active hydrogen peroxide (0.7-3.8 fl. oz. of this product diluted in 10 gallons of water). The container must be drained as much as is practical prior to filling operations.

Sanitization

“...recommended for use on precleaned surfaces...”
“This product has **demonstrated a greater than 99.999% reduction of *Staphylococcus aureus* and *Escherichia coli*...**”

[Bracketed information is optional text.]

This product may be used to treat water used in primary or secondary oil and gas recovery systems to control anaerobic sulfide-forming bacteria and aerobic slime-forming bacteria. This product may be used in fresh or recycled water, secondary recovery systems, muds or fluids. This product controls non-public health biofilm and slime deposits on products associated with oilfield and gasfield systems which are susceptible to contamination. It also controls slime deposits downhole in water-bottoms. Add sufficient amount of this product to achieve satisfactory biological control. Initial recommended dosing levels of 5 to 100 ppm as active peroxyacetic acid are suggested. A dosage of 3.75 fl. oz. per 1000 gallons of water yields approximately 5 ppm of peroxyacetic acid.

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 1.0 ppm, or there is no strong odor present, characteristic of acetic acid.

TREATMENT OF HARVEST POTATOES

Not for Use in California

To control, treat or suppress the bacterial and fungal diseases: silver scurf, late blight, pink rot, early blight, bacterial soft rot. This product can be applied by dip or spray on harvested potatoes going into storage. Use 0.8-1.6 fl. oz. of this product per five gallons of clean water. Do not reuse already mixed solution; make fresh daily. If applying diluted solution via spray, spray over potatoes to achieve full and even coverage. Ensure full contact on all surfaces for 45 seconds.

POULTRY, SWINE, LIVESTOCK WATERING OPERATING SYSTEMS

After watering lines have been cleaned, use this product at 0.3-42 fl. oz. per 100 gallons of water (4-559 ppm as peroxyacetic acid) to control algae and bacteria in drinking water and to control mineral build up in watering lines. Stop the use of this product twenty-four (24) hours prior to vaccination via the water line.

ANIMAL PREMISES

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 equipment. In addition, this product will deodorize those areas which are generally difficult 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.



Disinfection of Poultry Premises, Trucks, Coops and Crates: For heavily soiled areas, a pre-cleaning step is required. Prepare a fresh solution for each use. Remove all poultry and feeds from premises, trucks, coops and

Bioside HS 15%: Usage Instructions

Treatment of F&V Process Water System

This portion of the label lists specific instructions for use, including:

- Dilution instructions (30-300ppm PAA)
- Contact time (60 seconds is recommended to ensure efficacy)
- "...can be continuously sprayed or submerged (dipped) in the resulting solution
- A potable rinse is not required

| | | | | EPA Master Label Details | | | | | | |
|--------------------------|---|--------------------------------|--|--------------------------|--|---|---|---|---|------------------------------------|
| | | | | EPA Master Label | | Preharvest Labeled Uses | Postharvest Labeled Uses | | | Efficacy Statement |
| Compare | Product Name | Name on EPA Master Label | Active Ingredient (% Strength) | EPA Registration Number | Labeled Use Info Based on Version Date | Labeled For Use in Irrigation Water Systems | Labeled For Use on Non-Porous Food Contact Surfaces | Labeled For Use on Postharvest Water Distribution Systems | Labeled for Use in Fruit and Vegetable Wash Water | Labeled to Control Human Pathogens |
| <input type="checkbox"/> | BioSide HS 15%  | BioSide HS 15% | PAA (15.0%); Hydrogen Peroxide (22.0%) | 63838-2 | 2/21/20 | Yes, see page 15  | Yes, see page 5 | Yes, see page 10 | Yes, see page 9 | For Food Contact Surfaces |
| <input type="checkbox"/> | Peragreen 15% | BioSide HS 15% | PAA (15.0%); Hydrogen Peroxide (22.0%) | 63838-2 | 2/21/20 | Yes, see page 15 | Yes, see page 5 | Yes, see page 10 | Yes, see page 9 | For Food Contact Surfaces |
| <input type="checkbox"/> | Peroxy Punch 15 | BioSide HS 15% | PAA (15.0%); Hydrogen Peroxide (22.0%) | 63838-2 | 2/21/20 | Yes, see page 15 | Yes, see page 5 | Yes, see page 10 | Yes, see page 9 | For Food Contact Surfaces |
| <input type="checkbox"/> | Shield-Brite PAA 15.0 | BioSide HS 15% | PAA (15.0%); Hydrogen Peroxide (22.0%) | 63838-2 | 2/21/20 | Yes, see page 15 | Yes, see page 5 | Yes, see page 10 | Yes, see page 9 | For Food Contact Surfaces |

Navigating the Product Label

BioSide HS™ 15% (ANTIMICROBIAL SOLUTION)

BioSide HS 15% is a peroxyacetic acid-based microbicide developed for Equipment Sanitizing, Disinfection, Aseptic Packaging, and Bacteria, Fungus, Spore and Odor Control in: Pulp and Paper Mill Systems, Fruit and Vegetable Process Water Systems, Oil and Gasfield water systems, and Bacterial and Algae Control in Wastewater Treatment Systems.

