



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

February 8, 2016

Donna Bishel  
Director of Regulatory Affairs  
BioSafe Systems, LLC  
22 Meadow St.  
East Hartford, CT 06108

Subject: Notification per PRN 98-10 – Label Notification  
Product Name: SaniDate 5.0  
EPA Registration Number: 70299-19  
Application Date: December 30, 2015  
Decision Number: 512722

Dear Ms. Bishel:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Antimicrobials Division (AD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped “Notification” and will be placed in our records.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If you have any questions, you may contact Seiichi Murasaki at (703) 347-0163 or by email at [murasaki.seiichi@epa.gov](mailto:murasaki.seiichi@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Seiichi Murasaki" with a small "for" written below it.

Julie Chao  
Product Manager 33  
Regulatory Management Branch I  
Antimicrobials Division (7510P)  
Office of Pesticide Programs

# SaniDate® 5.0

(**Alternate Brand Names:** StorOx 5.0 Post Harvest Treatment, GreenClean Max Algaecide, SaniDate WTO, GreenClean WTO, GreenClean Liquid 5.0)

FOR COMMERCIAL USE

## MASTER LABEL

**Sublabel A: General Uses**

**Sublabel B: Aquatic Uses**

### NOTIFICATION

70299-19

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

02/08/2016

#### ACTIVE INGREDIENTS:

Hydrogen Peroxide ..... 23.0%

Peroxyacetic Acid ..... 5.3%

**INERT INGREDIENTS:** ..... 71.7%

**TOTAL:** ..... 100.0%

#### Sold by:

BioSafe Systems, LLC  
22 Meadow Street  
East Hartford, CT 06108  
Tel.: (888) 273-3088

**EPA Registration No.:** 70299 - 19

**EPA Establishment No.:** EPA Est. No.67441-IL-001, 089546-NV-001, 082521-GA-001

**Net Contents:** 2.5, 5, 30, 55, 275 gallons

## Sublabel A: General Uses

# SaniDate® 5.0

(**Alternate Brand Names:** StorOx 5.0 Post Harvest Treatment, GreenClean Max Algacide, SaniDate WTO, GreenClean WTO, GreenClean Liquid 5.0)

### FOR COMMERCIAL USE

#### ACTIVE INGREDIENTS:

Hydrogen Peroxide ..... 23.0%

Peroxyacetic Acid ..... 5.3%

**INERT INGREDIENTS:** ..... 71.7%

**TOTAL:**..... 100.0%

### **DANGER - PELIGRO** **STRONG OXIDIZING AGENT** **KEEP OUT OF REACH OF CHILDREN**

*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	
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15 – 20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Call poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
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.	

**Sold by:** BioSafe Systems, LLC, 22 Meadow St, East Hartford, CT 06108; (888) 273-3088

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**Net Contents:** 2.5, 5, 30, 55, 275 gallon

**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. Harmful if swallowed. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Wear goggles, face shield, and rubber gloves when handling. Do not enter an enclosed area without proper respiratory protection. Wash thoroughly with soap and water after handling and before eating, drinking, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

**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, cleaners 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, and protective eyewear (goggles or face shield).

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 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 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 requirement 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 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.

### 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, and with water having a neutral pH. Thoroughly rinse out tank with water before mixing concentrate. This product will readily mix with clean, neutral water and does not require agitation.

SaniDate 5.0 concentrate should not be combined or mixed with any other pesticide concentrates.

*(Note for reviewer: For labels that list medical premises and metal and/or stainless steel surfaces, one of the following statements must be used:)*

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

**Or**

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. A potable

water rinse is not allowed (do not rinse) following use of the product as a sanitizer on previously cleaned hard surfaces provided that the surfaces are adequately drained before contact with food so that little or no residue remains.

The main areas of use include:

- 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
- Meat and meat products processing, packing, and rendering plants
- Milk and dairy processing/packing plants
- Egg processing/packing plants
- Seafood and poultry processing/packing plants
- Fruit and vegetable 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
- Hair salons/barber shops

### **MOLD AND MILDEW CONTROL**

SaniDate 5.0 may be used to effectively inhibit the growth of mold and mildew and odors caused by them at a rate of 0.5 fl. oz. in 1 gallon of water (230 ppm of active peroxyacetic acid) in general commercial environments such as:

- Schools, colleges, industrial facilities, dietary areas, office buildings, recreational facilities, retail and wholesale establishments.
- Animal hospitals, veterinary clinics, animal life science laboratories, farms, kennels, kennel runs, catteries, cages, feeding and watering equipment, pet shops, zoos, pet animal quarters, poultry premises, trucks, hatcheries, live stock quarters, stables, stalls, and pens.
- Packinghouses, food processing and rendering plants
- Healthcare facilities
- Commercial floral shops
- Hairdressing salons/barber shops
- Pharmaceutical/cosmetic facilities

SaniDate 5.0 effectively inhibits the growth of mold and mildew and odors caused by them when applied to hard non-porous surfaces (non food contact surfaces), such as floors, walkways, walls, tables, chairs, benches, countertops, cabinets, bathroom fixtures, sinks, shelves, racks, crates, utility carts, trailers, vehicles, conveyors, refrigerators (exterior), fan blades, drains, piping, commercial, municipal, and process water transfer and handling systems, filter housings, vats, tanks, pumps, valves and systems.

### **MOLD AND MILDEW CONTROL ON HARD, NON-POROUS SURFACES**

Use a rate of 0.5 fl. oz. per gallon for hard, non-porous surfaces, (non food contact surfaces), that are lightly soiled or have been pre-rinsed to remove gross 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 wet for 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. Repeat treatment every seven days, or more often if new growth appears.

#### **REMEDICATION AND RESTORATION SITES**

SaniDate 5.0 is recommended for use on hard, non-porous, environmental surfaces such as walls and other hard, nonporous surfaces such as floors, walls, tables, chairs, countertops, garbage bins/cans, bathroom fixtures, sinks, bed frames, shelves, racks, carts, refrigerators (exterior), glazed tile, and use sites listed on this label made of linoleum, vinyl, glazed porcelain, plastic polyethylene, stainless steel, or glass.

