

70299-18

5/28/2013

1/15

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 28 2013



United States
Environmental Protection
Agency

Office of Pesticide Programs

BioSafe Systems
22 Meadow Street
East Hartford, CT 06108

Attention: Donna Bishel

Subject: SaniDate 12.0
EPA Registration No. 70299-18
Notification Dated April 24, 2013

This will acknowledge receipt of your notification, submitted under the provisions of FIFRA Section 3(c)(9).

Proposed Notification

- Minor Text Revisions
- To Add Environmental Hazards statement

General Comments

Based on a review of the submitted material, the following comments apply:

The Notification is in compliance with PR Notice 98-10 and is acceptable. This information has been added to your file.

If you have any questions concerning this letter, please contact Martha Terry at (703) 308-6217.

Sincerely

A handwritten signature in black ink that reads "Marshall Swindell".

Marshall Swindell
Product Manager (33)
Regulatory Management Branch 1
Antimicrobials Division (7510P)

2/15



United States
Environmental Protection Agency
 Washington, DC 20460

<input type="checkbox"/>	Registration
<input type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 70299-18	2. EPA Product Manager Marshall Swindell	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) SaniDate 12.0	PM# 33/Antimicrobial Division	
5. Name and Address of Applicant (Include ZIP Code) BioSafe Systems, LLC 22 Meadow Street East Hartford, CT 06108 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

NOTIFICATION to make minor text revisions and add environmental hazards statement per PR Notice 98-10. Refer to attached cover letter for details.

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or confidential statement of formula for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PRN Notice 98-10, and 40 CFR 152.46, this product may be in violation of FIFRA and may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
				<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
* Certification must be submitted				<input type="checkbox"/> Other (Specify) _____	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container 30, 55, 275 gallon	5. Location of Label Directions <input checked="" type="checkbox"/> on container label			
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph Paper glued Stenciled <input type="checkbox"/> Other _____					

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Donna Bishel / dbishel@biosafesystems.com	Title Technical Director	Telephone No. (Include Area Code) (486) 678-7700
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 	3. Title Technical Director	
4. Typed Name Donna Bishel / dbishel@biosafesystems.com	5. Date April 24, 2013	

3/15

April 24, 2013

Marshall Swindell
Product Manager 33
Antimicrobial Division (7504P)
Office of Pesticide Products
U.S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501

**RE: SaniDate 12.0
EPA Reg. No. 70299-18**

Notification to make minor text revisions per PR Notice 98-10

Dear Mr. Swindell:

BioSafe Systems is submitting the enclosed notification to revise the following for the above referenced product:

- Page 1 of the Master Label – Move marketing label claims to Optional Label Claims list on page 12 of the Master Label.
- Page 2 of the Master Label – Addition of Environmental Hazards statement.
- Pages 12 of the Master Label – Addition of an Optional Label Claim – “See packet for full instructions”.

Enclosed with this submission you will find the following:

- 1) Notification form;
- 2) One (1) copy of the revised label with all changes highlighted in redline;
- 3) Three (3) clean copies of the label.

All of these changes are:

- a. Consistent with PR Notice 98-10 and 40 CFR Part 156; and
- b. Involve no change in the ingredients statement, signal word, use classification, precautionary statements, First Aid, physical/ chemical/ biological properties, storage and disposal, or directions for use advisory and mandatory language.

Please contact me directly if you have any questions or comments.

Sincerely,



Donna Bishel
Technical Director for BioSafe Systems
Direct dial (410) 878-7700; email dbishel@biosafesystems.com

4/15

SaniDate® 12.0

FOR COMMERCIAL USE ONLY

- Microbiocide
- Controls the growth of algae, fungi, and odor-causing bacteria.
- For use in commercial, industrial, agricultural, post harvest, and horticultural water treatment applications.

ACTIVE INGREDIENTS:

Hydrogen Peroxide..... 18.5%

Peroxyacetic Acid..... 12.0%

OTHER INGREDIENTS:..... 69.5%

Total:..... 100.00

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	
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 – 20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none"> • Call poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center. • Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
You may also contact 1-800-222-1222 for emergency medical treatment information.	
NOTE TO PHYSICIAN - Probable mucosal damage may contraindicate the use of gastric lavage.	

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

EPA Registration No.: 70299- 18
EPA Establishment No.: 067441-IL-001
Net Contents: (30, 55, 275 gallons)

Batch Code _____

**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, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse. When spraying or fogging, wear a mask or pesticide respirator jointly approved by the Mine Safety and Health Administration and National Institute for Occupational Safety and Health.

