

## SPECIMEN LABEL

### FOR COMMERCIAL USE

EPA REGISTRATION NO. 70299-19

#### ACTIVE INGREDIENTS:

Hydrogen Peroxide ..... 23.0%  
 Peroxyacetic Acid ..... 5.3%

INERT INGREDIENTS: ..... 71.7%

TOTAL: ..... 100.0%

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

*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 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.

#### 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For general information on this product, contact the National Pesticides Information Center (NPIC) at 1-800-858-7378 (NPIC web site:www.npic.orst.edu). For medical emergencies, call the poison control center at 1-800-222-1222.

### 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 swallowed or absorbed through skin. Do not get in eyes, on skin, or on clothing. Harmful if inhaled. Avoid breathing vapor or spray mist. Wear goggles or face shield, rubber gloves and protective clothing when handling. 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.

### PHYSICAL AND CHEMICAL HAZARDS

**STRONG OXIDIZING AGENT. Corrosive.** Do not use in concentrated form. Mix only with water in accordance with label instructions. Never bring concentrate in contact with other pesticides, cleaners or oxidative agents.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Handlers who may be exposed to the 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 or face shield).

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 product is highly toxic to bees and other beneficial insects exposed to direct contact on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. Do not apply this product or allow it to drift to crops where beneficials are part of an Integrated Pest Management strategy.

This pesticide is toxic to fish. Begin treatment along the shore and proceed outward in bands to allow fish to move into untreated areas. Consult with the State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is needed.

This pesticide is toxic to birds. Treated seed exposed on soil surface may be harmful to birds.

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

Do not contaminate water when disposing of equipment washwater or rinsate.

### 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.

For enclosed environments:

There is a Restricted Entry Interval (REI) of one (1) hour for this product when applied via fogging or spraying to growing plants, surfaces, equipment, structures and non-porous surfaces in enclosed 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.

SaniDate 5.0 works best when diluted with water containing minimal levels of organic or inorganic materials. Thoroughly rinse out tank with water before mixing concentrate. This product will readily mix with clean water and does not require agitation.

This product is not for use on medical device surfaces.

Before use in federally inspected meat and poultry food processing plants and dairies, food products and packaging materials must be removed from room or carefully protected.

Following use of this product as a hard surface food contact sanitizer allow surfaces to adequately drain and air dry before contact with food. Do not rinse.

The main areas of use include:

- Packinghouses, food processing, food distribution and storage, beverage processing facilities, milking parlors, dairy production and transfer facilities and equipment
- Fruit and vegetable processing/packing plants
- Meat and meat products processing, packing, and rendering plants
- Federally Inspected Meat and Poultry Facilities
- Farms, farm equipment and harvesting equipment
- Dairies, wineries, breweries, and beverage plants
- Milk and dairy processing/packing plants
- Egg processing/packing plants
- Seafood and poultry processing/packing plants
- Grocery stores, supermarkets, food distribution and storage facilities
- Eating establishments
- Hospitals, doctor's offices, dental offices, housekeeping services,

physical therapy departments, nursing services, autopsy facilities, nursing homes, other healthcare facilities

- Animal hospitals, laboratories, and housing facilities
- Veterinary clinics, kennels, kennel runs, cages, feeding and watering equipment, pet shops, zoos, pet animal quarters, poultry premises, trucks, hatcheries, and livestock quarters and pens
- Schools, colleges, industrial facilities, dietary areas, office buildings, recreational facilities, health clubs, gyms, spas, retail and wholesale establishments
- Buses, taxis, trucks, trains, airplanes, public transportation facilities

**POST HARVEST TREATMENTS**

Use SaniDate 5.0 for the treatment of waters used in the handling, processing, packing or storage of raw fruits and vegetables. SaniDate 5.0 may also be used to control the growth of spoilage and decay causing bacterial and fungal diseases on post harvest fruits and vegetables. For post harvest applications, fruits and vegetables can be sprayed or submerged in the resulting solution for a minimum contact time of 45 seconds, followed by adequate draining.

**Note: May cause bleaching of treated surfaces, test commodity if unsure.**

**TREATMENT OF FRUIT AND VEGETABLE PROCESSING WATERS**

Use SaniDate 5.0 for the treatment of waters used in the processing of raw fruits and vegetables. Mix SaniDate 5.0 with water either batch-wise or continuously at a rate of 59.1-209.5 fl. oz. of SaniDate 5.0 solution to 1,000 gallons of water. This will provide 512-1,817 ppm of SaniDate 5.0, or 27-96 ppm peroxyacetic acid in the use solution. The fruits and vegetables can be sprayed or submerged in the resulting solution for a minimum contact time of 45 seconds, followed by adequate draining. At this use dilution, SaniDate 5.0 will control the growth of spoilage and decay causing non-public health organisms in process waters and on the surface of post harvest fruits and vegetables. This product is not intended for control of any public health organisms on fruit and vegetable surfaces.

**TREATMENT FOR NON-POTABLE WATER SYSTEMS (wash tanks, dip tanks, drench tanks, evaporators, humidification systems and/or storage tanks)**

Treat water containing plant pathogens with 0.6-2.1 fl. oz. of SaniDate 5.0 for every 10 gallons of water or use a dilution rate of 1:620-1:2,200. This will provide 462-1636 ppm of SaniDate 5.0, or 24-85 ppm peroxyacetic acid in the use solution.

**POST HARVEST SPRAY TREATMENTS ON PROCESS AND PACKING LINES**

Inject SaniDate 5.0 directly into spray, misting, humidification, fogging and spray bar system make up system water on process and packing lines to prevent bacterial and fungal diseases on post-harvest fruits and vegetables. Inject the product concentrate into clean water at a dilution ratio of 1:588-1:2,451. This will provide 24-100 ppm of peroxyacetic acid in the use solution. For best results, where dump tanks are used, make post harvest spray treatment as produce is leaving dump tanks. Applicable for use on all types of post harvest commodities.

**FOR FOG TUNNEL AND FOGGING APPLICATIONS OF PRODUCE**

Inject SaniDate 5.0 directly into the system at a rate of 22 fl. oz. per 100 gallons of water. This will provide 100 ppm of peroxyacetic acid in the use solution. Allow a contact time of 20-30 seconds with the fog. For best results, distribute produce in a single layer on the conveyor and ensure uniform distribution of fog across produce surface by either rolling the produce as it passes on the conveyor or by even distribution of the fog nozzles in the treated area. Do not rinse. Applicable for use on all types of post-harvest commodities. See specific directions for treatment of post-harvest potatoes.

**FOGGING OF RAW AGRICULTURAL CROP COMMODITIES IN STORAGE**

For fruits and vegetables in storage, apply SaniDate 5.0 by fogging to prevent/control non-public health organisms that cause spoilage and/

or decay, using any type of fogging equipment such as thermo foggers and cold foggers.

