



SELECTROCIDE™1G
[5G, 12G]
Technical Bulletin 2005 – 01G
Disinfectant/Sanitizer/Tuberculocide/Virucide
Fungicide/Algaecide/Slimicide/Deodorizer

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

Use the following number of envelopes to prepare a 500 ppm solution of chlorine dioxide in the indicated volume of water inside a closed container:

For this concentration of chlorine dioxide	In this Volume of Water		Immerse this number of <i>Selectrocide™1G</i> envelopes for at least six (6) hours	Immerse this number of <i>Selectrocide™5G</i> envelopes for at least ten (10) hours	Immerse this number of <i>Selectrocide™12G</i> envelopes for at least twelve (12) hours
	Gallons	Liters			
500 ppm	0.5	2	1		
500 ppm	1	4	2		
500 ppm	2.5	10	5	1	
500 ppm	5	20	10	2	
500 ppm	6	24			1
500 ppm	10	40		4	
500 ppm	12	48			2
500 ppm	15	60		6	
500 ppm	18	72			3
500 ppm	30	120			5
500 ppm	50*	190			8

*For use especially in a 55-gallon drum

(Alternative dilution concentrations to targeted end-concentrations appear on the next page.)

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Alternatively, use the following volumes of water to achieve the desired concentrations of chlorine dioxide inside a closed container:

For this concentration of chlorine dioxide	Immerse the <i>Selectrocide</i> TM 1G in this amount of clean, potable water for at least six (6) hours	Immerse the <i>Selectrocide</i> TM 5G in this amount of clean, potable water for at least ten (10) hours	Immerse the <i>Selectrocide</i> TM 12G in this amount of clean, potable water for at least twelve (12) hours
100 ppm	10 liters	50 liters	120 liters
100 ppm	2.6 gallons	13.0 gallons	31.2 gallons
50 ppm	20 liters	100 liters	240 liters
50 ppm	5.2 gallons	26.0 gallons	63.0 gallons
20 ppm	50 liters	250 liters	600 liters
20 ppm	13.0 gallons	65.5 gallons	158.0 gallons
5 ppm	200 liters	1,000 liters	2,400 liters
5 ppm	52.0 gallons	260.0 gallons	630.0 gallons
0.25 ppm	4,000 liters	20,000 liters	48,000 liters
0.25 ppm	1,055 gallons	5,275 gallons	12,675.00 gallons

Do not remove 1G envelope from container of water prior to 6 hours.

[5G, 10 hours; 12G, 12 hours]

Discard the spent 1G [5G, 12G] envelope (follow disposal instructions on package label), and mix solution gently prior to use.

Do not reuse 1G [5G, 12G] 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.

Use solution within 15 days of activation.

Storage: Store unused solution according to “Directions for Use” on package label.

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. If applying activated solution with a high-pressure sprayer, wear a NIOSH/MSHA-approved respirator appropriate for chlorine dioxide.**
- 4. Do not use product in a manner inconsistent with the label.**

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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) *Selectrocide™1G* [5G, 12G]. 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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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™*1G [5G, 12G] according to "Directions for Use" on package 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 of activated *Selectrocide™*1G [5G, 12G] in accordance with instructions above OR prepare a 500 ppm solution and use a 1:100 dilution device (one part 500 ppm 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 package and spent envelope according to instructions on package 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 wood, backsplashes, bench and counter tops, stainless steel or hard-surface equipment, tile floors, walls, and ceilings:

1. Activate *Selectrocide™*1G [5G, 12G] according to "Directions for Use" on package label.
2. Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to sanitizing.
3. Prepare a 20 ppm solution of activated *Selectrocide™*1G [5G, 12G] in accordance with instructions above OR prepare a 500 ppm solution and use a 1:25 dilution device (one part 500 ppm solution to 24 parts water).
4. To apply: spray, mop, sponge or swab 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 package and spent envelope according to instructions on package label.

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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 *Selectroicide*[™]1G [5G, 12G] according to "Directions for Use" on package 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 of activated *Selectroicide*[™]1G [5G, 12G] in accordance with instructions above OR prepare a 500 ppm solution and use a 1:5 dilution device (one part 500 ppm 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 package and spent envelope according to instructions on package label.