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.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds and fish. For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees and other pollinating 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 or other pollinating insects are actively visiting the treatment area. Do not apply this product or allow it to drift to crops where beneficial are part of an Integrated Pest Management strategy.

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

DIRECTIONS FOR USE

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

This product is not intended as treatment against any public health organism for any use on this label. Uses are intended to treat algal and odor causing bacteria.

- For use in commercial, agricultural, and horticultural irrigation water treatment applications
- Treatment of water for industrial and commercial water treatment systems
- Treatment of fruit and vegetable processing waters
- For use in food processing operations

The main areas of use include:

- Fruit and vegetable processing facilities
- Commercial, industrial, agricultural and horticultural facilities

SaniDate® 12.0 works best when diluted with water containing low levels of organic or inorganic materials. Thoroughly rinse out tank with water before mixing concentrate. SaniDate® 12.0 will readily mix with clean water and does not require agitation.

6/15

SaniDate® 12.0 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, aluminum, steel, stainless steel, sealed wood, glazed tile, and glass.

CONTROL OF SPOILAGE AND DECAY CAUSING ORGANISMS IN PROCESS WATERS

SaniDate® 12.0 can be used in water or ice that contacts raw or fresh, post-harvest, or further processed fruits and vegetables for the control of spoilage and decay causing non-public health organisms.

TREATMENT OF FRUIT AND VEGETABLE PROCESSING WATERS

Use SaniDate® 12.0 for the treatment of waters used in the processing of raw fruits and vegetables. Mix SaniDate® 12.0 with water either batch-wise or continuously at a rate of 25.6 to 89.6 fl. oz. of SaniDate® 12.0 solution to 1,000 gallons water. This will provide 200 to 700 ppm of SaniDate® 12.0, or 24 to 85 ppm 100% peracetic 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® 12.0 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 OF PROCESSED FRUIT AND VEGETABLE SURFACES TO CONTROL GROWTH OF NON-PUBLIC HEALTH MICROORGANISMS THAT CAN CAUSE SPOILAGE

Add SaniDate® 12.0 at a dilution rate of 4.0 ounces per 100 gallons of water. Ensure that the solution is thoroughly mixed. This provides 59 ppm of hydrogen peroxide and 38 ppm of peroxyacetic acid. Apply the solution as a spray or dip. Allow a minimum contact time of 45 seconds. No rinse following application is needed. This use complies with the requirements of 21 CFR 173.315 (a) (5). A potable water rinse is not required following application of the diluted solution.

POST HARVEST APPLICATIONS

SaniDate® 12.0 may also be used to control the growth of spoilage and decay causing bacterial and fungal diseases on fruits and vegetables in post harvest storage. Mix SaniDate® 12.0 with water either batch-wise or continuously at a rate of 25.6 to 89.6 fl. oz. of SaniDate® 12.0 solution to 1,000 gallons water. This will provide 200 to 700 ppm of SaniDate® 12.0, or 24 to 85 ppm 100% peracetic acid in the use solution. 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.

FOGGING

Use SaniDate 12.0 to prevent bacterial and fungal diseases on post-harvest fruits and vegetables. Commercially-applied fogging methods may be used provided the dilutions rates of the resultant solution does not exceed those prescribed in this section (24 to 85 ppm 100% peracetic acid in the use solution). Conventional corrosion-resistant fogging devices are recommended. Applicable for use on all types of post-harvest commodities.

- 1) Vacate the area of all personnel prior to fogging.
- 2) Turn off all ignition sources such as pilot lights (shut off gas valve), other flames or electrical appliances that cycle on and off (i.e., refrigerators, thermostats, etc.). Call your gas utility or management company if you need assistance. Shut off all fans and air conditioners.
- 3) To start fogging: Inject SaniDate 12.0 at a rate of 0.026-0.09 fl.oz per gallon of clean water using a proper dosing pump. This is equivalent to a dilution rate of 1:5000-1:1412 and will provide 24-85 PPM 100% peracetic acid in the use solution for fogging application. Allow a minimum contact time of 20 seconds with the fog.

7/15

- 4) Exit the area or space immediately and remain outside the treated area or space until the area or space is thoroughly ventilated and until fog or mist has dispersed. Do not reenter the area until hydrogen peroxide is measured below 1.0 ppm. Reentry times may vary.

