

74986-4

12/10/2012

1/24

December 10, 2012

Jeff Thomas, CEO
Selective Micro Technologies
4449 Easton Way-2nd Floor
Columbus, OH 43219

Subject Selectrocide® 2L500
EPA Registration No 74986-4
Notification Date November 05, 2012
EPA Receipt Date November 15, 2012

Dear Mr Thomas,

This letter acknowledges receipt of your notification submitted under the provisions of PR Notice 98-10 under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) section 3 (c) 9

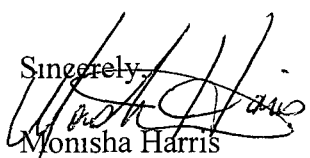
Proposed Notification

- Adding alternate brand name Selectrocide 2L500 Abridged

General Comments

Based on a review of the submitted materials, adding alternate brand name Selectrocide 2L500 Abridged per PR Notice 98-10 is **acceptable** and apart of the record on file for future reference

Should you have any questions or comments concerning this letter, you may contact me by telephone at (703) 305-5027 or by e-mail at rivas.lorena@epa.gov When submitting information or data in response to this letter, a copy of this letter should accompany the submission to facilitate processing

Sincerely,

Monisha Harris

Product Manager (32)
Regulatory Management Branch II
Antimicrobials Division (7510P)

CONCURRENCES							
SYMBOL	7510P	7510P					
SURNAME	J. Rivas	Harris					
DATE	12/10/12	12/10/12					

Please read instructions on reverse before completing form

Form Approved, OMB No 2070-0060

Print Form



United States
Environmental Protection Agency
Washington DC 20460

Registration
 Amendment
 Other

OPP Identifier Number

Application for Pesticide - Section I

1 Company/Product Number 74986 4	2 EPA Product Manager Ms Monisha Harris	3 Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4 Company/Product (Name) Selectrocide 2L500 Abridged (Selectrocide 2L500 74986 4)	PM# 32	
5 Name and Address of Applicant (Include ZIP Code) Selective Micro Technologies 4449 Easton Way 2nd FL Columbus OH 43219 <input type="checkbox"/> Check if this is a new address	6 Expedited Review In accordance with FIFRA Section 3(c)(3) (b)(i) my product is similar or identical in composition and labeling to EPA Reg No N/A Product Name _____	

Section - II

Amendment Explain below
 Resubmission in response to Agency letter dated _____
 Notification Explain below
 Final printed labels in response to Agency letter dated _____
 Me Too Application
 Other Explain below

Explanation Use additional page(s) if necessary (For section I and Section II)
 Adding an alternative brand name Selectrocide 2L500 Abridged to product registration no 74986 4 Selectrocide 2L500 Please see cover letter for additional information

Section - III

1 Material This Product Will Be Packaged In				2 Type of Container	
Child Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted		If "Yes" Unit Packaging wgt	No per container	If "Yes" Package wgt	No per container
3 Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4 Size(s) Retail Container		5 Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6 Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled				<input type="checkbox"/> Other _____	

Section - IV

1 Contact Point (Complete items directly below for identification of individual to be contacted if necessary to process this application)		
Name Jeff Thomas	Title CEO	Telephone No (Include Area Code) 614 934 1239
Certification I certify that the statements I have made on this form and all attachments thereto are true accurate and complete I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law		6 Date Application Received (Stamped)
2 Signature 	3 Title CEO Selective Micro Technologies	
4 Typed Name Jeff Thomas	5 Date Nov 6 2012	



3/24

11/5/12

Via Certified Mail

Document Processing Desk (DCI/PRD)
Office of Pesticide Programs
US Environmental Protection Agency
Room S 4900 One Potomac Yard
2777 S Crystal Drive
Arlington Virginia 22202

To **Monisha Harris**
Team Leader 32
Regulatory Management Branch

Re **Registrant Selective Micro Technologies, LLC ("SMT")**
Product Selectrocide® 2L500 (EPA Reg 74986 4)
Notification – Addition of an Alternate Brand Name per PR Notice 98-10

Dear Ms Harris

On behalf of Selective Micro Technologies LLC (SMT) we are notifying EPA that Selectrocide® 2L500 will be marketed under the Alternate Brand Name (ABN) of **Selectrocide 2L500 Abridged** Enclosed is the required paperwork to support this ANB

This notification is consistent with provisions of PR Notice 98 10 and EPA regulations at 40 C F R § 152 46 and no other changes have been made to the confidential statement of formula of this product. The current proposed label is a reduced subset of the Mast Label on file. It includes recommended precautionary language per EPA letter September 4th 2012. As a safety precaution we also indicate on the label subset for the user to please reference Master Technical Bulletin for Detailed Use Patterns and Dilution Rates. I understand that it is a violation of 18 U S C § 1001 to willingly make any false statement to the EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98 10 and 40 C F R § 152 46 this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Please contact me at the above number should you have any questions regarding this notification

Sincerely,

Mr Jeff Thomas Selective Micro Technologies LLC
President and CEO

A handwritten signature in black ink that reads 'Jeff B. Thomas'. The signature is written in a cursive, flowing style.

CC Mr Kevin Dearwester Selective Micro Technologies, LLC

4/24

Selectroocide®

-2L500- ABRIDGED

DISINFECTANT/SANITIZER/VIRUCIDE*/FUNGICIDE/ALGAECIDE/SLIMICIDE/DEODORIZER
[PRODUCES TWO LITERS OF 500 PPM CHLORINE DIOXIDE SOLUTION WHEN ACTIVATED]

When used as directed this chlorine dioxide generating product is proven effective as a **disinfectant** against *Pseudomonas aeruginosa* *Staphylococcus aureus* *Salmonella enterica* methicillin resistant *S aureus* (MRSA) vancomycin resistant *Enterococcus faecalis* *Trichophyton mentagrophytes* (athlete's foot) *Listeria monocytogenes* and *Candida albicans* a **sanitizer** against *E coli* (and *E coli* O157 H7) *S aureus* *Salmonella typhimurium* (MDRS) *Klebsiella pneumonia* and *Listeria monocytogenes* a **fungicide** against *Penicillium digitatum* *Botrytis Sp* and *Fusarium solani* and an **algaecide** (*Phormidium boneri*) **Viruses** *Corona virus* *Feline Calicivirus* *Hepatitis A virus* *Human Immunodeficiency virus type 1 (HIV 1)* *Poliovirus 1* *Rotavirus* *Influenza A virus* *Rhinovirus type 37* *Canine Parvovirus* *Adenovirus type 5* *Herpes Simplex virus type 2* *Vaccinia virus* and *Norovirus (feline calici used as testing surrogate)* kills Pandemic 2009 H1N1 Influenza A virus (formerly called swine flu) See Technical Bulletin (page 3) for ATCC designation numbers of the above listed organisms

KEEP OUT OF REACH OF CHILDREN

DANGER

(See back panel for other cautions)

Active Ingredient	
Sodium Chlorite	30.5%
Other Ingredients	69.5%
Total	100.0%

Amount of Chlorine Dioxide generated = 0.05%

Net Weight of contents 0.44 ounces (12.34 grams)

NOTIFICATION
Date Reviewed 12/10/12
Reviewed By L. Evans

FIRST AID

If in Eyes Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses if present after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If on Skin or Clothing 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 Swallowed Call 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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.
If Inhaled Remove victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible. Call a poison control center or doctor for treatment advice. Get medical attention.

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Have the product container or label with you when calling a poison control center, doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 seven days a week, 6:30 am to 4:30 pm Pacific Time (NPIC Web site: www.npic.orst.edu)

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

EPA Registration No. 74986-4 EPA Establishment No. 071441 OH 004

Manufactured for Selective Micro Technologies 4449 Easton Way - 2nd FL Columbus OH 43219 www.selectivemicro.com

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER DRY INGREDIENTS CORROSIVE CAUSES IRREVERSIBLE EYE DAMAGE AND CAUSES SKIN BURNS. HARMFUL IF SWALLOWED. WEAR PROTECTIVE EYEWEAR (GOGGLES, FACE SHIELD OR SAFETY GLASSES) WHEN HANDLING DRY INGREDIENTS. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM, USING TOBACCO OR USING THE TOILET. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE. ACTIVATED SOLUTION CAUSES MODERATE EYE IRRITATION. AVOID CONTACT WITH EYES, SKIN OR CLOTHING. AVOID BREATHING VAPORS. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM OR USING TOBACCO.