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

NOTE: 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) contact 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, tile floors, walls, ceilings, stainless steel cold rooms and walk-in incubators:

1. Activate *Selectroicide*[™]1G [5G, 12G] according to "Directions for Use" on package label.
2. Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to disinfection.
3. Prepare a 100 ppm solution of activated *Selectroicide*[™]1G [5G, 12G] in accordance with instructions above OR prepare a 500 ppm solution and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
4. Spray, mop or sponge the 100 ppm solution onto surfaces to be disinfected. All surfaces must be visibly wet for at least ten (10) minutes. When spraying disinfectant solution, use an appropriate spraying device. 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.

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6. Dispose of package and spent envelope according to instructions on package label.

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

1. Activate *Selectroicide™*1G [5G, 12G] according to "Directions for Use" on package label.
2. Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to disinfection.
3. Prepare a 100 ppm solution of activated *Selectroicide™*1G [5G, 12G] in accordance with instructions above OR prepare a 500 ppm solution and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
4. Spray, mop or sponge the 100 ppm solution onto surfaces to be disinfected. All surfaces must be visibly wet for at least ten (10) minutes. When spraying disinfectant solution, use an appropriate spraying device. 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 package and spent envelope according to instructions on package label.

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

1. Activate *Selectroicide™*1G [5G, 12G] according to "Directions for Use" on package 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 of activated *Selectroicide™*1G [5G, 12G] in accordance with instructions above OR prepare a 500 ppm solution and use a 1:5 dilution device (one part 500 pm 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 keeping visibly wet 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 package and spent envelope according to instructions on package 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, tanks should be cleaned and then flushed thoroughly with clean, potable water.

FOR A TEN (10) MINUTE OR LONGER DISINFECTION

1. Activate *Selectrocid*[™]1G [5G, 12G] according to "Directions for Use" on package label.
2. Prepare a 100 ppm solution of activated *Selectrocid*[™]1G [5G, 12G] in accordance with instructions above **OR** prepare a 500 ppm solution and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
3. **Fill tank completely with 100 ppm solution** (filling the tank completely may require activation of several 1G [5G, 12G] envelopes). 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 package and spent envelope according to instructions on package label.

FOR A TWENTY (20) MINUTE OR LONGER DISINFECTION

1. Activate *Selectrocid*[™]1G [5G, 12G] according to "Directions for Use" on package label.
2. Prepare a 50 ppm solution of activated *Selectrocid*[™]1G [5G, 12G] in accordance with instructions above **OR** prepare a 500 ppm solution and use a 1:10 dilution device (one part 500 ppm solution to nine parts water).
3. **Fill tank completely with 50 ppm solution** (filling the tank completely may require activation of several 1G [5G, 12G] envelopes). 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 package and spent envelope according to instructions on package label.

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.

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1. Determine the number of *Selectrocide*[™]1G envelopes necessary to clean the drinking water system. Use one envelope for every 50 gallons, or fraction thereof, of capacity. *Example:* Two 80-gallon tanks = 160 gallon capacity. Therefore, to clean two 80-gallon tanks requires four *Selectrocide*[™]1G envelopes.

THEN, EITHER FOLLOW STEPS 2 and 3 **OR** STEPS 4 and 5

2. Drain all water tanks completely. Then, refill tanks with water to approximately 10% of capacity (for example, a 100-gallon tank should be filled with 10 gallons of water).
3. Activate the appropriate number of *Selectrocide*[™]1G envelopes (see instruction 1 above, and note there is one envelope within each package) according to “Directions for Use” on package label by immersing the envelopes in the water tank, closing the tanks, and waiting six (6) hours. Remove spent 1G envelopes from water, and close the tank.