ANTIMICROBIAL RINSE OF PRECLEANED OR NEW RETURNABLE OR NON-RETURNABLE CONTAINERS

To reduce the numbers of non-pathogenic beverage spoilage microorganisms, use a dilution of 1:100 of SaniDate® 12.0. This provides 1200 ppm peroxyacetic acid. After applying antimicrobial rinse, allow containers to drain thoroughly, then rinse with sterile or potable water.

CONTROL OF ALGAL, FUNGAL, AND ODOR CAUSING BACTERIAL GROWTH IN PULP AND PAPER MILL SYSTEMS FOR FOOD AND NON-FOOD CONTACT PAPER

SaniDate® 12.0 provides an effective means to treat various process waters for slime control. Dosage rates should be increased or decreased depending on the control achieved. **Maximum usage rate must not exceed 2lbs. SaniDate® 12.0 solution per ton (2,000 lbs., dry basis) of pulp or paper produced.**

TREATMENT OF PAPER MACHINE WHITE WATER - SaniDate® 12.0 may be applied within the white water short circulation loop on the paper machine. Apply with either shock, intermittent, or continuous dosing. Shock doses may be applied for 1 to 2 hours, as necessary, whereas intermittent doses are applied 1 to 12 times per day, for a duration of 5 to 60 minutes each. For either shock or intermittent dosing, apply 2.5 to 102 fl. oz. of SaniDate® 12.0 per 1000 gallons of white water, producing a peak concentration of 20 to 800 ppm of SaniDate® 12.0 during dosing. This is approximately equivalent to a peak dose of 2 to 100 ppm 100% peracetic acid. For continuous dosing, apply 2.5 to 25 fl. oz. of SaniDate® 12.0 to 1000 gallons of process water, producing a peak concentration of 20 to 200 ppm of SaniDate® 12.0. This is approximately equivalent to 2 to 25 ppm 100% peracetic acid.

CATALASE CONTROL IN DEINKING WATER LOOPS - SaniDate® 12.0 may be applied to the inlet lines going to de-inking water storage following clarification. Apply with either shock, intermittent, or continuous dosing. Shock doses may be applied for 10 to 60 minutes as necessary. Apply 1.7 to 4.2 gallons SaniDate® 12.0 per 1000 gallons recirculation water, producing a peak concentration of 1700 to 4200 ppm SaniDate® 12.0 during dosing. This is approximately equivalent to a peak dose of 200 to 500 ppm 100% peracetic acid. For intermittent doses, apply 1 to 12 times per day, for a duration of 10 to 60 minutes. Apply 0.8 to 2.1 gallons SaniDate® 12.0 per 1000 gallons of water, producing a peak concentration of 800 to 2100 ppm of SaniDate® 12.0 during dosing. This is approximately equivalent to a peak dose of 100 to 250 ppm 100% peracetic acid. For continuous dosing, apply 0.2 to 1.4 gallons SaniDate® 12.0 to 1000 gallons of process water, producing a peak concentration of 200 to 1400 ppm of SaniDate® 12.0. This is approximately equivalent to 25 to 170 ppm 100% peracetic acid.

TREATMENT OF RAW AND PROCESS WATER - SaniDate® 12.0 may be applied to water at the inlet of the process water system or any other suitable point. Apply with either shock, intermittent, or continuous dosing. Shock dosing may be applied for a duration of 1 to 2 hours, as necessary, whereas intermittent dosing is applied for 2 to 15 minutes, 4 to 100 times per day. For either shock or intermittent dosing, apply 0.16 to 0.8 gallons SaniDate® 12.0 per 1,000 gallons of water producing a peak concentration of SaniDate® 12.0 of 160 ppm to 800 ppm during dosing. This is approximately equivalent to a peak dose of 20 to 100 ppm 100% peracetic acid. For continuous dosing applications, apply 0.01 to 0.3 gallons SaniDate® 12.0 to 1,000 gallons of water, producing a peak concentration of 10 to 300 ppm of SaniDate® 12.0. This is approximately equivalent to 1 to 36 ppm 100% peracetic acid.

