

## SPECIMEN LABEL

### FOR COMMERCIAL USE

EPA REGISTRATION NO. 70299-26

### ACTIVE INGREDIENTS:

Hydrogen Peroxide.....	10.00%
Peroxyacetic Acid.....	15.00%

OTHER INGREDIENTS:..... 75.00%

TOTAL:..... 100.00%

**KEEP OUT OF REACH OF CHILDREN  
STRONG OXIDIZING AGENT  
DANGER – PELIGRO**

*Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand this label, find someone to explain it to you in detail.)*

### 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 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 treatment advice.

#### If swallowed

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

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

### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER: CORROSIVE.** Causes irreversible eye damage and skin burns. May be fatal if inhaled or absorbed through skin. Do not get in eyes, on skin, or on clothing. Harmful if swallowed. Do not breathe vapor or spray mist. Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and a combination N, R or P filter; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved power air-purifying respirator with OV cartridges and combination HE filters. Wear goggles or face shield, rubber gloves, and protective clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or

using the toilet. Remove and wash contaminated clothing before reuse. Do not enter an enclosed area without proper respiratory protection.

### PHYSICAL AND CHEMICAL HAZARDS

**Corrosive.** Strong oxidizing agent. Do not use in concentrated form. Mix only with water in accordance with label instructions. Never bring concentrate in contact with other pesticides or oxidative agents.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Handlers who may be exposed to the undiluted product through mixing, loading, application, or other tasks must wear: coveralls over long-sleeved shirt and long pants, rubber gloves, chemical resistant footwear plus socks, protective eyewear (goggles, face shield or safety glasses). Handlers who may be exposed to the diluted product through application or other tasks must wear: long-sleeved shirt and long pants, and shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### USER SAFETY RECOMMENDATIONS

Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds and fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), notification to workers, and Restricted-Entry Interval (REI). The requirements in this box only apply to the uses of this product that are covered by the Worker Protection Standard.

Handlers who may be exposed to the undiluted product through mixing, loading, application, or other tasks must wear: coveralls over long-sleeved shirt and long pants, rubber gloves, chemical resistant footwear plus socks, and protective eyewear goggles, face shield or safety glasses. Handlers who may be exposed to the dilute through application or other tasks must wear: long-sleeved shirt and long pants, and shoes plus socks.

For enclosed environments:

There is a Restricted Entry Interval (REI) of one (1) hour for this product when applied via spraying to growing plants, surfaces, equipment, structures and non-porous surfaces in enclosed environments such as glasshouses and greenhouses. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is coveralls worn over long-sleeved shirt and pants, waterproof gloves and shoes plus socks.

There is a Restricted Entry Interval (REI) of zero (0) hours for pre-plant dip, seed treatment, soil drench, mop, sponge, dip, soak, rinse or other non-spraying application methods when used in enclosed environments such as glasshouses and greenhouses.

For field applications:

Keep unprotected persons out of treated areas until sprays have dried. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is coveralls worn over long-sleeved shirt and pants, waterproof gloves and shoes plus socks.

**Non-Agricultural Use Requirements**

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

**TREATMENT OF RAW, POST HARVEST FRUIT AND VEGETABLE AND PROCESSING WATERS**

**FOR REDUCTION AND CONTROL OF PATHOGENIC BACTERIA IN RAW, POST-HARVEST FRUIT AND VEGETABLE PROCESS AND WASH WATERS (REGULATED BY US EPA)**

Use SaniDate 15.0 to reduce (in 90 seconds) 99.9% of pathogenic bacteria *Escherichia coli* O157:H7, *Salmonella enterica*, and *Listeria monocytogenes* in processing waters used for washing fruits, and vegetables.

1. Add SaniDate 15.0 batch-wise or continuously to processing water without fruits, or vegetables present at a dilution of 0.8–1.9 fl. oz. per 25 gallons of water. This provides approximately 40–100 ppm of peroxyacetic acid and 27–64 ppm of hydrogen peroxide.
2. Allow the solution to circulate at least 90 seconds before adding raw fruits, or vegetables.
3. Adjust dose as needed to maintain a minimum product concentration of 40 ppm of peroxyacetic acid.
4. Allow for a minimum contact time of 90 seconds.
5. Prepare fresh process water daily. Do not reuse water that is badly fouled.
6. Contact your BioSafe Systems technical representative for specific applications.

**FOR TREATMENT OF RAW, POST-HARVEST FRUIT AND VEGETABLE PROCESSING WATERS TO CONTROL THE GROWTH OF NON-PUBLIC HEALTH MICROORGANISMS THAT CAN CAUSE SPOILAGE (REGULATED BY US EPA)**

1. Ensure that the water is recirculating or mixing in the processing tank or water line.

2. Prepare a use solution by diluting 1.5–1.9 fl. oz. of this product per 25 gallons of water. Ensure that the solution is thoroughly mixed. This provides 85–100 ppm of peroxyacetic acid and 57–67 ppm of hydrogen peroxide. Allow the solution to circulate at least 45 seconds before adding or treating raw fruits and vegetables.
3. Dose as needed to maintain 85–100 ppm of peroxyacetic acid by adding SaniDate 15.0 to processing water.
4. Allow a minimum contact time of 45 seconds.
5. Do not rinse.
6. Prepare a new solution daily to ensure effectiveness.
7. Contact your BioSafe Systems technical representative for specific applications.

**FOR TREATMENT OF RAW, UNPROCESSED FRUIT AND VEGETABLE SURFACES (REGULATED BY US EPA)**

Apply SaniDate 15.0 as a dip or spray to control the growth of non-public health microorganisms that may cause decay and/or spoilage on raw, post-harvest fruits and vegetables during the washing process. SaniDate 15.0 can be applied during physical cleaning processes, including at the roller spreader, washer manifold, and dip tank, on the brushes or elsewhere in the washing process prior to, simultaneously with or as a final rinse prior to packaging.

1. Prepare a use solution by diluting 1.5–1.9 fl. oz. of this product per 25 gallons of water. Ensure that the solution is thoroughly mixed. This provides 85–100 ppm of peroxyacetic acid and 57–67 ppm of hydrogen peroxide.
2. Apply the diluted sanitizing solution using a coarse spray or fog directed at the fruits or vegetables, or by submerging the fruits or vegetables in the prepared solution.
3. Allow a minimum contact time of 45 seconds.
4. Do not rinse.
5. Contact your BioSafe Systems technical representative for specific applications.

Fogging Instructions

Apply SaniDate 15.0 as a fog to control the growth of non-public health microorganisms that may cause decay and/or spoilage on raw, post-harvest fruits and vegetables during the post-harvest process.

Commercially-applied fogging methods may be used, provided the dilution rates of the resultant solution do not exceed those prescribed in this section (85–100 ppm peroxyacetic acid in the use solution).

Conventional corrosion-resistant fogging devices are recommended. Applicable for use on all types of post-harvest commodities.

1. Vacate all personnel from the room during fogging.
2. Prepare a 0.06% v/v SaniDate 15.0 solution (0.076 fl. oz. per gallon of water). This provides 100 ppm of peroxyacetic acid and 66 ppm of hydrogen peroxide.
3. Fog areas using one-two quarts of solution per 1,000 cu. ft. of room area.
4. Exit the area or space immediately and remain outside the treated area or space until the area or space is thoroughly ventilated and until fog or mist has dispersed.
5. Do not enter room until hydrogen peroxide concentrations are tested and are below 1 ppm on a time weighted average. Reentry times may vary.
6. Contact your BioSafe Systems technical representative for specific applications.