#### **Preventative Treatment**

To inhibit surface mold and mildew growth on hard, non-porous surfaces in new or renovated building construction, mix SaniDate 5.0 at a rate of 0.5 fl. oz. in 1 gallon of water and apply evenly by paintbrush, airless sprayer, low pressure hand wand, or backpack sprayer. Assure uniform coverage of surfaces to be protected. Surfaces should be evenly wet without runoff or pooling. Allow surfaces to stay wet with solution for ten (10) minutes. Permit treated surfaces to be thoroughly dry before painting or affixing overlayment materials such as siding, wallboard or flooring. Repeat the application of this product as necessary if mold growth appears, following directions provided below for remedial treatment. Normally, infrequent application will provide effective control. If regrowth occurs, investigate to determine the causes and correct the problem prior to reapplication of SaniDate 5.0. Mold may recur in conditions of persistently high humidity, standing water, or hidden water leaks.

#### **Remedial Treatment** *(Not for use in California)*

SaniDate 5.0 must be used as part of a comprehensive mold remediation or water damage restoration program, including:

- Periodic monitoring and inspection of conditions favorable to mold growth such as moisture ingress and high relative humidity
- Effective repairs as necessary to eliminate conditions favorable to mold growth
- Drying of affected areas to below 20% moisture content

Mix SaniDate 5.0 at a rate of 0.5 fl. oz. in 1 gallon of water and apply evenly by paintbrush, airless sprayer, low-pressure hand wand, or backpack sprayer. Assure uniform coverage of surfaces to be protected. Surfaces should be evenly wet without runoff or pooling. Allow surfaces to stay wet with solution for ten (10) minutes. Permit treated surfaces to be thoroughly dry before painting or affixing overlayment materials such as siding, wallboard or flooring.

The following associations and Internet sites should be consulted for information on standards and guidelines for remedial treatment of mold and mildew:

- IAQA-Indoor Air Quality Association ([www.iaqa.org](http://www.iaqa.org))
- EPA-Environmental Protection Agency ([www.epa.gov](http://www.epa.gov))
- DOH-New York City Department of Health ([www.ci.nyc.ny.us/html/doh/html/epi/moldrpt1.html](http://www.ci.nyc.ny.us/html/doh/html/epi/moldrpt1.html))
- IICRC-Institute of Inspection, Cleaning and Restoration Certification (<http://www.iicrc.org/>)

#### **Small Areas-Total Surface Area Affected Less Than 10 Square Feet Cleanup Methods\***

Prior to applying SaniDate 5.0, clean the affected area using one of the following or another preferred professional method.

Method 1: Wet vacuum (in the case of porous materials, some mold spores/fragments will remain in the material but will not grow if the material is completely dried).

Method 2: Damp-wipe surfaces with plain water or use a wood floor cleaner; scrub as needed.

Method 3: High-efficiency particulate air (HEPA) vacuum after the material has been thoroughly dried.

Dispose of the contents of the HEPA vacuum in well-sealed plastic bags.

\*Minimum personal protective equipment to be worn during clean up includes gloves, N-95 respirator and goggles/eye protection.

### **Other Construction Materials**

Concrete or Cinder Block

Method 1: Wet vacuum (in the case of porous materials, some mold spores/fragments will remain in the material but will not grow if the material is completely dried).

Method 2: High-efficiency air (HEPA) vacuum after the material has been thoroughly dried. Dispose of the contents of the HEPA vacuum in well-sealed plastic bags.

Special procedures and training are required for remediation of moldy areas larger than 10 square feet. Consult guidelines for remediation of large areas established by the Indoor Air Quality Association ([www.iaqa.org](http://www.iaqa.org)) and the US Environmental Protection Agency ([www.epa.gov](http://www.epa.gov)). An excellent reference is the New York City Department of Health publication, "Guidelines on Assessment and Remediation of Fungi in Indoor Environments." An excellent guide for professional mold remediation is available from the Institute of Inspection, Cleaning And Restoration Certification (IICRC). Standard S520 is based upon reliable remediation and restoration techniques, and combines academic principles with practical elements of water damage restoration. Where structural members and/or contents have been exposed to water in excess of 24 hours, there is a possibility of extensive microbial growth that may be hidden. In such a case a complete assessment and remediation plan must be prepared that provides for user and occupant safety and documentation and monitoring of the remediation process. IICRC S520 contains excellent guidance for such a plan. In the context of such a plan, SaniDate 5.0 can be used on materials to be removed and disposed of and in other applications where mold inhibition is indicated. The Standard must be followed exactly and all growth and contaminated organic material removed prior to using SaniDate 5.0. Before using SaniDate 5.0 in mitigation of large projects, you should be knowledgeable of these guidelines and follow their recommendations. In the absence of access to the guidance and standards identified, the user should refer to the following information taken from U.S. EPA's guide: Mold Remediation in Schools and Commercial Buildings (March 2001). These guidelines are based on the area and type of material affected by water damage and/or mold growth. Please note that these are guidelines; some professionals may prefer other cleaning methods. Use the appropriate remediation steps prior to application of SaniDate 5.0.

### **Medium-Total Surface Area Affected Between 10 and 100 Square Feet**

#### **Cleanup Methods\***

Method 1: Wet vacuum (in the case of porous materials, some mold spores/fragments will remain in the material but will not grow if the material is completely dried).

Method 2: Damp-wipe surfaces with plain water or with wood floor cleaner; scrub as needed.

Method 3: High-efficiency particulate (HEPA) vacuum after the material has been thoroughly dried.

Dispose of the contents of the HEPA vacuum in well-sealed plastic bags.

### **Other Construction Materials**

Concrete or cinder block

#### **Cleanup Methods\***

Method 1: Wet vacuum (in the case of porous materials, some mold spores/fragments will remain in the material but will not grow if the material is completely dried).

Method 2: High-efficiency particulate (HEPA) vacuum after the material has been thoroughly dried.



Dispose of the contents of the HEPA vacuum in well-sealed plastic bags.

\*Limited or Full personal protective equipment is recommended during cleanup. Limited personal protective equipment includes gloves, N-95 respirator or half-face respirator with HEPA filter, disposable overalls, goggles/eye protection. Full personal protective equipment includes gloves, disposable full body clothing, headgear, foot coverings, full-face respirator with HEPA filter.

Use professional judgment, consider potential for remediator exposure and size of contaminated area.

**Large-Total Surface Area Affected Greater Than 100 Square Feet or Potential for Increase Occupant or Remediator Exposure During Remediation Estimated to be Significant Cleanup Methods\***

Method 1: Wet vacuum (in the case of porous materials, some mold spores/fragments will remain in the material but will not grow if the material is completely dried).

Method 2: Damp-wipe surfaces with plain water or with a wood floor cleaner; scrub as needed

Method 3: High-efficiency particulate (HEPA) vacuum after the material has been thoroughly dried.

Dispose of the contents of the HEPA vacuum in well-sealed plastic bags.