1. Prior to fogging, cover any metal equipment or controls inside the storage that might be sensitive to hydrogen peroxide and / or peroxyacetic acid.
2. Vacate all personnel from the room prior to fogging.
3. Mix the product concentrate with water at 1:588-1:730 ratio (0.17-0.22 fl. oz. per gallon of water) and apply it as a fog directly into the storage. Fog until even and sufficient distribution is achieved across all sections of the stored produce. To improve fog distribution, a carrier solution compatible with SaniDate 5.0 and approved for use on produce may be added as recommended by fogging equipment manufacturer.
4. After fogging, do not allow personnel to enter into treated area until residual fog has dissipated and there are no strong odors, characteristic of acetic acid.
5. Make first fog application immediately after produce gets into storage (within 5-7 days of storage) using highest rate and repeat applications as necessary once every 15 days to a month using lower rate depending on how long the produce will be in storage.

### **SANITIZATION OF FOOD CONTACT SURFACES**

SaniDate 5.0 is an effective sanitizer against *Escherichia coli*, *Staphylococcus aureus* and *Escherichia coli* O157:H7. Also effective against beverage spoilage organisms *Pediococcus damnosus*, *Lactobacillus malefermentans*, and *Saccharomyces cerevisiae*. SaniDate 5.0 is for use in circulation cleaning and institutional/industrial sanitizing of pre-cleaned, hard, non-porous food contact surfaces and equipment.

Use as a sanitizer on hard, non-porous surfaces as tanks, vats, piping systems, pipelines, beverage dispensing equipment, evaporators, filters, pumps, evaporators, clean-in-place systems, pasteurizers and aseptic equipment used in dairies, breweries, wineries, beverage and food processing plants, conveyors, boxing or packing equipment, peelers, corers, de-boners, scrapers, collators, slicers, dicers, knives, saws, non-wooden cutting boards, tabletops, trays, pans, racks, platters, and cans. This product is not to be used for sanitization of surfaces made of wood.

This product can be used in Federally Inspected Meat and Poultry facilities as a sanitizer.

### **Clean equipment immediately after use:**

1. Remove all products from equipment unless treating only the return portion of a conveyor.
2. Remove visible food particulate matter and soil by a warm water flush, or pre-flush, or a pre-scrape and, when necessary, pre-soak treatment.
3. Thoroughly wash surfaces or equipment with a good detergent or compatible cleaning solution. Rinse with potable water.
4. Add 1.6-5.4 fl. oz. of SaniDate 5.0 to 5 gallons of potable water (147-500 ppm of peroxyacetic acid), and apply by wiping, mopping, or coarse spray, or by adding to closed system.
5. If applicable, fill closed systems with diluted sanitizer solution at a temperature of 5°C (41°F) to 40°C (104°F).
6. Treated surfaces must remain visibly wet for one (1) minute.
7. Allow items and/or surfaces to drain thoroughly before resuming operation. Do not rinse.

### **SANITIZATION OF FOOD STORAGE AREAS**

1. Remove all food prior to sanitization of food storage areas.
2. Prior to use of this product, remove visible contamination with a cleaner or other suitable detergent and rinse with potable water.
3. Apply 1.6-5.4 fl. oz. of SaniDate 5.0 to 5 gallons of potable water (147-500 ppm of peroxyacetic acid) with a mop, cloth, sponge, or hand trigger spray so as to wet all surfaces thoroughly.
4. Treated surfaces must remain visibly wet for one (1) minute.
5. Allow items and/or surfaces to air dry. Do not rinse.

### **SANITIZING OF EATING ESTABLISHMENT EQUIPMENT**

such as plates, utensils, cups, glasses.

1. Scrape/pre-wash plates, utensils, cups, glasses, etc. whenever possible.
2. Wash all items with a detergent
3. Rinse thoroughly with potable water.
4. Add 1.6-5.4 fl. oz. of SaniDate 5.0 to 5 gallons of potable water (147-500 ppm of peroxyacetic acid).
5. Immerse all items for at least 1 minute or for a contact time as specified by a local governing sanitizing code.
6. Place all sanitizing items on a rack or drain board to air dry. Do not rinse.

### **SANITIZING OF TABLEWARE IN LOW TO AMBIENT TEMPERATURE WARE WASHING MACHINES**

1. Prepare solution by adding 1.6-5.4 fl. oz. of SaniDate 5.0 to 5 gallons of potable water (147-500 ppm of peroxyacetic acid).
2. Inject solution into final rinse water.
3. Solution must contact tableware. Tableware must remain visibly wet for a minimum of 1 minute.
4. Place all sanitizing items on a rack or drain board to air dry. Do not rinse.

### **FINAL SANITIZING BOTTLE 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. Prepare solution by adding 1.6-5.4 fl. oz. of SaniDate 5.0 to 5 gallons of potable water (147-500 ppm of peroxyacetic acid).
3. Rinse bottles/cans with the diluted solution. Treated surfaces must remain visibly wet for a minimum of 1 minute.
4. Place all bottles/cans on a rack or drain board to air dry. Do not rinse.

### **SANITIZING CONVEYORS FOR MEAT, POULTRY, SEAFOOD, FRUITS, AND VEGETABLES**

1. Remove all products from equipment.
2. Prepare solution by adding 1.6-5.4 fl. oz. of SaniDate 5.0 to 5 gallons of potable water (147-500 ppm of peroxyacetic acid).
3. Apply sanitizer solution to the return portion of the conveyor or to the equipment using a coarse spray or other means to wet the surfaces.
4. Treated surfaces must remain visibly wet for a minimum of 60 seconds contact time.
5. Control the volume of solution so as to permit maximum drainage and to prevent puddles.
6. Allow equipment to drain dry before using. Do not rinse.

### **FOR SANITIZING OF CASING OR SHELL EGGS**

1. To sanitize clean shell eggs intended for food or food products, spray with a solution of 1.6-5.4 fl. oz. of this product with 5 gallons of potable water (147-500 ppm of peroxyacetic acid). 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 or flood.
3. Wet eggs thoroughly. Treated surfaces must remain visibly wet for a minimum of 60 seconds contact time.
4. Allow to drain dry.
5. Eggs that have been sanitized with this product may be broken for use in the manufacture of egg products without a prior potable water rinse.
6. Eggs must be reasonably dry before casing or breaking. The sanitizing solution must not be reused for sanitizing eggs.

### **FOGGING (IN FOOD PREMISES)**

ALL SURFACES MUST BE THOROUGHLY PRE-CLEANED PRIOR TO FOGGING. This product may be applied by fogging to control the growth of non-public health microorganisms that cause decay and spoilage on hard, non-porous surfaces in food premises. For maximum efficacy, sanitization is recommended prior to fogging.