OR

4. Activate the appropriate number of *Selectrocide*[™]1G envelopes (one envelope within each package) in water according to the “Directions for Use” on package label and according to the following table:

FOR TANKS OF THIS OVERALL SIZE		IMMERSE THIS NUMBER OF 1G ENVELOPES	IN THIS MUCH WATER
More than:	Less Than:		
5 gallons	50 gallons	1	20 liters/5 gallons
50 gallons	100 gallons	2	40 liters/10 gallons
100 gallons	150 gallons	3	60 liters/15 gallons
150 gallons	200 gallons	4	80 liters/21 gallons
200 gallons	250 gallons	5	100 liters/26 gallons
250 gallons	300 gallons	6	120 liters/31 gallons
300 gallons	350 gallons	7	140 liters/36 gallons
350 gallons	400 gallons	8	160 liters/42 gallons

5. After six (6) hours, remove and discard spent 1G envelopes according to package instructions, and add solution into the water tank. Do not add additional water. Do not refill tank. Close the tank.

THEN:

6. Circulate the *Selectrocide*[™]1G solution through all lines and within or between tanks using the system’s pumps.
7. Run approximately 6 ounces of the *Selectrocide*[™]1G solution through each outlet (faucet, shower etc.) and let the solution stand in the tanks and lines **OVERNIGHT** (or approximately 12 hours).
8. The next day, or after 12 hours, flush the *Selectrocide*[™]1G solution through all faucets and outlets until the tanks are empty.
9. Refill the tanks with rinse water to approximately 10% of their capacity (e.g., 10 gallons per 100 gallons capacity).
11. Circulate the water and flush rinse water through all faucets and outlets until tanks are empty.
12. Tanks are now cleaned and can be refilled for use or left empty for storage.
13. Dispose of package(s) and spent 1G envelope(s) according to instructions on package label.

FOR APPLICATIONS INVOLVING LARGER TANKS, USE THE 5G OR 12G PRODUCTS AND FOLLOW THESE STEPS:

1. Determine the number of *Selectrocide*[™]5G [or 12G] envelopes necessary to clean the tanks and lines in the water system according to the following tables (use one 5G for every 250 gallons in tank capacity, and use one 12G for every 600 gallons in tank capacity):

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5G PRODUCT

FOR TANKS OF THIS OVERALL SIZE		IMMERSE THIS NUMBER OF 5G ENVELOPES
More than:	Less Than:	
250 gallons	300 gallons	1
300 gallons	600 gallons	2
600 gallons	800 gallons	3
800 gallons	1100 gallons	4
1100 gallons	1300 gallons	5
1300 gallons	1600 gallons	6

12G PRODUCT

FOR TANKS OF THIS OVERALL SIZE		IMMERSE THIS NUMBER OF 12G ENVELOPES
More than:	Less Than:	
500 gallons	700 gallons	1
700 gallons	1300 gallons	2
1300 gallons	1900 gallons	3
1900 gallons	2500 gallons	4
2500 gallons	3100 gallons	5
3100 gallons	3800 gallons	6

2. Drain all water tanks completely. Then, refill tanks to approximately 10% of capacity with potable water. For example, put 60 gallons (227 liters) of water in a tank of 600-gallon capacity and 250 gallons (947 liters) of water in a tank of 2500-gallon capacity. Immerse the number of 5G [or 12G] envelopes determined in step 1 above in the water tank, and close the tank.
3. Wait 10 hours for the 5G (or 12 hours for the 12G), and then remove the spent envelopes. Close the tank. Discard envelopes according to the instructions on the package label.
4. Circulate the *Selectrocide*[™]5G [12G] solution through all lines and within or between tanks using the system's pumps.
5. Run approximately 6 ounces of the *Selectrocide*[™]5G [12G] solution through each outlet (faucet, shower etc.) and let the solution stand in the tanks and lines **OVERNIGHT** (approximately 12 hours).
6. The next day, or after twelve hours, flush the *Selectrocide*[™]5G [12G] solution through all faucets and outlets until the tanks are empty.
7. Refill the tanks with rinse water to approximately 10% of their capacity.
8. Circulate the water and flush rinse water through all faucets and outlets until tanks are empty.
9. Tanks are now cleaned and can be refilled for use or left empty for storage
10. Dispose of package(s) and spent 5G [12G] envelope(s) according to instructions on package 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 directly to plants, seeds, cuttings or flowers as directed, *Selectroicide™*1G [5G, 12G] 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 *Selectroicide™*1G [5G, 12G] 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.