ACTIVE INGREDIENT:

| | |
|-------------------|-------|
| Peroxyacetic Acid | 15.0% |
| Hydrogen Peroxide | 22.0% |

100.0%

INERT INGREDIENTS:

TOTAL

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

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.)

Note to Reviewer: In accordance with 40 CFR 156.66(d), all first aid statements, as prescribed, will appear on the front panel of the product label.

| 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 eye. 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 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. |
| QUESTIONS? 1-209-581-9576 | Have the product container or label with you when calling a poison control center or doctor, or going for treatment. |
| NOTE TO PHYSICIAN: | Probable mucosal damage may contraindicate the use of gastric lavage. |

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER CORROSIVE: Do not enter an enclosed area without proper respiratory protection, or when uncoupling of product transfer hoses. Causes irreversible eye damage and skin burns. May be toxic 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 H, A, or P filters, or a NIOSH-approved gas mask with OV cartridges, or a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters when handling concentrate product.
PHYSICAL OR CHEMICAL HAZARDS:
STRONG OXIDIZING AGENT, CORROSIVE: [Risk only with label 1407 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 taken 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 Pollution 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.
Directions For Use
It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

SANITIZATION
This peroxyacetic acid sanitizer is recommended for use on processed surfaces such as equipment, pipelines, tanks, vats, filters, evaporators, pasteurizers, and aseptic equipment in dairies, breweries, wineries, and food processing/packaging plants, and egg processing/packaging equipment systems. This product is effective as a sanitizer when solution is prepared in water at up to 400 ppm hardness as CaCO₃. This product has demonstrated greater than 99.999% reduction of *Staphylococcus aureus* and *Escherichia coli* in the AAOAC Germicidal and Detergent Sanitizing Action of Disinfectants study.
Sanitizing Food Contact Surfaces: Sanitize with a concentration of 0.7-3.8% oz. of this product diluted in 10 gallons of water (93-500 ppm active peroxyacetic acid and 138-733 ppm active hydrogen peroxide). Use immersion, spray or circulation techniques as appropriate to the equipment. All surfaces must be exposed to sanitizing solution for a period of at least 60 seconds or more if specified by a governing code. Drain thoroughly and allow to air dry. Do not rinse. Sanitization of Cheyenne and Equipment for Meat, Poultry, Seafood, Dairy, Fruit, Nuts and Vegetables: This product is effective against the gram positive organism *Staphylococcus aureus* and gram negative organism *Escherichia coli*. For use in the state or continuous sanitizing, washing or rinsing of containers, silos, vats, and equipment, apply a solution of this product using a recommended 0.7-3.8% oz. per 10 gallons of water (93-500 ppm active peroxyacetic acid and 138-733 ppm active hydrogen peroxide). Apply sanitizer solution to the return portion of the conveyor or equipment using spray or similar means of wetting surfaces, so as to prevent puddling. Allow sanitizer to thoroughly wet surface for a minimum 60 seconds contact time. No rinse is needed.

Final Bottle or Container Rinse: This product may be used as a final sanitizer rinse for pre-cleaned returned peroxyacetic acid and 138-733 ppm active hydrogen peroxide (0.7-3.8% of this product diluted in 10 gallons prior to filling operations.

Combination Disinfection and Cleaning: This product is effective against *Staphylococcus aureus* and *Salmonella enteritidis* and 191 ppm active hydrogen peroxide in hard water (400 ppm as CaCO₃) and 5% organic cleaning spots is required. Apply solution with a mop, cloth, sponge, brush, or by soaking, spraying, or immersion minutes, then remove excess solution and rinse with a clean wet mop, cloth, wet vacuum pickup or by dilute.

ANTIMICROBIAL RINSE OF PRE-CLEANED OR NEW RETURNABLE OR NON-RETURNABLE CONTAINERS
To reduce the number of nonpathogenic beverage spoilage organisms: *Aspergillus versutus*, *Blyssomyces* spp., *Saccharomyces cerevisiae*, use 1.0 to 1.0 L fluid ounces of product per 6 gallons of water. This provides 265 to 2 pounds. All surfaces must be exposed to antimicrobial solution for at least 15 seconds. After applying the antimicrobial solution, rinse containers to drain thoroughly. Rinse is optional. Either sterile or potable water may be used.

COMMERCIAL STERILANT FOR ASEPTIC PACKAGING OF LOW ACID FOOD
This product can be used to heat, beverage and dairy primary aseptic packaging systems as a commercial sterilant to treat clean, non-porous food, beverage and dairy packaging materials and equipment, such as, pipelines, pumps, tanks, vats, filters, evaporators, and pasteurizers, when the solution is prepared in water of up to 400 ppm hardness.

