EfferSan with Activon Technology

Disinfectant, Sanitizer
Protects Against Odor
Controls Bacteria and Algae

Multi-purpose effervescent tablets
Sanitizes, disinfects and protects against odor
Kills 99.999% of bacteria in 60 seconds

For use in Sanitation and Disinfection in amusement parks, breweries, beverage and food processing plants, schools, hospitals, nursing homes, hotels, child care centers, restaurants, spas, hot tubs, veterinary clinics, zoos, milk processing facilities, dairy farms, farms, poultry premises, poultry hatcheries, and livestock quarters, office buildings, industrial facilities, homes, camp sites, marine and recreational vehicles, kennels, boarding facilities, laboratories, lab animal facilities.

Disinfects precleaned, hard, nonporous surfaces in 5 minutes.

Effective against *Pseudomonas aeruginosa, Staphylococcus aureus, Salmonella enterica* (formerly choleraesuis) in 5 minutes

Sanitizes precleaned, hard, non-porous food contact surfaces in 1 minute.

Effective against *Salmonella typhi* in 1 minute

Active Ingredient:

Sodium Dichloro-s-Triazinetrione	50%
Other Ingredients	50%
Available Chlorine: 31.75%	**Total** .. 100%

Keep Out of Reach of Children

DANGER

See inside booklet for additional precautionary statements.

4g tablets	3.25g tablets	17.68g tablets	0.33g tablets
100 Tablets (0.88 lb.)	100 Tablets (0.72 lb.)	100 Tablets (3.9 lbs)	100 Tablets (0.073 lb.)
24 Tablets (0.21 lb.)		50 Tablets (1.95 lbs)	
5 Tablets (0.044 lb.)			

EPA Reg. No. 66570-2
EPA Est. 66570-WI-001

Activon, Inc.
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Beaver Dam, WI 53916

Department of Agriculture
STATE OF HAWAII
LICENSED
PERIOD 2015-2017 LIC. NO. 8689.1

Department of Agriculture
STATE OF HAWAII
LICENSED
PERIOD 2012-2014 LIC. NO.

Department of Agriculture
STATE OF HAWAII
LICENSED
PERIOD 2009-2011 LIC. NO.

PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals

DANGER: Corrosive: Causes irreversible eye damage. Harmful if swallowed, inhaled or absorbed through skin. Do not get in eyes, on skin or on clothing. Avoid breathing dust. Wear goggles or face shield. Thoroughly wash with soap and water separately after handling. Remove contaminated clothing and wash separately before reuse.

FIRST AID

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also call 1-800-222-1222 for emergency medical treatment advice.

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 Swallowed
- Immediately call a poison control center or doctor for treatment advice.
- Have person drink large amounts of water if able to swallow. Avoid alcohol.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

If Inhaled
- Move person 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 further treatment advice.

on Skin Clothing
- Take off contaminated clothing.
- Immediately rinse skin with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for further treatment advice.

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

Physical or Chemical Hazards

Use only clean, dry utensils. Mix only into water. Contamination with moisture, dirt, organic matter or other chemicals (including pool chemicals) or any other foreign matter may start a chemical reaction with generation of heat, liberation of hazardous gasses and possible generation of fire and explosion. Avoid any contact with flaming or burning materials such as a lighted cigarette. Do not use this product in any chlorinating device that has been used with any inorganic or unstabilized chlorinating compounds (e.g., calcium hypochlorite). Such use may cause fire or explosion.

Environmental Hazards

This pesticide is toxic to fish and aquatic organisms.

Disinfects floors, walls and other hard nonporous surfaces including walls, floors, tables, chairs, countertops, bathroom fixtures, sinks, shelves, racks, carts, refrigerators, coolers, glazed tile, linoleum, vinyl, glazed porcelain, plastic (such as polypropylene and polyethylene), stainless steel, or glass.

This product is designed for use in amusement parks, breweries, beverage and food processing plants, schools, hospitals, nursing homes, hotels, child care centers, restaurants, spas, hot tubs, veterinary clinics, zoos, milk processing facilities, dairy farms, farms, poultry premises, poultry hatcheries, and livestock quarters, office buildings, industrial facilities, homes, camp sites, marine and recreational vehicles, kennels, boarding facilities, laboratories, lab animal facilities.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DISINFECTION

Prepare a 1,300 ppm solution (refer to Dilution Chart). Clean surface then apply solution with mop, cloth, sponge, brush, or coarse trigger sprayer. Allow surface to remain wet for 5 minutes. Rinse thoroughly and allow to air dry. Prepare a fresh solution daily or when it becomes soiled or diluted. All treated equipment that will contact food, feed, or drinking water must be rinsed with potable water before reuse.

