



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

March 15, 2024

Donna Bishel  
Director of Regulatory Affairs  
BioSafe Systems LLC  
Electronic Transmittal: [dbishel@biosafesystems.com](mailto:dbishel@biosafesystems.com)

Subject: Label Amendment – Add three-month expiration date and review of storage stability data.  
Product Name: SANIDATE HC  
EPA Registration Number: 70299-31  
Received Date: 11/30/2022  
Action Case Number: 00412349; 00412115

Dear Donna Bishel:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. Pursuant to 40 CFR 156.10(a)(6) you must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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 FIFRA and is subject to review by the Agency. See FIFRA section 2(p)(2). 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) lists 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, FIFRA section 12(a)(1)(B). 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 Assurance.

The Agency has also reviewed the study submitted to fulfill the conditional data requirement referred to above, in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act. A copy of the review is enclosed. The study has been classified as acceptable. The condition of registration is considered fulfilled.

Page 2 of 2  
EPA Reg. No. 70299-31  
Action Case No. 00412349; 00412115

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Srinivas Gowda at 202-565-0078 or by email at [gowda.srinivas@epa.gov](mailto:gowda.srinivas@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "Steven Snyderman". The signature is written in a cursive style with a horizontal line underneath the name.

Steven Snyderman, Product Manager 33  
Regulatory Management Branch II  
Antimicrobials Division (7510M)  
Office of Pesticide Programs

Enclosure: Stamped label



**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER: POISON. CORROSIVE.** Causes irreversible eye damage and skin burns. Fatal if inhaled. May be fatal if swallowed or absorbed through skin. Do not get in eyes, on skin, or on clothing. Do not breathe vapor or spray mist. When exposed to vapors or spray mist wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and a combination N, R or P filter; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved power air-purifying respirator with OV cartridges and combination HE filters. Wear chemical resistant goggles, chemical resistant gloves and protective clothing when handling this product. 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.

**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 pants, socks and chemical resistant footwear. Wear protective eyewear (chemical resistant goggles, face shield, or safety glasses), chemical resistant gloves and respiratory protection. When mixing, loading or cleaning equipment wear a chemical resistant apron.

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

**ENGINEERING CONTROLS**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

**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. 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 beneficials 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. Do not apply this product through any irrigation system unless the chemigation instructions on this label are followed. 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) and Restricted-Entry Interval (REI). The requirements in this box apply to the uses of this product that are covered by the Worker Protection Standard.

##### For enclosed environments:

There is a Restricted Entry Interval (REI) of one (1) hour for this product when applied via spraying to 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 Interval (REI) of zero (0) hours for pre-plant dip, seed treatment, soil drench, mop, sponge, dip, soak, rinse or other non-spraying application methods when used in enclosed environments such as glasshouses and greenhouses.

##### For field applications:

There is a Restricted Entry Interval (REI) of zero (0) hours for pre-plant dip, seed treatment, soil drench or other non-spraying application methods. Keep unprotected persons out of treated areas until sprays have dried.

##### Exception:

If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

#### **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.

### **[INTRODUCTION] [PRODUCT INFORMATION]**

SaniDate HC is designed:

For use in agricultural field irrigation [water] [and] [systems].

To control [bacteria], [fungi], [algae], [and plant pathogenic organisms] in agricultural irrigation [systems] [and] [water].

For the control of [soil-borne] [and] [foliar] plant pathogens.

For use in [commercial], [agricultural], [and] [horticultural/greenhouse] irrigation water treatment applications.

## **AGRICULTURAL APPLICATIONS**

**PREHARVEST INTERVAL: PHI = Zero (0) Days.** SaniDate HC can be chemigated up to and including the day of harvest.

### **Compatibility:**

SaniDate HC is compatible as a separate direct injection with many pesticides, fertilizers, and adjuvants but has not been fully evaluated with all of these. To ensure compatibility with pesticides or fertilizers consult your BioSafe Systems technical representative. Consult your BioSafe Systems technical representative for specific instructions before chemigation SaniDate HC with copper or other pesticides containing metals.

To ensure compatibility, evaluate them prior to use as follows: Using a suitable container, add proportional amounts of product to water. Add wettable powders first, followed by water dispersible granules, then by liquid flowables and lastly, emulsifiable concentrates. Mix thoroughly and let stand for at least five minutes. If the combination stays mixed or can be remixed, it is physically compatible. Test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application.