CONTROL OF ALGAL, FUNGAL, ODOR CAUSING AND SLIME-FORMING BACTERIAL GROWTH IN INDUSTRIAL WATER

8/15

INDUSTRIAL WASTE TREATMENT - Use SaniDate® 12.0 to control slime-forming and odor-causing bacterial growth in industrial wastewater treatment and sewage systems. SaniDate® 12.0 may be applied to water at the inlet of the process water system or any other suitable point. Apply with either shock, intermittent, or continuous dosing. Shock dosing may be applied for a duration of 1 to 2 hours, as necessary, whereas intermittent dosing is applied for 2 to 15 minutes, 4 to 100 times per day. For either shock or intermittent dosing, apply 0.16 to 0.8 gallons SaniDate® 12.0 per 1,000 gallons of water producing a peak concentration of SaniDate® 12.0 of 160 ppm to 800 ppm during dosing. This is approximately equivalent to a peak dose of 20 to 100 ppm 100% peracetic acid. For continuous dosing applications, apply 0.01 to 0.3 gallons SaniDate® 12.0 to 1,000 gallons of water, producing a peak concentration of 10 to 300 ppm of SaniDate® 12.0. This is approximately equivalent to 1 to 36 ppm 100% peracetic acid. Do not discharge treated effluent without notifying local sewage treatment plant authorities.

FOR MICROBIAL CONTROL IN EFFLUENT TREATMENT SYSTEMS- Use SaniDate® 12.0 to control slime-forming and odor-causing bacterial growth in sewage and wastewater effluent associated with public and private wastewater treatment plants. SaniDate® 12.0 can be applied by itself directly to the effluent, or in conjunction with an appropriate activator, such as UV light. Apply SaniDate® 12.0 directly to effluent water discharged from primary, secondary, or tertiary treatments and to effluent water discharged from trickle bed or percolating fluidized bed filters. Apply 4 to 83 gallons of SaniDate® 12.0 per 1,000,000 gallons of wastewater (0.5 to 10 ppm of peracetic acid). Allow a contact time of 15-60 minutes. NOTE: the dosing rate for individual facilities will depend on the nature of effluent (level of microbial control) and the local microbial discharge limit. Therefore, adjust the dosing rates to the levels appropriate for your facility. Do not exceed the maximum dose limit of 83 gallons of SaniDate® 12.0 per 1,000,000 gallons of waste water (or 10 ppm of peracetic acid). The PAA concentration will rapidly decline after treatment. The maximum amount of PAA that can be discharged from the treatment facility is 1.0 ppm PAA. Use an appropriate PAA test kit or analyzer as recommended by BioSafe Systems to ensure this level is not exceeded. Contact your BioSafe Systems technical representative for guidance on treatment regimes.

OIL FIELD APPLICATIONS, OIL RECOVERY WELL FLUIDS, FRACTURING FLUIDS OR PIPELINE CLEANING OPERATIONS (Not approved for use in California)

SaniDate® 12.0 may be used as an algacide, fungicide and slimicide for oilfield applications. When used as directed, this product will control the growth of sulfite forming bacteria and aerobic slime forming bacteria which impair the efficacy of well fluids and fracturing fluids. Use SaniDate 12.0 on pumps, pipe work, heat exchangers, filters and all down hole applications associated with oilfield systems. Apply SaniDate® 12.0 directly to the well fluid or fracturing fluid to achieve a residual level of 50-200 ppm of peracetic acid, or use 50 fl. ounces per 1000 gallons or one gallon of SaniDate® 12.0 per 500 gallons of fluid. SaniDate® 12.0 may be added and premixed with the well fluid or fracturing fluid prior to the oil field operation or maybe added directly to the blender during operations. Be sure rapid mixing of the treated water is achieved. Repeat treatment as required to maintain control.

CONTROL OF ALGAL, FUNGAL, AND ODOR CAUSING BACTERIAL GROWTH FOR NON-FOOD CONTACT PAPER USES

TREATMENT OF STARCH USED FOR SIZING ON THE PAPER MACHINE - Apply SaniDate® 12.0 directly to the starch storage tank or through the recirculation loop. Apply with either shock, intermittent, or continuous dosing. Shock doses may be applied for 1 to 2 hours, whereas intermittent doses may be applied for 5 to 60 minutes up to 12 times per day. For either shock or intermittent dosing, apply 0.8 to 5 gallons SaniDate® 12.0 per 1,000 gallons of starch solution to achieve 100 to 600 ppm 100% peracetic acid. For continuous dosing applications, apply 0.08 to 1.7 gallons SaniDate® 12.0 per 1,000 gallons of starch solution, producing a peak concentration of approximately 10 to 200 ppm 100% peracetic acid.