Food Packaging Materials: This product may be used alone or in combination with other processes as a commercial sterilant for aseptic packaging of low acid foods, such as, commercial sterilization of aseptic filling systems and glass and plastic food packaging and their enclosures prior to filling, except for use on food packaging used in contact with infant formula or human milk on aseptic filling equipment used to fill such packaging. Apply, at a concentration of 3.4 fl. oz. of this product per 1 gallon of water (4500 ppm peroxyacetic acid and 6597 ppm hydrogen peroxide) and a temperature of 65°C. Use immersion, coarse spray, or circulation techniques as appropriate to sterilize the food, beverage or dairy packaging materials. The solution must remain in contact with the packaging surface for a minimum of 20 seconds. Rinse containers with sterile water prior to filling with processed food, beverage or dairy products. When used according to label directions, this product is effective against spores of the following organisms: *Bacillus subtilis*, *Bacillus cereus*, and *Clostridium sporogenes*.

For a five ml water application, no rinse treatment is required if: (1) solution application does not exceed 0.0175 ml treatment solution per ounce container capacity; (2) treatment solution has not been recycled; (3) no treatment solution with a concentration of higher than 4500 ppm peroxyacetic acid and 6597 ppm hydrogen peroxide has been added to the treatment solution reservoir.

The aseptic food, beverage and dairy food processing operation must comply with all applicable FDA regulations and Food Contact Notification (FCN) 1851. Use in an aseptic food, beverage and dairy processing operation includes testing required for the process validation.

Aseptic Food Packaging Equipment: This product may be used as a commercial sterilant for aseptic packaging of low acid foods for non-porous food manufacturing.

Remove mineral deposits from surfaces prior to use of this product. Thoroughly clean surfaces and follow with a potable water rinse. Commercially sterilize clean manufacturing, filling, and packaging equipment with a concentration of 3.4 fl. oz. of this product per 1 gallon of water (4500 ppm peroxyacetic acid and 6597 ppm active hydrogen peroxide) at a temperature of 65°C. Use immersion, coarse spray, or circulation techniques as appropriate to sterilize the equipment. The solution must remain in contact with the equipment surface for a minimum of 20 seconds. Rinse with sterile water is optional. When used according to label directions, this product is effective against *Bacillus subtilis*, *Bacillus cereus*, and *Clostridium sporogenes*.

REVERSE OSMOSIS (RO) ULTRA-FILTRATION (UF) AND OTHER MEMBRANE CLEANING

This product may be used to clean RO and UF membranes and their associated piping systems. This product is not for use in kidney dialysis equipment. Do not use the intermittent or continuous dosing methods for nano or ultra-filtration food or drinking water applications. This product may not totally eliminate all vegetative microorganisms in RO or UF membranes and their associated piping systems due to their construction or assembly, but can be relied upon to reduce the number of microorganisms to acceptable levels when used as directed. Prior to using this product check with membrane manufacturer to confirm compatibility of membranes with various types or concentration of peroxyacetic acid solutions.

Batch Sanitation of NF, UF and RO Systems: Isolate incompatible equipment, such as carbon filters and ion exchangers. Clean system with an appropriate cleaner and follow with RO permeate water or potable water. Remove mineral deposits if necessary with an acid solution, and rinse as below. Fill entire system with water and add up to 0.5% of this product by volume. This will equal 680 ppm peroxyacetic acid and 1000 ppm hydrogen peroxide. Recirculate the sanitizing solution through the piping and membrane system at 20°C for 10 minutes minimum, or up to 4 hours, depending on the severity of cleaning to be done. Open and close process valves and solenoids to be sure all parts are in contact with the solution. Rinse the system with RO permeate or potable water until residual peroxide concentration is below 1 ppm.

Continuous or Intermittent Addition: For continuous addition (using for RO systems), use 2.5 ppm of active peroxyacetic acid, which equals 1.5-3.7 fl. oz. of this product per 1000 gallons of process water. For occasional intermittent feed, do not exceed 0.7% fl. oz. of this product per 10 gallons of food water. Continuous or intermittent dosing of this product is not allowed for use in RO or UF systems for on-line food or drinking water applications.

NOTE: This product is in 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.

BIOFILMING CONTROL IN PULP, PAPER AND PAPERBOARD MILL WATER SYSTEMS: (not for use in California)
For use in the manufacture of paper and paperboard intended for food or non-food contact. This product can be used to control bacteria and fungi in paper, paperboard or non-woven process water and influent water systems. Suitable dosing points include but are not limited to: stock chests, pulpers, the white water loop, white water storage tanks and influent water streams.

Influent Water Systems: This product should be fed continuously to incoming fresh water streams (improbable use only) at dosages ranging from 0.11 - 2.0 lbs (1.5-27. oz) of this product per 1000 gallons of raw or process water (76 ppm peroxyacetic acid). Adjust dosage as necessary to maintain microbiological control.

Mill Process Waters: Intermittent Feed - This product may be fed intermittently (for example: 2 hours per 8 hr shift) at dosages ranging from 0.5 lbs to 1.2 (1.6-17.6) oz of this product per 1000 gallons of paper product. This dosage is equivalent to 37-60 ppm peroxyacetic acid. Repeat as necessary when the peroxyacetic acid concentration reaches less than 2 ppm.