1. Before fogging, remove or cover all food or packaging materials with waterproof coverings.
2. Fog desired areas using 1 quart per 1,000 feet of room area with a solution of 1.6-5.4 fl. oz. of SaniDate 5.0 to 5 gallons of potable water (147-500 ppm of peroxyacetic acid). Use any type of automatic fogging equipment such as thermo foggers and cold foggers.

- 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.
- When fogging is complete, ventilate buildings and other enclosed spaces. Allow surfaces to air dry.

### **SANITIZATION OF NON-FOOD CONTACT SURFACES**

SaniDate 5.0 is an effective inanimate, non-food contact, hard surface sanitizer against fungus, mold, and bacteria – *Staphylococcus aureus* and *Klebsiella pneumoniae*. Use as a sanitizer on hard, non-porous surfaces such as floors, walkways, walls, tables, chairs, benches, garbage cans/bins, cabinets, bathroom fixtures, shelves, carts, refrigerator exteriors, cooler exteriors, tractor trailers, trucks, cabs, trailers, vehicles, conveyors, fan blades, drains, piping, commercial, municipal, and the hard, non-porous surfaces of process water transfer and handling systems, filter housings, vats, tanks, pumps, valves and systems.

SaniDate 5.0 is an effective sanitizer for hard, non-porous personal equipment such as boots, gloves, hard hats, raingear, tools and equipment including but not exclusive to buckets, pails, scrapers, squeegees, brooms, shovels, rakes, hooks, wrenches, and screwdrivers.

SaniDate 5.0 is effective on the use sites listed which are manufactured from the following materials; linoleum, formica, vinyl, glazed porcelain, plastic, sealed fiberglass, polyethylene, CPVC, PVC, nylon, aluminum, steel, stainless steel, sealed wood, glazed tile, and glass.

- Prior to use of this product, remove visible contamination with a cleaner or other suitable detergent and rinse with potable water.
- Add 1.6-5.4 fl. oz. of SaniDate 5.0 to 5 gallons of potable water (147-500 ppm of peroxyacetic acid). Soak items in/diluted solution using mop/wipe, coarse spray or flood techniques.
- Treated surfaces must remain visibly wet for at least (1) one minute.
- Allow items and/or surfaces to air dry. No potable water rinse is required.

### **GENERAL DISINFECTION**

SaniDate 5.0 disinfects as it cleans in one operation. This product can be used to clean, disinfect, and deodorize floors, walls and other hard, nonporous surfaces such as tables, chairs, countertops, garbage bins/cans, bathroom fixtures, sinks, bed frames, shelves, racks, carts, refrigerators, coolers, glazed tile, and use sites listed on this label made of linoleum, vinyl, glazed porcelain, plastic polyethylene, stainless steel, or glass. This product is not to be used for the disinfection of surfaces made of wood.

SaniDate 5.0 is an effective disinfectant against the following bacteria and fungi:

<i>Aspergillus fumigatus</i>	<i>Salmonella enterica</i>
<i>Pseudomonas aeruginosa</i>	<i>Klebsiella pneumoniae</i>
<i>Staphylococcus aureus</i>	<i>Listeria monocytogenes</i>
<i>Enterobacter aerogenes</i>	<i>Streptococcus agalactiae</i>
<i>Bacteroides melaninogenica</i>	<i>Bordetella bronchiseptica</i>
<i>Streptococcus uberis</i>	<i>Fusobacterium necrophorum</i>
<i>Streptococcus dysgalactiae</i>	<i>Trichophyton interdigitale</i>
<i>Methicillin-resistant Staphylococcus aureus (MRSA)</i>	

SaniDate 5.0 is effective against the following food and beverage spoilage organisms:

<i>Pediococcus damnosus</i>	<i>Saccharomyces cerevisiae</i>
<i>Lactobacillus malefermentans</i>	

### **FOR USE AS A VIRUCIDE AGAINST HUMAN CORONAVIRUS**

This product kills the following virus at a dilution of 1.0-2.2 fl. oz. of SaniDate 5.0 per gallon of water (460-1,000 ppm of peroxyacetic acid) when applied to hard, non-porous surfaces:

*Human Coronavirus*

Pre-clean heavily soiled areas. Apply use solution to hard, non-porous surfaces using a sponge, brush, cloth, mop, by immersion or coarse

spray device. For spray applications, spray 6-8 inches from surface. Do not breathe spray. Treated surfaces must remain visibly wet for ten (10) minutes. Allow to air dry. Prepare a fresh solution daily or when visibly dirty. Applications involving treatment of food contact surfaces require a potable water rinse following disinfection.

### **FOR USE AS A VIRUCIDE AGAINST HUMAN INFLUENZA VIRUS (H1N1), CANINE DISTEMPER VIRUS, AVIAN INFLUENZA VIRUS (H9N2)**

This product kills the following viruses at a dilution of 0.5-2.2 fl. oz. of SaniDate 5.0 per gallon of water (230-1,000 ppm of peroxyacetic acid) when applied to hard, non-porous surfaces:

*Human Influenza Virus (H1N1)* *Canine Distemper Virus*  
*Avian Influenza Virus (H9N2)*

Pre-clean heavily soiled areas. Apply use solution to hard, non-porous surfaces using a sponge, brush, cloth, mop, by immersion or coarse spray device. For spray applications, spray 6-8 inches from surface. Do not breathe spray. Treated surfaces must remain visibly wet for ten (10) minutes. Allow to air dry. Prepare a fresh solution daily or when visibly dirty. Applications involving treatment of food contact surfaces require a potable water rinse following disinfection.

This product may be used to clean, disinfect and deodorize inanimate hard, non-porous surfaces in general commercial environments:

- Packinghouses, food processing and rendering plants
- Grocery stores, supermarkets, food distribution and storage facilities
- Farms, farm equipment and harvesting equipment
- Animal hospitals, veterinary clinics, animal life science laboratories, kennels, kennel runs, catteries, cages, feeding and watering equipment, pet shops, zoos, pet animal quarters, poultry premises, trucks, tractor trailers, hatcheries, livestock quarters, stables, stalls, and pens
- Hospitals, doctor's offices, dental offices, housekeeping services, physical therapy departments, nursing services, autopsy facilities, nursing homes, other healthcare facilities
- Schools, colleges, industrial facilities, dietary areas, office buildings, recreational facilities, health clubs, gyms, spas, retail and wholesale establishments
- Buses, taxis, trucks, trains, airplanes, public transportation facilities

Not for use on medical devices or medical equipment.