TREATMENT OF CLAYS USED AS COATINGS AND FILLERS ON THE PAPER MACHINE - Applications may be made at the recirculation loop or directly to the agitated slurry storage tank. Apply with either shock, intermittent, or continuous dosing. Shock doses may be applied for 1 to 2 hours, as necessary, whereas intermittent doses may be applied for 5 to 60 minutes, 1 to 12 times per day. For

9/15

either shock or intermittent dosing, apply 5.12 to 102 fl. oz. SaniDate® 12.0 to 1,000 gallons clay slurry solution producing a peak concentration of approximately 50 to 100 ppm 100% peracetic acid. For continuous dosing applications, apply 5.12 to 102 fl. oz. SaniDate® 12.0 to 1,000 gallons of process water, producing a peak concentration of 5 to 100 ppm 100% peracetic acid.

COATINGS PRESERVATION - SaniDate® 12.0 can be used as an in-container preservative for the control of bacteria and fungi in water-based coatings such as paper coatings. Add 12.8 to 89.6 fl. oz. of SaniDate® 12.0 solution to 1,000 gallons water. This will provide 100 to 700 ppm of SaniDate® 12.0, or 12 to 85 ppm 100% peracetic acid.

TREATMENT OF DISPERSED PIGMENTS - SaniDate® 12.0 can be used in the control of bacteria and fungi in the manufacture and storage of dispersed pigments such as kaolin clay, titanium dioxide, calcium carbonate, calcium sulfate, barium sulfate, magnesium silicate and kieseguhr used in paint and paper production. Add 0.12 to 0.6 lb. of SaniDate® 12.0 to each 1,000 lbs. of fluid. This will provide 120 to 600 ppm of SaniDate® 12.0, or 15 to 70 ppm 100% peracetic acid.

CONTROL OF ALGAL, FUNGAL, AND ODOR CAUSING BACTERIAL GROWTH IN INDOOR, CLOSED LOOP, NON-POTABLE, NON-FOOD CONTACT WATER SYSTEMS

TREATMENT OF RAW AND PROCESS WATER - (heat exchanger system water, boiler water, wet scrubber water) - SaniDate® 12.0 may be applied to water at the inlet of the water system or any other suitable point. Apply with either shock, intermittent, or continuous dosing. Shock dosing may be applied for a duration of 1 to 2 hours, as necessary, whereas intermittent dosing is applied for 2 to 15 minutes, 4 to 100 times per day. For either shock or intermittent dosing, apply 0.16 to 0.8 gallons SaniDate® 12.0 per 1,000 gallons of water producing a peak concentration of SaniDate® 12.0 of 160 ppm to 800 ppm during dosing. This is approximately equivalent to a peak dose of 20 to 100 ppm 100% peracetic acid. For continuous dosing applications, apply 1.3 to 38.4 fl. oz. SaniDate® 12.0 to 1,000 gallons of water, producing a peak concentration of 10 to 300 ppm of SaniDate® 12.0. This is approximately equivalent to 1 to 35 ppm 100% peracetic acid.

TREATMENT OF COOLING WATER SYSTEMS - (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® 12.0 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® 12.0 with any other chemicals or additives prior to use. Contamination with certain chemicals could result in lack of efficacy. Add SaniDate® 12.0 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 1.3 to 9.0 fl.oz. of SaniDate® 12.0 solution per 1,000 gallons of water. This will provide 10 to 70 ppm of SaniDate® 12.0, or 1 to 9 ppm of 100% peracetic acid. Repeat treatment as required to maintain control.

AIR WASHERS- This product maybe used to control bacteria and biofouling in industrial air washing/scrubbing systems. The air washer must have operational and effective mist elimination systems. Prior to use of this product, heavily fouled systems must be pre-cleaned using the appropriate cleaner. Continuous dosing methods will require 2-7 ppm and intermittent dosing methods will require 7-14 ppm of peracetic acid depending on the type of systems and the level of microbiological control desired.

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

TREATMENT OF GREENHOUSE SURFACES AND EQUIPMENT - (such as glazing, plastic, pots, flats, trays, cutting tools, benches, work areas, walkways, floors, walls, fan blades, watering systems, coolers, storage rooms, structures and equipment) - Clean surfaces before treatment. Sweep and remove all plant debris, and use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:600 of

10/15

SaniDate® 12.0 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. Allow surfaces to stay wet with solution for a minimum of five (5) minutes. Heavy growths of algae and fungi may have to be scrubbed off following application. Repeat treatment as required to maintain control.