Continuous Feed: This product should be fed continuously at dosages ranging from 0.11-1.2 lbs (1.5-16.4) oz of this product per ton (dry basis) of pulp or paper produced. This dosage is equivalent to 37-60 ppm peroxyacetic acid.

Shock (slug) Dose: This product may be used to shock dose systems requiring a high level of biofouling control. Use rates ranging from 1.8 lbs (13.5-108. oz) of this product per ton (dry basis) of pulp or paper produced may be necessary. This dosage is equivalent to 75-600 ppm peroxyacetic acid. Shock dose every 1-3 hrs as necessary until biofouling is eliminated. Thereafter, revert to continuous or intermittent dosing methods.

CONTROL OF SLIME FORMING BACTERIA AND BIOFILMING IN PULP AND PAPERBOARD MILL COOLING WATER (COOLING TOWERS, EVAPORATIVE CONDENSERS, AIR WASHERS) AND ORNAMENTAL OR RECREATIONAL WATER FEATURES

Use this product to control slime forming bacteria and biofilm in the water system directly, and not mixed with any other chemicals or additives. Never add this product into any flooding device, such as shot towers, filter housings, by-pass boxes, 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 fl. oz. of this product per 1000 gallons of process water (7-27 ppm peroxyacetic acid). Repeat as necessary until microbiological control is evident. Thereafter, to maintain control use (1.5-2.5 fl. oz.) of this product per 1000 gallons of process water (10-20 ppm peroxyacetic acid) as a continuous treatment method. Continuous dosing usually require 1.5-5 fl. oz. per 1000 gallons of water (7-27 ppm peroxyacetic acid) to achieve adequate

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 gallons of process water (7-14 ppm peroxyacetic acid).

WARNING: To remove sessile bacteria from treating systems it is necessary to clean silica and slime-forming bacteria from the surfaces of all areas of water contact. This can be accomplished by treating the recycled water (at 37-117 fl. oz) of this product per 1000 gal of water (50-150 ppm active peroxyacetic acid) for 4-8 hours during normal water operating cycles. This procedure can be used for on-line or off-line cleaning. When finished, shock the system until the PAA level is <5-10 ppm, then normal dosing or bromine or chlorination treatments can be used. This treatment can be used at any time or date, depending on operational conditions.

Air Washers: This product may be used to control bacteria and biofilms in industrial air washing/sanitizing systems. The air washer must have operational and effective mist elimination systems. Prior to use of this product, heavily fouled systems must be pre-cleaned using the appropriate cleaner. Continuous dosing methods will require 2-7 ppm and

irrigation

0/0



Oil, Gas and Secondary Oil Recovery Systems, Drilling Muds, Fracturing Fluids, and Packing Fluid, Injection Water and Floodwater
This product may be used to treat water used in primary or secondary oil and gas recovery systems to control anaerobic sulfate-forming bacteria and aerobic slime-forming bacteria. This product may be used in fresh or recycled water, secondary recovery systems, muds or fluids. This product controls non-public health toxin and slime deposits on products associated with oilfield and gasfield systems which are susceptible to contamination. It also controls slime deposits downhole in water-borne. Add sufficient amount of this product to achieve satisfactory biological control. Initial recommended dosing levels of 5 to 100 ppm as active peroxyacetic acid are suggested. A dosage of 3.75% oz. per

TREATMENT OF FRUIT AND VEGETABLE PROCESS WATER SYSTEMS

This product can be used in water or air 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 packhouses.

Batch, Continuous or Spray System Processes: Fill vessel containing fruits and vegetables with known amount of water. Ensure that water is circulating in and away from the submerged material. Add this product to no more than 500 ppm residual peroxyacetic acid to the use solution in accordance with Food Contact Notification #1731, effective March 28, 2017. This can be accomplished by initially adding 3.8 fl. oz. of this product per five gallons of water. The recommended concentration is between 30-300 ppm as peroxyacetic acid (0.2-2.3% 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-accumulator, washer or brush washer methods, do laws, 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 do 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. Locate the area of all personnel prior to, during and after fogging until the total peroxide concentration is below 1.0 ppm, or there is no strong odor present, characteristic of acetic acid.

PREVENTING POTATO SPERMATOPHYTES

To control, treat or suppress the bacterial and fungal diseases: silver scurf, late blight, pink rot, early blight, bacterial soft rot. This product can be applied by dip or spray on harvested potatoes going into storage. Use 0.8-1.6 fl. oz. of this product per five gallons of clean water. Do not reuse already mixed solution; make fresh daily. If spraying diluted solution via spray, spray cover potatoes to achieve full and even coverage. Ensure full contact on all surfaces for 45 seconds.

WATERLINES, LIVESTOCK WATERING OPERATIONS

After watering lines have been cleaned, use this product at 0.3-4.2 fl. oz. per 100 gallons of water (4-599 ppm as peroxyacetic acid) to control algae and bacteria in drinking water lines (noted among health and safety lines). Use the use of this product limits four (24) hours after application up the water line.

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 the 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. This product is a mild irritant to the eyes. Store at temperatures below 86°F.