### **DISINFECTION**

Use SaniDate 5.0 as a disinfectant at a dilution rate of 1:256-1:50 (0.5-2.2 fl. oz. per gallon of water), (230-1,000 ppm of peroxyacetic acid). Apply solution with mop, cloth, sponge, brush, scrubber, or coarse spray device or by soaking so as to wet all surfaces thoroughly. Treated surfaces must remain visibly wet for ten (10) minutes.

### **COMBINATION DISINFECTION AND CLEANING**

Use a rate of 0.5-2.2 fl. oz. per gallon for hard, non-porous surfaces that are lightly soiled or have been pre-cleaned to remove visible contamination. For heavily soiled hard, non-porous surfaces, a pre-cleaning step is required. Apply solution with mop, cloth, sponge, brush, scrubber, or coarse spray device or by soaking so as to wet all surfaces thoroughly. Allow surface to remain visibly wet for ten (10) minutes, then remove solution and entrapped soil with a clean wet mop, cloth, or wet vacuum pickup. Prepare a fresh solution daily or when it becomes soiled or diluted. Applications involving treatment of food contact surfaces require a sterile or potable water rinse following disinfection.

### **FOGGING**

ALL SURFACES MUST BE THOROUGHLY PRE-CLEANED PRIOR TO FOGGING. This product may be applied by fogging to control the growth of non-public health microorganisms that cause odor on hard, non-porous surfaces. For maximum efficacy, disinfection is recommended prior to fogging.

1. Before fogging, remove or carefully protect all food product and packaging materials.

- Fog desired areas using 1 quart per 1,000 feet of room area with a solution of 1 fl. oz. of SaniDate 5.0 per gallon of potable water (0.25 fl. oz. per quart of potable water) or a dilution rate of 1:128 (460 ppm of peroxyacetic acid). Use any type of automatic fogging equipment such as thermo foggers and cold foggers.
- 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. Ensure room is properly ventilated.
- When fogging is complete, ventilate buildings and other enclosed spaces.

#### **FIELD EQUIPMENT DISINFECTION**

SaniDate 5.0 may be used to disinfect hard, non-porous harvest equipment such as pickers, harvesters, trailers, trucks (including truck body parts and tires), bins, packing crates, ladders, power tools, hand tools, gloves, rubber boots, pruning shears or other equipment.

- Remove visible contamination with a cleaner or other suitable detergent and rinse with water.
- Use SaniDate 5.0 at a dilution rate of 1:256-1:50 (0.5-2.2 fl. oz./gal) as a general coarse spray.
- Allow solution to contact surface.
- Treated surfaces must remain visibly wet for ten (10) minutes.
- Allow to air dry, do not rinse.

#### **TRACTOR TRAILER DISINFECTION**

SaniDate 5.0 may be used to disinfect and deodorize hard, non-porous surfaces such as trucks, trailers, cabs, crates, (including truck body parts and tires, mats, wheels). SaniDate 5.0 prevents cross contamination of bacteria, fungus and mold between treated surfaces.

- Before disinfection, move the vehicle into an area with an impervious surface and with controlled drainage. Ensure that no sanitization solution will be released into the environment.
- Remove visible contamination with high pressure water and cleaner or other suitable detergent and rinse with water.
- Apply SaniDate 5.0 using a coarse spray device at a rate of 0.5-2.2 fl. oz. per 1 gallon of water.
- Treated surfaces must remain visibly wet for a period of ten (10) minutes.
- Rinse all treated surfaces that will contact food or commodities with potable water before use.

#### **SANITIZATION OF NON-FOOD CONTACT SURFACES**

##### **TRACTOR TRAILER SANITIZATION**

SaniDate 5.0 may be used to sanitize and deodorize vehicles such as trucks, trailers, cabs, (including truck body parts and tires, mats, wheels). SaniDate 5.0 prevents cross contamination of bacteria between treated surfaces.

- Before sanitization, move the vehicle into an area with an impervious surface and with controlled drainage. Ensure that no sanitization solution will be released into the environment.
- Remove visible contamination with high pressure water and cleaner or other suitable detergent and rinse with water.
- Apply SaniDate 5.0 using a coarse spray device at a rate of 1.6-5.4 fl. oz. to 5 gallons of potable water (147-500 ppm of peroxyacetic acid).
- Treated surfaces must remain visibly wet for at least one (1) minute.
- Allow equipment to drain dry before using. Do not rinse.

#### **GENERAL DISINFECTION**

##### **ANIMAL HEALTH**

SaniDate 5.0 is designed for use 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 PREMISES, TRUCKS, COOPS, CRATES**

- Remove all poultry and feeds from premises, trucks, coops and crates.
- Remove all litter and droppings from floors, walls and surfaces of facilities occupied or traversed by poultry.
- Empty all troughs, racks and other feeding and watering appliances.
- Thoroughly clean all surfaces with soap or detergent and rinse with water.
- Saturate all surfaces with a solution of 0.5-2.2 fl. oz. per 1 gallon of water (230-1,000 ppm of peroxyacetic acid).
- Treated surfaces must remain visibly wet for a period of ten (10) minutes.
- Immerse all types of equipment used in handling and restraining poultry, as well as forks, shovels and scrapers used for removing litter and manure.
- Ventilate buildings, coops and other closed spaces. Do not house 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.

#### **POULTRY HATCHERY DISINFECTION**

- Clean out any remaining eggs and chicks. Remove all poultry and feeds from premises, trucks, coops and crates.
- Remove visible 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.
- Empty all troughs, racks and other feeding and watering appliances and equipment.
- Thoroughly clean all surfaces with soap or detergent and rinse thoroughly with water.
- Saturate all surfaces with a solution of 0.5-2.2 fl. oz. per 1 gallon of water (230-1,000 ppm of peroxyacetic acid).
- Treated surfaces must remain visibly wet for period of ten (10) minutes.
- Ventilate buildings, coops, and other closed spaces. Allow to dry before reintroducing eggs or poultry.
- Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent, and rinse with potable water before reuse.

#### **FOGGING (POULTRY AND LIVESTOCK PREMISES, ANIMAL HOUSING FACILITIES)**

ALL SURFACES MUST BE THOROUGHLY PRE-CLEANED PRIOR TO FOGGING. This product may be applied by fogging to control the growth of non-public health microorganisms that cause odor on hard, non-porous surfaces found in poultry and livestock premises and animal housing facilities. For maximum efficacy, disinfection is recommended prior to fogging.

- Follow disinfection instructions to remove poultry and/or animals from the room to be treated.
- Fog desired areas using 1 quart per 1,000 feet of room area with a solution of 1 fl. oz. of SaniDate 5.0 per gallon of potable water (0.25 fl. oz. per quart of potable water) or a dilution rate of 1:128 (460 ppm of peroxyacetic acid).
- 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.
- Ventilate buildings, coops, and other closed spaces for minimum of one hour. Allow surfaces to dry before reintroducing eggs or poultry.
- Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent, and rinse with potable water before reuse.