PHYSICAL OR CHEMICAL HAZARDS

DRY SODIUM CHLORITE IS INCOMPATIBLE WITH ACIDS, REDUCING AGENTS, COMBUSTIBLE MATERIALS, SULFUR CONTAINING RUBBER, SOLVENTS AND PAINTS. KEEP ACTIVATED SOLUTION FROM LIGHT AND HEAT. CHLORINE DIOXIDE GAS MAY CONCENTRATE IN OPEN SPACE OF POUCH. ALWAYS OPEN ACTIVATED POUCH AND DILUTE ACTIVATED SOLUTION IN WELL VENTILATED AREA. **NOTE For use in the institutional or commercial applications discussed below and in the accompanying Technical Bulletin:** Not for use in households or where young children may be present. Cap is not child resistant.

STORAGE AND DISPOSAL

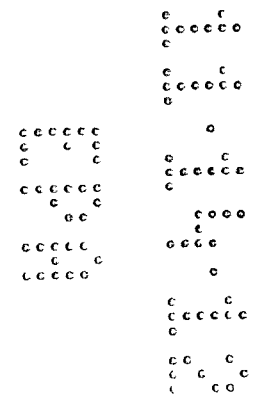
Do not contaminate water food or feed by storage and disposal Store in cool dry ventilated area Store below 50 C (122 F) Keep product out of direct sunlight Store separately from water and acids If package ruptures and contents spill do not permit contact of contents with organic materials (for example clothing or combustible materials) or acids Pesticide wastes are toxic Improper disposal of excess dry pesticide is a violation of Federal Law If this product cannot be used according to label instructions contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA regional office for guidance Nonrefillable container Do not reuse or refill this container Completely empty activated solution in pouch into application equipment Offer for recycling if available or dispose of empty pouch in a sanitary landfill or by incineration or if allowed by State and local authorities by burning If burned stay out of smoke

Warranty Statement The Company warrants the product to be free from defects in material and workmanship THE COMPANY MAKES NO WARRANTY THAT THE GOODS SHALL BE MERCHANTABILITY THE COMPANY MAKES NO WARRANTY EXPRESSED OR IMPLIED EXCEPT SUCH AS IS EXPRESSLY SET FORTH HEREIN The Company shall not be liable for any incidental or consequential damages for any breach of warranty The Company's liability for any breach of warranty shall be limited to the purchase price of the product

When used as directed on hard non porous surfaces (e.g stainless steel brass glass vinyl PVC polypropylene) this product is an effective sanitizer disinfectant virucide fungicide algacide general purpose antimicrobial and cleaner for use in a wide range of applications including but not limited to hospitals medical & veterinary facilities pharmaceutical production facilities including equipment (e.g ultracentrifuges) wineries breweries and beverage / bottling plants laboratories and other clinical settings potable and non potable water systems and attendant equipment & tubing restaurants and food processing plants and greenhouses/horticultural settings Heavily soiled surfaces must be pre cleaned prior to treatment Apply by mop sponge or sprayer ensuring visible wetness for times specified for these applications or apply through immersion or clean in place application Wear a NIOSH/MHSA approved respirator appropriate for chlorine dioxide when using a high pressurized sprayer and under other circumstances detailed in the Technical Bulletin

DIRECTIONS FOR USE IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH THE LABELING READ THE ENTIRE LABEL AND USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND USE

- 1) Fill the pouch with tap water (2 liters) to generate the chlorine dioxide solution
- 2) Wait at least 6 hours before use to ensure solution reaches full strength to reach 500ppm
- 3) Shake gently before use Direct spout away from face when opening work in well ventilated area and avoid inhaling fumes Wear protective gloves if hands will come in contact with activated solution during dilution or application
- 4) See Technical Bulletin for recommendations regarding dilutions and contact times for specific applications Before use verify concentration using Selective Micro Chlorine Dioxide Test Strips to ensure appropriate concentration (see Technical Bulletin for directions if Test Strips indicate lower than desired concentration)
- 5) Activate prior to expiration date stamped on pouch If solution in pouch will not be used up within 48 hours of activation transfer unused solution to a dark oxidation resistant closed or sealed container store dilutions of solution in a sealed container of the same type (see Tech Bulletin for container details) Store original or diluted solutions in cool place out of direct sunlight (do not store in refrigerator dedicated to food storage) Record activation date and concentration on stick on label shipped with pouches and affix to pouch or storage container Use solution and/or subsequent dilutions within 15 days of activating pouch



USE THE FOLLOWING GENERAL DILUTIONS AND TABLE

General Dilution Instructions All dilutions begin with a stock solution at a nominal concentration of 500 ppm except when the product is activated directly to the application concentration (see technical bulletin) Except where otherwise directed or for other use concentrations (see technical bulletin) use the following dilution instructions to achieve the use concentration indicated

To Achieve Use Concentration of	Use Dilution Device or Sprayer With a Dilution Ratio of
100 ppm	1:5 (one part 500 ppm solution to 4 parts water)
50 ppm	1:10 (one part 500 ppm solution to 9 parts water)
20 ppm	1:25 (one part 500 ppm solution to 24 parts water)
5 ppm	1:100 (one part 500 ppm solution to 99 parts water)
0.25 ppm	1:2,000 (one part 500 ppm solution to 1,999 parts water)

Sanitizer for Hard Non Porous Food Contact Surfaces for Hard Non Porous Non Food Contact Surfaces Disinfectant or Virucide For Hard Non Porous Surfaces Disinfectant for Clean in Place Applications for Potable Water Systems Antimicrobial and General Cleaning Applications for Potable Water Systems Antimicrobial Applications for Non Potable Water Systems in Horticultural settings General disinfectant sanitizer algacide and fungicide for horticultural and greenhouse applications Fruit and Vegetable Wash to Extend Freshness and Shelf Life Antimicrobial Applications to control the buildup of microbes in process waters for Fruit and vegetable rinse and associated tanks flumes and lines Antimicrobial Treatment for Poultry Drinking Water Sanitizing final rinse of pre cleaned or new returnable or non returnable containers Antimicrobial and General Cleaning uses for non potable water applications involving recirculating Water systems (e.g cooling towers paper mills and decorative or ornamental fountains)

Please reference Master Label Technical Bulletin for Detailed Use Patterns and Dilution Rates



Selective Micro Technologies

6/24

Selectroocide® -2L500-

Technical Bulletin

Disinfectant/Sanitizer/Virucide*

Fungicide/Algaecide/Slimecide/Deodorizer

EPA Registration No 74986 4

EPA Establishment No 071441 OH 004

Activate *Selectroocide*®2L500 according to "Directions for Use" on pouch label
One pouch, activated as directed, contains two (2) liters of chlorine dioxide solution
at a concentration of 500 ppm Shake pouch gently before use,
and prepare diluted solutions using the table below

Dilution Instructions For *Selectroocide*®2L500

TO PREPARE A FINAL SOLUTION OF THIS CONCENTRATION	DO ANY ONE OF THE FOLLOWING					
	(1)	(2)	(3)	(4)		
	Add One (1) Part Activated Solution to This Many Parts Water	Use Contents of an Activated Pouch of with a Dilution Device set at	Add Entire Contents (2 liters) of the Activated Pouch to This Much Water	Add The Indicated Volume of Activated <i>Selectroocide</i> ®2L500 Solution To Each Liter Gallon or Quart of Water		
				1 Liter	1 Gallon	1 Quart
0.25 ppm	1:999	1:2,000	1.050 gallons (3,998 liters)	0.5 ml	0.7 fl oz	0.2 fl oz
5 ppm	99	1:100	52 gallons (198 liters)	11 ml	1.3 fl oz	0.4 fl oz
20 ppm	24	1:25	12.5 gallons (48 liters)	42 ml	5.4 fl oz	1.4 fl oz
50 ppm	9	1:10	4.75 gallons (18 liters)	112 ml	14.3 fl oz	3.6 fl oz
100 ppm	4	1:5	2.1 gallons (8 liters)	250 ml	32.0 fl oz	8.0 fl oz

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

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

Use solution within 15 days of activation

Storage Store unused solution according to "Directions for Use" on pouch label

Transfer unused solution from pouch to approved storage container within 48 hours of activation

After use, dispose of pouches according to disposal instructions on pouch label

The information and instructions in this Technical Bulletin should not be confused with nor followed in violation of applicable laws, regulations, rules, or insurance requirements.