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.

SPA AND TUB USE

Refer to Dilution Chart for number of tablets to use.

Add 4 ppm available chlorine (refer to Dilution Chart). Using an appropriate test kit, test and adjust the water to the following values: pH: 7.2 – 7.8; total alkalinity: 60 – 100 ppm; calcium hardness: 200 ppm, minimum. Maintain these conditions for proper spa and hot tub operation by frequent testing with a test kit. Do not allow cyanuric acid level to exceed 150 ppm. It is recommended that spas and hot tubs be drained every 60 – 90 days, more often under heavy use. Consult manufacturer's recommendations concerning the compatibility of chlorine sanitizers with their equipment. Some oils, lotions, fragrances, cleansers, etc., may cause foaming or cloudy water and may react with chlorine sanitizers, reducing their efficacy. Reentry into treated spas/hot tubs is prohibited above levels of 3 ppm chlorine.

Start-Up (Freshly Filled)

1. Turn on the circulation system and ensure that it is operating properly.

2. Add 4 ppm available chlorine (refer to Dilution Chart). Check the free available chlorine (FAC) level and, if below 4 - 5 ppm, repeat as needed.

Regular Use

Turn on the circulation system and ensure that it is operating properly. Add 4 ppm available chlorine (refer to Dilution Chart) to the water. Test for FAC and add additional product, if necessary, to attain 4-5 ppm FAC. Maintain 1 – 3 ppm FAC while the spa or hot tub is in use. After each use, shock treat with 10 ppm available chlorine (refer to Dilution Chart) to control odors and algae. Repeat as needed. Spa or hot tub should not be entered until FAC reaches 1 – 3 ppm.

Extended Non-Use Period

During extended periods when the spa or hot tub is not being used, with the circulation system running, add 4 ppm available chlorine (refer to Dilution Chart) twice a week or as needed to maintain 1 – 3 ppm FAC.

INDUSTRIAL RECIRCULATING WATER COOLING TOWERS, AIR WASHERS & EVAPORATIVE CONDENSERS

Refer to Dilution Chart for number of tablets to use.

Treatment with this product is an effective way to control the growth of bacteria and algae in industrial recirculating water cooling towers, air washers and evaporative condensers.

1. Clean badly fouled systems prior to initiating treatment.

2. Initial Dosage – when the system is just noticeably fouled, add 3 ppm available chlorine (refer to Dilution Chart) to the system water. Repeat this dosage, if necessary, until a free available chlorine (FAC) level of 0.5 – 1.0 ppm is obtained, as determined by use of a reliable test kit.

3. Maintenance Dosage – to obtain a FAC of 0.5 – 1.0 ppm, add 0.5 ppm -1.0 ppm available chlorine (refer to Dilution Chart) daily or as needed.

4. Add this product to the system at a point where adequate flow is maintained. Variations in water temperature, chlorine demand and flow rate will affect the dissolution rate. Warmer seasons may require an upward adjustment of the FAC.

SEWAGE TREATMENT (Not applicable in California)

1. Disinfection of Effluents: Disinfection does not occur instantaneously. A suitable detention basin must be provided to expose the sewage effluent to the effects of this product for a sufficient period of time (usually a minimum of 15 minutes). Where mechanical stirring or other agitation is not present, introduce product solution before primary or secondary sedimentation treatments, if these are used.

The amount of product solution required will vary, depending on the concentration and conditions of the final effluent. Treat the sewage before it has reached a septic state. About 30% of the chlorine demand of raw sewage is attributed to settle solids; 40% to suspended and colloidal solids; and 30% to dissolved solids.

Whenever possible, control disinfection by laboratory checks. Disinfection can be achieved when the chlorine residual (after 15 – 30 minutes contact time) is between 0.6 and 1.0 ppm. Experience with different types of treated sewage may eventually establish a relationship between the residual chlorine content of the final effluent and the contact time necessary to ensure the desired bacteriological results. Once this relationship is established, the residual chlorine content and contact time may then become the controlling factors for operation. Perform occasional bacteriological checks as a safeguard.

In cases where sewage is to be temporarily disinfected before being diluted in a body of water, the following conditions will usually provide satisfactory protection against receiving waters' pollution:

a. Raw sewage: 10 – 30 ppm available chlorine

b. Primary treated sewage: 5 – 20 ppm available chlorine

c. Sewage which has undergone primary and secondary treatment, or secondary alone: 2 – 5 ppm

Frequently perform bacteriological tests as a safeguard. The available chlorine level in the discharge effluent should be between 0.6 and 1.0 ppm or in accordance with an NPDES permit. For guidance contact the regional office of the EPA.