#### **DISINFECTION AND DEODORIZING OF ANIMAL HOUSING FACILITIES (BARNs, KENNELS, HUTCHES)**

- Remove all animals and feed from premises, vehicles and enclosures.
- Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes, and other facilities occupied or traversed by animals.
- Empty all troughs, racks and other feeding and watering appliances.

4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate all surfaces with a solution of 0.5 to 2.2 fl. oz. per 1 gallon of water (230-1,000 ppm of peroxyacetic acid).
6. Treated surfaces must remain visibly wet for a period of ten (10) minutes.
7. Immerse all types of equipment used in handling and restraining animals, as well as forks, shovels and scrapers used for removing litter and manure.
8. Ventilate buildings and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set or dried.
9. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or 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 0.5-2.2 fl. oz. per 1 gallon of water (230-1,000 ppm of peroxyacetic acid).
4. Treated surfaces must remain visibly wet for a period of ten (10) minutes. For smaller surfaces, use a trigger spray bottle to spray all surfaces with solution until wet. Then wipe surfaces dry.
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 between treated areas 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 visible filth.
2. Make a solution using 0.5-2.2 fl. oz. of SaniDate 5.0 per gallon of water (230-1,000 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 5.0. Allow surface to remain visibly wet for ten (10) minutes prior to entering next area. Change solution daily or as needed.

**Foaming applications:** For the non-pesticidal purpose of cleaning hard, non-porous surfaces, add 2-4 fl. oz. of SaniDate 5.0 per gallon of water mixed with foaming solution. Follow foaming directions as specified by the manufacturer of the foam generator/aerator.

#### **DISINFECTION OF WATER FILTER MEDIA, MEMBRANES AND RELATED COMPONENTS AND SYSTEMS**

SaniDate 5.0 is an effective disinfectant used for the reduction and removal of bio-organisms on the surfaces of the filter and membrane media, media housings, and related devices and equipment. It may be used for filter media or related system components or in Clean in Place (CIP) systems.

Disinfection and/or treatment of filter media and membrane in potable water systems should be performed when system is **NOT** in use or online.

For filter media disinfection applications, use a rate of 0.1-1.0 fl. oz. per gallon (46-460 ppm of peroxyacetic acid), and allow to soak for ten (10) minutes. Drain filter media and then rinse with clean water. Prior to producing product water (Permeate), test a sample of the permeate using BioSafe Systems Test Strips to determine the level of active ingredients remaining in the permeate.

For clean in place (CIP) applications involving filters, use a rate of 2.5-10.25 fl. oz. per 100 gallons (11-47 ppm of peroxyacetic acid). Re-circulate solution for a minimum of 10 minutes. Upon completion of cleaning cycle, flush filter housings and/or assemblies with clean water. Test a sample of water being used to flush filter media with BioSafe Systems Test Strips to determine levels of active ingredients remaining in the flush water.

For direct disinfection of membranes, use a solution of 0.1 fl. oz. per 1 gallon of water, or 0.5 fl. oz. for 5 gallons of water (46 ppm of peroxyacetic acid), within a pH range of 3-7 and maximum water temperature of 80 degrees F. Allow the membranes to soak for a minimum of 10 minutes. Flush or rinse membranes with clean water after treatment. Test flush water with BioSafe Systems Test Strips to determine remaining active ingredient levels.

For membrane CIP systems, use a dilution rate of 2.5-10.25 fl. oz. per 100 gallons (11-47 ppm of peroxyacetic acid) within a pH of 3-7 and a maximum water temperature of 80 degrees F. After thorough draining of the solution, rinse the media thoroughly with clean or sterile water for a minimum of ten (10) minutes. Test sample of flush water with BioSafe Systems Test Strips to determine remaining active ingredient levels.

To calculate the amount of product to be used for CIP systems, identify total volume of all tanks, vessels and piping. Prepare dilution based on sum of all identified tank, vessel and piping volumes.

#### **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 visible soil particles from surfaces to be treated. For heavily soiled surfaces, a pre-wash is required.
2. Apply 0.5-2.2 fl. oz. of SaniDate 5.0 per gallon of water (230-1,000 ppm of peroxyacetic acid) with a mop, cloth, sponge, or hand trigger spray so as to wet all surfaces thoroughly.
3. Treated surfaces must remain visibly wet for ten (10) minutes.
4. Rinse all treated surfaces thoroughly with potable water before operations are resumed.

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

1. Prior to use of this product, remove visible soil particles from surfaces to be treated. For heavily soiled surfaces, a pre-wash is required.
2. For disinfection, apply 0.5-2.2 fl. oz. of SaniDate 5.0 per gallon of water (230-1,000 ppm of peroxyacetic acid) to surfaces at a temperature of 25-45° C.
3. Treated surfaces must remain visibly wet for ten (10) minutes.
4. Rinse surfaces thoroughly with potable water before operations are resumed.

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

Apply SaniDate 5.0 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.

Cover or remove all food and packaging materials before disinfection.

**For Pre-Cleaned Surfaces:** Use a rate of 0.5-2.2 fl. oz. per gallon (230-1,000 ppm of peroxyacetic acid) for hard, non-porous surfaces that are lightly soiled or have been pre-cleaned to remove visible contamination.

**Foaming Applications:** Apply SaniDate 5.0 as a foam treatment for the non-pesticidal purpose of cleaning hard, non-porous surfaces, and 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. Add a foaming agent to the spray tank that contains the diluted SaniDate 5.0 solution. Apply foam until the surface treated is completely covered. Allow foam treated surface to air dry. Any food contact surfaces must be rinsed with potable water prior to re-use.

#### **ALKALINE DETERGENT CLEANING SUPPLEMENT FOR FOOD PROCESSING EQUIPMENT CLEANING**

Use SaniDate 5.0 as an effective cleaning supplement for alkaline detergents (such as GreenClean® Alkaline Cleaner and GreenClean® CIP Cleaner) to assist in the removal of organic soils. Use for Clean-In-Place

(CIP) operations involving the circulation cleaning of pipelines, tanks, vessels, evaporators, HTSTs, and other food processing equipment. For cleaning applications as a detergent supplement, use 1-6 fl. oz. of SaniDate 5.0 per gallon of water. All hard, non-porous food contact surfaces treated with this detergent must be thoroughly rinsed with potable water followed by a sanitizing step with an approved food contact surface sanitizer (such as SaniDate 5.0).