Method 4: Discard/remove water-damaged materials and seal in plastic bags while inside of containment, if present. Dispose of as normal waste. HEPA vacuum area after it is dried.

**Other Construction Materials**

**Concrete or cinder block**

**Cleanup Methods\***

Method 1: Wet vacuum (in the case of porous materials, some mold spores/fragments will remain in the material but will not grow if the material is completely dried).

Method 2: High-efficiency particulate (HEPA) vacuum after the material has been thoroughly dried.

Dispose of the contents of the HEPA vacuum in well-sealed plastic bags.

\*Gloves, disposable full body clothing, headgear, foot coverings, full-face respirator with HEPA filter are the recommended personal protective equipment.

\*Select method most appropriate to situation. Since molds gradually destroy the things they grow on, if mold growth is not addressed promptly, some items may be damaged such that cleaning will not restore their original appearance. If mold growth is heavy and items are valuable or important, you may wish to consult a restoration/water damage/remediation expert. Please note that these are guidelines; other cleaning methods may be preferred by some professionals.

\*Use professional judgment to determine prudent levels of Personal Protective Equipment and containment for each situation, particularly as the remediation site size increases and the potential for exposure and health effects rises. Assess the need for increased Personal Protective Equipment if, during the remediation, more extensive contamination is encountered than was expected. These guidelines are for damage caused by clean water. If you know or suspect that the water source is contaminated with sewage, or chemical or biological pollutants, then the Occupational Safety and Health Administration (OSHA) requires PPE and containment. An experienced professional should be consulted if you and/or your remediators do not have expertise in remediating contaminated water situations.

**Containment of Affected Materials**

**Total Surface Area Affected Between 10 and 100 Square Feet (All Surfaces)**

Use polyethylene sheeting ceiling to floor around affected area with a slit entry and covering flap; maintain area under negative pressure with HEPA filtered fan unit. Block supply and return air vents within containment area.

**Total Surface Area Affected Greater Than 100 Square Feet or Potential for Increased Occupant or Remediator Exposure During Remediation Estimated to be Significant**

Use two layers of fire-retardant polyethylene sheeting with one airlock chamber. Maintain area under negative pressure with HEPA filtered fan exhausted outside of building. Block supply and return air vents within containment area.

**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 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, mops, 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.

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

Fogging Instructions: SaniDate 5.0 can be used as an adjunct to acceptable manual cleaning and sanitizing to treat hard, non-porous room surfaces.

1. Prior to fogging, remove or carefully protect all food product and packaging materials.
2. Prior to use of this product, remove gross contamination with a cleaner or other suitable detergent and rinse with potable water.
3. 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.
4. Fog desired areas using 1 quart per 1,000 feet of room area with a solution of 1.6 fl. oz. SaniDate 5.0 to 5 gallons of potable water (147 ppm of active peroxyacetic acid).
5. Allow surfaces to drain thoroughly before operations are resumed.

**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). Use SaniDate 5.0 to prevent the cross contamination of bacteria, odor-causing fungus and mold between loads.

1. 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.

2. Remove gross contamination with high pressure water and cleaner or other suitable detergent and rinse with water.
3. Apply SaniDate 5.0 using a coarse spray device at a rate of 1.6 fl. oz. to 5 gallons of potable water (147 ppm of active peroxyacetic acid).
4. Allow sanitizer to contact surface for at least one (1) minute.

Allow equipment to drain dry before using. Do not rinse.

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

SaniDate 5.0 is 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.

Clean equipment immediately after use:

1. Remove all products from equipment unless treating only the return portion of a conveyor.
2. Remove gross 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 fl. oz. SaniDate 5.0 to 5 gallons of potable water (147 ppm of active 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. Allow a contact time of one (1) minute.
7. Allow items and/or surfaces to drain thoroughly before resuming operation. Do not rinse.

Fogging Instructions: SaniDate 5.0 can be used as an adjunct to acceptable manual cleaning and sanitizing to treat hard, non-porous room surfaces.

1. Prior to fogging, remove or carefully protect all food product and packaging materials.
2. Prior to use of this product, remove gross contamination with a cleaner or other suitable detergent and rinse with potable water.
3. 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.
4. Fog desired areas using 1 quart per 1,000 feet of room area with a solution of 1.6 fl. oz. SaniDate 5.0 to 5 gallons of potable water (147 ppm of active peroxyacetic acid).
5. Allow surfaces to drain thoroughly before operations are resumed.

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

1. Remove all food prior to sanitization of food storage areas.
2. Prior to use of this product, remove gross contamination with a cleaner or other suitable detergent and rinse with potable water.

3. Apply 1.6 fl. oz. SaniDate 5.0 to 5 gallons of potable water with a mop, cloth, sponge, or hand trigger spray so as to wet all surfaces thoroughly.
4. Allow to remain wet with solution for one (1) minute.
5. Allow items and/or surfaces to air dry. No potable water rinse is required.

**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 fl. oz. SaniDate 5.0 to 5 gallons of potable water. Immerse all items for at least 1 minute or for a contact time as specified by a local governing sanitizing code.
5. 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 fl. oz. SaniDate 5.0 to 5 gallons of potable water.
2. Inject solution into final rinse water. Solution must contact tableware for a minimum of 1 minute.
3. 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 fl. oz. SaniDate 5.0 to 5 gallons of potable water.
3. Rinse bottles/cans with the diluted solution 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 fl. oz. SaniDate 5.0 to 5 gallons of potable water.
3. 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 for a minimum of 60 seconds contact time. Control the volume of solution so as to permit maximum drainage and to prevent puddles.
4. 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 fl. oz. of this product with 5 gallons of potable water (147 ppm of active 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. Wet eggs thoroughly and allow to drain.
3. 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.
4. Eggs must be reasonably dry before casing or breaking. The sanitizing solution must not be reused for sanitizing eggs.

**FOR SANITIZING OF HATCHING EGGS**

1. Prepare solution by adding 1.6 fl. oz. SaniDate 5.0 to 5 gallons of potable water.
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. Allow to drain dry.

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

### **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.

### **SURFACE DISINFECTION**

Use SaniDate 5.0 as a disinfectant at a rate of 0.5 fl. oz. in 1 gallon of water (230 ppm of active 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 wet for ten (10) minutes.

Fogging Instructions: SaniDate 5.0 can be used as an adjunct to acceptable manual cleaning and disinfecting to treat hard, non-porous surfaces.

1. Remove gross filth from surfaces to be treated.
2. Prior to fogging, remove or carefully protect all food product and packaging materials.
3. 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.
4. 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 active peroxyacetic acid).
5. Allow surfaces to drain thoroughly before operations are resumed.