Procedure for Leak or Spill: Stop leak if this can be done without risk. Shut off inflow sources; no flames, smoking, fires, or spark producing tools. Keep combustible and organic materials away. Flush spilled material with large quantities of water. Unlabeled material may not meet current federal standards.

Spill/Leak Disposal: Potent oxidizers are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or residue 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. The 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. Rinse container promptly after emptying. Offer for recycling, if available. This product is 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. Do not scrape or scrub the container on its end and tip it back and forth several times. Empty the residue into application equipment or a mix tank or store mixture 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 or store mixture for later use or disposal. Drain for 10 seconds then fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour into application equipment or a mix tank or store mixture for later use or disposal. Drain for 10 seconds then fill the container 1/4 full with water and recap. Shake for 10 seconds. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not contaminate by state and local ordinances.

Manufactured by Enviro Tech Chemical Services, Inc.
500 Wimmerow Way, Modesto, CA 95358 209-581-9576 or www.envirotech.com
24 hr Emergency ChemTel Number: 1-800-255-3924



DOT: UN 3109, Organic Peroxide Type F, Liquid (<=25% Peracetic Acid with <=26% Hydrogen Peroxide) 5.2 (8)

Net contents:
LOT #:

Ver 13.2c (Aug-2020)



Using the PSA Sanitizer Tool to Navigate Label Differences

| | | | | EPA Master Label Details | | | | | | | | | | |
|--------------------------|--------------------------------|--------------------------------|--|--------------------------|--|---|---|---|---|------------------------------------|---|----------------------------------|---|---|
| | | | | EPA Master Label | | Preharvest Labeled Uses | Postharvest Labeled Uses | | | Efficacy Statement | Product Information | | | |
| Compare | Product Name | Name on EPA Master Label | Active Ingredient (% Strength) | EPA Registration Number | Labeled Use Info Based on Version Date | Labeled For Use in Irrigation Water Systems | Labeled For Use on Non-Porous Food Contact Surfaces | Labeled For Use on Postharvest Water Distribution Systems | Labeled for Use in Fruit and Vegetable Wash Water | Labeled to Control Human Pathogens | Organic Materials Review Institute (OMRI) Listing | Amount Purchasable per EPA Label | Manufacturer/Distributor | Notes |
| <input type="checkbox"/> | BioSide HS 15% | BioSide HS 15% | PAA (15.0%); Hydrogen Peroxide (22.0%) | 63838-2 | 2/21/20 | Yes, see page 15 | Yes, see page 5 | Yes, see page 10 | Yes, see page 9 | For Food Contact Surfaces | Allowed with restrictions | Information not available | Enviro Tech Chemical Services | <ul style="list-style-type: none"> Allowed uses on Product Label differ from uses on EPA Master Label EPA Master Label identifies State-level restrictions EPA Master Label allows for foliar sprays in addition to irrigation |



Additional Sanitizer Observations

- Fewer sodium hypochlorite products appear to be labeled for fruits and vegetable wash water
 - Clorox products used to be an accessible option but many Clorox labels were recently revised
- Seeing more products labeled to control public health organisms in fruit and vegetable wash water
- Currently no sanitizer products labeled to treat irrigation water for public health organisms
 - Although we know there is at least one product in the pipeline



PSA Resources: Basic Video Tutorial

The video player shows a thumbnail with the Produce Safety Alliance logo and the title 'PSA EPA-Labeled Sanitizers for Produce Web Tool: Basic Tutorial'. The thumbnail features a vertical path of soil with various produce items (strawberries, lettuce, mushrooms, a yellow bell pepper, and a cantaloupe) arranged along it. The video player includes a progress bar at 0:00 / 8:37, a 'Subscribed' button, and a share bar with options for 0 likes, share, download, clip, save, and a menu icon.

Produce Safety ALLIANCE

PSA EPA-Labeled Sanitizers for Produce Web Tool: Basic Tutorial

0:00 / 8:37

Basic Tutorial: PSA Web Tool for Sanitizers

Produce Safety Alliance
1.01K subscribers

Subscribed

0 Likes Share Download Clip Save

A second short tutorial is currently in development



PSA Resources: EPA-Labeled Sanitizer Factsheet

Produce Safety ALLIANCE

Introduction to Selecting an EPA-Labeled Sanitizer

*Donna Pahl Clements, Gretchen Wall, Don Stoeckel, Connie Fisk, Kristin Woods, and Elizabeth Bihn
October 2018*

The use of properly labeled sanitizers (i.e., antimicrobial pesticides) in water that comes in contact with fruits and vegetables at or after harvest is highly encouraged to reduce the risk of cross-contamination by human pathogens. The use of sanitizers that have a United States Environmental Protection Agency (EPA) label are encouraged since these products have been evaluated by the EPA to limit the product's impact on the environment and human health. Sanitizers are employed as a water treatment to prevent the spread of contamination in harvest and postharvest systems, such as dump tanks (or high volume tanks) and flumes. Sanitizers also can be used as part of a multi-step cleaning and sanitizing routine to reduce the level of pathogens on food contact surfaces to acceptable levels (see 'sanitizer' in [Produce Safety Alliance glossary](#))¹. Once

number. Additionally, EPA must review any statements made on the product's label; this information may include efficacy statements describing the organism(s) that the sanitizer will control if used according to label instructions, and directions for use, storage, and disposal. More information can be found in the [EPA FIFRA summary document](#)³. Though the FSMA PSR does not expressly require growers to use an EPA-labeled sanitizer, it is one way to determine if a sanitizer will be effective. If a grower uses a sanitizer that does not have an EPA label, the grower should be able to prove that the product is suitable for the intended use (such as washing fresh produce) and for reducing contamination risks.