NO WARRANTY IS MADE EXPRESS OR IMPLIED OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE.

Selective Micro Technologies www.selectivemicro.com

4449 Easton Way 2nd Floor Columbus, OH 43219 Phone 614 934 1339 FAX 614 934 1610

Technical Bulletin 425 12445 007 (Revised 3/12)



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 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 a 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) *Selecticide*® 2L500. 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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4449 Easton Way 2nd Floor Columbus, OH 43219 Phone 614 934 1339 FAX 614 934 1610

Technical Bulletin 425 12445 007 (Revised 3/12)

ATCC (OR OTHER) DESIGNATIONS FOR PATHOGENIC ORGANISMS
 LISTED ON THE LABELS OF REGISTERED SELECTROCIDAL PRODUCTS

—Always Consult Label to Verify Concentrations and Contact Times—

Bacteria (disinfection claims) 100 ppm/10 minute contact time for clean –in place applications

<i>Pseudomonas aeruginosa</i>	ATCC 15442
<i>Staphylococcus aureus</i>	ATCC 6538
<i>Salmonella enterica (choleraesuis)</i>	ATCC 10708
Methicillin resistant <i>Staphylococcus aureus</i> (MRSA)	ATCC 33592
Vancomycin resistant <i>Enterococcus faecalis</i> (VRE)	ATCC 51299
<i>Candida albicans</i>	ATCC 10231
<i>Trichophyton mentagrophytes</i>	ATCC 9533
<i>Listeria monocytogenes</i>	ATCC 19111
<i>Klebsiella pneumonia</i>	ATCC 4352
<i>Mycobacterium bovis</i> (TB)	BCG (Organon Teknika Corporation)

Bacteria (disinfection claims) for 50 ppm/20 minute contact time for clean in place applications

<i>Pseudomonas aeruginosa</i>	ATCC 15442	r c c c c c o
<i>Staphylococcus aureus</i>	ATCC 6538	c c c c c
<i>Salmonella enterica (choleraesuis)</i>	ATCC 10708	c c c c c n o
Methicillin resistant <i>Staphylococcus aureus</i> (MRSA)	ATCC 33592	o c c c c c c c c c c
Vancomycin resistant <i>Enterococcus faecalis</i> (VRE)	ATCC 51299	c c c c c c c c c c c
<i>Candida albicans</i>	ATCC 10231	c c c c c c c c c c c

***Viruses (virucidal claims at 100 ppm/10 minute contact time)**

<i>Coronavirus</i>	ATCC VR 740 Strain 229E	c c c c c c c c c c c
<i>Feline Calicivirus</i>	ATCC VR 782 Strain F 9	c c c c c c c c c c c
<i>Hepatitis A virus</i>	Strain HM 175	c c c c c c c c c c c
<i>Human Immunodeficiency Virus type 1 (HIV 1)</i>	Strain HTLV III _B	c c c c c c c c c c c
<i>Poliovirus 1</i>	ATCC VR 1000 Strain Brunhilde	
<i>Rotavirus</i>	Strain WA	
<i>Influenza A virus</i>	ATCC VR 544 Strain Hong Kong	
<i>Rhinovirus type 37</i>	ATCC VR 1147 Strain 151 1	
<i>Canine Parvovirus</i>	ATCC VR 2017 Strain Cornell	
<i>Adenovirus type 5</i>	ATCC VR 5 Strain Adenoid 75	
<i>Herpes Simplex virus type 2</i>	ATCC VR 734 Strain G	
<i>Vaccinia virus</i>	ATCC VR 119 Strain WR	
<i>Norovirus (feline calicivirus surrogate)</i>	ATCC VR 782 Strain F 9	
Pandemic 2009 H1N1 Influenza A virus	Reference <i>Influenza A virus</i> (above)	

Bacteria (sanitizer claim for hard, non porous food contact surfaces) 5 ppm/1 minute contact time

<i>Staphylococcus aureus</i>	ATCC 6538
<i>Escherichia Coli</i>	ATCC 11229
<i>Escherichia coli O157 H7</i>	ATCC 43895
<i>Salmonella typhimurium</i> (MDRS)	Cl 01005 (University of Maryland)

Bacteria (sanitizer claim for hard, non porous non food contact surfaces) 20 ppm/5 minute contact time

<i>Staphylococcus aureus</i>	ATCC 6538
<i>Klebsiella pneumonia</i>	ATCC 4352
<i>Listeria monocytogenes</i>	ATCC 1911



GENERAL USES

A SANITIZER

FOR HARD, NON POROUS FOOD CONTACT SURFACES

As a sanitizer for stainless steel and other hard, non-porous food contact surfaces such as tanks, transfer lines and other food processing equipment in food processing plants such as poultry, fish & meat and in restaurants, dairies, beverage and bottling plants, breweries, wineries and commissaries

- 1 Activate *Selectrocide*®2L500 according to Directions for Use on pouch label
- 2 Remove all gross food particles and soil prior to sanitizing using a pre flush pre scrape or pre soak treatment
- 3 Clean tank line or surface thoroughly using a suitable detergent and rinse with clean potable water before sanitizing
- 4 Prepare a 5 ppm solution in accordance with instructions above **OR** use the undiluted contents of the activated *Selectrocide*®2L500 pouch with a 1:100 dilution device (one part activated solution to 99 parts water)
- 5 To apply spray mop sponge or swab surfaces **OR** fill flush immerse or circulate in tanks lines and equipment ensuring the target surfaces remain visibly wet for at least one minute. When applying these solutions using a high pressure sprayer wear a NIOSH/MSHA approved respirator appropriate for chlorine dioxide
- 6 After sanitizing allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse sanitized surface
- 7 Dispose of pouch according to instructions on pouch label

FOR HARD, NON POROUS, NON FOOD CONTACT SURFACES

As a sanitizer for non-porous, non-food contact surfaces and equipment such as sealed concrete and sealed, finished wood, backsplashes, counter tops, stainless steel or hard-surface equipment, glazed tile floors, walls, and ceilings

- 1 Activate *Selectrocide*®2L500 according to Directions for Use on pouch label
- 2 Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to sanitizing
- 3 Prepare a 20 ppm solution in accordance with instructions above **OR** use the undiluted contents of the activated *Selectrocide*®2L500 pouch with a 1:25 dilution device (one part activated solution to 24 parts water)
- 4 To apply spray mop or sponge the 20 ppm solution onto the surfaces to be sanitized ensuring the target surfaces remain visibly wet for at least five minutes. When applying these solutions using a high pressure sprayer wear a NIOSH/MSHA approved respirator appropriate for chlorine dioxide
- 5 After sanitizing allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse sanitized surfaces
- 6 Dispose of pouch according to instructions on pouch label

The information and instructions in this Technical Bulletin should not be confused with nor followed in violation of applicable laws regulations rules or insurance requirements
NO WARRANTY IS MADE EXPRESS OR IMPLIED OF MERCHANTABILITY FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE



B DISINFECTANT

To disinfect stainless steel and other hard, non-porous surfaces such as tanks, transfer lines and other food processing equipment in food processing plants such as poultry, fish & meat and in restaurants, dairies, beverage and bottling plants, breweries, wineries and commissaries and to disinfect walls, floors and ceilings