**TREATMENT OF FRESH CUT AND PROCESSED FRUITS AND VEGETABLES AND PROCESSING WATERS**

**FOR TREATMENT OF FRESH CUT AND PROCESSED FRUIT AND VEGETABLE SURFACES TO CONTROL GROWTH OF NON-PUBLIC HEALTH MICROORGANISMS THAT CAN CAUSE SPOILAGE (REGULATED BY US FDA)**

Apply SaniDate 15.0 as a dip or spray to control the growth of non-public health microorganisms that may cause decay and/or spoilage on fresh cut and processed fruits and vegetables during the washing process.

1. Add 2.3 fl. oz. to 13.2 fl. oz. of this product to 100 gallons of water. This provides 30–175 ppm of peroxyacetic acid and 20–117 ppm of hydrogen peroxide. Ensure that the solution is thoroughly mixed.
2. Apply solution as a spray or dip. Allow a minimum contact time of 45 seconds.
3. Add this product to no more than 175 ppm residual peroxyacetic acid in the use solution in accordance with FCN #1554.
4. Contact your BioSafe Systems technical representative for produce specific rate recommendations.
5. A potable water rinse is not required after application of the diluted solution.

#### **SANITIZATION OF HARD, NON-POROUS FOOD CONTACT SURFACES**

For use in sanitizing of previously cleaned hard, non-porous food contact surfaces and equipment, processing and packaging equipment, boxing or packing equipment, such as pipelines, tanks, vats, fillers, evaporators, and pasteurizers. This product is not be used for sanitization of surfaces made of wood. Areas of use include:

- Meat And Poultry Slaughter and Further Processing Facilities
- USDA Inspected Food Manufacturing and Food Processing Plants
- Raw Fruit, Vegetable and Nut Packing Facilities
- Processed Fruit, Vegetable and Nut Processing Facilities
- Meat, Poultry, Seafood Processing/Packaging Plants
- Pet Food Manufacturing Plants
- Egg Packing and Egg Processing Plants
- Wineries, Breweries, Dairy, Beverage Bottling Plants
- Milk and Dairy Product Processing/Packing Plants
- Food Processing/Packing Plants
- Final Sanitizing Bottle Rinse
- Grocery, Supermarkets, Food Distribution and Storage Facilities

Before use in federally inspected meat and poultry food processing plants and dairies, food products must be removed from the room or covered to prevent contact with the sanitizing solution.

#### **Pathogenic Organisms**

SaniDate 15.0 is an effective sanitizer against the following pathogenic organisms: *Escherichia coli*, *Staphylococcus aureus*, *Listeria monocytogenes*, *Salmonella enterica*, *Escherichia coli* O157:H7, and *Campylobacter jejuni* on hard, non-porous food contact surfaces.

1. Pre-rinse surfaces and equipment to be sanitized with a warm potable water flush.
2. Wash surfaces and equipment with detergent or cleaning solution to remove gross particulate matter.
3. Rinse with potable water to remove suspended soils and residual detergent.
4. Prepare a use solution by adding 0.41–0.94 fl. oz. of this product to 5 gallons of potable water. This provides 109–250 ppm peroxyacetic acid and 73–167 ppm of hydrogen peroxide.
5. Fill closed systems with diluted sanitizer solution for a contact time of one (1) minute.
6. For open or not completely closed systems, apply sanitizing solution by using a coarse spray, mop/wipe or flood technique. Equipment may be immersed in the sanitizing solution.
7. Treated surfaces must remain visibly wet for at least one (1) minute.
8. Allow surfaces and equipment to drain thoroughly before resuming operations. Do not rinse.

#### **Non-Pathogenic Spoilage Organisms**

SaniDate 15.0 is effective against non-pathogenic spoilage organisms, and yeasts.

1. Pre-rinse surfaces and equipment to be sanitized with a warm potable water flush.
2. Wash surfaces and equipment with detergent or cleaning solution to remove gross particulate matter.
3. Rinse with potable water to remove suspended soils and residual detergent.

4. Prepare a use solution by adding 0.41–0.94 fl. oz. of this product to 5 gallons of potable water. This provides 109–250 ppm peroxyacetic acid and 73–167 ppm of hydrogen peroxide.
5. Fill closed systems with diluted sanitizer solution for a contact time of one (1) minute.
6. For open or not completely closed systems, apply sanitizing solution by using a coarse spray, mop/wipe or flood technique. Equipment may be immersed in the sanitizing solution.
7. Treated surfaces must remain visibly wet for at least one (1) minute.
8. Allow surfaces and equipment to drain thoroughly before resuming operation. Do not rinse.

#### **SANITIZATION OF CONVEYORS, PEELERS, SLICERS, AND SAWS FOR MEAT, POULTRY, SEAFOOD, FRUITS, AND VEGETABLES**

SaniDate 15.0 is an effective sanitizer against *Escherichia coli*, *Staphylococcus aureus*, *Listeria monocytogenes*, *Salmonella enterica*, *Escherichia coli* O157:H7 and *Campylobacter jejuni*.

Use SaniDate 15.0 in the washing, rinsing and sanitizing of conveyor or equipment, peelers, slicers, saws, corers, de-boners, dicers, knives, metal detectors, pasteurizers, peelers, scales, scrapers, collators, slicers, non-wooden cutting boards, tabletops, trays, pans, racks, platters, cans.

1. Remove edible products from equipment unless treating only the return portion of a conveyor.
2. Pre-rinse equipment and wash with detergent to lift away soils and gross particulate matter.
3. Rinse equipment with potable water to remove suspended soils and excess detergent.
4. Prepare a use solution by adding 0.41–0.94 fl. oz. of this product to 5 gallons of potable water. This provides 109–250 ppm peroxyacetic acid and 73–167 ppm of hydrogen peroxide.
5. Apply sanitizer solution to the return portion of the conveyor or to the equipment using a coarse spray or other means of wetting the surfaces. Control the volume of solution so as to permit maximum drainage and to prevent puddles. The conveyor surface may still be damp when food contact occurs.
6. Treated surfaces must remain visibly wet for at least one (1) minute.
7. Allow equipment to drain adequately before reusing; a dry surface is not required.

SaniDate 15.0 may be applied by flood applications, coarse spray, immersion, or circulation.

#### **FINAL SANITIZING BOTTLE RINSE**

Use SaniDate 15.0 as a final sanitizing rinse for plastic, glass or metal returnable and non-returnable bottles/cans.

1. Wash bottles with detergent or cleaning solution and rinse with potable water.
2. Rinse bottles/cans with a solution prepared by mixing 0.41–0.94 fl. oz. of SaniDate 15.0 to 5 gallons of potable water. This provides 109–250 ppm peroxyacetic acid and 73–167 ppm of hydrogen peroxide.
3. Treated surfaces must remain visibly wet for at least one (1) minute
4. Allow to drain dry.

#### **SANITIZING MILKING EQUIPMENT BY CLUSTER DIPPING**

1. Clean the external surfaces of the milking systems after each use.
2. Manually, or automatically rinse and sanitize all system components using a SaniDate 15.0 sanitizing solution prepared by mixing 0.41–0.94 fl. oz. to 5 gallons of potable water. This provides 109–250 ppm peroxyacetic acid and 73–167 ppm of hydrogen peroxide.
3. Ensure solution fills clusters.
4. Treated surfaces must remain visibly wet for at least one (1) minute. Shake off well after dipping and allow to air dry. Do not rinse.