### **Plant Sensitivity Testing:**

For foliar chemigation applications, only use SaniDate HC at labeled dilution rates. This product has been tested for phytotoxicity and is safe to use on a variety of crops; however, it is not possible to test all crop varieties grown under all growing conditions or all growth stages with this product to ensure no phytotoxic effects to the target crop throughout its life cycle.

Periods of intense plant stress may increase phytotoxic sensitivity to pesticide applications. It is recommended to determine if SaniDate HC can be used safely and non-injurious to target crop under your use conditions prior to application by conducting a phytotoxicity test. Before treating several acres of plants, test SaniDate HC by itself or in combination with other pesticides or fertilizers at labeled rates for chemigation on a small number of plants and observe for symptoms of plant sensitivity such as spotting/yellowing on the foliage prior to use. Do not use at higher concentration than suggested dilution rates as leaf burn may result.

SaniDate HC will oxidize parasitic organisms living in plant tissue that are not always visible to the naked eye. When using SaniDate HC for control of organisms living on the plant tissue, such as Powdery Mildew, treatment may result in lesions on plant tissue. Resulting oxidative effects may include spotting or drying of the plant tissue where organisms inhabited tissue.

Read the entire label before using this product. Use this product only according to label directions. Contact BioSafe Systems with any questions or concerns regarding product applications on your crop.

## **CONTROL OF BACTERIAL, [ FUNGAL], [AND] [ALGAL] GROWTH IN AGRICULTURAL IRRIGATION SYSTEMS AND WATER**

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

Use SaniDate HC to clean contaminated sprinkler irrigation systems, including sprinkler (solid set, center pivot, lateral move, end tow, side wheel roll, traveling big gun or hand move) and drip/micro irrigation system, fill irrigation lines with a SaniDate HC solution using a dilution rate of 1:12,500-1:1,500 (10.3-85.0 fl. oz. per 1,000 gallons of water; equivalent to approximately 27-222 ppm of peroxyacetic acid). Allow a contact time of at least 4-8 hours and preferably overnight. Open ends of irrigation lines and flush with fresh irrigation water. Repeat the treatment as necessary. Refer to **Chemigation** for specific instructions on using this product through irrigation systems.

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

Use SaniDate HC at the following rates to suppress/control bacteria, fungi/oomycetes and algae in irrigation water and drainage ditches. Allow solution to disperse for 5 minutes before using the water.

- Bacteria: 1:64,000-1:2,500 dilution (2.0-51.0 fl. oz. per 1,000 gallons of water; equivalent to approximately 5-133 ppm of peroxyacetic acid).
- Algae: 1:50,000-1:12,500 dilution (2.5-10.3 fl. oz. per 1,000 gallons of water; equivalent to approximately 7-27 ppm of peroxyacetic acid). Apply more often during periods of higher water temperatures.
- Fungi/oomycetes: 1:37,500-1:12,500 dilution (3.5-10.3 fl. oz. per 1,000 gallons of water; equivalent to approximately 9-27 ppm of peroxyacetic acid).

## **CONTROL OF ALGAL GROWTH IN CONTAINED WATER SYSTEMS**

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

- Application Rates: 1:50,000-1:12,500 dilution (2.5-10.3 fl. oz. per 1,000 gallons of water; equivalent to approximately 7-27 ppm of peroxyacetic acid). Allow solution to disperse for 5 minutes before using the water.

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

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

- Bacteria: 1:64,000-1:2,500 dilution (2.0-51.0 fl. oz. per 1,000 gallons of water; equivalent to approximately 5-133 ppm of peroxyacetic acid).
- Algae: 1:50,000-1:12,500 dilution (2.5-10.3 fl. oz. per 1,000 gallons of water; equivalent to approximately 7-27 ppm of peroxyacetic acid). Apply more often during periods of higher water temperatures.
- Fungi/oomycetes: 1:37,500-1:12,500 dilution (3.5-10.3 fl. oz. per 1,000 gallons of water; equivalent to approximately 9-27 ppm of peroxyacetic acid).

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

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

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

- Use a SaniDate HC at a 1:64,000-1:2,500 dilution (2.0-51.0 fl. oz. per 1,000 gallons of water; equivalent to approximately 5-133 ppm of peroxyacetic acid).