- 1 Activate *Selectrocide*®2L500 according to Directions for Use on pouch label
- 2 Remove all gross food particles and soil prior to disinfecting using a pre flush pre scrape or pre soak treatment
- 3 Clean tank line or surface thoroughly using a suitable detergent and rinse with clean potable water before disinfecting
- 4 Prepare a 100 ppm solution in accordance with instructions above **OR** use the undiluted contents of the activated *Selectrocide*®2L500 pouch with a 1:5 dilution device (one part activated solution to four parts water)
- 5 To apply spray mop sponge or swab surfaces **OR** fill flush immerse or circulate in tanks lines and equipment ensuring the target surfaces remain visibly wet for at least ten (10) minutes When applying these solutions using a high pressure sprayer wear a NIOSH/MSHA approved respirator appropriate for chlorine dioxide
- 6 After disinfecting allow surfaces or equipment to air dry Do not reuse solution Do not rinse disinfected surfaces
- 7 Dispose of pouch according to instructions on pouch label

DISINFECTANT USES IN MEDICAL AND DENTAL OFFICES, LABORATORIES, HOSPITALS, CLINICS, MORGUES AND INSTITUTIONS

This product is not to be used as a terminal sterilant/high-level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into or in contact with the blood stream or normally sterile areas of the body or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body This product may be used to pre-clean or decontaminate critical or semi-critical medical devices prior to sterilization or high-level disinfection

A To disinfect non-porous, hard surfaces such as stainless steel or hard-surface equipment, glazed tile floors, walls, ceilings, stainless steel cold rooms and walk-in incubators

- 1 Activate *Selectrocide*®2L500 according to Directions for Use on pouch label
- 2 Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to disinfection
- 3 Prepare a 100 ppm solution in accordance with instructions above **OR** use the undiluted contents of the activated *Selectrocide*®2L500 pouch with a 1:5 dilution device (one part activated solution to four parts water)
- 4 Spray mop or sponge the 100 ppm solution onto surfaces to be disinfected All surfaces must remain visibly wet for at least ten (10) minutes When applying these solutions using a high pressure sprayer wear a NIOSH/MSHA approved respirator appropriate for chlorine dioxide
- 5 After disinfecting allow surfaces or equipment to air dry Do not reuse solution Do not rinse disinfected surfaces
- 6 Dispose of pouch according to instructions on pouch label

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B To disinfect equipment tops, bench tops, biological hoods, incubators, stainless steel equipment and instruments

- 1 Activate *Selectrocide*[®]2L500 according to Directions for Use on pouch label
- 2 Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to disinfection
- 3 Prepare a 100 ppm solution in accordance with instructions above **OR** use the undiluted contents of the activated *Selectrocide*[®]2L500 pouch with a 1:5 dilution device (one part activated solution to four parts water)
- 4 Spray mop or sponge the 100 ppm solution onto surfaces to be disinfected. All surfaces must remain visibly wet for at least ten (10) minutes. When applying these solutions using a high pressure sprayer wear a NIOSH/MSHA approved respirator appropriate for chlorine dioxide
- 5 After disinfecting allow surfaces or equipment to air dry. Do not reuse solution. Do not rinse disinfected surfaces
- 6 Dispose of pouch according to instructions on pouch label

C To disinfect commercial animal confinement facilities such as poultry houses, swine pens, calf barns and kennels

- 1 Activate *Selectrocide*[®]2L500 according to Directions for Use on pouch label
- 2 Remove all animals and feed from facility to be disinfected
- 3 Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other structures occupied or traversed by animals
- 4 Empty all troughs, racks and other feeding and watering appliances
- 5 Prepare a 100 ppm solution in accordance with instructions above **OR** use the undiluted contents of the activated *Selectrocide*[®]2L500 pouch with a 1:5 dilution device (one part activated solution to four parts water)

FOR GENERAL APPLICATION WITH SPRAYER

- 6 With soap or detergent thoroughly clean all surfaces and rinse with water
- 7 Using a commercial sprayer saturate all surfaces with the solution maintaining visible wetness for a period of at least ten (10) minutes. When applying these solutions using a high pressure sprayer wear a NIOSH/MSHA approved respirator appropriate for chlorine dioxide
- 8 After treatment ventilate buildings, coops or other enclosed spaces before reentering. Do not house poultry or employ equipment until treatment has been absorbed, set or dried

AS A DISINFECTING SOAK

- 6 With soap or detergent thoroughly clean halters, ropes or other types of equipment used in handling and restraining animals and forks, shovels and scrapers used in removing litter and manure. Rinse with water
- 7 Fill container or vat with 100 ppm solution and immerse items for a period of at least ten (10) minutes
- 8 Discard solution in sanitary drain or as ordinary non hazardous waste. Do not reuse solution
- 9 Thoroughly scrub treated feed racks, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse
- 10 Dispose of pouch according to instructions on pouch label

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DISINFECTANT FOR BEVERAGE AND WATER SYSTEMS AND LINES

To disinfect lines, holding tanks and other equipment used in fountain drink or other beverage preparation, storage, transfer and dispensing operations or to disinfect the lines and storage tanks of potable water storage systems aboard aircraft, boats and RVs (clean-in-place applications)

Prior to disinfecting clean tanks and flush thoroughly with clean potable water

FOR A TEN (10) MINUTE OR LONGER DISINFECTION

- 1 Activate *Selectrocide*®2L500 according to Directions for Use on pouch label
- 2 Prepare a 100 ppm solution in accordance with instructions above **OR** use the undiluted contents of the activated *Selectrocide*®2L500 pouch with a 1:5 dilution device (one part activated solution to four parts water) **OR** add the entire contents of one *Selectrocide*®2L500 pouch for each 8 liters (2.0 gallons) of water added to the tank
- 3 **Fill tank completely with 100 ppm solution** Run solution through transfer lines and appliances until green solution appears at the outlets. Top off tank with solution. Circulate or let stand in tank and lines for at least ten (10) minutes
- 4 Drain tanks and lines. Rinse with potable water
- 5 Dispose of pouch(es) according to instructions on pouch label

FOR A TWENTY (20) MINUTE OR LONGER DISINFECTION

- 1 Activate *Selectrocide*®2L500 according to Directions for Use on pouch label
- 2 Prepare a 50 ppm solution in accordance with instructions above **OR** use the undiluted contents of the activated *Selectrocide*®2L500 pouch with a 1:10 dilution device (one part activated solution to nine parts water) **OR** add the entire contents of one *Selectrocide*®2L500 pouch for each 18 liters (4.75 gallons) of water added to the tank
- 3 **Fill tank completely with 50 ppm solution** Run solution through transfer lines and appliances until green solution appears at the outlets. Top off tank with solution. Circulate or let stand in tank and lines for at least twenty (20) minutes
- 4 Drain tanks and lines. Rinse with potable water
- 5 Dispose of pouch(es) according to instructions on pouch label

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ANTIMICROBIAL AND GENERAL CLEANING APPLICATIONS FOR WATER LINES AND TANKS IN POTABLE WATER SYSTEMS

This product will reduce microbial populations in the potable water holding tanks and lines of recreational vehicles (RV) and boats, in marine and RV wastewater tanks and lines, and fountain drink or other beverage preparation, storage, transfer and dispensing lines and equipment, and in coolers, thermoses, plastic water bottles, and other water-storing and dispensing systems used for picnics, camping, and other recreational activities. In addition, it will clean, eliminate odors, and remove organic matter. These uses must be followed by a potable water rinse.

NOTE If the tank system is cleaned frequently then consider the level of contamination to be **low to moderate**. If the tank system is used heavily, notably fouled, cleaned irregularly, or going into or coming out of overwintering, then consider the tank(s) level of contamination to be **high**.