OPTIONAL DILUTION INSTRUCTIONS FOR HORTICULTURAL SETTINGS: The following dilution chart is consistent with the other dilution instructions contained in this technical bulletin. It is tailored to the typical dilution ratios of 1:10 and 1:200 necessary for some horticultural applications. Use this chart, or dilution instructions presented elsewhere, most compatible with available dilution devices.

OPTIONAL DILUTION INSTRUCTIONS DESIGNED FOR DILUTION RATIOS REQUIRED TYPICALLY IN GREENHOUSES AND HORTICULTURAL SETTINGS			
To achieve a final chlorine dioxide concentration of :	Use a single Selective Micro Envelope of this size:	Activated in this many gallons of water:	And apply using a device with an injection ratio of :
100 ppm	1G	2.5 gal	Undiluted
100 ppm	5G	12.5 gal	Undiluted
100 ppm	12G	30 gal	Undiluted
50 ppm	1G	5 gal	Undiluted
50 ppm	5G	25 gal	Undiluted
50 ppm	5G	2.5 gal	1:10

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50 ppm	12G	6 gal	1:10
20 ppm	1G	12.5 gal	Undiluted
5 ppm	1G	50 gal	Undiluted
0.25 ppm	1G	5 gal	1:200
0.25 ppm	5G	25 gal	1:200
0.25 ppm	12G	60 gal*	1:200

* Exceeds capacity of 55-gallon drum; activating in a 55-gallon drum, and diluting with a 1:200 injection device, will yield an application solution at a concentration of about 0.29 ppm—effective, but higher than necessary.

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

1. Activate *Selectroicide*™1G [5G, 12G] according to “Directions for Use” on package 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 instruction number 6 associated with the desired application.
4. Dispose of package and spent envelope according to directions on package label.

FOR WORK AREAS, BENCHES AND EVAPORATIVE COOLERS

5. Prepare a 100 ppm solution of *Selectroicide*™1G [5G, 12G] in accordance with the instructions above **OR** prepare a 500 ppm solution and use a 1:5 dilution device (one part 500 ppm solution to four parts water).
6. Spray or swab work area and bench surfaces with the 100 ppm solution 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

5. Prepare a 100 ppm of *Selectroicide*™1G [5G, 12G] in accordance with the instructions above **OR** prepare a 500 ppm solution and dilute by adding one part 500 ppm solution to four parts water.
6. 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.

At end of workday, dry and oil tools.

FOR A TWENTY (20) MINUTE OR LONGER DISINFECTION

5. Prepare a 50 ppm solution of *Selectroicide*™1G [5G, 12G] in accordance with the instructions above or prepare a 500 ppm solution and dilute by adding one part 500 ppm solution to nine parts water.
6. 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

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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*™1G [5G, 12G] according to “Directions for Use” on package 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 of *Selectrocide*™1G [5G, 12G] in accordance with the instructions above or prepare a 500 ppm solution and use a 1:25 dilution device or add one part 500 ppm 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 plant is completed to help control the transfer of diseases.
5. Dispose of package and spent envelope according to instructions on package label.

At end of workday, dry and oil tools.

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

1. Activate *Selectrocide*™1G [5G, 12G] according to “Directions for Use” on package label
2. Prepare a 5 ppm solution of *Selectrocide*™1G [5G, 12G] in accordance with the instructions above **OR** prepare a 500 ppm solution and use a 1:100 dilution device or add one part 500 ppm solution to 99 parts water.
3. Briefly dip cuttings or cut flowers in 5 ppm solution, ensuring they remain visibly wet with solution for at least one minute.
4. Dispose of package and spent envelope according to instructions on package label.