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 mentagrophytes</i>
<i>Methicillin-resistant Staphylococcus aureus (MRSA)</i>	

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

*Pediococcus damnosus*  
*Saccharomyces cerevisiae*  
*Lactobacillus malefermentans*

### **VIRICIDAL**

When used at the disinfectant rate of 0.5 fl. oz. per gallon of water, SaniDate 5.0 is an effective viricide against:

<i>Human Influenza Virus (H1N1)</i>	<i>Canine Distemper Virus</i>
<i>Avian Influenza Virus (H9N2)</i>	

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

- 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
- 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, live stock quarters, stables, stalls, and pens
- Packinghouses, food processing and rendering plants
- Grocery stores, supermarkets, food distribution and storage facilities
- Farms, farm equipment and harvesting equipment
- Commercial floral shops
- Hair salons/barber shops
- Pharmaceutical/cosmetic facilities
- Buses, taxis, trucks, trains, airplanes, public transportation facilities

Not for use on medical devices or medical equipment.

### **COMBINATION DISINFECTION AND CLEANING**

Use a rate of 0.5 fl. oz. per gallon for hard, non-porous surfaces that are lightly soiled or have been pre-cleaned to remove gross 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 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.

### **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.

Add 2.5 - 5 fl. oz. of SaniDate 5.0 to 5 gallons of water (230-460 ppm of active peroxyacetic acid). Treated surfaces must remain wet for ten (10) minutes.

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

SaniDate 5.0 is recommended for use on hard, non-porous, environmental surfaces such as floors, walls and processing equipment in pharmaceutical and cosmetic processing facilities. This product is effective at 0.5 fl. oz. per 1 gallon of water for pre-cleaned or lightly soiled surfaces to disinfect.

### **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 5.0 a dilution of 1:256 or 0.5 fl. oz. per gallon of water, for at least ten (10) minutes. 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 EQUIPMENT DISINFECTION**

SaniDate 5.0 may be used to disinfect 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.

1. Remove gross contamination with a cleaner or other suitable detergent and rinse with water.
2. Use SaniDate 5.0 at a dilution rate of 1:256 (0.5 fl. oz/gal) as a general coarse spray.
3. Allow solution to contact surface for ten (10) minutes.
4. Allow to air dry, do not rinse.

## **TRACTOR TRAILER DISINFECTION**

SaniDate 5.0 may be used to disinfect and deodorize vehicles such as trucks, trailers, cabs, crates, (including truck body parts and tires, mats, wheels). Use SaniDate 5.0 to prevent the cross contamination of bacteria, fungus and mold between loads.

1. 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.
2. Remove gross contamination with high pressure water and cleaner or other suitable detergent and rinse with water.
3. Apply SaniDate 5.0 using a coarse spray device at a rate of 0.5 fl. oz. per 1 gallon of water for a period of ten (10) minutes.
4. Rinse all treated surfaces that will contact food or commodities with potable water before use.

## **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**

1. Remove all poultry and feeds from premises, trucks, coops and crates.
2. Remove all litter and droppings from floors, walls and surfaces of facilities occupied or traversed by poultry.
3. 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 fl. oz. per 1 gallon of water (230 ppm of active peroxyacetic acid) for a period of ten (10) minutes.
6. Immerse all types of equipment used in handling and restraining poultry, as well as forks, shovels and scrapers used for removing litter and manure.
7. Ventilate buildings, coops and other closed spaces. Do not house poultry or employ equipment until treatment has been absorbed, set or dried.
8. 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**

1. Clean out any remaining eggs and chicks. 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. Thoroughly clean all surfaces with soap or detergent and rinse thoroughly with water.
5. Saturate all surfaces with a solution of 0.5 fl. oz. per 1 gallon of water (230 ppm of active peroxyacetic acid) for period of ten (10) minutes.
6. Ventilate buildings, coops, and other closed spaces. Allow to dry before reintroducing eggs or poultry.
7. Thoroughly scrub 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 5.0 can be used as an adjunct to acceptable manual cleaning and disinfecting to treat hard, non-porous surfaces.

1. Clean out any remaining eggs and chicks. 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 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 active peroxyacetic acid).
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 soap or detergent, and rinse with potable water before reuse.

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

1. Remove all animals and feed from premises, vehicles and enclosures.
2. Remove all litter 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. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate all surfaces with a solution of 0.5 fl. oz. per 1 gallon of water (230 ppm of active peroxyacetic acid) for a period of ten (10) minutes.
6. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels and scrapers used for removing litter and manure.
7. Ventilate buildings, cars, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set or dried.
8. 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 fl. oz. per 1 gallon of water (230 ppm of active peroxyacetic acid) 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.
4. Thoroughly scrub all treated surfaces with soap or detergent and rinse with potable water before reuse.
5. Do not return animals to the habitat until it is dry and ventilated.
6. 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 from area to area 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 0.5 – 1.0 fl. oz. of SaniDate 5.0 per gallon of water (230-460 ppm of active 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 wet for ten (10) minutes prior to entering next area. Change solution daily or as needed.

For Foaming applications, add 2 - 4 fl. oz. 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** *(Not for use in California)*

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 fl. oz. per gallon (46-460 ppm of active 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 to 10.25 fl. oz. per 100 gallons (11 - 47 ppm of active 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 active 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 active 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.

#### **COMMERCIAL FLORIST USE DIRECTIONS**

To clean, disinfect, and deodorize hard, non-porous surfaces, prepare use solution by adding 0.5 - 1 fl. oz. for one gallon of water (230-460 ppm of active peroxyacetic acid).

1. Remove all leaves, petals, garbage, and refuse. Pre-clean surfaces using pressurized water where possible.
2. Apply SaniDate 5.0 solution to hard (inanimate) non-porous surfaces thoroughly wetting surfaces as recommended and required with a cloth, mop, brush, sponge, or sprayer.
3. Allow treated surfaces to remain wet for ten (10) minutes.
4. Ventilate treated surfaces and allow to air dry.
5. Prepare a fresh solution at least daily or sooner if use solution becomes visibly dirty.

#### **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 0.5 fl. oz of SaniDate 5.0 per gallon of water (230 ppm of active peroxyacetic acid) with a mop, cloth, sponge, or hand trigger spray so as to wet all surfaces thoroughly.
3. Allow to remain wet with solution for ten (10) minutes.
4. Rinse all treated surfaces thoroughly with potable water before operations are resumed.