#### **FOR SANITIZING OF SHELL EGGS**

1. To sanitize clean shell eggs intended for food or food products, spray with a use solution of 0.41–0.94 fl. oz. of SaniDate 15.0 to 5 gallons of potable water. This provides 109–250 ppm peroxyacetic acid and

73–167 ppm of hydrogen peroxide. The solution must be equal to or warmer than the eggs, but not to exceed 130° F.

2. Apply dilute solution as eggs are gathered as a coarse spray. Wet eggs thoroughly and allow to drain.
3. Treated surfaces must remain visibly wet for at least one (1) minute.
4. Eggs that have been sanitized with SaniDate 15.0 may be broken for use in the manufacture of egg products without a prior potable water rinse.
5. Eggs must be reasonably dry before casing or breaking.
6. The sanitizing solution must not be reused for sanitizing eggs.

#### **FOR SANITIZING OF HATCHING EGGS**

1. Prepare a use solution by adding 0.41–0.94 fl. oz. SaniDate 15.0 to 5 gallons of potable water. This provides 109–250 ppm peroxyacetic acid and 73–167 ppm of hydrogen peroxide.
2. The solution must be equal to or warmer than the eggs, but not to exceed 130° F.
3. For hatching eggs apply the sanitizing solution as eggs are gathered or prior to setting using a coarse spray or flood so as to lightly wet egg shell surfaces.
4. Treated surfaces must remain visibly wet for at least one (1) minute.
5. Allow to drain dry.

#### **SANITIZING HATCHERY ROOMS, POULTRY HOUSES, AND LIVESTOCK BUILDINGS**

1. Remove all animals and feed from premises, coops, crates and enclosures.
2. Remove gross soils, such as: litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes, and other facilities occupied or traversed by animals.
3. Empty all troughs, racks and other feeding and watering appliances.
4. Pre-rinse surfaces and equipment to be sanitized.
5. Thoroughly clean all surfaces with soap or detergent and rinse with water to remove detergent and suspended solids.
6. Prepare a use solution of SaniDate 15.0 by adding 0.41-0.94 fl. oz. to 5 gallons of potable water. This provides 109-250 ppm peroxyacetic acid and 73-167 ppm of hydrogen peroxide.
7. Apply the SaniDate 15.0 solution to surfaces using a course spray, mop/wipe or flood.
8. Immerse all types of equipment used in handling and restraining animals, as well as forks, shovels and scrapers used for removing litter and manure in the SaniDate 15.0 solution.
9. Treated surfaces must remain visibly wet for at least one (1) minute.
10. Allow surfaces and equipment to drain adequately before use. Do not rinse.
11. Ventilate buildings, coops and other closed spaces. Do not house poultry, livestock or employ equipment until treatment has been absorbed, set or dried.

#### **PACKINGHOUSE SANITIZATION**

SaniDate 15.0 is an effective sanitizer against the following microorganisms: *Xanthomonas campestris (axonopodis) pv. citrumelo* (citrus canker surrogate), as well as *Escherichia coli*, *Staphylococcus aureus*, *Listeria monocytogenes*, *Salmonella enterica*, *Escherichia coli* O157:H7 and *Campylobacter jejuni*.

1. Pre-rinse surfaces and equipment to be sanitized.
2. Remove gross contamination with a cleaner or other suitable detergent and rinse with potable water.
3. Prepare a use solution by adding 0.41–0.94 fl. oz. of this product to 5 gallons of potable water. This provides 109–250 ppm peroxyacetic acid and 73–167 ppm of hydrogen peroxide.
4. Use as a general sanitizing coarse spray to reduce bacterial contamination of walls, floors, conveyers and harvesting containers.
5. Equipment may be immersed in the SaniDate 15.0 solution.
6. Treated surfaces must remain visibly wet for at least one (1) minute.
7. Allow to air dry, do not rinse.

#### **HARVESTING AND FIELD EQUIPMENT AND TRANSPORTATION VEHICLE SANITIZATION**

Use SaniDate 15.0 to sanitize harvest equipment such as pickers, trailers, trucks (including truck body parts and tires), bins, packing crates, ladders, power tools, hand tools, gloves, rubber boots, pruning shears or other equipment that may transfer *Xanthomonas campestris (axonopodis) pv. citrumelo* (citrus canker surrogate). This product can also be used to sanitize surfaces contaminated with *Escherichia coli*, *Staphylococcus aureus*, *Listeria monocytogenes*, *Salmonella enterica*, *Escherichia coli* O157:H7 and *Campylobacter jejuni*.

1. Remove gross contamination with a cleaner or other suitable detergent and rinse with water.
2. Prepare a use solution by adding 0.41–0.94 fl. oz. of this product to 5 gallons of potable water. This provides 109–250 ppm peroxyacetic acid and 73–167 ppm of hydrogen peroxide.
3. Apply as a general sanitizing coarse spray.
4. Treated surfaces must remain visibly wet for at least one (1) minute.
5. Allow to air dry, do not rinse.

#### **SURFACES TREATED TO CONTROL THE SPREAD OF CITRUS CANKER**

Use SaniDate 15.0 to control the spread of citrus canker between inanimate surfaces and inanimate surfaces to plants. This product is for sanitizing surfaces such as packinghouse conveyers and harvesting equipment and containers. This product is not for treatment of infected plants.

#### **SANITIZATION OF HARD, NON-POROUS, NON-FOOD CONTACT SURFACES**

SaniDate 15.0 is an effective hard, non-porous, non-food contact surface sanitizer against *Staphylococcus aureus*, and *Klebsiella pneumoniae*. SaniDate 15.0 may be applied by flood applications, coarse spray, immersion, or circulation. Sanitize surfaces including ceilings, drain grates, floors, and walls. This product is not be used for sanitization of surfaces made of wood.

1. Pre-rinse surfaces and equipment to be sanitized with potable water.
2. Remove gross contamination with a cleaner or other suitable detergent and rinse with potable water.
3. Prepare a use solution by adding 0.41–0.94 fl. oz. of this product to 5 gallons of potable water. This provides 109–250 ppm peroxyacetic acid and 73–167 ppm of hydrogen peroxide.
4. Apply by wiping, mopping, coarse spray, or flood. Equipment may be immersed in sanitizing solution.
5. Treated surfaces must remain visibly wet for five (5) minutes.
6. Allow items and/or surfaces to air dry before resuming operation.
7. Do not rinse.

#### **SANITIZATION OF HARD, NON-POROUS, NON-FOOD CONTACT PACKAGING EQUIPMENT**

1. Pre-rinse equipment to be sanitized with potable water.
2. Wash equipment with detergent or cleaning solution to remove gross particulate matter.
3. Rinse equipment with potable water to remove suspended soils and excess detergent.
4. Prepare a use solution by adding 0.41–0.94 fl. oz. of this product to 5 gallons of potable water. This provides 109–250 ppm peroxyacetic acid and 73–167 ppm of hydrogen peroxide.
5. Apply by spray, or circulation techniques as appropriate. Allow a contact time of at least five (5) minutes.
6. For open or not completely closed systems, Apply SaniDate 15.0 by immersion, coarse spray, mop/wipe or flood technique. Treated surfaces must remain visibly wet for at least five (5) minutes.
7. Allow equipment and/or surfaces to air dry before resuming operation.
8. Do not rinse.

#### **GENERAL DISINFECTION**

SaniDate 15.0 is an effective one-step cleaner and disinfectant against gram positive and negative bacteria (vegetative forms): *Staphylococcus*

*aureus*, *Salmonella enterica*, *Pseudomonas aeruginosa*. It is effective in hard water (up to 400 ppm as calcium carbonate equivalent), on lightly soiled surfaces. Use SaniDate 15.0 in general commercial and medical environments to clean, disinfect, and deodorize hard, non-porous surfaces. This product is not be used for the disinfection of surfaces made of wood.