Prepare the mixture at least 5 minutes prior to application for dust abatement. Apply to the road surface using a water truck [or tractor] equipped with a watering system.

## **TREATMENT OF STORED WELL WATER**

Use SaniDate HC to suppress/control bacteria in well water held in storage/holding/transportation tanks. Treat water at a rate of 1:100,000-1:16,660 (1.2-7.7 fl. oz. per 1,000 gallons of water; equivalent to approximately 3-20 ppm of peroxyacetic acid), and may be direct injected or batch treated.

[California Only Text]: [Treat water at a rate of 1:64,000-1:16,660 (2.0-7.7 fl. oz. per 1,000 gallons of water; equivalent to approximately 5-20 ppm of peroxyacetic acid), and may be injected or batch treated.]

[Allow a contact time of 5 minutes before using the water.]

## TREATMENT OF PLANT PATHOGENS AND ASSOCIATED DISEASES

### PRE-PLANT SOIL TREATMENT

Use SaniDate HC as a pre-plant non-fumigant soil treatment to control and suppress nematodes, and soil-borne plant pathogens and their associated diseases such as *Fusarium* (root rot) – *Fusarium oxysporum* [Wilt] - *Macrophomina phaseolina* [Charcoal Rot] - *Meloidogyne spp.* [Root Knot Nematode] – *Phytophthora* (blight and root rots) – *Phytophthora nicotianae* [Root Rot] - *Pythium* – *Rhizoctonia* – *Ralstonia solanacearum* (brown rot, bacterial wilt) – *Sclerotinia sclerotiorum* (white mold) – *Sclerotium rolfsii* – *Thielaviopsis* – *Streptomyces scabies* [Potato Common Scab] – *Verticillium* - *Verticillium dahlia* (Wilt).

SaniDate HC can be made as a pre-mix solution to be applied as a soil drench. This product can be injected directly into the water applied through drip, micro or sprinkler irrigation systems (center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set or hand move). Refer to the **CHEMIGATION** section of this label for additional directions and precautions.

**Soil Drench:** Pre-mix SaniDate HC at a dilution rate of 1:660-1:330 (19.4-38.8 fl. oz. per 100 gallons of water; equivalent to approximately 505-1,010 ppm peroxyacetic acid). Refer to the **Pre-Plant Application Chart** below for recommended application rates based on soil types and size of area to be treated. Consider using higher rate (1:330 dilution) when field has history of high disease pressure. Applications should be made at a minimum of 48 hours prior to planting/transplanting to allow any residual SaniDate HC to dissipate in the soil.

**Direct Inject Application:** Prior to an application of SaniDate HC pre-irrigate soil to 80-90% field capacity. Inject SaniDate HC at a dilution of 1:660-1:330 (19.4-38.8 fl. oz. per 100 gallons of water; equivalent to approximately 505-1,010 ppm peroxyacetic acid). Consider using the higher rate (1:330 dilution) when field has history of high disease pressure. Apply approximately 3,000-6,000 gallons of finished SaniDate HC solution per treated acre. Refer to the **Pre-Plant Application Chart** below for application recommendations based on soil type. Applications should be made at a minimum of 48 hours prior to planting/transplanting to allow any residual SaniDate HC to dissipate in the soil. Run the irrigation system to ensure SaniDate HC has been flushed from system.

#### To determine injection time in minutes:

$$\frac{\text{Gallons of Finished SaniDate HC solution per acre (based on soil type)} \times \text{Number of Acres}}{\text{Irrigation pump flow rate} - \text{Gallons per Minute (GPM)}}$$

Pre-Plant Application Chart						
Soil Type	Volume of SaniDate HC Concentrate by Dilution Rate				Gallons of Water Required for Finished SaniDate HC Solution	
	1:330		1:660		Per 1,000 sq. ft. (gallons)	Per Treated Acre (gallons)
	fl. oz. per 1,000 sq. ft.	Gallons per Treated Acre	fl. oz. per 1,000 sq. ft.	Gallons per Treated Acre		
Light (Sandy/Loam)	27.0	9.3	13.5	4.5	70	3,000
Medium (Loam)	40.0	13.8	20.0	6.8	100	4,500
Heavy (Loam Clay)	53.5	18.3	26.8	9.0	140	6,000

### CHEMIGATION FOR CONTROL OF FOLIAR PLANT PATHOGENS

Apply SaniDate HC through a chemigation system to prevent 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) – *Xanthomonas* – Wilts & Blights.