#### **DISINFECTION OF NON-FOOD CONTACT PACKAGING EQUIPMENT**

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. For disinfection, apply 0.5 fl. oz. of SaniDate 5.0 per gallon of water (230 ppm of active peroxyacetic acid) to surfaces at a temperature of 25° to 45° C.
3. Allow to remain wet with solution 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 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 fl. oz per gallon (230 ppm of active peroxyacetic acid) for hard non-porous surfaces that are lightly soiled or have been pre-cleaned to remove gross contamination.

To Fog Dairy, Beverage, Food Storage Facilities, Packing Houses and Food Processing Plants: SaniDate 5.0 can be used as an adjunct to acceptable manual cleaning and disinfecting to treat hard, non-porous room surfaces.

1. Remove gross filth from surfaces to be treated.
2. Prior to fogging, remove or carefully protect all food product and packaging materials.

3. 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.
4. 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 active peroxyacetic acid).
5. Allow surfaces to drain thoroughly before operations are resumed. Any food contact surfaces must be rinsed with potable water prior to re-use.

**Foaming Applications:** Apply SaniDate 5.0 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. 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.

### **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 to 2 hours, as necessary, whereas intermittent doses are applied for 5 to 60 minutes 1 to 100 times per day. For either shock, intermittent or continuous dosing, apply 4.5 to 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 to 9 ppm of peroxyacetic acid. Repeat treatment as required to maintain control.

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

#### **STOCK TANKS AND LIVESTOCK WATER**

Use SaniDate 5.0 to suppress / 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 to 6.0 fluid ounces of SaniDate 5.0 per 250 gallons of water (2 – 11 ppm of 100% 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 1:265 rate 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**

To remove scale, mineral build up and heavy soils from livestock watering systems use SaniDate 5.0 at 0.42-0.85 fl. oz. per gallon of water. Allow system to run for 6 to 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.

## **POULTRY, SWINE, LIVESTOCK WATERING OPERATING SYSTEMS**

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

## **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 to 209.5 fl. oz. of SaniDate 5.0 solution to 1,000 gallons water. This will provide 512-1817 ppm of SaniDate 5.0, or 27-96 ppm 100% 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 fresh cut or 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 to 85 ppm 100% 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 at a rate of 1:588 - 1:2451 concentrate to clean water. This will provide 24 -100.0 ppm of 100% 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.

## **FOGGING OF FRUITS AND VEGETABLES IN STORAGE (*Not Approved For Use in California*)**

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 thermofoggers 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 get 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.

#### 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 gross soil particles from surfaces to be treated. For heavily soiled surfaces, a pre-wash is required.
3. Apply 0.5 fl. oz of SaniDate 5.0 per gallon of water (230 ppm of active peroxyacetic acid) with a mop, cloth, sponge, or hand trigger spray so as to wet all surfaces thoroughly.
4. Allow to remain wet with solution 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 POTATOES

This product may be used for fogging (wet misting) following regular cleaning procedures in hard room surfaces. Prior to fogging, remove or cover any food or packaging material with waterproof coverings. Thoroughly clean all surfaces. Cover any metal equipment or controls inside the storages that might be sensitive to hydrogen peroxide and/or peroxyacetic acid. Fog the desired area at 32 to 64 fluid ounces of 0.39% v/v SaniDate 5.0 solution per 1,000 cubic feet using equipment with an automated timer. Do not remain in treated areas; allow at least two hours after fogging is complete before reentering fogged area.

#### 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 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 *(Not Approved for Use in California)*

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 peracetic 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 1000 cu. ft of potatoes or 1.0-3.5 gallons per 10,000 CWT 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.

**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.

**DETERMINING WATER VOLUME**

Measure length (L), width (W), and average depth (D) in feet (ft) or meters (m) and calculate volume using one of the following formulas:

Square/Rectangular:  
 L(ft) x W(ft) x D(ft) x 7.5 = Gallons  
 L(m) x W(m) x D(m) x 1000 = Liters

Circular/Elliptical:  
 L(ft) x W(ft) x D(ft) x 5.9 = Gallons  
 L(m) x W(m) x D(m) x 786 = Liters

$\frac{\text{Avg. Length (ft)} \times \text{Avg. Width (ft)}}{43,560} = \text{acres}$

**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 Dioxide
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.

## **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 100% 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 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.

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 1:256 of SaniDate 5.0 or 0.5 fl. oz. per gallon of water (230 ppm of active peroxyacetic acid) for all non-porous surfaces that have been pre-cleaned with water. Apply solution with mop, sponge, power sprayer or fogger to thoroughly wet all surfaces. Cutting tools may be soaked to ensure complete coverage. To disinfect, allow surfaces to remain wet with 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 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. Do not rinse.

## **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. For maintenance, treat cooler water once a week with a dilution of 1:800 of SaniDate 5.0 for every gallon 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 to 46.5 fluid ounces of SaniDate 5.0 per 1,000 gallons of water. (1:22000-1:2750). This amount will provide 2.7-21 ppm of 100% 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 or during crop growing season. To control existing growth, fill irrigation lines with 1:300-1:600 solution of SaniDate 5.0 (21.3-42.7 fl. oz. of SaniDate 5.0 per 100 gallons of water; 100-200 PPM of 100% peroxyacetic acid) and allow a contact time of 30-60 minutes or overnight if possible. Lines should then be flushed with fresh irrigation water. As a preventative maintenance, inject SaniDate 5.0 as a continuous treatment after irrigation system is pressurized and after fertilizer injection point. Apply the product at a rate of 5.8 to 46.5 fluid ounces of SaniDate 5.0 per 1,000 gallons of water. (1:22000-1:2750). This amount will provide 2.7-21 ppm of 100% peroxyacetic acid. Refer to Chemigation Directions for Use for specific instructions on using this product through irrigation systems.

#### **WATER DAMAGE RESTORATION**

Use SaniDate 5.0 to control the growth of odor causing bacteria and fungi 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 *(Not for use in California)***

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 heavy soil or gross filth 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 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 *(Not for use in California)***

At 0.5 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.

#### **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) Determine the treatment rates as indicated in the directions for use and make proper dilutions.
- 3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into solution without any required agitation.
- 4) Do not apply SaniDate 5.0 in conjunction with any other pesticides or fertilizers; this has the potential to cause reduced performance of the product. Avoid application in this manner.

**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. 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. Batch Code \_\_\_\_\_

**CONTAINER HANDLING: (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. Batch Code \_\_\_\_\_

## 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 should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness 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.

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. 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. BIOSAFE SYSTEMS MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESSED OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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. 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.