**FOGGING (DAIRY, BEVERAGE, FOOD STORAGE FACILITIES, PACKING HOUSES AND FOOD PROCESSING PLANTS)**

ALL SURFACES MUST BE THOROUGHLY PRE-CLEANED PRIOR TO FOGGING. This product may be applied by fogging to control the growth of non-public health microorganisms that cause decay and spoilage on hard, non-porous surfaces. For maximum efficacy, disinfection is recommended prior to fogging.

1. Before fogging, food products and food packaging materials must be removed or covered with waterproof coverings.
2. Fog desired areas using 1 quart per 1,000 feet of room area with a solution of 1 fl. oz. of SaniDate 5.0 per gallon of potable water (0.25 fl. oz. per quart of potable water) or a dilution rate of 1:128 (460 ppm of peroxyacetic acid). Use any type of automatic fogging equipment such as thermo foggers and cold foggers
3. 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. Ventilate buildings, coops, and other closed spaces for minimum of one hour.
4. Allow surfaces to drain thoroughly before operations are resumed. Any food contact surfaces must be rinsed with potable water prior to re-use.

**CONTROL OF ALGAL AND SLIME-FORMING BACTERIAL GROWTH IN LIVESTOCK WATER**

**STOCK TANKS AND LIVESTOCK WATER**

Use SaniDate 5.0 to control algae, odor causing and slime-forming bacteria and sulfides in stock tanks, stock watering ponds, tanks and troughs, and livestock water. Apply 1.2-6.0 fl. oz. of SaniDate 5.0 per 250 gallons of water (2-11 ppm of peroxyacetic acid) for algae control. Product can be simply added to the body of water. Where existing algae mats are present at time of treatment, the most effective control will be obtained by breaking up mats and/or evenly dispersing diluted SaniDate 5.0 over the algae mats. Apply SaniDate 5.0 as needed to control and prevent algae growth; apply more often in times of higher water temperatures.

**Drip system application for livestock watering tanks:** Tanks fed by a continuous flow of spring or well water can be equipped with a chemical drip system designed to meter-in SaniDate 5.0 based upon water flow rates. Pre-dilute SaniDate 5.0 at a dilution ratio of 1:265 product concentrate to clean water, or 4-mL/minute water flow rate. Treat continuously or as needed to control and prevent algae regrowth.

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

Use SaniDate 5.0 to remove scale, mineral buildup, soils and to treat bacteria in livestock watering systems.

**For standard applications:** Fill the watering system with a 0.78% SaniDate 5.0 solution (1 fl. oz. of SaniDate 5.0 per gallon of water) by directly injecting SaniDate 5.0 from the container using a standard 1:128 medicator. Circulate or hold solution in systems for 12-24 hours. Following the cleaning process, thoroughly flush systems with potable water to remove product out of the entire system including nipples or cups.

For rapid cleaning applications of watering systems apply SaniDate 5.0 at a 2% solution (1:50) or 2.5 fl. oz. per gallon of water. Circulate or hold solution in the system for 3 to 6 hours depending on conditions. Following the cleaning process, thoroughly flush systems with potable water to remove product out of the entire system including nipples or cups.

**TREATING POULTRY, SWINE, LIVESTOCK WATERING OPERATING SYSTEMS WHEN ANIMALS ARE PRESENT**

After water lines have been cleaned, use SaniDate 5.0 at 0.85-1.27 fl. oz. per 100 gallons of water to control bacteria in drinking water and to control mineral build up in watering lines.

To apply using a standard medicator, make a stock solution by adding 5-8 fl. oz. of SaniDate 5.0 per 5 gallons of clean water (1:128-1:80). Set metering pump at 1 oz. of stock solution per 1 gallon of water (1:128). Do not mix SaniDate 5.0 with other product in the same stock solution. Use low rate when applying for more than 5 consecutive days.

**POST HARVEST TREATMENTS**

**DISINFECTION OF POTATO STORAGE AREAS AND EQUIPMENT**

1. Remove all potatoes prior to disinfection of potato storage areas and equipment.
2. Prior to use of this product, remove visible soil particles from surfaces to be treated. For heavily soiled surfaces, a pre-wash is required.
3. Apply 0.5-2.2 fl. oz. of SaniDate 5.0 per gallon of water (230-1,000 ppm of peroxyacetic acid) with a mop, cloth, sponge, or hand trigger spray so as to wet all surfaces thoroughly.
4. Treated surfaces must remain visibly wet for ten (10) minutes.
5. Rinse all treated surfaces thoroughly with potable water before operations are resumed.
6. Allow treated areas to drain thoroughly before storing potatoes.

**FOGGING OF FRUIT AND VEGETABLE STORAGE SYSTEMS AND POTATO STORAGE AREAS PRIOR TO LOADING WITH PRODUCE**

This product may be applied by fogging to control the growth of non-public health microorganisms that cause decay and/or spoilage on raw, post harvest fruits and vegetables and in fruit and vegetable storage systems, following cleaning procedures in hard, non-porous room surfaces.

1. Prior to fogging, thoroughly clean all surfaces.
2. Remove or cover any food or packaging material with waterproof coverings. Cover any metal equipment or controls inside the storages that might be sensitive to hydrogen peroxide and/or peroxyacetic acid.
3. Ensure proper ventilation in the room/area to be treated.
4. Remove all personnel from the room before fogging.
5. Fog the desired area at 32-64 fl. oz. of 0.39%-1.0% v/v SaniDate 5.0 solution per 1,000 cubic feet using equipment with an automated timer.
6. Do not allow personnel to reenter treated areas until fog has dissipated and there are no strong odors remaining.

**SPRAY TREATMENTS FOR NEWLY HARVESTED POTATOES PRIOR TO STORAGE**

Crop	Disease	Application Rate	Directions
Potatoes	Bacterial Soft Rot, Early Blight, Fusarium Dry Rot, Late Blight, Silver Scurf, Pythium Leak, Pink Rot	0.5-1.9 fl. oz. of SaniDate 5.0 per gallon of water per ton of potatoes.	Apply in 0.5 gallons of water per ton as a spray. Ensure full and even coverage. The use of a compatible spreader-surfactant and spray deposition aid is acceptable to aid in better spreading and sticking to the potatoes.

**DIRECT INJECTION INTO HUMIDIFICATION WATER FOR POST HARVEST POTATOES IN STORAGE**

Crop	Disease	Application Rate	Directions
Potatoes	Bacterial Soft Rot, Early Blight, Fusarium Dry Rot, Late Blight, Silver Scurf, Pythium Leak, Pink Rot	0.2-0.5 fl. oz. of SaniDate 5.0 per gallon of water.	Inject concentrate into makeup water used in humidification of postharvest potatoes in storage.

## **FOGGING OF POTATOES IN STORAGE**

For potatoes in storage, apply SaniDate 5.0 by fogging to prevent/control non-public health organisms that cause spoilage and/or decay of potatoes, using any type of fogging equipment such as thermofoggers and cold foggers.