Apply SaniDate HC through center pivot, lateral move, end top, side-wheel roll, traveler, solid set, micro sprinklers or hand move irrigation systems. Use SaniDate HC 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.

**Application Rates by Chemigation:**

1. Begin preventative applications prior to optimum disease development.
2. Inject SaniDate HC at a dilution rate of 1:33,300-1:1,660 (4.0-77.0 fl. oz. per every 1,000 gallons of water; equivalent to approximately 10-200 ppm of peroxyacetic acid).
3. Apply in 2,000-10,000 gallons of water per acre.
4. Applications can be made continuously or during the last 30-120 minutes of the irrigation cycle.
5. Maintain a 3-10 day application schedule. Applications can be made up to the day of harvest.

**CHEMIGATION**

**General Requirements –**

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

### **GREENHOUSE APPLICATIONS**

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

##### **TREATMENT OF GREENHOUSE SURFACES AND EQUIPMENT**

Treat contaminated surfaces and equipment with SaniDate HC 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 SaniDate HC at a dilution of 1:1,500 (85.0 fl. oz. per 1,000 gallons of water; equivalent to approximately 222 ppm of 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. 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 SaniDate HC at a dilution of 1:1,500 (85.0 fl. oz. per 1,000 gallons of water; equivalent to approximately 222 ppm of peroxyacetic acid). Allow surfaces to stay wet with the solution for a minimum of five (5) minutes.

### **FOAMING TREATMENT FOR NON-SPRAYING APPLICATIONS**

Use SaniDate HC as a foam treatment in non-spraying applications to enhance contact on hard, non-porous surfaces, vertical surfaces and irregular surfaces such as metal grating and structural steel where contact is difficult to maintain with coarse spray treatments. Apply SaniDate HC at a dilution rate of 1:3000-1:775 (4.3 -17.0 fl. oz. per 100 gallons of water; equivalent to approximately 111-430 ppm of peroxyacetic acid). Add a foaming agent to the spray tank that contains the diluted solution. Apply foam until the surface treated is completely covered. Turn off coolers for 20 minutes to allow foam to work. Allow foam-treated surfaces to air dry. Do not rinse.

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

For maintenance, treat cooler water by continuously injecting SaniDate HC at a dilution of 1:12,500-1:5,000 (1.0-2.6 fl. oz. for 100 gallons of cooling water; equivalent to approximately 27-67 ppm of peroxyacetic acid).

To shock evaporative cooling water, apply SaniDate HC once a week at a dilution rate of 1:1,500 (85.0 fl. oz. per 1,000 gallons of cooling water; equivalent to approximately 222 ppm of peroxyacetic acid).

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

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

**Drilling Muds, Fracturing Fluids, Well Squeezed Fluids:** For the preservation of drilling muds, workover and completion fluids and other products susceptible to contamination, pre-mix with the fluid or add directly at the point of use at 1.9 fl. oz. of this product per 1,000 gallons of water (equivalent to approximately 5 ppm peroxyacetic acid, 4 ppm of hydrogen peroxide) to 38.4 fl. oz. per 1,000 gallons of water (equivalent to approximately 100 ppm peroxyacetic acid, 82 ppm of hydrogen peroxide) as required. Depending on the severity of the contamination, initial application may be added up to 384.1 fl. oz. per 1,000 gallons of water (equivalent to approximately 1,000 ppm peroxyacetic acid, 821 ppm of hydrogen peroxide).

**Flooding, Injection and Produced Water:** For water flooding operations, add initially at 1.9 fl. oz. of this product per 1,000 gallons of water (equivalent to approximately 5 ppm peroxyacetic acid, 4 ppm of hydrogen peroxide) to 38.4 fl. oz. per 1,000 gallons of water (equivalent to approximately 100 ppm peroxyacetic acid, 82 ppm of hydrogen peroxide) and repeat until control is achieved. Subsequent treatment may be continued on a weekly basis or as required.