#### **Use SaniDate 15.0 on the following surfaces:**

Floors, walls, drains and other non-porous surfaces such as tables, chairs, counter tops, garbage cans/bins, bathroom fixtures, sinks, bed frames, shelves, racks, carts, refrigerators, coolers, glazed tile, linoleum, vinyl, sealed asphalt, glazed porcelain, plastic (such as polypropylene and polyethylene), stainless steel or glass.

#### **Areas of use include:**

- Hospitals, surgical and obstetrical suites; operating tables, housekeeping services; physical therapy departments; nursing homes, health care facilities, autopsy facilities, pharmaceutical and chemical processing facilities and equipment.
- Schools, colleges, industrial facilities, dietary areas, office buildings, recreational facilities, retail and wholesale establishments.
- Animal hospitals, veterinary clinics, animal life science laboratories, kennels, kennel runs, cages, feeding and watering equipment, pet shops, zoos, pet animal quarters, poultry premises, trucks, hatcheries, and livestock quarters.
- Dairies, wineries, breweries, and beverage plants
- Packinghouses, food processing, food distribution and storage, beverage processing facilities, milking parlors, dairy production and transfer facilities and equipment
- Farms, farm equipment and harvesting equipment
- USDA inspected food manufacturing and food processing plants
- Meat and meat products processing, packing, and rendering plants
- Meat and poultry slaughter and further processing plants
- Milk and dairy processing/packing plants
- Egg processing/packing plants
- Seafood and poultry processing/packing plants
- Raw/Processed fruit, vegetable and nut processing/packing plants
- Grocery stores, supermarkets, food distribution and storage facilities
- Eating establishments

#### **Disinfection:**

1. For moderately soiled surfaces a pre-cleaning step is not required. For grossly contaminated surfaces, pre-rinse surfaces and equipment to be disinfected with potable water.
2. Wash surfaces and equipment with detergent or cleaning solution to remove gross filth. Rinse with potable water to remove suspended soils and residual detergent.
3. Prepare a disinfecting solution by mixing 1.5–8.7 fl. oz. of SaniDate 15.0 in 5 gallons of water. This provides 393–2,300 ppm of peroxyacetic acid and 262–1,522 ppm of hydrogen peroxide.
4. Apply the SaniDate 15.0 solution with a mop, cloth, sponge, brush, scrubber, or coarse spray device or by soaking to wet all surfaces thoroughly. Treated surfaces must remain visibly wet for a minimum of ten (10) minutes.
5. Rinse all treated surfaces that will contact food or commodities with potable water before use.

#### **DISINFECTING HOSPITALS, DENTAL OFFICES, NURSING HOMES, AND OTHER HEALTH CARE INSTITUTIONS**

For disinfecting hard, non-porous surfaces such as floors, walls, countertops, bathing areas, lavatories, bed frames, tables, chairs, and garbage pails. For heavily soiled surfaces, a pre-cleaning step is required.

1. Remove gross contamination with a cleaner or other suitable detergent and rinse with water.
2. Add 1.5–8.7 fl. oz. of SaniDate 15.0 to 5 gallons of water. This provides 393–2,300 ppm of peroxyacetic acid and 262–1,522 ppm of hydrogen peroxide.
3. Apply the SaniDate 15.0 solution with a mop, cloth, sponge, brush, scrubber, or coarse spray device or by soaking to wet all surfaces thoroughly.

4. Treated surfaces must remain visibly wet for a minimum of ten (10) minutes.

#### **DISINFECTING PHARMACEUTICAL AND COSMETIC SURFACES**

SaniDate 15.0 is recommended for use on hard, non-porous, environmental surfaces such as floors, walls and processing equipment in pharmaceutical and cosmetic processing facilities.

1. Remove gross contamination with a cleaner or other suitable detergent and rinse with water.
2. Add 1.5–8.7 fl. oz. of SaniDate 15.0 to 5 gallons of water. This provides 393–2,300 ppm of peroxyacetic acid and 262–1,522 ppm of hydrogen peroxide.
3. Apply the SaniDate 15.0 solution with a mop, cloth, sponge, brush, scrubber, or coarse spray device or by soaking to wet all surfaces thoroughly.
4. Treated surfaces must remain visibly wet for a minimum of ten (10) minutes.

#### **DISINFECTING HAIRDRESSING SALON/BARBER SHOP INSTRUMENTS AND TOOLS**

Immerse pre-cleaned barber/salon tools (combs, brushes, razors, manicure/pedicure tools, clippers, scissors, trimmer blades) in a solution of SaniDate 15.0 at a dilution of 0.3 fl. oz. per gallon of water, for at least ten (10) minutes. This provides 393 ppm of peroxyacetic acid and 262 ppm of hydrogen peroxide. Rinse instruments thoroughly and dry before reuse. A fresh use-solution should be prepared daily or more often if the use solution becomes cloudy or soiled. Note: Plastics may remain immersed until ready to use. Stainless steel shears and instruments must be removed after 10 minutes, rinsed, dried and kept in a clean non-contaminated receptacle. Prolonged immersion may cause damage to stainless steel or metal instruments.

#### **FIELD AND FARM EQUIPMENT DISINFECTION**

SaniDate 15.0 may be used to disinfect hard, non-porous harvest equipment such as pickers, harvesters, tractors, trailers, forklifts, trucks (including truck body parts and tires), bins, packing crates, ladders, power tools, hand tools, gloves, rubber boots, pruning shears or other equipment.

1. Remove gross contamination with a cleaner or other suitable detergent and rinse with water.
2. Apply SaniDate 15.0 at a rate of 0.3 fl. oz. per gallon of water as a general coarse spray. This provides 393 ppm of peroxyacetic acid and 262 ppm of hydrogen peroxide.
3. Treated surfaces must remain visibly wet for ten (10) minutes.
4. Allow to air dry, do not rinse.

#### **TRACTOR TRAILER AND TRANSPORTATION VEHICLES DISINFECTION**

SaniDate 15.0 may be used to disinfect and deodorize hard, non-porous equipment such as trucks, trailers, cabs, crates, (including truck body parts and tires, mats, wheels). Use SaniDate 15.0 to prevent cross contamination of bacteria across treated surfaces between loads.

1. Remove gross contamination with high pressure water and cleaner or other suitable detergent and rinse with water.
2. Apply SaniDate 15.0 at a rate of 0.3 fl. oz. per gallon of water as a general coarse spray. This provides 393 ppm of peroxyacetic acid and 262 ppm of hydrogen peroxide.
3. Treated surfaces must remain visibly wet for ten (10) minutes.
4. Rinse all treated surfaces that will contact food or commodities with potable water before use.

#### **ANIMAL HEALTH**

SaniDate 15.0 can be used in animal hospitals, animal laboratories, kennels, pet shops, zoos, pet animal quarters, poultry premises, poultry hatcheries, livestock and dairy quarters. When used as directed, it is specifically designed to disinfect, deodorize and clean inanimate, hard, non-porous surfaces such as walls, floors, sink tops, furniture, operation tables, kennel runs, cages and feeding and watering equipment. In addition, it will disinfect bins and cans, and any other hard, non-porous areas that are prone to odors caused by microorganisms.

All treated equipment that will contact feed or drinking water must be rinsed with potable water before reuse.

For heavily soiled areas, a pre-cleaning step is required. Prepare a fresh solution for each use.