### **Optional Label Claims for SaniDate 5.0**

- SaniDate 5.0 is a versatile cleaner, sanitizer, and broad-spectrum disinfectant for hard, non-porous surfaces.
- SaniDate 5.0 contains no phosphorous.
- SaniDate 5.0 cleans by removing dirt, grime, blood, urine, fecal matter and other common soils found in animal housing facilities, livestock, swine and poultry facilities, grooming facilities, farms, kennels, pet stores, veterinary clinics, laboratories, or other small animal facilities. It (also) eliminates odors leaving surfaces smelling clean and fresh.
- SaniDate 5.0 can be used to disinfect, clean, and deodorize terrarium and small animal cages.
- SaniDate 5.0 is an economical concentrate that can be used with a mop and bucket, trigger spray, sponge, or by soaking.
- SaniDate 5.0 will not leave a grit or soap scum.
- When used as directed, this product will deodorize surfaces in restrooms and toilet areas, behind and under sinks and counters, garbage cans and garbage storage areas, and other places where bacterial growth can cause malodors.
- SaniDate 5.0 inhibits bacterial growth and deodorizes by killing microorganisms that cause offensive odors. (*Not for use in California*)
- SaniDate 5.0 is a versatile disinfectant and sanitizer for veterinarian, animal care, animal laboratory, and agricultural and farm premises applications.
- SaniDate 5.0 is approved as a sanitizer in public eating places, dairy processing equipment, and food processing equipment and utensils. A potable rinse is not allowed when used as a sanitizer on food contact surfaces.
- SaniDate 5.0 is for use as a sanitizer on food contact surfaces, food processing equipment and utensils, and as a disinfectant on hard, non-porous surfaces. A potable water rinse is not allowed when used as a sanitizer on food contact surfaces.
- SaniDate 5.0 is for use as a sanitizer in bottling and beverage dispensing equipment.
- SaniDate 5.0 is for use as a sanitizer in sanitary filling of bottles and cans.
- SaniDate 5.0 is for use as a sanitizer in beer fermentation and holding tanks.
- SaniDate 5.0 is for use as a sanitizer in wineries for use on holding tanks, floors, and processing equipment.
- SaniDate 5.0 is for use as a sanitizer in dairy clean-in-place systems.
- Use SaniDate 5.0 to sanitize and disinfect non-porous salon/barber tools and instruments such as combs, brushes, scissors, clippers, trimmers, razors, blades, tweezers, and manicure instruments.
- Use SaniDate 5.0 on the multi-touch surfaces responsible for cross-contamination.
- SaniDate 5.0 is a concentrate formulation designed for use in commercial, institutional, and industrial operations.
- SaniDate 5.0 controls the growth of odor-causing and slime forming bacteria.
- SaniDate 5.0 is an effective anti-microbial cleaner designed for use by wholesale and retail florists, shippers, and in greenhouses.
- When used as directed, SaniDate 5.0 will disinfect hard, non-porous surfaces such as flower buckets, walls, floors, shippers, greenhouse packing areas, garbage pails, and other areas where obnoxious odors may develop.
- SaniDate 5.0 may be used as a general purpose anti-microbial detergent in florist shops, wholesale florist, shippers, greenhouse packing areas, and other commercial floriculture places for efficient cleaning and anti-microbial action against certain bacteria which cause:
  - Plugging of stems with slime, which reduces uptake of water for various flowers including roses, chrysanthemums, gladioli, and tulips.

- Production of ethylene gas, which may injure blooms of the various sensitive flowers including carnations, snapdragons, some orchids, baby's breath, sweet peas, freesia, and alstroemeria.
- SaniDate 5.0 may be applied through automatic washing systems, immersion tanks, foaming apparatus, low-pressure sprayers and fogging (wet misting) systems.
- SaniDate 5.0 meets AOAC Germicidal and Detergent Test Standards for food contact surfaces.
- SaniDate 5.0 meets AOAC efficacy standards for hard surface sanitizing.
- SaniDate 5.0 meets AOAC efficacy standards for hard surface non-food contact sanitizing.
- SaniDate 5.0 is formulated to effectively eliminate offensive odors caused by mold and mildew.
- Antibacterial
- Hospital Use Disinfectant
- Effective against Human Influenza Virus (H1N1)
- Effective against Swine Flu Virus (H1N1)
- Effective against *Methicillin-resistant Staphylococcus aureus* (MRSA)
- Effective against Avian Influenza Virus (H9N2)
- Institutional Use Disinfectant
- Easy to use
- For sanitizing of hard, non-porous surfaces, structures & equipment
- Activated Peroxide Disinfectant
- Activated Peroxygen treatment
- Activated Peroxygen chemistry
- Contains no phosphates
- Sanitizes and deodorizes
- Leaves no residue
- Scent free
- Chlorine free
- Versatile Sanitizer
- A post harvest treatment for the prevention and control of plant pathogenic diseases on all fruits and vegetables and other agricultural crops in dump tanks, hydro coolers and process waters.
- A treatment for the prevention and control of plant pathogenic diseases on surfaces, equipment and structures used in processing post-harvest commodities.
- Controls the growth of odor-causing and slime forming bacteria
- A treatment for the prevention and control of algae & cyanobacteria in waters
- Easy to use
- Effective over a wide range of pH conditions
- Reduces organic build-up and noxious odors including hydrogen sulfide
- Controls algae blooms
- Controls odors
- Algaecide
- Kills algae
- Non harmful to fish or aquatic life
- May be used in water features containing fish and plants
- Keeps water clean
- Rids water of algae
- Removes algae on contact
- Treats, controls, and prevents algae
- Use on water gardens, ornamental ponds, waterfalls, fountains, or stone water features
- Alternative to copper-based products

- Liquid algaecide for treating waterscapes
- Enhance water's quality and appearance
- Kills stubborn algae quickly
- Removes algae from your water
- Fast-acting algae control
- Pond algaecide
- Kills stubborn algae
- Reduces algae growth
- Inhibits growth of many types of algae
- Biodegradable
- Will not harm plants
- Contains no metals
- For water with fish
- For pristine water
- For algae-free water
- Begins working immediately
- Eliminates algae
- Get rid of algae problems
- Bactericide
- Fungicide
- Sanitizer
- Disinfectant
- See inside for full instructions
- For the sanitization and disinfection of hard, non-porous surfaces.
- To inhibit the growth of algae, bacteria, mold and mildew on hard, non-porous surfaces.
- For the control of odor causing bacteria and fungi in water damage restoration situations.
- For use in hospitals and healthcare facilities.
- For use in commercial, agricultural, post harvest, and horticultural water treatment applications.
- For the treatment of water for industrial and commercial water treatment systems.