D. As a dip or drench to control and suppress bacteria, including 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 *Selectrocide*™1G [5G, 12G] according to “Directions for Use” on the package label.
2. Prepare a 5 ppm solution of *Selectrocide*™1G [5G, 12G] in accordance with the instructions above **OR** prepare a 500 ppm solution and use a 1:100 dilution device or add one part 500 ppm 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 package and spent envelope according to instructions on package 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.*

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***sp. Basilicum (Fob)*); and for continuous treatment to inhibit their re-establishment in irrigation systems, flood floors, flooded benches, misting systems, humidification systems, recycled water systems and capillary mats:**

1. Activate *Selectrocide*™1G [5G, 12G] according to “Directions for Use” on package 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 concentrations indicated below and ensure surfaces are wetted and remain visibly wet for the times or are applied continuously as noted below.
4. Dispose of package(s) and spent envelope(s) according to instructions on package label.

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

5. Flush tank thoroughly with clean water. Activate *Selectrocide*™1G [5G, 12G] according to "Directions for Use" on package label.
6. Prepare a 50 ppm solution of activated *Selectrocide*™1G [5G, 12G] in accordance with instructions above OR prepare a 500 ppm solution and use a 1:10 dilution device (one part 500 ppm solution to nine parts water).
7. Fill tank completely. Run 50 ppm 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.
8. 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)

5. Flush tank thoroughly with clean water. Activate *Selectrocide*™1G [5G, 12G] according to "Directions for Use" on package label.
6. Prepare a 50 ppm solution of activated *Selectrocide*™1G [5G, 12G] in accordance with instructions above OR prepare a 500 ppm solution and use a 1:10 dilution device (one part 500 ppm solution to nine parts water).
7. Fill tank completely. Run 50 ppm 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).
8. Drain tanks and lines, flush with clean water, and resume normal operation.

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

5. Prepare a 0.25 ppm solution of activated *Selectrocide*™1G [5G, 12G] in accordance with instructions above OR prepare a 500 ppm solution and use a 1:2,000 dilution device or add one part 500 ppm solution to 1,999 parts water.
6. Use the prepared 0.25 ppm solution to operate the water system following normal application procedures.

F. As an algaecide and fungicide for treating, preventing, suppressing and controlling horticultural diseases in commercial greenhouses, garden centers and nurseries

1. Activate *Selectrocide*™1G [5G, 12G] according to “Directions for Use” on package 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 plant surfaces are wetted and remain visibly wet for the times noted below.
4. Dispose of package and spent envelope according to instructions on package label.

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AS AN INITIAL OR REMEDIAL TREATMENT TO KILL ALGAE AND FUNGI ON SURFACES, 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 of activated *Selectroicide*[™]1G [5G, 12G] in accordance with instructions above **OR** prepare a 500 ppm solution and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
6. Apply the 5 ppm 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 SURFACES, 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 of activated *Selectroicide*[™]1G [5G, 12G] in accordance with instructions above **OR** prepare a 500 ppm solution and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
6. Apply 5 ppm 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 on cuttings and cut flowers:

1. Activate *Selectroicide*[™]1G [5G, 12G] according to “Directions for Use” on package label.
2. Prepare a 5 ppm solution of activated *Selectroicide*[™]1G [5G, 12G] in accordance with the instructions above **OR** prepare a 500 ppm solution and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
3. Briefly dip cuttings or cut flowers in 5 ppm solution 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:

1. Activate *Selectroicide*[™]1G [5G, 12G] according to “Directions for Use” on package label.
2. Prepare a 5 ppm solution of *Selectroicide*[™]1G [5G, 12G] in accordance with instructions above **OR** prepare a 500 ppm solution and use 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 package and spent envelope according to instructions on package label.

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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*[™]1G [5G, 12G] according to “Directions for Use” on the package label.
2. Wash and thoroughly rinse fruits and vegetables with clean, potable water.
3. Prepare a 5 ppm solution of activated *Selectrocide*[™]1G [5G, 12G] in accordance with instructions above **OR** prepare a 500 ppm solution and use a 1:100 dilution device (one part 500 ppm solution to 99 parts water).
4. Apply the 5 ppm solution to fruits and vegetables by: either immersing/dipping in a tank of 5 ppm solution for 1 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; surfaces should remain visibly wet for 1 minute. 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 package and spent envelope according to instructions on package label.

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