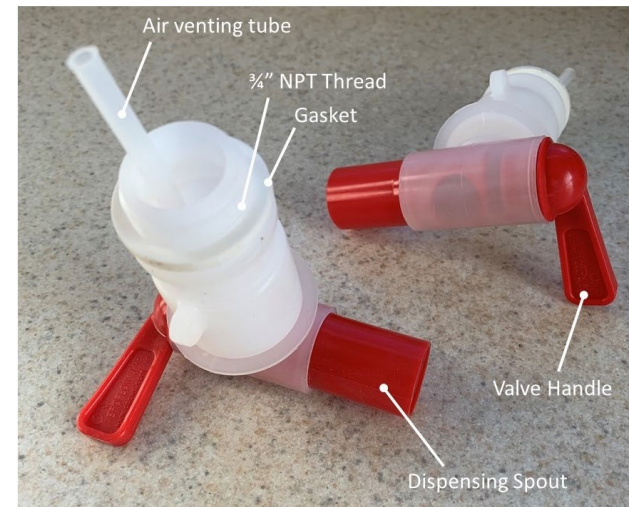
What should a grower look for in a sanitizer label?



Highlight of Sanitizer Resources: Dosing and Dispensing

- [UVM Sanitizer Dose Calculator](#)
- [UVM Safely Dispensing Sanitizers](#)

The screenshot shows the 'Sanitizer Dose Calculator' interface. At the top, it features the logos for 'Ag ENGINEERING' and 'UNIVERSITY OF VERMONT EXTENSION'. Below the logos, the title 'Sanitizer Dose Calculator' is displayed. A short paragraph explains that the calculator determines the amount of sanitizer to be added to a volume of water. The form includes several input fields: 'Sanitizer:' with a dropdown menu, 'Use:' with a dropdown menu, and 'Size of Bottle, Sink, or Tank (select units of measure below):' with a text input for volume and a dropdown for units (currently set to 'gallons (gal)'). A green 'Submit' button is located below the input fields. At the bottom, there is a 'Results' section with a 'Send' button and a link to 'Email these results'.





Highlight of Sanitizer Resources: Pre-Harvest Water Sanitizer Use

- U of A “Minimizing Risks: Use of Surface Water in Pre-Harvest Agricultural Irrigation” Series

- [Part I: Understanding Water Quality and Treatment Options](#)
- [Part II: Sodium and Calcium Hypochlorite Treatment Methods](#)
- [Part III: Peroxyacetic Acid Treatment Methods](#)

THE UNIVERSITY OF ARIZONA
Cooperative Extension

az1793 March 2019

Minimizing Risks: Use of Surface Water in Pre-Harvest Agricultural Irrigation

Part I: Understanding Water Quality & Treatment Options

Jessica L. Dery, Natalie Brassill, and Channah M. Rock

Why treat agricultural irrigation water?

Irrigation water can act as a **vector**, or carrier, that can transport or spread pathogens to crops, where they have the potential to cause illness (CDC, 2018). Decisions to treat irrigation water can be driven by buyer requirements for product marketing or branding, or because the water quality exceeds the FDA Food Safety Modernization Act (FSMA) regulations or the Leafy Green Marketing Agreement (LGMA) standards for generic *Escherichia coli* (*E. coli*). For example, the quality of surface waters may be more impaired or have higher pathogen contamination compared to groundwater (FDA, 2018). This is because they are directly exposed to external influences and therefore may require treatment. To ensure irrigation water is at a quality sufficient to meet grower needs, it is important to understand how water quality affects treatment methods and associated challenges and solutions. If the quality of the water source is unknown, there are many labs recommended by the Arizona Department of Health Services that offer U.S. EPA approved testing methods. Links to testing labs, EPA registered sanitizers, and approved testing methods are provided at the bottom of this fact sheet. This publication is a general overview of water quality and common treatment methods.

It is the first of a series covering specific treatment options for pre-harvest agricultural irrigation such as chlorination, Ultra Violet (UV), and peroxyacetic acid.

Common treatment methods

Various water treatment methods or technologies can be used for agricultural irrigation based on the water quality parameter of concern (e.g. bacteria, sediment, etc.). Such methods include chemical treatment, physical treatment, and biological treatment, and are illustrated in Figure 1.

Figure 1. Common Treatment Methods for Pre-Harvest Agricultural Irrigation Water. For a list of EPA approved sanitizers, go to: <https://producersafetyalliance.com/>.