2. Slime Control: When ponding of the filters is excessive, stoppage of the distributing filter can occur. Add 10 ppm available chlorine (refer to Dilution Chart) into the effluent at a point above the filter nozzles. Repeat as necessary until the desired cleaning has been achieved. To maintain the system, intermittently apply a solution of this product to the dosing tanks, just ahead of the filter. The amount and frequency of the dosage needed to give satisfactory continuous operation of the trickling filters depends on the severity of the microbiological problem.

3. Biological Oxygen Demand (B.O.D.) Reduction: The condition can usually be avoided by applying the product solution to the effluent until a substantial residual is obtained. Apply at a point that will permit 10 – 20 minute contact time prior to discharging effluent into the stream. A dosage that leaves a residual available chlorine of about 0.2 ppm after a contact time of at least 10 minutes will afford a reduction of about 1/3 of the effluents B.O.D. Where more permanent or greater B.O.D. reduction is necessary dosing to high available chlorine residuals is recommended.

4. Coagulation and Sedimentation: A great deal of the finer divided suspended matter and most of the colloidal matter in sewage does not readily respond to plain sedimentation. The job of removing substantial portions of this kind of matter is usually accomplished either by chemical precipitation, by filtration or by the use of both processes. Chlorine improves sedimentation and coagulation in sewage treatment operations.

5. Treating Effluent from Mobile Sewage Treatment Units (Including Marine and Recreational Vehicles): Only human waste, toilet paper and water should enter the mobile sewage treatment unit. Solids are retained in the unit for later removal, while the liquid portion is filtered, disinfected and discharged. Product is placed in a flow-through container where the liquid effluent passes over them before being discharged.

Disinfection does not occur instantaneously. A suitable detention basin must be provided to expose the sewage effluent to the effects of this product for a sufficient period of time (usually a minimum of 15 minutes). Frequently test effluent as a safeguard. The available chlorine level in the discharge effluent should be between 0.6 and 1.0 ppm or in accordance with an NPDES permit. Refer to Dilution Chart for number of tablets to use.

FOR USE THROUGHOUT FOOD AND BEVERAGE PROCESSING AND FOOD HANDLING OPERATIONS

This product is recommended for sanitizing all types of hard, non-porous equipment and utensils used in food processing and canning plants, bottling plants, breweries, fish processing plants, meat and poultry processing plants, milk handling and processing plants, restaurant and institutional dining establishments. Use a 100 ppm available chlorine solution (refer to Dilution Chart) to sanitize previously cleaned processing and packaging equipment. Allow at least a one minute contact time before draining. Allow adequate draining before contact with beverages.

To control the growth of bacteria in brewery pasteurizers, clean badly fouled systems before treatment. When the system is noticeably fouled, add 3 ppm available chlorine (refer to Dilution Chart) to system water. Repeat this dosage if necessary until the free available chlorine (FAC) level is 0.5 – 1.0 ppm, as determined by use of a reliable test kit. To maintain a FAC of 0.5 – 1.0 ppm, add 0.5 ppm – 1 ppm available chlorine (refer to chart) daily as needed. Add this product to the system at a point where adequate flow is maintained.

EGG PROCESSING PLANTS

Refer to Dilution Chart for number of tablets to use

Clean and destain egg shells prior to sanitizing. To clean egg shells, spray with a 90°F to 120°F 100 ppm available chlorine solution (refer to Dilution Chart). Spray-rinse the cleaned eggs with warm potable water. Only clean, whole eggs may be sanitized. Dirty, cracked or punctured eggs may not be sanitized.

To destain egg shells, immerse the eggs in a 90°F to 120°F solution containing 100 ppm available chlorine (refer to Dilution Chart). After destaining, the eggs must be cleaned by spraying with an acceptable cleaner. Follow with a potable water rinse.

To sanitize clean shell eggs intended for food or food products, spray with a solution containing 100 ppm available chlorine (refer to Dilution Chart). The solution must be equal to or warmer than the eggs, but not to exceed 130°F. Wet eggs thoroughly and allow to drain. Eggs that have been sanitized with this chlorine compound may be broken for use in the manufacture of egg products without a prior potable water rinse. Eggs must be reasonably dry before casing or breaking. The solution must not be reused for sanitizing eggs.