Injection wells associated with gas storage systems may be treated up to 100 ppm when diluted in the formation water. Any additional top-up water should be treated as required. For hydrostatic systems, apply 1.9 fl. oz. of this product per 1,000 gallons of water (equivalent to approximately 5 ppm peroxyacetic acid, 4 ppm of hydrogen peroxide) to 38.4 fl. oz. per 1,000 gallons of water (equivalent to approximately 100 ppm peroxyacetic acid, 82 ppm of hydrogen peroxide) depending on the water quality and the duration of the shut-in.

**Pipeline and Tank Maintenance:** For non-public health microbial control in water-bottoms in crude and refined hydrocarbon storage tanks, piping and transportation systems. Apply 1.9 fl. oz. of this product per 1,000 gallons of water (equivalent to approximately 5 ppm peroxyacetic acid, 4 ppm of hydrogen peroxide) to 38.4 fl. oz. per 1,000 gallons of water (equivalent to approximately 100 ppm peroxyacetic acid, 82 ppm of hydrogen peroxide) in the aqueous phase, directly injected into the water-bottom,

pipeline or may be added to the hydrocarbon phase. Treatment may be applied daily or monthly for both storage and transportation systems as needed.

### **STORAGE AND DISPOSAL**

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

#### **PESTICIDE STORAGE**

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

#### **PESTICIDE DISPOSAL**

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

#### **CONTAINER HANDLING**

**Non-refillable containers equal to or less than 5 gallons:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. Batch Code\_\_\_\_\_

**Non-refillable containers greater than 5 gallons:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling if available. Batch Code\_\_\_\_\_

**For Refillable containers:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. 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 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 LLC and Seller harmless for any claims relating to such factors, to the extent consistent with applicable law.

BIOSAFE SYSTEMS LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above when used in accordance with directions under normal use conditions. To the extent consistent with applicable law, this warranty does not extend to the use of the product contrary to label

instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or BIOSAFE SYSTEMS LLC, and Buyer and User assume the risk of any such use TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BIOSAFE SYSTEMS LLC MAKES NO WARRANTIES OF MERCHANTABILITY FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESSED OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, in no event shall BIOSAFE SYSTEMS LLC 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 LLC 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 LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

BIOSAFE SYSTEMS LLC 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 LLC.

**Optional Label Claims:**

*(Note to Reviewer: The following marketing claims may be used with the prefix "This product" or "This product is {a} {an}").*

**The following claims may appear on any label panel:**

- Optional language: (\*) (\* = Not Approved for Use in California)
- For Commercial Use
- Microbiocide
- Easy to use, when used according to the directions for use.
- Activated Peroxygen chemistry
- Deodorizes
- Leaves no residue
- 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 HC is a concentrate formulation designed for use in commercial, institutional, and industrial operations.
- SaniDate HC controls the growth of odor-causing and slime forming bacteria.
- SaniDate HC is formulated to effectively eliminate offensive odors caused by mold and mildew.
- SaniDate HC can be used in agricultural irrigation water
- SaniDate HC can be used in greenhouse irrigation water
- Use SaniDate HC in cooling water systems
- For control of algal, fungal, slime forming bacterial growth
- Use SaniDate HC on greenhouse surfaces
- A post harvest treatment for the prevention and control of plant pathogenic diseases on 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

- Controls foliar plant pathogens
- Controls soil-borne plant pathogens
- For use in food processing operations
- See packet for full instructions
- Controls the growth of algae, fungi, and odor-causing bacteria.
- For use in commercial, industrial, agricultural, post harvest, and horticultural water treatment applications.
- For use in agricultural irrigation systems
- For use in agricultural irrigation water
- Plant within 48 hours of pre-plant soil treatments
- Shock treatment for irrigation wells
- Use with a biological program
- Bactericide
- Fungicide
- Algaecide
- Treats and controls bacteria, fungi and algae in agricultural water
- Control[s] [and prevents] foliar plant pathogens
- For the control of foliar and soil borne pathogens
- Contact your BioSafe Systems LLC technical representative for specific applications.
- For more information <visit [webpage]><call [number]>
- For additional information on [PRODUCT NAME], call us toll-free at <call [number]>or visit <visit [webpage]>
- (Read full label before use)(see inside for full instructions)(always read and follow label directions)
- ©[YYYY] Copyright BioSafe Systems, LLC
- [product name] is a registered trademark of BioSafe Systems, LLC
- Peel Here
- Made in the USA
- Made in America