

# Selectrocide® A5

## [A10, A15]

### Processed FOODS

***Technical Bulletin 2009 – 01A***

## **Antimicrobial Food Additive Reduces Microbial Contamination**

**Generates Chlorine Dioxide to Control Food-Spoilage and  
Pathogenic Microorganisms on Processed Fruits and Vegetables  
and During Poultry Processing**

**To activate: See “Directions for Use” on package label**

***Use the following volumes of potable water to achieve the desired  
concentrations of chlorine dioxide inside a closed container:***

For this concentration of chlorine dioxide	Immerse Selectrocide® A5 in this amount of clean, potable water for at least six (6) hours	Immerse Selectrocide® A10 in this amount of clean, potable water for at least ten (10) hours	Immerse Selectrocide® A15 in this amount of clean, potable water for at least ten (10) hours
500 ppm	10 liters	20 liters	30 liters
500 ppm	2.5 gallons	5.0 gallons	7.5 gallons
10 ppm	500 liters	1000 liters	1500 liters
10 ppm	130 gallons	260 gallons	395 gallons
5 ppm	1000 liters	2000 liters	3000 liters
5 ppm	260 gallons	525 gallons	790 gallons
3 ppm	1666 liters	3333 liters	5000 liters
3 ppm	440 gallons	880 gallons	1320 gallons

**Do not remove Selectrocide® A5 envelope from container of water prior to 6 hours.  
[A10, 10 hours; A15, 10 hours]**

**Discard the spent A5 [A10, A15] envelope (follow disposal instructions on package label),  
and mix solution gently prior to use.**

**Do not reuse A5 [A10, A15] envelope.**

**Check concentration of solution using *Selective Micro® Chlorine Dioxide Test Strips*.  
(See box below for instructions if check indicates concentration lower than desired)**

**Record activation date and concentration on stick-on label and affix to storage container.**

**See package label “Directions for Use” for storing unused solution; use solution within 15 days of activation.**

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*Selective Micro Technologies* [www.selectivemicro.com](http://www.selectivemicro.com)

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Technical Bulletin: A-Series 2009-01A (revised 3-09)

**DURING USE (DILUTING, APPLYING, OR WORKING WITH ACTIVATED PRODUCT):**

1. Always work in well-ventilated area and avoid inhaling fumes of activated solution.
2. Wear protective gloves if hands will come in contact with activated solution.
3. Respiratory protection is not required under the limited exposure conditions of most normal use patterns. However, wear a NIOSH/MSHA-approved respirator under the following conditions:
  - a. when applying activated solution with a high-pressure sprayer
  - b. when working with the activated solution for an extended period of time in a closed facility or in a poorly-ventilated area
  - c. when normal workshift duties entail uninterrupted periods of applying the activated solution with mop, sponge, or sprayer
  - d. when opening vessel containing stock activated solution (at 500 ppm)
  - e. if OSHA inhalation exposure limits are reached or exceeded (see MSDS).
4. Do not use product in a manner inconsistent with the label.

**IF TEST STRIPS INDICATE CONCENTRATION (PPM) LOWER THAN DESIRED:**

1. Check expiration date on *Test Strips* container. If expired, then recheck using fresh *Test Strip* from a container that has not reached its expiration date.
2. If the original container has not expired OR if the recheck indicates a lower-than-desired concentration, THEN DO ONE OF THE FOLLOWING:
  - 2a. If the application solution was prepared directly to the end-concentration (not diluted from a higher concentration), discard the solution and activate a fresh (unused) *Selectocide®A5* [A10, A15]. Recheck concentration after waiting the prescribed time to activation.

OR
  - 2b. If the application solution was prepared by diluting a solution of higher concentration, add small amounts of the higher-concentration solution to the application solution—about 10% of the volume of the application solution at a time—until the *Selective Micro® Chlorine Dioxide Test Strip* indicates the desired concentration. Stir or mix the solution gently after each addition. Use a fresh (unused) *Test Strip* for each test.

