



Storox[®]

Broad Spectrum Bactericide/Fungicide

SPECIMEN LABEL AND MSDS

A treatment for the prevention and control of plant pathogenic diseases on crops after harvest.

A treatment for the prevention and control of plant pathogenic diseases on surfaces, equipment and structures used in processing postharvest commodities.



OMRI Listed

FOR AGRICULTURAL AND COMMERCIAL USE ONLY

ACTIVE INGREDIENT:

Hydrogen Dioxide:27%

INERT INGREDIENTS:73%

TOTAL:100%

KEEP OUT OF REACH OF CHILDREN

DANGER – PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

Sold by: BioSafe Systems LLC

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EPA Registration No. 70299-2

EPA Establishment No. 60156-IL-001

Net Contents: 5, 30, 55 and 275 gallons

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMAN AND

DOMESTIC ANIMALS – DANGER:

CORROSIVE. Concentrate causes irreversible eye damage. Concentrate may be fatal if swallowed or absorbed through skin. Concentrate causes skin burns or temporary discoloration on exposed skin. Do not breathe vapor of concentrate. Do not get concentrate in eyes, on skin or on clothing. Wear protective eyewear such as goggles or face shield. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

When handling concentrate wear protective eyewear (goggles or face shield) and rubber gloves. Applicators and handlers must wear coveralls over long-sleeved shirt, long pants, and chemical resistant footwear plus socks. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet. 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. Do not contaminate water when disposing of equipment washwaters or rinsate. Exposed treated seed may be hazardous to birds and other wildlife. Dispose of all excess treated seed and seed packaging by burial away from bodies of water.

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

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.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the 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 only apply to the uses of this product that are covered by the Worker Protection Standard.

For enclosed environments: There is a restricted entry of one (1) hour for this product when applied via fogging or spraying to growing plants, surfaces, equipment, structures and non-porous surfaces in enclosed environments such as 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, waterproof gloves and shoes plus socks.

There is a restricted entry of zero (0) hours for pre-plant dip, soil drench, mop, sponge, dip, soak, rinse or other non-spraying or fogging application methods when used in enclosed environments such as glasshouses or greenhouses.

For field applications: Keep unprotected persons out of treated areas until sprays have dried.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are **not** within the scope of the Worker Protection Act 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.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original containers in a cool, well-vented area, away from direct sunlight. Do not allow product to become overheated in storage. This may cause increased degradation of the product, which will decrease product effectiveness. In case of spill, flood area with large quantities of water. Do not store in a manner where cross-contamination with other pesticides or fertilizers could occur.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Open dumping is prohibited. 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: Triple rinse (or equivalent). Then offer for recycling or dispose in a sanitary

landfill, or incineration, if allowed by state and local authorities by burning. Stay out of smoke.

DIRECTIONS FOR USE:

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

StorOx works by surface contact with the plants and materials being treated. It is important to ensure that all surfaces are thoroughly wetted. StorOx does not produce any visible residue, distinct odor or deleterious effects to plants or to postharvest commodities when used in accordance with label directions. Do not use at stronger than suggested dilution rates as leaf burn may result.

Do not apply this product through any irrigation system unless directed by the label; refer to Chemigation Directions for Use.

APPLICATION DIRECTIONS

For surfaces, equipment and structures:

Use StorOx to suppress/control bacteria, fungi and slime-forming algae on surfaces, equipment and structures such as: plastic, benches, walkways, floors, walls, fan blades, watering systems, vats, tanks, coolers, storage rooms, bins, elevators, storage areas, spray equipment, conveyors, irrigation systems, process equipment, process water systems, trucks, structures and related equipment. Follow treatment of any food contact surfaces, equipment or structures with a potable water rinse.

1) Sweep and remove all debris. Use power sprayer to wash all surfaces to remove loose dirt and/or organic material.

2) Use a dilution of 1:100 – 1:300 or 1¼ fl. oz. – ½ fl. oz. of StorOx per gallon of clean water. Use a dilution of 1:50 or 2½ fl. oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. The use of additional surfactant is acceptable.

3) Apply solution with mop, sponge, power sprayer or fogger to thoroughly wet all surfaces.

Fog enclosed areas as an adjunct to manual surface application. Wear protective eyewear (goggles or face shield) when fogging. Prior to fogging, surfaces should be pre-cleaned with water to remove any organic deposits. Fog the desired areas using dilution rates of 1:100 – 1:300, or 1¼ fl. oz. – ½ fl. oz. of StorOx, using any type of fogging equipment including but not limited to cold foggers, thermal foggers, low pressure air assisted and high pressure fog systems. Solutions are corrosive to materials that are easily oxidized such as natural rubber, copper, galvanized and black iron pipe. Test solutions on surfaces prior to use.

4) Follow treatment of any food contact surfaces, equipment or structures with a potable water rinse.

5) Scrub off heavy growths of algae and fungi following application. Use a solution of StorOx to wash away dead growth.

6) Reapply as often as needed for control.

For foot bath mats:

Make a solution using ¾ fl. oz. of StorOx per gallon of water and fill foot bath mat to capacity. Change solution as needed.

Surface Treatment for the control of Citrus Canker:

Use StorOx to control and prevent the transfer of *Xanthomonas* bacterial species including Citrus Canker on field equipment and surfaces in packinghouses.

Packinghouses:

Apply StorOx to all surfaces and equipment found in commercial packinghouses including, dump tanks, drenches, crates, containers, conveyors, storages, walls, floors, and process lines.

1) Remove loose soil or organic matter with clean water and/or detergent rinse.

2) Use StorOx at a dilution ratio of 1:600 to 1:800 or 16.00 fl. oz. to 21.3 fl. oz. of StorOx per 100 gallons of water. Apply as a coarse spray until runoff.

3) Allow StorOx treated surfaces to air dry. Do not rinse.

Foaming Applications:

Apply StorOx as a foam treatment to enhance contact on porous surfaces, vertical surfaces and irregular surfaces such as metal grating and structural steel where contact is difficult to maintain with coarse spray treatments. Add a foaming agent to the spray tank that contains the diluted StorOx solution. Apply foam until the surface treated is completely covered. Allow foam treated surface to air dry. Do not rinse.

For clean, non-porous surfaces:

Pots, Flats, Trays:

Use a dilution of 1:100 - 1:300 or 1¼

fl. oz. - ½ fl. oz. of StorOx per gallon of clean water. