



**FOR AGRICULTURAL IRRIGATION WATER AND DRAINAGE DITCHES**

Use SaniDate® 12.0 to treat water to suppress / control algae, bacteria and fungi in agricultural irrigation and drainage water and ditches. For irrigation water, 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. Apply SaniDate® 12.0 as needed to control and prevent algae growth; apply more frequently in times of higher water temperatures.

**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** - (such as 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 SaniDate® 12.0. This is approximately equivalent to 1 to 35 ppm 100% peracetic acid.

**TREATMENT OF COOLING WATER SYSTEMS** - (such as cooling towers, evaporative condensers) Severely fouled systems should be cleaned before treatment. Discontinue use of chlorine or bromine products prior to using this product. SaniDate® 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.

**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 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. 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. 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** - (such as flooded floors, flooded benches, recycled water systems, drip trickle, capillary mats, sprinkler systems, humidification and misting systems) – Treat contaminated water with a dilution of 1:5,000 of SaniDate® 12.0. For

maintenance, treat clean water with a dilution of 1:50,000 to 1:100,000 of SaniDate® 12.0 as needed.

**CHEMIGATION:****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 filled with a system interlock.

7) Do not apply when wind speed favors drift beyond the area intended for treatment.

**Specific Requirements for Flood Chemigation -**

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

2) The systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

a. The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

c. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

e. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

f. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock.

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

1) The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

3) The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

5) The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock.

**Application Instructions -**

1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.

2) Determine the treatment rates as indicated in the directions for use and make proper dilutions.

3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into 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.