Thoroughly clean and sanitize all egg cups, breaking knives, trays and other equipment that come into contact with "off" eggs. First, clean all equipment. Before placing back in use, spray with a solution containing 100 ppm available chlorine (refer to Dilution Chart). Allow surfaces to completely drain before contact with egg product. To sanitize egg freezers and dryers (tanks, pipelines and pumps), use the spray or fog method of treatment **(see Sanitizing Application Methods section)**. This procedure is generally used to sanitize large, non-porous surfaces that have already been cleaned of physical soil.

Prepare a solution containing 100 ppm available chlorine (refer to Dilution Chart). Heavily apply spray to all surfaces the eggs will touch. Thoroughly spray all treated surfaces, corners and turns. Allow at least a one minute contact time before draining. Allow equipment to drain adequately before contact with eggs.

SANITIZING HARD, NON-POROUS SURFACES, DISHES, GLASSES, FOOD PROCESSING EQUIPMENT AND UTENSILS, DAIRY AND BREWERY EQUIPMENT AND UTENSILS

Refer to Dilution Chart for number of tablets to use.

This product is an effective sanitizing agent. Treatment with this product throughout food and beverage processing and food handling operations can help ensure the quality and safety of the final product.

Hand Washing of Items

1. Remove all gross food particles and soil by a preflush or prescrape and, when necessary, presoak treatment. Wash surfaces or objects with a good detergent or compatible cleaner, followed by a potable water rinse before application of the sanitizing solution.

2. Prepare a 100 ppm available chlorine sanitizing solution (refer to Dilution Chart).

3. Place equipment, utensils, dishes, glasses, etc. in the solution or apply the use solution to surfaces using a cloth, sponge, or coarse sprayer.

4. Allow to stand at least one minute, drain the excess solution from the surface and allow to air dry.

5. Fresh sanitizing solution must be prepared at least daily or more often if the solution becomes diluted or soiled.

Machine Washing of Items

1. Remove all gross food particles and soil by a preflush or prescrape and, when necessary, presoak treatment. Wash surfaces or objects with a good detergent or compatible cleaner, followed by a potable water rinse before application of the sanitizing solution.

2. Prepare a 100 ppm available chlorine solution (refer to Dilution Chart).

3. Add the solution to the feed tank of immersion or spray type machines that can provide at least one minute contact time for sanitizing dishes, glasses, food processing equipment or utensils. Allow to drain and air dry before use.

4. Promptly use the sanitizing solution. Prepared solutions cannot be reused for sanitizing but may be used for other purposes, such as cleaning.

ANIMAL HOUSING FACILITIES (Including Poultry Houses, Swine Confinement Facilities, Veterinary Clinics, Zoos and Farms)

The problem of odor control in poultry houses and other animal facilities is not completely solved by normal cleaning practices. The regular use of an efficient bactericide and deodorant is strongly recommended and often required by health authorities.

Remove all poultry or animals and feeds from premises, trucks, vehicles, coops, crates and enclosures. Remove all litter and manure or droppings from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals or poultry. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. To disinfect, saturate all surfaces with a 1,300 ppm available chlorine solution (refer to Dilution Chart) for a period of five minutes. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure. Ventilate buildings, cars, boats, coops and other closed spaces. Do not house livestock or poultry or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

SHOE AND BOOT BATH SANITIZER (Not applicable in California)

To prevent cross contamination into treated animal areas and the packaging and storage areas of food plants. Shoe and Boot baths containing one inch of freshly made 100 ppm available chlorine (refer to Dilution Chart) should be placed at all entrances to buildings, hatcheries and at all the entrances to the production and packaging rooms. Scrape waterproof shoes and boots and place into solution for at least 60 seconds prior to entering area. Change the sanitizing solution in the bath at least daily or sooner if solution appears diluted or dirty.

MILK HANDLING AND PROCESSING EQUIPMENT

This product can be used on dairy farms and in plants processing milk, cream, ice cream and cheese. Rinse milking machines, utensils and all equipment with cold water to remove excess milk. Clean and rinse prior to sanitizing. To sanitize, spray or rinse all precleaned surfaces with 100 ppm available chlorine solution (refer to Dilution Chart). Allow adequate draining before contact with dairy products.

It is important to clean out large deposits of milk or other organic matter before sanitizing. A sharp decline in the available chlorine content of the sanitizer following circulation through milk processing equipment is usually regarded as evidence of inadequate cleaning of the equipment and should be promptly investigated.

SANITIZING APPLICATION METHODS

Freshly prepare all sanitizing solutions. Test solutions during use to ensure the concentration does not drop below the recommended level. Keep in properly labeled containers to protect against contamination. Discard unused solutions.