### **DISINFECTION OF POULTRY HOUSES, ANIMAL HOUSING, LIVESTOCK BUILDINGS AND HATCHERIES**

1. Remove all poultry, livestock and feed from premises, coops, crates and enclosures.
2. Remove gross soils, such as litter, droppings and manure from floors, walls and surfaces of facilities occupied or traversed by animals.
3. Empty all troughs, racks and other feeding and watering appliances.
4. Pre-rinse surfaces and equipment to be disinfected.
5. Thoroughly clean all surfaces with soap or detergent and rinse with water.
6. Apply SaniDate 15.0 at a rate of 1.5–8.7 fl. oz. of SaniDate 15.0 in 5 gallons of water to surfaces and equipment using a course spray or flood. This provides 393–2300 ppm of peroxyacetic acid and 262–1522 ppm of hydrogen peroxide.
7. Immerse all types of equipment used in handling and restraining poultry, as well as forks, shovels and scrapers used for removing litter and manure.
8. Treated surfaces must remain visibly wet for a minimum of ten (10) minutes.
9. Ventilate buildings, coops and other closed spaces. Do not house poultry, livestock or employ equipment until treatment has been absorbed, set or dried.
10. Thoroughly rinse all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent, and rinse with potable water before reuse.

### **TO FOG POULTRY PREMISES, TRUCKS, COOPS, CRATES**

SaniDate 15.0 may be used for thermal fogging or wet misting to prevent/control non-public health organisms following regular cleaning procedures in hard room surfaces.

1. Remove all poultry and feeds from premises, trucks, coops and crates.
2. Remove gross soils, such as litter, droppings, down, shell fragments or other hatching related debris from floors, walls and surfaces of facilities occupied or traversed by poultry.
3. Empty all troughs, racks and other feeding and watering appliances and equipment.
4. Ensure room is properly ventilated. Vacate all personnel from the room during fogging and for a minimum of 1 hour after fogging, to ensure that there is no strong odor, which is characteristic of acetic acid, before having personnel return to work area.
5. Fog desired areas using 1 quart per 1,000 feet of room area with a solution of 0.3 fl. oz. of SaniDate 15.0 per gallon of potable water (0.08 fl. oz. per quart of potable water) or a dilution rate of 1:426. This provides 393 ppm of peroxyacetic acid and 262 ppm of hydrogen peroxide.
6. Ventilate buildings, coops, and other closed spaces for minimum of one hour. Allow surfaces to dry before reintroducing eggs or poultry.
7. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with detergent, and rinse with potable water before reuse.

### **TERRARIUM AND SMALL ANIMAL CAGE DISINFECTION**

1. Remove all animals and feed from enclosure to be cleaned.
2. Thoroughly clean all hard, non-porous surfaces with soap or detergent and rinse with water.
3. Saturate all surfaces (floors, walls, cages and other washable hard, non-porous environmental surfaces) with a solution of 0.3 fl. oz. of this product per gallon of water. This provides 393 ppm of peroxyacetic acid and 262 ppm of hydrogen peroxide. For smaller surfaces, use a trigger spray bottle to spray all surfaces with solution until wet.
4. Treated surfaces must remain visibly wet for a minimum of ten (10) minutes.

5. Thoroughly scrub all treated surfaces with soap or detergent and rinse with potable water before reuse.
6. Do not return animals to the habitat until it is dry and ventilated.
7. Clean terrarium at least once weekly or more as needed.

### **FOOT BATH MATS, PADS, WALK THROUGH TRAYS**

Place foot bath mats, pads or trays at the entrances of all rooms and buildings to prevent cross contamination across treated surfaces in animal containment areas, livestock and dairy quarters, poultry premises, greenhouses, packing houses, food processing and rendering plants.

1. Prior to use of this product, rinse or brush footwear surfaces to remove gross filth.
2. Make a solution using 0.3–0.4 fl. oz. of SaniDate 15.0 per gallon of water (393–525 ppm of peroxyacetic acid) and add to foot bath mat, pad or tray, filling to capacity.
3. Place boots and shoes in the foot bath mat, pad or tray containing the recommended solution of SaniDate 15.0. Allow treated surfaces to remain visibly wet for ten (10) minutes prior to entering next area. Change solution daily or as needed.

### **DISINFECTION OF HARD, NON-POROUS FOOD-CONTACT SURFACES IN FOOD PROCESSING PLANTS AND FOOD SERVICE ESTABLISHMENTS**

Before using this product, food products and packaging materials must be removed from area or carefully protected.

1. Prior to use of this product, remove gross soil particles from surfaces to be treated. For heavily soiled surfaces, a pre-wash is required.
2. Apply 0.3 fl. oz. of SaniDate 15.0 per gallon of water with a mop, cloth, sponge, or hand trigger spray to wet all surfaces thoroughly. This provides 393 ppm of peroxyacetic acid and 262 ppm of hydrogen peroxide.
3. Treated surfaces must remain visibly wet for ten (10) minutes.
4. Rinse all treated surfaces thoroughly with potable water before operations are resumed.

### **PACKINGHOUSE, FOOD STORAGE FACILITIES, FOOD PROCESSING AND RENDERING PLANT DISINFECTION**

Apply SaniDate 15.0 on all hard, non-porous surfaces and equipment found in commercial packinghouses including dump tanks, drenches, crates, containers, conveyors, storages, walls, floors, and process lines.

#### **For Pre-Cleaned Surfaces:**

Use SaniDate 15.0 for hard, non-porous surfaces that are lightly soiled or have been pre-cleaned to remove gross contamination.

1. Cover or remove all food and packaging materials before disinfection.
2. Apply 0.3 fl. oz. of SaniDate 15.0 per gallon of water with a mop, cloth, sponge, or hand trigger spray to wet all surfaces thoroughly. This provides 393 ppm of peroxyacetic acid and 262 ppm of hydrogen peroxide.
3. Treated surfaces must remain visibly wet for ten (10) minutes.
4. Rinse all treated surfaces thoroughly with potable water before operations are resumed.

### **TO FOG DAIRY, BEVERAGE, FILLING, PACKAGING, PROCESSING, STORAGE, AND WAREHOUSE ROOMS OR AREAS**

All surfaces must be disinfected in accordance with label instructions prior to fogging. SaniDate 15.0 may be used for the non-pesticidal purpose of cleaning hard, non-porous room surfaces.

#### **Cleaning Surfaces:**

1. Prior to fogging, remove or carefully protect all food products and packaging materials.
2. Ensure room is properly ventilated. Vacate the area of all personnel prior to, during, and after fogging until the hydrogen peroxide concentration is below 0.5 ppm.
3. Fog areas using 1–2 quarts per 1,000 cu. ft. of room area with a solution of 0.3 fl. oz. of SaniDate 15.0 per gallon of potable water (0.08 fl. oz. per quart of potable water) or a dilution rate of 1:426. This provides 393 ppm of peroxyacetic acid and 262 ppm of hydrogen peroxide.

4. Allow surfaces to drain thoroughly before operations are resumed.

#### **FOGGING FOR REGULAR CLEANING OF FRUIT AND VEGETABLE STORAGE SYSTEMS AND POTATO STORAGE AREAS PRIOR TO LOADING WITH POTATOES**

This product may be used for fogging (wet misting) to prevent/control the growth of non-public health organisms that cause spoilage and/or decay following cleaning procedures in hard room surfaces using any type of fogging equipment such as thermofoggers and cold foggers.