**RECOMMENDED SPECIFICATIONS FOR CONTAINERS  
USED WITH *SELECTIVE MICRO* PRODUCTS**

**FOR USE IN GENERATING OR STORING ACTIVATED SOLUTIONS**

- The container should be—or be comparable to—a UN-approved, liquid-resealable containment incorporating a gasket-sealing surface and locking mechanism.
- Construction should be of dark or opaque/UV-blocking (preferred) oxidation-resistant plastic or glass. Some materials recommended include:
  - High Density Polyethylene (HDPE)
  - Polypropylene (PP)
  - Polyethylene Terephthalate (PET)(PETE)
  - Polyvinyl Chloride (PVC)
  - Polycarbonate (PC)
  - Glass (UV-blocking preferred)
  - Gasket materials; silicone, viton or EPDM

Users without containers comparable to the above may contact Selective Micro Technologies for recommendations or to purchase containers for their applications.

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## APPLICATIONS FOR FRESH-CUT FRUIT AND VEGETABLES

This product may be used to reduce spoilage or pathogenic microorganisms on cut or processed fruits and vegetables in food processing facilities, such as during flume and washing operations, and in other commercial food preparation areas. Depending on decontamination needs/contamination levels, use at concentrations up to 10 ppm to produce the desired microbial reductions on processed fruits and vegetables.

1. Activate *Selectrocide*<sup>®</sup>A5 [A10, A15] according to "Directions for Use" on package label.
2. Dilute directly to desired application concentration (up to 10 ppm) in accordance with the instructions in table on page 1 of this technical bulletin

OR

Prepare a 500 ppm solution according to table 1 and then use a dilution device appropriate to the end concentration desired:

- For 10 ppm, use a 1:50 dilution device (one part 500 ppm solution to 49 parts water)
  - For 5 ppm, use a 1:100 dilution device (one part 500 ppm solution to 99 parts water)
  - For 3 ppm, first dilute the 500 ppm solution to 300 ppm by adding 2 parts water to 3 parts 500 ppm solution; then use a 1:100 dilution device (one part 300 ppm solution to 99 parts water)
3. Spray or dip processed fruits and vegetables, ensuring visible wetness for at least one (1) minute, and follow by canning, blanching, or cooking. Potable water rinse is note required, but may be applied if desired. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
  4. Use *Selective Micro*<sup>®</sup> *Chlorine Dioxide Test Strips* to verify initial concentrations and ensure residual chlorine dioxide concentrations of no greater than 3 ppm in the water.
  5. Dispose of *Selectrocide*<sup>®</sup>A package and spent envelope according to instructions on package label.

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## APPLICATIONS FOR POULTRY PROCESSING

This product may be used to reduce pathogenic microorganisms on poultry carcasses. Depending on decontamination needs/contamination levels, use at concentrations up to 10 ppm for one (1) minute to produce the desired microbial reductions on poultry carcasses.

1. Activate *Selectrocide*<sup>®</sup>A5 [A10, A15] according to "Directions for Use" on package label.
2. Dilute directly to desired application concentration (up to 10 ppm) in accordance with the instructions in table on page 1 of this technical bulletin

OR

Prepare a 500 ppm solution according to table 1 and then use a dilution device appropriate to the end concentration desired:

- For 10 ppm, use a 1:50 dilution device (one part 500 ppm solution to 49 parts water)
- For 5 ppm, use a 1:100 dilution device (one part 500 ppm solution to 99 parts water)
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3. Spray or dip processed poultry, ensuring visible wetness for at least one (1) minute. When applying these solutions using a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.
6. Use *Selective Micro*<sup>®</sup> *Chlorine Dioxide Test Strips* to verify initial concentrations and ensure residual chlorine dioxide concentrations of no greater than 3 ppm in the water.
7. Dispose of the *Selecticide*<sup>®</sup> A package and spent envelope according to instructions on package label.

Rev: 3-09

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