Pressure Method of Sanitizing Equipment

This method is commonly used to sanitize closed systems, such as fluid milk cooling and handling equipment. It is also appropriate for sanitizing weigh tanks, coolers, short-time pasteurizers, pumps, homogenizers, fillers, sanitary piping and fittings, and bottle and can fillers. For mechanical operations, prepared solutions cannot be reused for sanitizing but may be used for other purposes, such as cleaning. For manual operations, fresh sanitizing solutions must be prepared at least daily or more often if the solution becomes diluted or soiled. First, disassemble and thoroughly clean all equipment immediately after use. Remove all gross food particles and soil by a preflush or prescrape and, when necessary, presoak treatment. Wash surfaces or objects with a good detergent or compatible cleaner, followed by a potable water rinse before application of the sanitizing solution. Then place back in operating position. Prepare a solution containing 100 ppm available chlorine (refer to Dilution Chart) in a volume equal to 110% of capacity. Pump the solution through the system until it is filled with sanitizer and air excluded. Close final drain valves and hold under pressure for one minute to ensure proper contact with all surfaces. Remove a portion of the cleaning solution from the drainvalve and test with a chlorine test kit. Repeat entire cleaning/sanitizing process if effluent contains less than 50 ppm available chlorine.

Spray Method of Sanitizing Equipment

The spray (or fog) method is generally used to sanitize large, non-porous surfaces that have already been freed of physical soil. It is appropriate for batch pasteurizers, holding tanks, weigh tanks, tank trucks and cars, vats, tile walls, ceilings and floors. Clean all surfaces after use. Prepare a solution containing 100 ppm available chlorine (refer to Dilution Chart). Use pressure spraying or fogging equipment designed to resist chlorine-containing solutions (e.g. rubber-coated, plastic or stainless steel). When using any other kind of spraying equipment, always empty and thoroughly rinse the spray/fog equipment with potable water immediately after treatment. Apply spray or fog heavily to all surfaces the product will touch. Thoroughly spray (or fog) all treated surfaces, corners and turns until wet. Allow at least a one minute contact time before draining. Allow excess solution to drain and air dry then place in service. Vacate area for at least two hours.

General Rinse Method

Solutions containing 100 ppm available chlorine (refer to Dilution Chart) sanitize plant floors, walls and ceilings, and also control odors in refrigerated areas and drain platforms. Generously flush or swab surfaces with the solution. After one minute contact time allow solution to drain and then air dry.

Emergency Handling

In case of contamination or decomposition do not reseal container. If possible, isolate container in open and well-ventilated area. Flood with large volumes of water. Dispose of contaminated material in an approved landfill area.

Dilution Chart 4 g Tablets

Solution (Available chlorine)	Tablets (4g or 0.14 oz. each)	Gallons of Water
0.5ppm	1	625
	4	2,500
	8	5,000
	15	10,000
1ppm	1	325
	2	650
	3	1,000
	30	10,000
3 ppm	1	100
	5	500
	9	1,000
	90	10,000
4 ppm	6	500
10 ppm	15	500
100 ppm	1	3
	3	10
	12	40
1,300ppm	4	1
	39	10

Dilution Chart 0.33 g Tablets

Solution (Available chlorine)	Tablets (0.33g or 0.01 oz. each)	Gallons of Water
0.5ppm	1	55
	10	550
1ppm	1	25
	5	135
	10	275
3 ppm	11	100
	25	230
	55	500
4 ppm	73	500
10 ppm	2	5
100 ppm	1	1 quart
	4	1
1,300ppm	12	1 quart
	47	1

Dilution Chart 17.68 g Tablets

Solution (Available chlorine)	Tablets (17.68g or 0.62 oz. each)	Gallons of Water
0.5ppm	1	2,500
	2	5,000
	4	10,000
1ppm	4	6,000
	7	10,000
3 ppm	1	500
	2	1,000
	20	10,000
4 ppm	3	1,000
10 ppm	7	1,000
100 ppm	1	15
	3	40
1,300ppm	3	3
	11	12

Dilution Chart 3.25 g Tablets

Solution (Available chlorine)	Tablets (3.25g or 0.11 oz. each)	Gallons of Water
0.5ppm	2	625
	5	2,500
	10	5,000
	19	10,000
1ppm	2	325
	3	650
	4	1,000
	37	10,000
3 ppm	2	100
	6	500
	11	1,000
4 ppm	8	500
10 ppm	19	500
100 ppm	2	3
	4	10
	15	40
1,300ppm	5	1
	48	10