1. Prior to fogging, remove or cover any food or packaging material with waterproof coverings.
2. Thoroughly clean all surfaces. Remove gross soil particles from surfaces to be treated.
3. Cover any metal equipment or controls inside the storages that might be sensitive to hydrogen peroxide and/or peroxyacetic acid.
4. Ensure proper ventilation in the room.
5. Vacate the area of all personnel prior to, during and after fogging until the hydrogen peroxide concentration is below 0.5 ppm.
6. Fog areas using 1–2 quarts per 1000 cu. ft. of storage area with 0.13–0.27% v/v (1:750–1:350; 0.17–0.36 fl. oz. of SaniDate 15.0 per gallon of water) solution of SaniDate 15.0. This provides 220–471 ppm peroxyacetic acid and 147–314 ppm of hydrogen peroxide. Use high rate if surfaces are not pre-cleaned.

#### **CLEANING POULTRY, SWINE, LIVESTOCK WATER SYSTEMS WHEN THE SYSTEM IS NOT IN USE**

To remove scale, calcium, iron, magnesium, heavy soils, polysaccharides and deposits from vitamins and medications from livestock watering systems use SaniDate 15.0 at 0.15–0.30 fl. oz. per gallon of water. This provides 197–393 ppm of peroxyacetic acid and 131–262 ppm of hydrogen peroxide. When used as directed, SaniDate 15.0 will remove organic and inorganic deposits that reduce water flow and clog nipples. Allow system to run for 6–24 hours depending on the conditions. Following the cleaning process, rinse with potable water to remove the cleaning solution from the watering line, nipples and cups. Never mix SaniDate 15.0 with any other product.

#### **CLEANING POULTRY, SWINE, LIVESTOCK WATERING OPERATING SYSTEMS (WHEN ANIMALS ARE PRESENT)**

After water lines have been cleaned, use SaniDate 15.0 at 0.3–0.45 fl. oz. per 100 gallons of water to control mineral build up in watering lines. This provides 3.9–5.8 ppm of peroxyacetic acid and 2.6–3.9 ppm of hydrogen peroxide. Never use SaniDate 15.0 more than 5 consecutive days to clean the operating system. Never mix SaniDate 15.0 with any other product. If cleaning the operating system, stop the use of SaniDate 15.0 twenty-four (24) hours prior to vaccination or medication via the water line.

#### **CONTROL OF NON-PUBLIC HEALTH SLIME-FORMING BACTERIA AND BIOFOULING IN COOLING WATER SYSTEMS (COOLING TOWERS, EVAPORATIVE CONDENSERS, AIR WASHERS) AND ORNAMENTAL WATER FEATURES**

1. Severely fouled systems should be cleaned before adding the SaniDate 15.0 solution. SaniDate 15.0 should be added in the water system directly, and not mixed with any other chemicals or additives. Never add SaniDate 15.0 into any feeding device, such as shot feeders, filter housings, by-pass feeders, or miscellaneous piping of any kind, because dangerous acute decomposition can occur. Discontinue the use of chlorine or bromine products prior to using SaniDate 15.0. Contamination with other chemicals could result in product decomposition.
2. Add SaniDate 15.0 only to water at a point in the system where uniform mixing and even distribution will occur.
3. For shock (slug) treatment for moderately to severely fouled systems: Add 5–20 fl. oz. of this product per 1,000 gallons of process water (7–27 ppm peroxyacetic acid, 5–18 ppm hydrogen peroxide). Repeat as necessary until microbiological control is evident. Thereafter, to maintain control use 1.5–7.5 fl. oz. of SaniDate 15.0 per 1,000 gallons of process water (2–10 ppm of peroxyacetic acid) as a continuous treatment method.

4. Continuous dosing methods usually require 1.5–5 fl. oz. per 1,000 gallons of water (2–7 ppm peroxyacetic acid, 1–5 ppm hydrogen peroxide) to achieve adequate results.

5. Intermittent dosing treatments usually require dose cycles of a minimum once per day, up to 6 times per 24 hours. Recommended rates for intermittent dose cycles are 5–10 fl. oz. of SaniDate 15.0 per 1,000 gallons of process water (7–14 ppm peroxyacetic acid, 5–9 ppm hydrogen peroxide).

**Air Washers:** SaniDate 15.0 may be used to control bacteria and bio-fouling in industrial air washing/scrubbing systems. The air washer must have operational and effective mist elimination systems. Prior to use of this product, heavily fouled systems must be pre-cleaned using an appropriate cleaner. Continuous dosing methods will require 2–7 ppm and intermittent dosing methods require 7–14 ppm (as peroxyacetic acid) depending on the type of system and the level of microbiological control desired.

#### **FOR ANTIMICROBIAL USE WITH AQUEOUS TREATMENT FLUIDS IN SUBTERRANEAN OIL FIELD AND GAS-FIELD WELL OPERATIONS SUCH AS WELL DRILLING, FORMATION FRACTURING, PRODUCTIVITY ENHANCEMENT AND SECONDARY RECOVERY**

Use SaniDate 15.0 for control of non-public health slime-forming, spoilage bacteria and anaerobic sulfate reducing bacteria, *Desulfovibrio vulgaris*, which leads to reservoir souring and metal corrosion.

**Drilling Muds, Fracturing Fluids, Well Squeezed Fluids:** For the preservation of drilling muds, workover and completion fluids and other products susceptible to contamination, pre-mix with the fluid or add directly at the point of use at 3.75 fl. oz. of this product per 1,000 gallons of water (5 ppm peroxyacetic acid, 3 ppm of hydrogen peroxide) to 75.5 fl. oz. per 1,000 gallons of water (100 ppm peroxyacetic acid, 67 ppm of hydrogen peroxide) as required. Depending on the severity of the contamination, initial application may be added up to 755 fl. oz. per 1,000 gallons of water (1,000 ppm peroxyacetic acid, 667 ppm of hydrogen peroxide).

**Flooding, Injection and Produced Water:** For water flooding operations, add initially at 3.75 fl. oz. of this product per 1,000 gallons of water (5 ppm peroxyacetic acid, 3 ppm of hydrogen peroxide) to 75.5 fl. oz. per 1,000 gallons of water (100 ppm peroxyacetic acid, 67 ppm of hydrogen peroxide) and repeat until control is achieved. Subsequent treatment may be continued on a weekly basis or as required.

Injection wells associated with gas storage systems may be treated up to 100 ppm when diluted in the formation water. Any additional top-up water should be treated as required. For hydrostatic systems, apply 3.75 fl. oz. per 1,000 gallons of water (5 ppm peroxyacetic acid, 3 ppm of hydrogen peroxide) to 75.5 fl. oz. per 1,000 gallons of water (100 ppm peroxyacetic acid, 67 ppm of hydrogen peroxide) depending on the water quality and the duration of the shut-in.

**Pipeline and Tank Maintenance:** For non-public health microbial control in water-bottoms in crude and refined hydrocarbon storage tanks, piping and transportation systems. Apply 3.75 fl. oz. of this product per 1,000 gallons of water (5 ppm peroxyacetic acid, 3 ppm of hydrogen peroxide) to 75.5 fl. oz. per 1,000 gallons of water (100 ppm peroxyacetic acid, 67 ppm of hydrogen peroxide) in the aqueous phase, directly injected into the water-bottom, pipeline or may be added to the hydrocarbon phase. Treatment may be applied daily or monthly for both storage and transportation systems as needed.

#### **BIOFOULING CONTROL IN PULP AND PAPER MILL SYSTEMS**

For use in the manufacture of paper and paperboard intended for food and non-food contact. SaniDate 15.0 can be used to control bacterial and yeast growth in pulp, paper and paperboard mills.