## Sublabel B: Aquatic Uses

# SaniDate® 5.0

(*Alternate Brand Names: StorOx 5.0 Post Harvest Treatment, GreenClean Max Algaecide, SaniDate WTO, GreenClean WTO, GreenClean Liquid 5.0*)

### FOR COMMERCIAL USE

#### ACTIVE INGREDIENTS:

Hydrogen Peroxide ..... 23.0%

Peroxyacetic Acid ..... 5.3%

**INERT INGREDIENTS:** ..... 71.7%

**TOTAL:** ..... 100.0%

### **DANGER - PELIGRO** **STRONG OXIDIZING AGENT** **KEEP OUT OF REACH OF CHILDREN**

*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	
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15 – 20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Call poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
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.	

**Sold by:** BioSafe Systems, LLC, 22 Meadow St, East Hartford, CT 06108; (888) 273-3088

**EPA Registration No.:** 70299 - 19

**EPA Establishment No.:** EPA Est. No.67441-IL-001, 089546-NV-001, 082521-GA-001

**Net Contents:** 2.5, 5, 30, 55, 275 gallons

### PRECAUTIONARY STATEMENTS

SaniDate 5.0 EPA Reg. No. 70299-19  
Label version (13) Redline Copy dated January 22, 2016  
Notification (V13 012216)  
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### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER: CORROSIVE.** Causes irreversible eye damage and skin burns. May be fatal if inhaled or absorbed through skin. Harmful if swallowed. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Wear goggles, face shield, and rubber gloves when handling. Do not enter an enclosed area without proper respiratory protection. Wash thoroughly with soap and water after handling and before eating, drinking, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

### 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, cleaners 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, and protective eyewear (goggles or face shield).

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

### 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 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 requirement 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 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.

**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 is a water treatment product used to suppress/control/eliminate/kill water borne bacterial and fungal pathogens in irrigation systems and contaminated irrigation water. SaniDate 5.0 will also prevent slime-forming bacteria and algae in irrigation systems. SaniDate 5.0 is non corrosive to aluminum pipe, booster pumps and impellers when used as directed. SaniDate 5.0 can be injected on the pressure side of any sprinkler or drip irrigation system. SaniDate 5.0 0 can be used prior to planting, during crop production and day of harvest without any restrictions to re-entry or pre harvest interval.

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

**TREATMENT OF AGRICULTURAL IRRIGATION WATER USED FOR FRUIT AND VEGETABLE CROPS**

Use SaniDate 5.0 to treat irrigation water during all phases of crop production including pre-plant irrigation and throughout the crop cycle to suppress/control fungi, algae, bacteria, and fungi like organisms (such as water molds) in irrigation water used for fruit and vegetable crop production. SaniDate 5.0 can be used up to and including the day of harvest.

Apply the product at a rate of 5.8 to 46.5 fluid ounces of SaniDate 5.0 per 1,000 gallons of water. (1:22,000-1:2750). This amount will provide 2.7-21 ppm of 100% 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. For best results, continuous injection into the water is recommended every time crop is irrigated or at a minimum, in the last 2-3 irrigations prior to harvest.

Apply this product 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.

## TREATMENT OF AGRICULTURAL IRRIGATION SYSTEMS

Use SaniDate 5.0 to prevent/control bacterial and/or algae growth inside the irrigation systems. To clean up contaminated irrigation systems, fill irrigation lines with 1:500 to 1:2,500 solution of SaniDate 5.0 (0.4- 2.0 gallons of SaniDate 5.0 per 1,000 gallons of water; 20-100 PPM of 100% peroxyacetic acid) and allow a contact time of 6-12 hours or overnight if possible. Open ends of irrigation lines and flush with irrigation water. Depending on the contamination level in the irrigation system as determined by water analysis a second shock treatment maybe necessary. Apply the product at a rate of 5.8 to 46.5 fluid ounces of SaniDate 5.0 per 1,000 gallons of water. (1:22,000-1:2750). This amount will provide 2.7-21 ppm of 100% peroxyacetic acid. A water test is recommended to determine the proper rate of product.

## SHOCK TREATMENT FOR IRRIGATION WELLS

Use SaniDate 5.0 to control bacterial growth in irrigation wells. Shock the well water infested with bacteria using SaniDate 5.0 at rate equivalent to 100-200 PPM of peroxyacetic acid. This is equivalent to 1:300-1:600 solution of SaniDate 5.0 (1.25-2.5 gallons of SaniDate 5.0 per 100 cubic feet of water to be treated). After thorough surging of the water, allow a contact time of 48-72 hrs. Purge the well to remove any organic deposits. Pump the well until water is clear. Test strip can be used ensure peracetic acid concentration is < 50 PPM in the water before using the water for irrigation.

## FIELD EQUIPMENT DISINFECTION

SaniDate 5.0 may be used to disinfect 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.

1. Remove gross contamination with a cleaner or other suitable detergent and rinse with water.
2. Use SaniDate 5.0 at a dilution rate of 1:256 (0.5 fl. oz/gal) as a general coarse spray.
3. Allow solution to contact surface for ten (10) minutes.
4. Allow to air dry, do not rinse.

Use SaniDate 5.0 to suppress, control and prevent algae and cyanobacteria in the following waters: Ponds, Lakes, Lagoons, Water Gardens, Ornamental Pools/Ponds, Ornamental Waterfalls, Fountains, Bird Baths, Irrigation Ponds, Rice/Wild Rice Fields and Paddies, Farm Ponds, Impounded Waters, Bilge Water, Reservoirs, Waterways, Conveyance Ditches, Canals, Laterals, Drainage Systems, Catch Basins, Sewage Lagoons and Pits, Feedlot Run-Off Lagoons, Sewage Systems, Fire Ponds, Watering Tanks, Storage Tanks, Water Collectors.

## DETERMINING WATER VOLUME

Measure length (L), width (W), and average depth (D) in feet (ft) or meters (m) and calculate volume using one of the following formulas:

Square/Rectangular:

$L(\text{ft}) \times W(\text{ft}) \times D(\text{ft}) \times 7.5 = \text{Gallons}$

$L(\text{m}) \times W(\text{m}) \times D(\text{m}) \times 1000 = \text{Liters}$

Circular/Elliptical:

$L(\text{ft}) \times W(\text{ft}) \times D(\text{ft}) \times 5.9 = \text{Gallons}$

$L(\text{m}) \times W(\text{m}) \times D(\text{m}) \times 786 = \text{Liters}$

$\frac{\text{Avg. Length (ft)} \times \text{Avg. Width (ft)}}{43,560} = \text{acres}$

## APPLICATION RATES

Apply SaniDate 5.0 at the rate of 2.8 - 28.5 gallons per acre-ft of water. Use higher rates when existing algae density is high (algae blooms) and/or when dealing with resistant algae types.