TREATMENT OF GREENHOUSE EVAPORATIVE COOLERS – Treat contaminated surfaces with a dilution of 1:600 of SaniDate® 12.0. Allow surfaces to stay wet with solution for a minimum of five (5) minutes. For maintenance, treat cooler water once a week with a dilution of 1:2,000 of SaniDate® 12.0 for every gallon of cooling water.

TREATMENT OF GREENHOUSE IRRIGATION SYSTEMS AND NON-POTABLE WATERS- (flooded floors, flooded benches, recycled water systems, drip trickle, capillary mats, sprinkler systems, humidification and misting systems) Use SaniDate® 12.0 to treat irrigation systems and water to suppress / control algae, slime-forming bacteria, fungi and plant pathogenic organisms. For shock treatment of irrigation lines, use a dilution rate of 1:1,000-1:5,000. Allow solution to remain in lines for 12-48 hours. Flush by opening flush valves or laterals to avoid clogging emitters. To target specific pathogens, apply per 1,000 gallons of water: bacteria - 3.2 – 25.6 fl. oz. (1:5,000 – 1:40,000 dilution), algae - 6.4 – 25.6 fl. oz. (1:5,000 – 1:20,000 dilution) or fungi/oomycetes – 8.3 – 25.6 fl. oz. (1:5,000 – 1:15,000 dilution). For recycled water, use a rate of 1:5,000-1:40,000. For maintenance, treat clean water with a dilution of 1:50,000 – 100,000 of SaniDate® 12.0 as needed.

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

TREATMENT OF AGRICULTURAL IRRIGATION WATER AND DRAINAGE DITCHES

Use SaniDate® 12.0 to treat water to suppress / control algae, bacteria, fungi and plant pathogenic organisms in agricultural irrigation and drainage water and ditches. To target specific pathogens, apply per 1,000 gallons of water: bacteria, 3.2 – 25.6 fl. oz. (1:5,000 – 1:40,000 dilution); algae, 6.4 – 25.6 fl. oz. (1:5,000 – 1:20,000 dilution), or fungi/oomycetes, 8.33 – 25.6 fl. oz. (1:5,000 – 1:15,000 dilution). For clean well water, or as a preventative application, Apply 0.6 to 1.3 fluid ounces of SaniDate® 12.0 per 1,000 gallons of water. Product can be simply added to the body of water, as the residual control will allow for even distribution throughout the water column. For heavily contaminated water, apply SaniDate® 12.0 at a dilution rate of 1:5,000-1:40,000. Allow solution to disperse for five (5) minutes before irrigating. Apply SaniDate® 12.0 as needed to control and prevent algae growth; apply more often in times of higher water temperatures.

TREATMENT OF AGRICULTURAL IRRIGATION SYSTEMS

Use SaniDate® 12.0 to suppress / control algae, bacteria, fungi and plant pathogenic organisms in drip trickle irrigation systems, center pivot, lateral move, end tow, side wheel roll, traveler, solid set/overhead sprinklers, hand move or flood basin irrigation systems. Treat contaminated water at a dilution of 1:1000 - 1:5,000. For shock treatment of irrigation lines, use a dilution rate of 1:1,000-5,000. Allow solution to remain in lines for 12-48 hours. Flush by opening flush valves or laterals to avoid clogging emitters. For maintenance, treat clean water with a dilution of 1:50,000 to 1:100,000 of SaniDate® 12.0 as needed. Allow solution to disperse for five (5) minutes before irrigating. Refer to Chemigation Directions for Use for specific instructions on using this product through irrigation systems.

TREATMENT OF PLANT PATHOGENS AND ASSOCIATED DISEASES (Not approved for use in California)

FOLIAR SPRAY/DRENCH/CHEMIGATION FOR CONTROLLING FOLIAR PLANT PATHOGENS

Use SaniDate® 12.0 to suppress and control foliar plant pathogens and their associated diseases such as – *Alternaria* – *Anthraco*se – *Aphanomyces* – Black Spot - *Botrytis* (grey mold) - Downy Mildew – *Erwinia*, *Fusarium* (root rot) - Leaf Spot - *Phytophthora* (blights) – *Plasmopara* - Powdery Mildew - *Pseudomonas* - *Pythium* - *Rhizoctonia* - Rust - Scab - Smut - *Thielaviopsis* – *Uncinula* (powdery mildew)

11/15

- *Xanthomonas* - Wilts & Blights. Use SaniDate® 12.0 at a rate of 1:1,000-1:5,000 as a foliar spray, drench or through the irrigation system at the time of seeding or transplanting, as well as a periodic treatment throughout the plant's life. Multiple applications can be made, as there is no mutational resistance with this product.