1. Severely fouled systems should be cleaned before initial treatment with SaniDate 15.0. Refer to the plant operations manual for directions for cleaning severely fouled systems. The product should be added directly to the system and not mixed with any other chemicals or additives. Other chemicals can be added separately. Contamination with other chemicals could result in product decomposition.

2. Add SaniDate 15.0 at a point in the system where it can be mixed uniformly with the pulp, e.g., the beater, hydropulper, fan pump, broke pump etc.
3. Intermittent feed method: Apply 0.5 lb. to 1.2 lbs. (7–16 fl. oz.) of SaniDate 15.0 per ton (dry basis) of pulp or paper produced for 2–3 hours every eight-hour shift. This provides 42–100 ppm of peroxyacetic acid and 28–67 ppm of hydrogen peroxide. Maintain a concentration that provides adequate control. Daily rate could change depending on the severity of the biofouling.
4. Continuous feed method: Initially, use the intermittent feed method to achieve control. When control is accomplished, apply SaniDate 15.0 continuously at the rate determined adequate for intermittent control. Then reduce the rate of addition to the lowest level sufficient to maintain control. Depending on the severity of the biofouling, control usually can be maintained using a continuous rate of 0.2 to 1.2 lbs. (2.6–16 fl. oz.) of SaniDate 15.0 solution per ton (dry basis) of pulp or paper produced on a continuous basis. This will provide 15–90 ppm of peroxyacetic acid and 10–60 ppm of hydrogen peroxide.

### **FOR NON-PUBLIC HEALTH MICROBIAL CONTROL IN SEWAGE AND WASTEWATER EFFLUENTS IN TREATMENT PLANTS**

Use SaniDate 15.0 to treat sewage and wastewater effluent related to public, municipal, and private treatment plants. SaniDate 15.0 can be applied directly to the effluent or may be used with an appropriate activator. SaniDate 15.0 may be applied to effluent water discharged from trickle bed or percolating fluidized bed filters. The application rate for individual facilities will depend on the degree of bioloading of the effluent stream to be discharged and the local microbial discharge limit. Adjust application rate to meet the need of the individual facility.

1. Add SaniDate 15.0 to effluent water at a concentration of 0.5–15 ppm peroxyacetic acid (1–10 ppm of hydrogen peroxide). Allow contact time of approximately 15–60 minutes.
2. The maximum amount of peroxyacetic acid that can be discharged from the treatment facility is 1 ppm. Use an appropriate peroxyacetic acid test kit analyzer to ensure that this level is not exceeded.
3. Contact your BioSafe Systems representative for assistance establishing treatment regimes.

### **WATER DAMAGE RESTORATION**

Use SaniDate 15.0 to control the growth of odor causing bacteria in water damage restoration situations. This product is suitable for use on hard, non-porous surfaces, along with the following porous and semi-porous materials: carpets, carpet cushion, sub floors, drywall, trim, frame lumber, tackless strip and paneling.

### **SEWER BACKUP AND RIVER FLOODING**

During mitigation procedures prepare a solution of SaniDate 15.0 by adding 0.35 fl. oz. of this product to 1 gallon of potable water, allowing for the diluting effect of absorbed water within the saturated materials. This provides 463 ppm of peroxyacetic acid and 309 ppm of hydrogen peroxide. Remove heavy soil or gross filth from surfaces by cleaning with the SaniDate 15.0 solution by wiping, mopping, or as a coarse spray. Saturate all affected materials with the solution using a coarse spray before cleaning and extraction. Allow surfaces and materials to remain wet with solution for ten (10) minutes. Follow with a thorough extraction. Dry rapidly and thoroughly. Use proper ventilation.

### **CONTROL OF ALGAL, FUNGAL AND SLIME-FORMING BACTERIAL GROWTH ON NON FOOD CONTACT GREENHOUSE WATERING SYSTEMS**

**TREATMENT OF GREENHOUSE SURFACES AND EQUIPMENT** – (such as glazing, plastic, pots, flats, trays, cutting tools, benches, work areas, walkways, floors, walls, fan blades, watering systems, coolers, storage rooms, structures and equipment). Clean surfaces before treatment. Sweep and remove all plant debris, and use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:764 of SaniDate 15.0 for all non-porous surfaces that have been pre-cleaned with water. Apply

solution with mop, sponge, power sprayer or fogger to visibly wet all surfaces. Cutting tools may be soaked to ensure complete coverage. Allow surfaces to remain visibly wet with the solution for a minimum of five (5) minutes. Heavy growths of algae and fungi may have to be scrubbed off following application. Repeat treatment as required to maintain control.

### **TREATMENT OF GREENHOUSE EVAPORATIVE COOLERS**

Treat contaminated surfaces with a dilution of 1:764 of SaniDate 15.0. Allow surfaces to remain visibly wet with the solution for a minimum of five (5) minutes.

Foaming Applications: For the non-pesticidal purpose of cleaning hard, non-porous surfaces, use SaniDate 15.0 as a foam treatment to enhance contact on hard, non-porous surfaces, vertical surfaces and irregular surfaces such as metal grating and structural steel where contact is difficult to maintain with coarse spray treatments. Apply SaniDate 15.0 at a rate of 1:191–1:382. Add a foaming agent to the spray tank that contains the diluted solution. Apply foam until the surface treated is completely covered. Turn off coolers for 20 minutes to allow foam to work. Allow foam-treated surfaces to air dry. Do not rinse.

### **TREATMENT OF GREENHOUSE EVAPORATIVE COOLER WATER**

For maintenance, treat cooler water by continuously injecting a dilution of 1:2,548–1:6,370 of SaniDate 15.0; 0.50–0.20 fl. oz. for 10 gallons of cooling water.

To shock evaporative cooling water apply SaniDate 15.0 at a 1:764 dilution once a week.

### **CONTROL OF ALGAL, FUNGAL AND SLIME-FORMING BACTERIAL GROWTH IN AGRICULTURAL IRRIGATION SYSTEMS AND WATER**

#### **TREATMENT OF AGRICULTURAL IRRIGATION SYSTEMS AND WATER**

Use SaniDate 15.0 to control algae, slime-forming bacteria, fungi and plant pathogenic organisms in agricultural irrigation systems and water.

#### **TREATMENT OF AGRICULTURAL IRRIGATION SYSTEMS**

To clean contaminated irrigation systems, including sprinkler (solid set, center pivot, lateral move, end tow, side wheel roll, traveling big gun or hand move) and drip/micro irrigation system, fill irrigation lines with a SaniDate 15.0 solution using a dilution of 1:764–1:6,370 and allow a contact time of 6–12 hours or overnight if possible. Open ends of irrigation lines and flush with irrigation water. Repeat the treatment as necessary. Refer to Chemigation Instructions for specific instructions on using this product through irrigation systems.

#### **SHOCK TREATMENT FOR IRRIGATION WELLS**

Use SaniDate 15.0 to control bacterial growth in irrigation wells. To shock well water apply 0.44–0.88 gallons (56–113 fl. oz.) of SaniDate 15.0 per 100 cubic feet of well water to be treated; equivalent to a dilution rate of 1:1,695–1:848 (100–200 ppm of peroxyacetic acid). Surge irrigation well to circulate and allow a contact time of 48–72 hrs. If necessary purge the well to remove any organic deposits. Pump the well until water is clear. Test strips can be used ensure peroxyacetic acid concentration is < 50 ppm in the water before using the water for irrigation on established plants.

#### **TREATMENT OF AGRICULTURAL IRRIGATION WATER AND DRAINAGE DITCHES**

Use SaniDate 15.0 at the following rates to suppress/control bacteria, algae and fungi/oomycetes in irrigation water and drainage ditches.