1. Prior to fogging, cover any metal equipment or controls inside the storage or plenum chamber that might be sensitive to hydrogen peroxide and/or peroxyacetic acid.
2. Vacate all personnel from the room prior to fogging.
3. Use 0.25-0.95 fl. oz. per ton of potatoes (5.25-20.0 fl. oz. per 1,000 cu. ft of potatoes or 1.0-3.5 gallons per 10,000 CWWT of potatoes).
4. Mix the product concentrate with water at 1:1-1:5 ratio and apply it as a fog directly into the plenum while running the fan(s) at low speed. To improve fog distribution, a carrier solution compatible with SaniDate 5.0 may added as recommended by fogging equipment manufacturer.
5. After fogging, do not allow personnel to enter into treated area until residual fog has dissipated and there are no strong odors, characteristic of acetic acid.
6. Make first fog application immediately after potatoes get into storage (within 5-7 days of storage) using highest rate and repeat applications as necessary once every month using lower rate while potatoes are in storage.

## **CONTROL OF ALGAL AND SLIME-FORMING BACTERIAL GROWTH IN AGRICULTURAL IRRIGATION SYSTEMS AND WATER FOR AGRICULTURAL IRRIGATION WATER AND DRAINAGE DITCHES**

Use SaniDate 5.0 to treat water to suppress/control algae, bacterial slime and odors, and sulfides in agricultural irrigation and drainage water and ditches. For irrigation water, apply 4.8 to 24 fluid ounces of SaniDate 5.0 per 1,000 gallons of water. This amount will provide 2-11 ppm of peroxyacetic acid. Product can be simply added to the body of water. SaniDate 5.0 as needed to control and prevent algae growth; apply more often in times of higher water temperatures.

## **DISINFECTION OF GREENHOUSE SURFACES AND EQUIPMENT**

Use SaniDate 5.0 to disinfect and suppress/control algae, fungi, viruses and bacterial growth on hard, non-porous surfaces such as glazing, plastic, pots, flats, trays, cutting tools, benches, work areas, walkways, floors, walls, fan blades, ventilation ducts, watering systems, coolers, storage rooms, structures and equipment. This product is not to be used for the disinfection of surfaces made of wood.

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 1:50-1:256 of SaniDate 5.0 or 0.5-2.2 fl. oz. per gallon of water (230-1,000 ppm of peroxyacetic acid) for all non-porous surfaces that have been pre-cleaned with water. Apply solution with mop, sponge, power sprayer to thoroughly wet all surfaces. Cutting tools, pots, trays and flats may be soaked in a dip solution to ensure complete coverage. To disinfect, allow surfaces to remain visibly wet with the solution for ten (10) minutes.

Heavy growths of algae and fungi may have to be scrubbed off following application. Repeat treatment as required to maintain control.

**Foaming Applications:** Apply SaniDate 5.0 as a foam treatment for the non-pesticidal purpose of cleaning hard, non-porous room surfaces, and 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. Add a foaming agent to the spray tank that contains the diluted SaniDate 5.0 solution. Apply foam until the surface treated is completely covered. Allow foam treated surface to air dry. Do not rinse.

## **FOGGING IN GREENHOUSES**

ALL SURFACES MUST BE THOROUGHLY PRE-CLEANED PRIOR TO FOGGING. This product may be applied by fogging to control the growth of non-public health microorganisms that cause odor and slime on greenhouse hard, non-porous surfaces. For maximum efficacy, disinfection is recommended prior to fogging.

1. Pre-clean surfaces to remove any organic deposits.
2. 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. Use any type of automatic fogging equipment such as thermo foggers and cold foggers.
3. Fog desired areas using 1 quart per 1,000 feet of room area. Use a dilution of 1:50-1:128 or 1-2.2 fl. oz. of SaniDate 5.0 per gallon of water.
4. Allow surfaces to drain thoroughly before operations are resumed.

## **CONTROL OF ALGAL, FUNGAL AND ODOR CAUSING BACTERIAL GROWTH ON NON FOOD CONTACT GREENHOUSE WATERING SYSTEMS**

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

Treat contaminated surfaces with a dilution of 1:256 of SaniDate 5.0 or 0.5 fl. oz. per gallon of water (230 ppm of peroxyacetic acid). For maintenance, treat cooler water once a week with a dilution of 1:800 of SaniDate 5.0, or 1.6 fl. oz., for every 10 gallons of cooling water.

### **TREATMENT OF GREENHOUSE IRRIGATION WATER**

Use SaniDate 5.0 to treat irrigation water during all phases of greenhouse crop production to suppress/control algae, bacteria, and fungi, fungi like organisms (water molds) in irrigation water applied as flooded floors, flooded benches, recycled water systems, drip trickle, capillary mats, sprinkler systems, humidification and misting systems.

Apply the product at a rate of 5.8-46.5 fl. oz. of SaniDate 5.0 per 1,000 gallons of water. (1:22,000-1:2,750). This amount will provide 2.7-21 ppm of peroxyacetic acid. A water test is recommended to determine the proper rate of product. Product can be injected directly into the irrigation water at the point of intake from the source or directly to the water in the holding tank or inject into the water exiting the water holding tank preferably after fertilizer injection point. For best results, continuous injection into the water is recommended every time crop is irrigated.

### **TREATMENT OF GREENHOUSE IRRIGATION SYSTEMS**

Use SaniDate 5.0 to prevent/control algal and/or bacterial growth inside the greenhouse irrigation systems in between crop growing season. To control existing growth, fill irrigation lines with 1:50-1:100 solution of SaniDate 5.0 (1-2 gallons of SaniDate 5.0 per 100 gallons of water; 588-1176 ppm of peroxyacetic acid) and allow a contact time of at least 60 minutes or overnight if possible. Lines should then be flushed with fresh irrigation water.

## **WATER TREATMENT**

**CONTAINED WATERS:** Kills, controls and prevents algae and cyanobacteria in contained waters such as Water Gardens, Fish Ponds, Ornamental Pools/Ponds, Ornamental Waterfalls, Fountains, Watering Tanks, Storage Tanks, Water Collectors and Domestic/Commercial Waters. Waters treated with SaniDate 5.0 are permissible to be used without interruption.