<b>Algae Growth/Density</b>	<b>Gallons SaniDate 5.0 Per Acre Foot</b>
Low Density	2.8
Moderate Density	7.1
High Density	12.8
Extreme Density (Full Bloom)	28.5

### **APPLICATION METHODS**

In bodies of water where an aerator is available, and when treating the entire water volume, apply 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:** Surface spray (or inject) spray solution on the water surface from shore or a boat equipped with aquatic spray or injection equipment. Use a rate up to 24 gallons per acre-foot for surface spray or injection treatment. Use in accordance with manufacturer's spray equipment instructions.

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

### **GENERAL TREATMENT NOTES**

- Control is best achieved when algae are not yet well established. Treat in early spring or summer when growth first begins to appear.
- The application rates are variable and depend upon algae species, water hardness, and amount of algae present.
- Use higher application rates for filamentous algae (pond scum) and lower application rates for planktonic algae. If there is uncertainty about the application rate begin with a lower application rate and increase until control is achieved or until maximum allowable level has been reached.
- Treatment of algae can result in oxygen loss from the decomposition of dead or decaying algae. Begin treatment along the shore and proceed outward in bands to allow fish to move into untreated areas. In regions where ponds freeze in winter, treatment should be done 4 to 6 weeks before expected freeze to prevent masses of decaying algae under an ice cover.
- Apply early in the day under calm, sunny conditions, when water temperatures are warm. Sunlight and higher temperatures both enhance activity.
- Apply evenly over the water surface directly over the algae to be treated.
- Break up any heavy floating algae mats before or during application.
- If using in conjunction with other water additives (such as bacteria or enzymes), always apply SaniDate 5.0 first and wait 48 hours before adding any other products.
- Re-treat areas if re-growth begins to appear. Allow 48 hours between consecutive treatments.

- Maintain an algae free pond with maintenance rates at a frequency appropriate for your environmental conditions.
- Jar test first when tank mixing with copper based chemistries. Spray tank must be clean to begin mixing. Vent cap to allow oxygen release. Contact your BioSafe Representative for mixing instructions.

### **ALGAE CONTROL IN RICE/WILD RICE FIELDS AND PADDIES (*Not Approved for Use in California*)**

Use SaniDate 5.0 to suppress / control algae in rice fields and paddies. Apply SaniDate 5.0 at a rate of 5.8 -11.7 gallons of SaniDate 5.0 per surface acre using conventional sprayer equipment or aerial application. This is equivalent to 10.8 - 21.9 ppm of hydrogen peroxide and 2.5 - 5.0 of peroxyacetic acid per surface acre of water with a 5 inch depth. Apply at the first signs of algae. Applications are most effective when made before rice rises to the water surface. Apply SaniDate 5.0 as needed to control and prevent algae growth; apply more often in times of higher water temperatures.

### **STOCK TANKS AND LIVESTOCK WATER**

Use SaniDate 5.0 to suppress / 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 to 6.0 fluid ounces of SaniDate 5.0 per 250 gallons of water (2 – 11 ppm of 100% 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 1:265 rate 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**

To remove scale, mineral build up and heavy soils from livestock watering systems us SaniDate 5.0 at 0.42-0.85 fl. oz. per gallon of water. Allow system to run for 6 to 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.

### **POULTRY, SWINE, LIVESTOCK WATERING OPERATING SYSTEMS**

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

### **SEWAGE WATER TREATMENT**

Use SaniDate 5.0 for the control of bacteria and the malodors caused by hydrogen sulfide gas. Application rates may vary depending on amounts of organic matter (sewage) in lagoons and pits. Pour SaniDate 5.0 directly from the container into the pit or lagoon at several locations to aid in dispersal. Use 1.2 gallons of SaniDate 5.0 for 60,000 gallons (8,000 cubic feet) of sewage. For best results, disperse SaniDate 5.0 evenly throughout sewage. Odors should be noticeably reduced in 1-2 weeks. Repeat application when odor reappears. For lagoons, wait 24 hours before adding beneficial bacteria.

### **IRRIGATION CONVEYANCE SYSTEMS AND OTHER MOVING WATER (*Not Approved for Use in California*)**

Use SaniDate 5.0 to suppress/control algae in flowing water systems. Apply SaniDate 5.0 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 5.0 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:

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

\* 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 5.0 in the chart below.

**Application Rates for Moving Water**

Algae Growth/Density	Application Rate per C.F.S.
Low Density	2 qts
Moderate Density	1 gal
High Density	1.5 gals
Extreme Density	2 gals

**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 (Basin), Furrow and Border 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) Determine the treatment rates as indicated in the directions for use and make proper dilutions.
- 3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into solution without any required agitation.
- 4) SaniDate 5.0 may be applied in conjunction with other pesticides or fertilizers. Agricultural chemicals may perform in an unpredictable manner when tank mixed, especially where several products are involved. Conduct a compatibility jar test before mixing a whole tank. Because of the wide variety of possible combinations which can be encountered, observe all precautions and limitations on the labels of all products used in mixtures.

#### **STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in original container in a cool, dry well-vented area, away from direct sunlight. Do not allow product to become overheated in storage. 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. Batch Code \_\_\_\_\_

**CONTAINER HANDLING: (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. Batch Code \_\_\_\_\_

## 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, ineffectiveness 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.

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. 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 OR OF FITNESS 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.

### **Optional Label Claims**

- For use in agricultural water and irrigation systems
- For treatment of water used in agricultural and horticultural applications
- A treatment for the prevention and control of algae & cyanobacteria in waters, including rice and wild rice fields/paddies.
- Disinfectant
- Activated Peroxygen treatment
- Activated Peroxygen chemistry
- Leaves no residue
- Chlorine free
- Algaecide
- Bactericide
- Kills algae
- Controls algae
- Prevents algae growth
- Controls slime-forming bacteria
- Kills slime-forming bacteria
- For the treatment of biofilms
- Controls the growth of odor-causing and slime forming bacteria
- A treatment for the prevention and control of algae & cyanobacteria in waters
- Easy to use
- Effective over a wide range of pH conditions
- Reduces organic build-up and noxious odors including hydrogen sulfide
- Controls algae blooms
- Controls odors
- Non harmful to fish or aquatic life