SOIL DRENCH/CHEMIGATION FOR CONTROLLING SOILBORNE PLANT PATHOGENS

Use SaniDate® 12.0 to suppress and control soilborne plant pathogens and their associated diseases such as *Fusarium* (root rot) - *Phytophthora* (blight and root rots)- *Pythium* - *Rhizoctonia* - *Ralstonia solanacearum* (brown rot, bacterial wilt), - *Sclerotinia sclerotiorum* (white mold) - *Sclerotium rolfsii*- *Thielaviopsis* - *Verticillium*. Apply SaniDate® 12.0 at a rate of 1:5,000 - 1:10,000 as a soil drench or through the irrigation system, as a soil treatment, at the time of seeding or transplanting, as well as a periodic treatment throughout the plant's life. Multiple applications can be made, as there is no mutational resistance with this product. Apply in sufficient water for sufficient duration to distribute the application evenly to the treated area. Apply to moderately moist soils. Follow use directions for Chemigation. Do not apply this product through any irrigation system unless the chemigation instructions are followed.

NOTE: SaniDate® 12.0 can be used on hydroponic growing systems as a foliar treatment when following the label directions for foliar treatments. SaniDate® 12.0 can be used as a hydroponic water treatment only after a water sample has been submitted to BioSafe Systems for analysis and special direction is provided for application recommendations. Inert growing media in a hydroponic growing system provide special conditions that the grower needs to adjust for due to the unbuffered water conditions. Water pH, EC and supplements such as fertilizer, biological loading and minor elements are factors that need to be considered before determining correct water treatment rates.

CHEMIGATION INSTRUCTIONS

General Requirements -

- 1) Apply this product only through a drip system or sprinkler system, including flood, and drip (trickle) irrigation systems.
- 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 fitted 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 suspension without any required agitation.
- 4) Do not apply SaniDate 12.0 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.

14/15

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

Container Disposal (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 1/4 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. Offer for recycling if available.

WARRANTY

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

- Microbiocide
- Easy to use
- Activated Peroxygen chemistry
- Contains no phosphates
- Deodorizes
- Leaves no residue
- Scent free
- Chlorine free
- Treats and controls mold and mildew
- Controls algae
- Control algal and fungal growth
- Controls odor causing bacteria
- Controls slime forming bacteria
- Control plant pathogenic organisms
- Controls spoilage and decay causing organisms in fruit and vegetable processing waters
- Controls odors
- SaniDate 12.0 is an economical concentrate that can be used with a mop and bucket, trigger spray, sponge, or by soaking.
- SaniDate 12.0 will not leave a grit or soap scum.
- When used as directed, this product will deodorize surfaces in places where bacterial growth can cause malodors.
- SaniDate 12.0 inhibits bacterial growth on moist surfaces and deodorizes by controlling microorganisms that cause offensive odors. *(Not approved for use in California)*
- SaniDate 12.0 inhibits bacterial growth on moist surfaces and deodorizes by killing microorganisms that cause offensive odors.
- SaniDate 12.0 is a concentrate formulation designed for use in commercial, institutional, and industrial operations.
- SaniDate 12.0 controls the growth of odor-causing and slime forming bacteria.
- SaniDate 12.0 is formulated to effectively eliminate offensive odors caused by mold and mildew.
- SaniDate 12.0 can be used in agricultural irrigation water
- SaniDate 12.0 can be used in greenhouse irrigation water
- Use SaniDate 12.0 in cooling water systems
- For control of algal, fungal, slime forming bacterial growth
- Use SaniDate 12.0 on greenhouse surfaces
- 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.
- Industrial Waste Treatment
- Oil Field Treatments *(Not approved for use in California)*
- Controls foliar plant pathogens
- Controls soil-borne plant pathogens
- For use in food processing operations
- See packet for full instructions
- Microbiocide
- Controls the growth of algae, fungi, and odor-causing bacteria.
- For use in commercial, industrial, agricultural, post harvest, and horticultural water treatment applications.