### **Water Volume:**

<u>Square/Rectangular:</u>	<u>Circular/Elliptical:</u>
L(ft) x W(ft) x D(ft) x 7.5 = Gallons	L(ft) x W(ft) x D(ft) x 5.9 = Gallons
L(m) x W(m) x D(m) x 1000 = Liters	L(m) x W(m) x D(m) x 786 = Liters

**Surface Acre:**  $\frac{\text{Avg. Length (ft)} \times \text{Avg. Width (ft)}}{43,560}$  = Surface Acre(s)

**Acre-Feet:** Surface Acre(s) x Average Depth = Acre-Feet  
1 Acre-Foot of Water = 325,851 gallons

## **APPLICATION METHODS**

In bodies of water where an aerator is available, and when treating the entire water volume, dose at the edges, or in the turbulence created while the aerator runs to facilitate rapid and adequate mixing.

**Spot Treatment:** Apply SaniDate 5.0 directly over the infested area. Re-treatment is required when heavy growth occurs.

**Liquid Treatment:** Spray solution on the water surface from shore or a properly equipped boat.

**Injection Treatment:** Inject solution into the water via a piping system.



## APPLICATION RATES

Algae Density	Teaspoons SaniDate 5.0/ 50 gallons	Fluid Ounces SaniDate 5.0/ 1000 gallons	PPM Peroxyacetic Acid	PPM Hydrogen Peroxide
Low	1.0	2.6	1.1	4.8
Moderate	2.0	5.3	2.2	9.5
High	3.0	8.0	3.3	14.3

### EFFECTIVENESS FACTORS

- Effects of SaniDate 5.0 treatment are immediately apparent (bubbling, bleaching, & discoloration of algae).
- SaniDate 5.0 treatments are successful when contact of the pesticide is made with the algae.
- When treating surface mats and blooms, it is possible that SaniDate 5.0 will not penetrate the water column below the infested area, and a second application is then required for treating any bottom growing algae.

Apply more often during the summer months when water consumption and temperatures are high.

### CHEMIGATION: General Requirements

1. Apply this product only through a drip system or sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, hand move, flood (basin), furrow, border or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.
2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
3. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
4. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
5. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
6. Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.
7. Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.
8. All words shall consist of letters at least 2.5 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

### Specific Requirements for Chemigation Systems Connected to Public Water Systems

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least

- 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

### Specific Requirements for Sprinkler Chemigation

1. The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

### Specific Requirements for Flood Chemigation

1. Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.

2. The systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
  - a. The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
  - b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
  - c. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
  - d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
  - e. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
  - f. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock.

#### **Specific Requirements for Drip (Trickle) Chemigation**

1. The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock.

#### **Application Instructions**

1. Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
2. Follow the application rates and frequency as indicated in the directions for use.
3. SaniDate 5.0 can be direct injected from the original container. Use only compatible injection equipment and materials when injecting SaniDate 5.0 into the irrigation system.
4. SaniDate 5.0 can be direct injected through a separate injection port in conjunction with other pesticides or fertilizers. Once properly diluted, SaniDate 5.0 will not interact with other commonly used pesticides or fertilizers at recommended rates. For injection of SaniDate 5.0 in conjunction with metal-based fungicides, biological based pesticides or organic fertilizers consult your BioSafe Systems technical representative for specific instructions.

#### **WATER DAMAGE RESTORATION**

Use SaniDate 5.0 to control the growth of odor causing bacteria and fungi on hard, non-porous surfaces in water damage restoration situations. This product is suitable for cleaning the following materials: carpets, carpet cushion, sub floors, trim, frame lumber, tackless strip and paneling.

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

During mitigation procedures prepare a solution of SaniDate 5.0 by adding 1 fl. oz. of the product to 1 gallon of potable water, allowing for the diluting effect of absorbed water within the saturated materials. Remove visible soil from surfaces by cleaning with SaniDate 5.0 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 visibly wet with solution for ten (10) minutes. Follow with a thorough extraction. Dry rapidly and thoroughly. Use proper ventilation.

#### **CONTROL OF BACTERIAL GROWTH ON HARD, NON POROUS SURFACES**

##### **BACTERIOSTATIC**

At 0.5 -1.0 fl. oz. per 1 gallon of water, SaniDate 5.0 is effective at inhibiting the growth of bacteria when used in the presence of 400 ppm hard water and organic soil. This product can be used on floors, walls and other hard, non-porous surfaces such as tables, chairs, countertops, bathroom fixtures, sinks, shelves, racks, carts, refrigerators, coolers, glazed tile, and use sites listed on this label made of linoleum, vinyl, glazed porcelain, plastic (such as polypropylene and polyethylene), stainless steel, or glass.

#### **CONTROL OF ALGAL, AND SLIME-FORMING BACTERIAL GROWTH IN INDOOR, CLOSED LOOP, NON-POTABLE, NON-FOOD CONTACT WATER SYSTEMS**

##### **TREATMENT OF COOLING WATER SYSTEMS**

##### **(such as cooling towers, evaporative condensers)**

Severely fouled systems should be cleaned before treatment. Discontinue use of chlorine or bromine products prior to using this product. SaniDate 5.0 should be added to the system directly and not mixed with other chemicals or additives prior to dosing. Other chemicals should be added separately. Check compatibility of SaniDate 5.0 with any other chemicals or additives prior to use. Contamination with certain chemicals could result in lack of efficacy. Add SaniDate 5.0 at a point in the system where uniform mixing and even distribution will occur such as the cooling tower basin sump. Shock doses may be applied for 1-2 hours, as necessary, whereas intermittent doses are applied for 5-60 minutes 1 to 100 times per day. For either shock, intermittent or continuous dosing, apply 4.5-22.5 fl. oz. of SaniDate 5.0 solution per 1,000 gallons of water. This will provide 39-195 ppm of SaniDate 5.0, or 2-9 ppm of peroxyacetic acid. Repeat treatment as required to maintain control.

#### **STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in original containers in a cool, well-ventilated 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. Do not store in a manner where cross-contamination with other pesticides or fertilizers could occur.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use 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:**

**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.

**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:** Refillable container. 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. Once container is rinsed, 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.

### **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of BIOSAFE SYSTEMS LLC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold BIOSAFE SYSTEMS and Seller harmless for any claims relating to such factors, to the extent consistent with applicable law.

BIOSAFE SYSTEMS warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above when used in accordance with directions under normal use conditions. To the extent consistent with applicable law, this warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or BIOSAFE SYSTEMS, and Buyer and User assume the risk of any such use TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BIOSAFE SYSTEMS MAKES NO WARRANTIES OF MERCHANTABILITY FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESSED OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, in no event shall BIOSAFE SYSTEMS or Seller be liable for any incidental, consequential or special

damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF BIOSAFE SYSTEMS AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF BIOSAFE SYSTEMS OR SELLER, THE REPLACEMENT OF THE PRODUCT.

BIOSAFE SYSTEMS and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of BIOSAFE SYSTEMS.



For additional information on SaniDate® 5.0, call us toll-free at 1.888.273.3088 or visit [www.biosafesystems.com](http://www.biosafesystems.com).

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