1. Based on the judged level of contamination (see box above) determine the number of pouches of *Selectrocide*®2L500 necessary to clean the drinking water system in accordance with the table below. Consider all interconnected tanks in the system as one. [For example: A system with two 80 gallon tanks has a total capacity of 160 gallons. At low to moderate contamination use two (2) *Selectrocide*®2L500 pouches; at high levels of contamination use four (4) pouches.]
2. Activate the *Selectrocide*®2L500(s) according to Directions for Use on pouch label.
3. Drain all water tanks completely. Then refill tanks with water to approximately 10% of their capacity (for example a 100 gallon tank should be filled with 10 gallons of water).
4. After the six hour activation time add the contents from the number of pouches calculated in instruction #1 to the water tanks. **Do not add additional water. Do not refill tank. Close the tank.**

FOR TANKS OF THIS OVERALL SIZE		FILL WITH APPROXIMATELY THIS MUCH WATER (≈ 10% of capacity)	FOR LOW TO MODERATE LEVELS OF CONTAMINATION USE THIS NUMBER OF ACTIVATED POUCHES	FOR HIGH LEVELS OF CONTAMINATION OF USE THIS NUMBER OF ACTIVATED POUCHES
More than	Less Than			
5 gallons	50 gallons	19 liters/5 gallons	1	1
50 gallons	100 gallons	38 liters/10 gallons	1	2
100 gallons	150 gallons	56 liters/15 gallons	1	3
150 gallons	200 gallons	75 liters/20 gallons	2	4
200 gallons	250 gallons	95 liters/25 gallons	2	5
250 gallons	300 gallons	113 liters/30 gallons	2	6
300 gallons	350 gallons	132 liters/35 gallons	2	7
350 gallons	400 gallons	151 liters/40 gallons	3	8
400 gallons	500 gallons	190 liters/50 gallons	3	10

5. Circulate the diluted *Selectrocide*®2L500 solution through all lines and between tanks using the system's pumps.
6. Run approximately 6 ounces of the *Selectrocide*®2L500 solution through each outlet (faucet, shower, etc.) and let the solution stand in the tanks and lines **OVERNIGHT**.
7. The next day flush the *Selectrocide*®2L500 solution through all faucets and outlets until the tanks are empty.
8. Refill the tanks with rinse water to approximately 10% of their capacity (10 gallons per 100 gallons capacity).
9. Circulate the water and flush rinse water through all faucets and outlets until tanks are empty.
10. Tanks are now cleaned and can be refilled for use or left empty for storage.
11. Dispose of pouch(es) according to instructions on the pouch label.

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HORTICULTURAL DISINFECTANT, SANITIZER, ALGAECIDE, FUNGICIDE AND SLIME REMOVER/INHIBITER

Treats/Controls/Inhibits Algae (*Phormidium boneri*) and Fungi (*Penicillium digitatum*, *Botrytis sp*, *Fusarium solani*, *Pythium aphanidermatum*, *Pythium irregulare*, *Fusarium oxysporum f sp basilicum* (*Fob*))

This product when used as directed

- (1) disinfects non porous hard surfaces pots flats flower buckets and cutting tools
- (2) sanitizes non porous hard surfaces racks stands work areas benches and cutting tools
- (3) removes or inhibits (under continuous treatment) re establishment of slime in irrigation/transfer lines and systems
- (4) treats controls and prevents build ups of soil borne plant diseases and other algae fungi and attendant slimes on soils used to grow nursery stocks bedding plants flowering plants and ornamentals on cut flowers and other cuttings seedlings and seeds and on and within greenhouse equipment and structures such as irrigation/transfer lines and systems pots floors ventilation ducts and equipment storage rooms growing tables evaporative coolers plastics benches and flower pots and
- (5) controls bacterial counts maintains freshness and extends shelf life for cut flowers

NOTE Do not use at concentrations higher than those recommended for each application When applied carefully to plants seeds cuttings or flowers as directed *Selectrocide*®2L500 does not cause adverse cosmetic effects as testing has demonstrated However testing has not been performed on EVERY plant species and users are advised to spot test *Selectrocide*®2L500 before applying it widely

Active solution may be irritating if breathed If applying solution inside greenhouse or enclosed area using a high pressure sprayer, wear a NIOSH/MSHA approved respirator appropriate for chlorine dioxide after treatment, ventilate greenhouse before reentering

A To disinfect non-porous hard surfaces, including stainless steel, glazed tile, sealed concrete and sealed, finished wood used in horticultural applications

- 1 Activate *Selectrocide*®2L500 according to Directions for Use on pouch label
- 2 Pre clean all surfaces prior to application of disinfectant solution Sweep and remove all plant debris Use power sprayer to wash all surfaces to remove loose dirt
- 3 Prepare solutions in indicated concentrations and ensure surfaces are wetted and remain visibly wet for the times noted below in the instructions associated with the desired application Dispose of pouch according to instructions on pouch label

FOR WORK AREAS, BENCHES AND EVAPORATIVE COOLERS

- 4 Prepare a 100 ppm solution in accordance with the instructions above **OR** use the undiluted contents of the activated *Selectrocide*®2L500 solution with a 1:5 dilution device (one part activated solution to four parts water)
- 5 Spray or swab work area and bench surfaces before each work period and again after each planting is completed to help control the transfer of diseases Spray or swab evaporative cooler surfaces ensuring visible wetness for at least ten (10) minutes When applying these solutions using a high pressure sprayer wear a NIOSH/MSHA approved respirator appropriate for chlorine dioxide



FOR POTS, FLATS, FLOWER BUCKETS AND CUTTING TOOLS

FOR A TEN (10) MINUTE OR LONGER DISINFECTION

- 4 Prepare a 100 ppm solution in accordance with the instructions above **OR** use the undiluted contents of the activated *Selectrocide*®2L500 solution with a 1:5 dilution device (one part activated solution to four parts water)
- 5 Brush or wash used pots and flats and then soak in the 100 ppm solution for at least ten (10) minutes before reuse to help control transfer of diseases. Soak tools with 100 ppm solution for at least ten (10) minutes to help control the transfer of disease
- 6 Discard solution in sanitary drain or as ordinary non hazardous waste. Do not reuse solution

At end of workday dry and oil tools

FOR A TWENTY (20) MINUTE OR LONGER DISINFECTION

- 4 Prepare a 50 ppm solution in accordance with the instructions above **OR** use the undiluted contents of the activated *Selectrocide*®2L500 solution with a 1:10 dilution device (one part activated solution to nine parts water)
- 5 Brush or wash used pots and flats and then soak in the 50 ppm solution for at least twenty (20) minutes before reuse to help control transfer of diseases. Soak tools with 50 ppm solution for at least twenty (20) minutes to help control the transfer of disease
- 6 Discard solution in sanitary drain or as ordinary non hazardous waste. Do not reuse solution

At end of workday dry and oil tools

B To sanitize work area non-porous (non-food contact) hard surfaces, hard-surface benches, pots, flats, flower buckets and cutting tools

- 1 Activate *Selectrocide*®2L500 according to Directions for Use on pouch label
- 2 Pre clean all surfaces prior to application of sanitizing solution. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt
- 3 Prepare a 20 ppm solution in accordance with the instructions above **OR** use the undiluted contents of the activated *Selectrocide*®2L500 solution with a 1:25 dilution device (one part activated solution to 24 parts water)
- 4 Brush or wash used pots and flats then swab or soak in the 20 ppm solution for at least five (5) minutes before reuse to help control transfer of diseases. Spray swab or soak tools with 20 ppm solution for at least five (5) minutes to help control the transfer of disease. Spray or swab work area and bench surfaces before each work period and again after each planting is completed to help control the transfer of diseases. If applying these solutions using a high pressure sprayer wear a NIOSH/MSHA approved respirator appropriate for chlorine dioxide. If soaking discard solution in sanitary drain or as ordinary non hazardous waste do not reuse solution
- 5 Dispose of pouch according to instructions on pouch label

At end of workday dry and oil tools

C As a dip to control and suppress bacteria (*Erwinia chrysanthemi*), algae (such as *Phormidium boneri*) and fungi (such as *Penicillium digitatum*, *Botrytis sp* , and *Fusarium solani*) on rooted and unrooted cuttings and cut flowers

- 1 Activate *Selectrocide*®2L500 according to Directions for Use on pouch label
- 2 Prepare a 5 ppm solution in accordance with the instructions above **OR** use the undiluted contents of the activated *Selectrocide*®2L500 solution with a 1:100 dilution device (one part activated solution to 99 parts water)
- 3 Briefly dip cuttings or cut flowers and ensure they remain visibly wet with solution for at least one minute
- 4 Dispose of pouch according to instructions on pouch label

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D As a dip or drench to control and suppress bacteria (*Erwinia chrysanthemi*), algae (*Phormidium boneri*) and fungi (*Penicillium digitatum*, *Botrytis sp*, *Fusarium solani*, *Pythium aphanidermatum*, *Pythium irregulare*, *Fusarium oxysporum f sp Basilicum (Fob)*) in seed-bed soil and planting cubes

- 1 Activate *Selective Micro®Clean Alpha* according to Directions for Use on the pouch label
- 2 Prepare a 5 ppm solution in accordance with the instructions above **OR** use the undiluted contents of the activated *Selective Micro®Clean Alpha* solution with a 1:100 dilution device (one part activated solution to 99 parts water)
- 3 Immerse or drench seed bed soil or planting cubes and allow to remain visibly wet with solution for ten (10) minutes
- 4 Dispose of pouch according to instructions on pouch label

Soil or planting cubes can be seeded or planted immediately after treatment

E For removing slime and retarding its reemergence, for antimicrobial applications involving algae (*Phormidium boneri*) and fungi (*Penicillium digitatum*, *Botrytis sp*, *Fusarium solani*, *Pythium aphanidermatum*, *Pythium irregulare*, *Fusarium oxysporum f sp Basilicum (Fob)*), and for continuous treatment to inhibit their re-establishment in irrigation systems, flood floors, flooded berchês, misting systems, humidification systems, recycled water systems and capillary mats

- 1 Activate *Selectrocide®2L500* according to Directions for Use on pouch label
- 2 Pre clean all surfaces prior to application of disinfectant solution Sweep and remove all plant debris Use power sprayer to wash all surfaces to remove loose dirt
- 3 Prepare solutions in indicated concentrations and ensure surfaces are wetted and remain visibly wet for the times or are applied continuously as noted below Dispose of pouch according to instructions on pouch label

AS AN INITIAL OR REMEDIAL TREATMENT TO DISINFECT WATER HOLDING TANKS AND LINES (CLEAN IN PLACE APPLICATION)

- 4 Flush tank thoroughly with clean water
- 5 Prepare a 50 ppm solution in accordance with the directions above **OR** use the undiluted contents of the activated *Selectrocide®2L500* solution with a 1:10 dilution device (one part activated solution to nine parts water)
- 6 Fill tank completely Run solution through irrigation/transfer lines and appliances until green solution appears at the outlets Top off tank with solution Circulate or let stand in tank and lines for at least twenty (20) minutes
- 7 Drain tanks and lines flush with clean water and resume normal operation

AS AN INITIAL OR REMEDIAL TREATMENT TO DISINFECT AND REMOVE SLIME, ALGAE AND FUNGI FROM WATER HOLDING TANKS AND IRRIGATION/TRANSFER LINES (CLEAN IN PLACE APPLICATION)

- 4 Flush tank thoroughly with clean water
- 5 Prepare a 50 ppm solution in accordance with the directions above **OR** use the undiluted contents of the activated *Selectrocide®2L500* solution with a 1:10 dilution device (one part activated solution to nine parts water)
- 6 Fill tank completely Run solution through irrigation/transfer lines and appliances until green solution appears at the outlets Top off tank with solution Circulate or let stand in tank and lines overnight (12 hours)
- 7 Drain tanks and lines flush with clean water and resume normal operation

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FOR CONTINUOUS TREATMENT TO INHIBIT THE RE ESTABLISHMENT OF SLIME, ALGAE, AND FUNGI

- 4 Dilute the 500 ppm solution to 0.25 ppm using a 1:2000 dilution device **OR** by adding one part 500 ppm solution to 1999 parts water
- 5 Use the 0.25 ppm solution to operate the water system following normal application procedures

NOTE Use ultra low range *Selective Micro*[®] *Chlorine Dioxide Test Strips* to verify concentration at downstream production points. Organic loads vary across water supplies and will influence injection level necessary to ensure 0.25 ppm concentrations at emitter hoses, mist nozzles, and drip tubes.

F As an algacide and fungicide for treating, preventing, suppressing and controlling horticultural diseases on hard, non-porous surfaces in commercial greenhouses, garden centers and nurseries

- 1 Activate *Selectrocide*[®]2L500 according to Directions for Use on pouch label
- 2 Pre clean all non plant surfaces prior to application of solution. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
- 3 Prepare solutions in indicated concentrations and ensure all surfaces are wetted and remain visibly wet for the times noted below.
- 4 Dispose of pouch according to instructions on pouch label.

AS AN INITIAL OR REMEDIAL TREATMENT TO KILL ALGAE AND FUNGI ON HARD NON POROUS SURFACES ON EQUIPMENT, GREENHOUSE STRUCTURES, GLAZING, PLASTIC, BENCHES, WALKWAYS, FLOORS, WALLS, FAN BLADES, VENTILATION DUCTS, WATERING SYSTEMS, COOLERS AND STORAGE ROOMS

- 5 Prepare a 5 ppm solution in accordance with the instructions above **OR** use the undiluted contents of the activated *Selectrocide*[®]2L500 solution with a 1:100 dilution device (one part activated solution to 99 parts water)
- 6 Apply solution with mop, sponge or sprayer. When applying these solutions using a high pressure sprayer, wear a NIOSH/MSHA approved respirator appropriate for chlorine dioxide.
- 7 Visibly wet all surfaces and ensure the surfaces remain visibly wet for at least one hour.

Note: Heavy growths of algae or fungi may require scrubbing to remove dead growth.

AS A WEEKLY PREVENTATIVE TREATMENT TO KILL, CONTROL AND SUPPRESS FUNGI AND CONTROL AND SUPPRESS ALGAE ON HARD NON POROUS SURFACES ON EQUIPMENT, GREENHOUSE STRUCTURES, GLAZING, PLASTIC, BENCHES, WALKWAYS, FLOORS, WALLS, FAN BLADES, VENTILATION DUCTS, WATERING SYSTEMS, COOLERS AND STORAGE ROOMS

- 4 Prepare a 5 ppm solution in accordance with the instructions above **OR** use the undiluted 500 ppm with a 1:100 dilution device (one part activated solution to 99 parts water)
- 5 Apply solution with mop, sponge or sprayer. When applying these solutions using a high pressure sprayer, wear a NIOSH/MSHA approved respirator appropriate for chlorine dioxide. Visibly wet all surfaces and ensure the surfaces remain visibly wet for at least one hour (kill/cidal) and at least one minute (suppression).

G As a dip to control and suppress bacteria (*Erwinia chrysanthemi*) on cuttings and cut flowers

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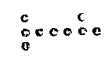


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- 1 Activate *Selective Micro® Clean Alpha* according to Directions for Use on pouch label
- 2 Prepare a 5 ppm solution in accordance with the instructions above **OR** use the undiluted contents of the activated *Selective Micro® Clean Alpha* pouch with a 1:100 dilution device (one part 500 ppm solution to 99 parts water)
- 3 Briefly dip cuttings or cut flowers and ensure they remain visibly wet with solution for at least one minute
- 4 Dispose of pouch according to instructions on pouch label

H To maintain freshness and extend shelf-life for cut flowers

- 5 Activate *Selectrocide® 2L500* according to Directions for Use on pouch label
- 6 Prepare a 5 ppm solution in accordance with instructions above **OR** use the undiluted contents of the activated *Selectrocide® 2L500* pouch with a 1:100 dilution device (one part 500 ppm solution to 99 parts water)
- 3 Unbundle the flowers to preclude bunching and place in vase on display or in cold storage in the 5 ppm solution of chlorine dioxide. Solution may include 2% sucrose
- 4 Refresh solution every 24 hours
- 5 Dispose of pouch according to instructions on pouch label



TO EXTEND SHELF-LIFE AND FRESHNESS OF FRUITS AND VEGETABLES IN FOOD PROCESSING FACILITIES

THIS PRODUCT WILL REDUCE CONCENTRATIONS OF SPOILAGE MICROBES ON RAW AGRICULTURAL COMMODITIES (RACS) INTENDED FOR COMMERCIAL FOOD PROCESSING

- 1 Activate *Selectrocide® 2L500* according to Directions for Use on the pouch label
- 2 Wash and thoroughly rinse fruits and vegetables with clean potable water
- 3 Prepare a 5 ppm solution of activated *Selectrocide® 2L500* **OR** use the 500 ppm solution with a 1:100 dilution device (one part 500 ppm solution to 99 parts water)
- 4 Apply to fruits and vegetables by either immersing/dipping in a tank of 5 ppm solution for one minute **OR** using an application specific sprayer (the industry standard fan or cone spray nozzle pattern) to cover all surfaces evenly with a 5 ppm spray. Replenish immersion solution at the rate of depletion. Verify 5 ppm concentration using *Selective Micro® Chlorine Dioxide Test Strips*. Empty and wash immersion tanks with every shift change.
- 5 Follow application to fruits and vegetables with a potable water rinse or canning, blanching, or cooking.
- 6 Dispose of pouch according to instructions on pouch label

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ANTIMICROBIAL APPLICATIONS TO CONTROL THE BUILDUP OF MICROBES IN PROCESS WATERS FOR FRUITS AND VEGETABLES AND ASSOCIATED TANKS, FLUMES, AND LINES

This product will inhibit microbial growth in water used to process fruits and vegetables. Appropriate for small-volume applications only, use *Selectrocide*® G-Series products for normal- and large-volume process water applications.

- NOTE 1** Replacement and replenishment intervals will vary with microbial challenge presented by fruits and vegetables treated. Selective Micro Technologies recommends a beginning concentration of 5 ppm, with adjustments to ensure a residual concentration between 0.25 and 5 ppm depending on microbial challenge and operation unique factors.
- 2** Apply chlorine dioxide solution continuously or intermittently to achieve a residual concentration level between 0.25 – 5.0 ppm.
- 3** Regularly confirm concentration of process water using *Selective Micro*® Chlorine Dioxide Test Strips or other measurement means (e.g., Oxidation Reduction Potential [ORP] metering).

1. At regular intervals or before beginning a shift, clean tanks, flumes, and lines using normal procedures and follow with potable water rinse. [In conditions of severe microbial accumulation (or when slime is visible), it is advisable to treat the thoroughly cleaned system with an antimicrobial treatment before returning the system to normal operation. See *Selectrocide*®'s Antimicrobial and General Cleaning Applications for Water Lines and Tanks in Potable Water Systems for recommendations on cleaning tanks that are contaminated severely.]
2. Determine the number of *Selectrocide*® 2L500 pouches necessary based on the capacity of the tank or system, anticipated replenishment/replacement cycle based on expected microbial loads, and specific application method—once through or recycled. The optimal concentration necessary to ensure a residual concentration of between 0.25 and 5.0 ppm will vary across operations.

For once through process designs, generate *Selectrocide*® 2L500 directly to the desired end concentration in the system's operating tank (recommended) OR generate stock 500 ppm external to the tank and meter the stock solution in adequate volume to raise the volumes of process water to the desired concentration via mechanical injection (recommended) or by batch loading.

For recycle process designs, generate stock 500 ppm solution external to the tank and inject activated solution in sufficient volume to raise the process water to the desired concentration via mechanical injection (recommended) or by batch loading.

Consult pages 1-2 of this Technical Bulletin for dilution instructions or scale to application using the table below, which presents as a starting point. The total volume of stock 5 ppm solution generated using multiple pouches of *Selectrocide*® 2L500. Because the volume of 5 ppm solution achievable using the 2L500 is small, this product will be useful only for the smallest volume applications. Use *Selectrocide*® G Series products for normal and large volume process water applications.

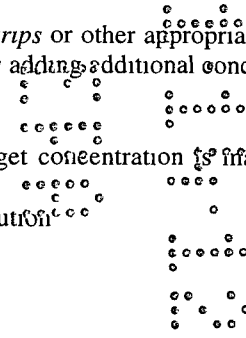


**VOLUME OF 5 PPM SOLUTION USING
SELECTROCIDE®2L500 POUCHES**

Number of Selectrocide®2L500 Pouches	Volume of Water Specified To Generate 500 ppm Stock Solution	Volume of 5 ppm Solution Created Using a Single Selectrocide® Pouch	
		Liters	Gallons ¹
1	2	200	55
2	4	400	105
3	6	600	160
4	8	800	210
5	10	1 000	265

1 rounded to nearest 5 gallons

- 3 Activate *Selectrocide*®2L500 according to Directions for Use on package label
- 4 Prepare a 5 ppm solution of activated *Selectrocide*®2L500 directly in accordance with instructions above OR prepare a 500 ppm solution with any of the G series products and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water) to achieve target concentration of 5 ppm
- 5 Verify concentration of process solution using *Selective Micro*® Chlorine Dioxide Test Strips or other appropriate means. Adjust concentration by adding additional water if the concentration is above 5 ppm or by adding additional concentrate if below 5 ppm (or below desired concentration between 0.25 and 5.0 ppm)
- 6 Cover or enclose containers holding solution and operate normally
- 7 Check concentration at regular intervals using test strips or other means to ensure target concentration is maintained. Replenish solution as necessary to maintain target concentration
- 8 At desired intervals drain system clean as necessary and refill with freshly activated solution
- 9 Dispose of pouch according to instructions on pouch label



ANTIMICROBIAL TREATMENT FOR POULTRY DRINKING WATER

This product will help control microorganisms in drinking water intended for poultry

A For systems that use automatic, on-demand metering/injection systems designed primarily for poultry (i.e., systems employing nipples or drip wells as the final water delivery device/method, usually situated in enclosed or protected structures)

- 1 Activate *Selectrocide*®2L500 according to Directions for Use on product label
- 2 If activation vessel is different from feeder tank transfer stock solution (500 ppm) to feeder tank. To maintain concentration ensure that feeder tank is covered
- 3 Operate system according to standard operating protocol using a 1:100 injection device (one part solution to 99 parts water) for a concentration of 5 ppm

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Selective Micro Technologies

- 4 Confirm concentrations of stock solution (500 ppm) and end use solution up to 5 ppm but not less than an application concentration sufficient to ensure a residual concentration of 0.25 ppm using *Selective Micro® Chlorine Dioxide Test Strips*
- 5 Dispose of pouch according to instructions on pouch label

Note Clean and remove accumulations of organic matter in delivery lines on a regular basis (See for example label and technical bulletin instructions for this product under the heading Antimicrobial and General Cleaning Applications for Potable Water Systems)

B For trough-based systems

Use products from the *Selectrocid® G Series* for these large volume applications

SANITIZING FINAL RINSE OF PRE-CLEANED OR NEW RETURNABLE OR NON-RETURNABLE CONTAINERS

This product may be used as a final sanitizing rinse for plastic, glass or metal returnable and non-returnable bottles, cans, caps, kegs, and beverage containers

- 1 Activate Selectrocid®2L500 according to Directions for Use on pouch label
- 2 Wash bottles cans or containers with detergent or cleaning solution and rinse with potable water
- 3 Starting with the 500 ppm solution use a 6:100 dilution device (six parts 500 ppm solution to 94 parts water) to achieve an application concentration of 30 ppm The table below presents the number of 2L500 pouches necessary to produce the associated volume of 30 ppm application solution