Highlight of Sanitizer Resources: Postharvest Sanitizer Use

- [WSU Food Safety Considerations for Postharvest Washing of Produce and Sanitation of Packing Areas](#)

FOOD SAFETY CONSIDERATIONS FOR POSTHARVEST WASHING OF PRODUCE AND SANITATION OF PACKING AREAS



Many food safety issues that occur in postharvest unit operations are associated with:

1. Cross contamination between contaminated and uncontaminated produce during washing, or
2. Improper cleaning and disinfection of tools, equipment, and facilities used during packing and holding of produce.

For these reasons, we will focus on proper use of two commonly used sanitizers, chlorine and peroxyacetic acid (PAA) during postharvest washing as well as how to develop a robust sanitation program for your farm or packinghouse.

What Exactly is a Sanitizer?

While we hear the term *sanitizer* daily, we may not realize exactly what that term means. The term *sanitize* has been defined by the FDA (2019) as, "to adequately treat cleaned surfaces by a process that is effective in destroying vegetative cells of pathogens, and in substantially reducing the numbers of other undesirable microorganisms, but without adversely affecting the product or its safety for the consumer" (21 CFR part 117.3). Sanitizing is used as a step to reduce the number of disease-causing bacteria and viruses to a safe level, and to prevent cross contamination and the formation of biofilms.

The EPA has stringent standards that a compound must meet to be considered a sanitizer for food contact surfaces. In this evaluation, the compound has to cause a 99.999% reduction of a specific set of bacteria within 30 seconds to be considered a sanitizer. These compounds must be registered by the EPA and are considered antimicrobial pesticides. Sanitizers are used in two primary ways in the produce industry:

1. In the washing and transportation steps, and
2. To disinfect various surfaces in the packinghouse and on equipment and tools after they are cleaned.

Washing Produce

Markets require many types of produce to be washed prior to sale in order to remove dirt and other debris. Foodborne pathogens (harmful microorganisms that can make people ill) are not seen with the naked eye, and produce can be contaminated with these pathogens before it enters the packinghouse. This makes the washing step one of the most important steps in packing, because, if not controlled, it can be a source of cross contamination (when foodborne pathogens fall off of contaminated produce into the water they can contaminate more produce). Sanitizers, such as chlorine and PAA, should be used during the washing step to eliminate cross contamination because, if pathogens are on the surface of produce, some will be dispersed into washing water and contaminate any fruits or vegetables that are washed following the contaminated produce. These sanitizers are designed to inactivate any bacteria that are introduced into the water, drastically reducing the possibility of cross contamination (Figure 1, page 2).

NOTE: Washing will not remove or inactivate foodborne pathogens or chemical contaminants on the produce itself, so good agricultural practices (GAPs) must always be followed.

Chlorine Basics

Chlorine is one of the most widely used sanitizers in food production due to its low cost and ease of application.

Chlorine comes in three forms:

1. Calcium hypochlorite (CaCl_2O_2), which comes in a powder or tablet,
2. Sodium hypochlorite (NaOCl), which comes in a liquid and is what we commonly call bleach, and
3. Chlorine gas (Cl_2). Calcium hypochlorite and sodium hypochlorite are most commonly used by small to medium growing operations.



Acknowledgements

- Tommy Saunders for initial slide content on sanitizer tool updates
- The entire PSA team who worked on the updates to the sanitizer tool and searching for updated labels, especially Don, Rob, Collins, Thais, Toria, and Betsy
- Focus group members who provided constructive input on the tool updates and sanitizer labeling process



Questions?



Revised Subpart E: Agricultural Water (Pre-Harvest Uses)

- Revisions to the FSMA PSR, Subpart E were published on May 06, 2024
- New compliance dates
- Updated FDA resources
- Changes to PSA Grower Training Course delivery

Direct link





FDA Subpart E Compliance and Enforcement Dates

- Two “waves” of compliance dates in Subpart E: Agricultural Water (for covered produce other than sprouts)

| Business Size Class (3-year Rolling Average Produce Sales) | Pre-Harvest Water Compliance Dates | Postharvest Water Compliance Dates (Enforcement Dates) |
|--|---------------------------------------|--|
| All other businesses (>\$500K sales) | 4/07/25 | 1/26/22 (1/26/23) |
| Small businesses (>\$250K-500K sales) | 4/06/26 | 1/26/23 (18/26/24) |
| Very small businesses (>\$25K-250K sales) | 4/05/27 | 1/26/24 (1/26/25) |



Overview of Revision


- Same structure and similar content as 2021 Proposed Revision
- Pre-harvest water use decisions based on a holistic/systems-based agricultural water assessment
- Testing for generic *E. coli* can be a part of the assessment but there is no stand-alone *E. coli* standard for decision making
- The assessment results in outcomes
 1. No measures needed, OR
 2. Mitigation measures needed to reduce risk, OR
 3. Corrective measures needed to address conditions that cause water to be not safe, or not of adequate sanitary quality for pre-harvest use
- No changes to requirements for sprouts, or for agricultural water used during harvest and postharvest