- Bacteria: 3–100 fl. oz. per 1,000 gallons of water (1:50,960–1:1,274 dilution)
- Algae: 5–20 fl. oz. per 1,000 gallons of water (1:25,480–1:6,370 dilution) Apply more often during periods of higher water temperatures
- Fungi/oomycetes: 7–20 fl. oz. per 1,000 gallons of water (1:19,110–1:6,370 dilution)

Product can be simply added to the body of water.



## TREATMENT OF WATER DRAWN FROM OPEN AND CLOSED WATER SOURCES USED FOR DUST ABATEMENT

Use SaniDate 15.0 at the following rates to suppress/control bacteria, algae and fungi/oomycetes in water drawn from open and closed water sources such as wells, streams, ponds, reservoirs, irrigation canals, irrigation water and drainage ditches used to control dust on unpaved gravel and dirt roads.

- Bacteria: 3–100 fl. oz. per 1,000 gallons of water (1:50,960–1:1,274 dilution)
- Algae: 5–20 fl. oz. per 1,000 gallons of water (1:25,480–1:6,370 dilution)
- Fungi/oomycetes: 7–20 fl. oz. per 1,000 gallons of water (1:6,370–1:19,110 dilution)

Prepare the mixture at least 3–5 minutes prior to application for dust abatement. Apply to the road surface using a water truck (or tractor or spraying device) with equipped with a watering system.

## TREATMENT OF AGRICULTURAL IRRIGATION WATER USED FOR FRUIT, VEGETABLE AND ROW CROPS

Use SaniDate 15.0 to treat irrigation water during all phases of crop production including pre-plant irrigation and throughout the crop cycle to suppress/control bacteria, algae, fungi, and fungi-like organisms (such as water molds) in irrigation water used for fruit, vegetable and row crop production. SaniDate 15.0 can be used up to and including the day of harvest.

- Bacteria: 3–100 fl. oz. per 1,000 gallons of water (1:50,960–1:1,274 dilution)
- Algae: 5–20 fl. oz. per 1,000 gallons of water (1:25,480–1:6,370 dilution)
- Fungi/oomycetes: 7–20 fl. oz. per 1,000 gallons of water (1:6,370–1:19,110 dilution)

Apply this product as a direct injection into the water at the point of intake and applied through a sprinkler system (including solid set, center pivot, lateral move, end tow, side wheel roll, traveling big gun or hand move), drip/micro irrigation system, flood (basin), or furrow. For best results, treat water every time crop is irrigated or at a minimum during the last 2-3 irrigations prior to harvest.

## FOR TREATMENT OF IRRIGATION WATER TO SUPPRESS/CONTROL BACTERIA

For treatment of irrigation water as a continuous injection, use a dilution rate of 1:50,960–1:1274 (3–100 fl. oz. of SaniDate 15.0 per 1000 gallons of water; equivalent to 3.3–134 ppm of peroxyacetic acid).

## FOR TREATMENT OF IRRIGATION WATER TO SUPPRESS/CONTROL FUNGI, ALGAE, AND FUNGI-LIKE ORGANISMS (SUCH AS WATER MOLDS)

For treatment of irrigation water as a continuous injection, use a dilution rate of 1:50,960–1:1,274 (3–100 fl. oz. of SaniDate 15.0 per 1000 gallons of water; equivalent to 3.3–134 ppm of peroxyacetic acid).

Conduct a water analysis prior to treatment to determine type and level of algae and/or microbial contamination and the proper rate of product to use.

## IRRIGATION CONVEYANCE SYSTEMS AND OTHER MOVING WATER

Use SaniDate 15.0 to suppress/control algae in flowing water systems. Apply SaniDate 15.0 at first signs of algae as needed to control and prevent algae growth. Apply more often in times of higher water temperatures. Distance of control down the waterway will vary depending upon density of growth and water flow rates (C.F.S.). Inject SaniDate 15.0 for a minimum of 4 hours. Treatments of longer duration or more frequent intervals along the channel may be necessary.

Prior to treatment it is important to accurately determine water flow rates. In the absence of weirs, orifices, or similar devices, which give accurate water flow measurements, volume of flow may be estimated by the following formula:

$$\text{Average Width (feet) x Average Depth x Velocity* (feet/second) x 0.9 = Cubic Feet per Second (C.F.S.)}$$

\*Velocity is the time it takes for a floating object to travel a given distance. Dividing the distance traveled (feet) by the time (seconds) will yield velocity (feet/second). This measurement should be repeated at least three times at the intended application site and then averaged.

After accurately determining the water flow rate in C.F.S., find the corresponding application rate of SaniDate 15.0 in the chart below.

## Application Rates for Moving Water

SaniDate 15.0 can be used to prevent/control algae in moving water. Determine water flow rate (As C.F.S (Cubic Feet per Second) or as GPM (Gallons per Minute) prior to treatment of water system. Apply SaniDate 15.0 at a rate of 0.019–0.15 fl. oz. per C.F.S or 0.019–0.16 gallons per 1,000 GPM water flow rate. This results in 3.0–27 ppm of peroxyacetic acid in the water. Use higher rates when algae density is high and/or when dealing with resistant algae type(s).

## Application Rates

Algae Growth/Density	Application Rate per C.F.S.
Low Density	0.019 fl. oz.
Moderate Density	0.037 fl. oz.
High Density	0.075 fl. oz.
Extreme Density	0.150 fl. oz.

## POULTRY, SWINE, AND LIVESTOCK WATER LINE CLEANER WHEN SYSTEM IS NOT IN USE

To remove scale, mineral build up and heavy soils from livestock watering systems use SaniDate 15.0 at 0.15–0.30 fl. oz. per gallon of water, or a dilution rate of 1:859–1:429. Allow system to run for 6 to 24 hours depending on the conditions. Following the cleaning process, rinse thoroughly with potable water to remove the cleaning solution from the watering line, nipples and cups.

## POULTRY, SWINE, AND LIVESTOCK WATERING OPERATING SYSTEMS

After water lines have been cleaned, use SaniDate 15.0 at 0.31-0.45 fl. oz. per 100 gallons of water, or a dilution rate of 1:41,813–1:28,116 to control algae and bacteria in drinking water and to control mineral build up in watering lines.

## CONTROL OF ALGAL GROWTH IN CONTAINED WATER SYSTEMS

To suppress, control and prevent algae in the following contained waters: Ornamental Pools/Ponds, Ornamental Waterfalls, Fountains, Waterways, Conveyance Ditches, Canals, Laterals, Drainage Systems, Catch Basins, Sewage Lagoons and Pits, Sewage Systems, Fire Ponds, Storage Tanks, Water Collectors.

**Application Rates:** 1:6,370–1:50,960.

**Liquid Treatment:** Surface spray (or inject) spray solution on the water surface from shore or a boat equipped with aquatic spray or injection equipment. Use in accordance with manufacturer's spray equipment instructions.

**Injection Treatment:** Inject solution into the water via compatible dosing equipment.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in original containers in a cool, well-vented area, away from direct sunlight. Do not allow product to become overheated in storage. This may cause increased degradation of the product, which will decrease product effectiveness. In case of spill, flood area with large quantities of water.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If wastes cannot be disposed of according to label directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER HANDLING:**

**For non-refillable containers equal to or less than 5 gallons:**

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

**For non-refillable containers greater than 5 gallons:**

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

**For refillable containers:**

Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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For additional information on SaniDate® 15.0, call us toll-free at 1.888.273.3088 or visit [www.biosafesystems.com](http://www.biosafesystems.com).

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**V11-030420 Rev.1** 8.21