VOLUME OF 30 PPM SOLUTION USING SELECTROCID®2L500 POUCHES

Number of Selectrocid®2L500 Pouches	Volume of Water Specified To Generate 500 ppm Stock Solution	Volume of 30 ppm Solution Created Using a Single Selectrocid® Pouch	
		Liters ¹	Gallons ¹
1	2	33	8.8
2	4	67	17.6
3	6	100	26.4
4	8	133	35.2
5	10	167	44.0

¹ Rounded to nearest liter or tenths of gallon

- 4 To apply rinse interior and exterior surfaces with the 30 ppm solutions by spraying sponging swabbing or swirling or immersing in a manner that ensures the target surfaces become visibly wet for a contact time of 30 seconds (including drying time) (If applying these solutions using a high pressure sprayer wear a NIOSH/MSHA approved respirator appropriate for chlorine dioxide)

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- 5 Allow to drain dry

NOTE Use products from the *Selectocide*® G Series for larger volume applications

ANTIMICROBIAL AND GENERAL CLEANING USES FOR NON-POTABLE WATER APPLICATIONS INVOLVING RECIRCULATING WATER SYSTEMS (E G , COOLING TOWERS, PAPER MILLS, AND DECORATIVE OR ORNAMENTAL FOUNTAINS)

This product will help remove, control and inhibit reemergence of slimes, algae, fungi, and other organic buildups in recirculating cooling water systems, including cooling towers and decorative or ornamental fountains. It can be used as a periodic treatment or during continuous operations in antimicrobial applications involving algae, fungi or bacteria.

- 1 Activate *Selectocide*®2L500 according to Directions for Use on package label
- 2 Prepare a 500 ppm solution of activated *Selectocide*®2L500 in accordance with label instructions
- 3 Where possible pre clean surfaces prior to application. Flush tanks or water system with clean water
- 4 Apply/add the 500 ppm solution to the tank water or water stream at a point in the system of in a manner which minimizes turbulence and exposure to the air
- 5 Dispose of pouch according to instructions on pouch label

AS AN INITIAL OR REMEDIAL TREATMENT FOR RECIRCULATING COOLING WATER SYSTEMS, WATER HOLDING TANKS AND DECORATIVE AND ORNAMENTAL FOUNTAINS

- 6 For each 55 gallons of cooling or fountain water add the contents of a single pouch of activated *Selectocide*®2L500 solution (2 liters at 500 ppm) to achieve a 5 ppm residual chlorine dioxide level. Circulate water in normal operation of the system
- 7 Check residual chlorine dioxide concentration using *Selective Micro*® Chlorine Dioxide Test Strips. If residual chlorine dioxide concentration is below 5 ppm add additional 500 ppm solution until solution reaches 5 ppm verify with *Test Strips*
- 8 Repeat daily until desired results are achieved

FOR CONTINUOUS TREATMENT TO INHIBIT THE RE ESTABLISHMENT OF SLIME, ALGAE, OR FUNGI

- 6 For each 550 gallons of cooling or fountain water add the contents of a single pouch of activated *Selectocide*®2L500 solution (2 liters at 500 ppm) to achieve a residual chlorine dioxide concentration of approximately 0.5 ppm. Circulate water in normal operation of the system
- 7 Check residual chlorine dioxide concentration using *Selective Micro*® Chlorine Dioxide Test Strips. If residual chlorine dioxide concentration falls below 0.1 ppm add more 500 ppm solution (about 1 gallon of the 500 ppm solution for each 1,000 gallons of cooling or fountain water) to increase the residual chlorine dioxide concentration to about 0.5 ppm. Verify concentration with *Test Strips*

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INSTRUCTIONS WHEN USING A DOSING PUMP AS AN INITIAL OR REMEDIAL TREATMENT FOR RECIRCULATING COOLING WATER SYSTEMS, WATER HOLDING TANKS AND DECORATIVE AND ORNAMENTAL FOUNTAINS

- 6 For each 55 gallons of cooling or fountain water add the contents of a single pouch of activated *Selectroicide*[®]2L500 solution (2 liters at 500 ppm) to achieve a 5 ppm residual chlorine dioxide level. Circulate water in normal operation of the system
- 7 Check residual chlorine dioxide concentration using *Selective Micro*[®]*Chlorine Dioxide Test Strips*. If residual chlorine dioxide concentration is below 5 ppm, add additional 500 ppm solution until solution reaches 5 ppm, verify with *Test Strips*
- 8 Repeat daily until desired results are achieved

INSTRUCTIONS WHEN USING A DOSING PUMP FOR CONTINUOUS TREATMENT TO INHIBIT THE RE ESTABLISHMENT OF SLIME, ALGAE, OR FUNGI

- 6 Set the dosing pump to achieve a continuous concentration of chlorine dioxide between 0.25 ppm and 0.5 ppm. In order to maintain this concentration and the appropriate dosing, consider the volume of water in the system, half life (makeup/blowdown rate), evaporative rate and windage loss of the system.
- 7 Check residual chlorine dioxide concentration using *Selective Micro*[®]*Chlorine Dioxide Test Strips*. If residual chlorine dioxide concentration falls below 0.25 ppm, increase the dosage rate.

FOR PERIODIC TREATMENT TO INHIBIT THE RE ESTABLISHMENT OF SLIME, ALGAE, OR FUNGI

- 6 For each 550 gallons of cooling or fountain water add the contents of a single pouch of activated *Selectroicide*[®]2L500 solution (2 liters at 500 ppm) to achieve approximately 0.5 ppm residual chlorine dioxide concentration. Circulate water in normal operation of the system. Check residual chlorine dioxide concentration using *Selective Micro*[®]*Chlorine Dioxide Test Strips*
- 7 Repeat weekly or on first indications of increased slime, algae or fungi

DISINFECTION, SANITIZING, ANTIMICROBIAL AND GENERAL CLEANING APPLICATIONS FOR WINERIES

This product will disinfect, sanitize, and clean winemaking equipment and environmental surfaces in wineries. It is effective against microbes and spoilage organisms on all non-porous surfaces including picking bins, crushers, transfer lines/hoses/pipes, tanks, drains, pumps, presses, de-stemmers, sealed concrete floors and walls, steel cutting boards/surfaces, sumps, valves and tri-clover fittings, pruning shears, and steel wine barrels.

- NOTE 1** For additional information on label applications or to discuss other winery specific application issues, contact Selective Micro Technologies' service personnel
- 2** This product does not produce Trichloroanisol (TCA) or precursor Trichlorophenol (TCP) by chemical reaction in red wine or in cooperage oak, and therefore does not contribute to the off odors associated with the former

A Disinfecting and sanitizing applications for winery equipment and environmental surfaces (including all non-porous materials and surfaces, such as transfer hoses and pipes, and other items listed above)

- 1 Activate *Selectrocide*®2L500 according to Directions for Use on package label
- 2 **Disinfecting Applications** For disinfecting applications prepare a 100 ppm solution of activated *Selectrocide*®2L500 directly in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*®2L500 and use a 1:5 dilution device (one part 500 ppm solution to 4 parts water)
Sanitizing Applications on hard, food contact surfaces For sanitizing applications on hard food contact surfaces prepare a 5 ppm solution of activated *Selectrocide*®2L500 directly in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*®2L500 and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water)
Sanitizing Applications on hard, non food contact surfaces For sanitizing applications on hard non food contact surfaces prepare a 20 ppm solution of activated *Selectrocide*®2L500 directly in accordance with instructions above OR prepare a 500 ppm solution of *Selectrocide*®2L500 and use a 1:25 dilution device (one part 500 ppm solution to 24 parts water)
- 3 Apply to target surfaces with mop, sponge or spray OR fill, flush, immerse or circulate in tanks, lines and equipment ensuring surfaces remain visibly wet for the following contact times:

— Disinfection (100 ppm)	10 minutes
— Sanitizing hard food contact surfaces (5 ppm)	1 minute
— Sanitizing hard non food contact surfaces (20 ppm)	5 minutes
- 4 Dispose of pouch according to instructions on pouch label

B For sanitizing and cleaning tanks and associated connections, pipes, and hoses

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