Visit the FDA Web Page for Updated Resources

 An official website of the United States government [Here's how you know](#) ▾



 Search

 Menu

[← Home](#) / [Food](#) / [Guidance & Regulation \(Food and Dietary Supplements\)](#) / [Food Safety Modernization Act \(FSMA\)](#) / [FSMA Final Rule on Pre-Harvest Agricultural Water](#)

FSMA Final Rule on Pre-Harvest Agricultural Water

Direct link



Updated resources include:

- Fact Sheet on the Final Rule
- Factors for Agricultural Water Assessment to Consider
- Agricultural Water Assessment Builder version 2
- Corrective and Mitigation Measures for Pre-harvest Agricultural Water for Non-Sprout Covered Produce
- Annual Agricultural Water Assessments and Risk-Based Outcomes



Changes to PSA Grower Training Course Delivery

- Short-term
 - Continue delivery using Module 5.1 from the V1.2 manual and strongly recommend using PSA supplemental slides
 - Trainers were notified by PSA on May 03, 2024
- Mid-term
 - PSA developed Revised Module 5.1 (coming soon)
 - PSA Trainers will be asked to use Revised Module 5.1
 - An Educators' call and video tutorial will come at the same time
- Long-term, **pending funding**
 - Creation of a V2.0 PSA Grower Training Manual and slides



What to Expect from PSA

- Access to Revised Module 5.1 slides
 - Webinar for PSA Trainers to share delivery strategies
 - New Module 5.1 handouts
- Refresher extension slides
 - For growers who have already attended PSA GT
 - Webinar for PSA Trainers to discuss slides and use
- Updates to PSA resources
 - Many references to Subpart E content and PSR provision numbers need to be addressed



Other Important PSA Changes

- Bon voyage, Collins Bugingo!!
 - Moving on to Plant Pathology Extension at Oregon State starting June
 - Davis Blasini will be the new Western Region Extension Associate (covering both Northwest and Southwest)
- Farewell, Laura Pineda Bermudez!!
 - Laurita may not have the visibility of some other PSA team members, but she packs a powerful punch at PSA and the National GAPs program
 - New position in policy research at Library of Congress starting June
- Time away for Laurie George!!
 - Short term medial leave from now through August 2024
 - Don Stoeckel will be covering as the Midwest REA while Laurie is out

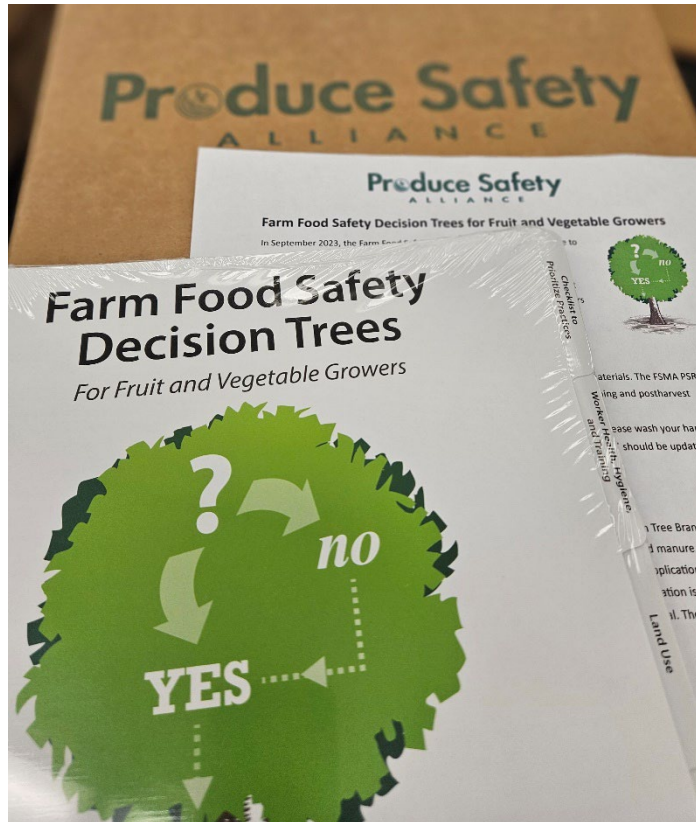


PSA Funding Update

- We anticipate that our current FDA Cooperative Agreement will receive a no-cost extension
- We anticipate we will be getting a new FDA cooperative agreement beginning in July 2024 – June 2025
 - Neither of these are in place yet, so currently we are out of funds June 30, 2024
- Right now, neither of these funds all the PSA Team
- PSA Team is still going through attrition; significant concern
- If everything does happen, we will still be in a difficult position because long-term funding is not in place



Decision Trees



- Available for cost of shipping label!
- 18 Trees per box
- PSA will provide a photocopied addendum page per tree ordered
- Interested? Contact Toria Melville (tm599@cornell.edu)



Next Educators' Calls: All About Ag Water

- Revisions to PSA Module 5.1: Pre-harvest Water
 - English Educators' Call: Monday, June 10 at 3-4:30pm EDT
 - Spanish Educators' Call: Wednesday, June 13 at 3-4:30pm EDT
 - Registration link will be circulated

- Labeled Sanitizers for Produce en Español
 - Spanish Educators' Call: TBD
 - Registration link will be circulated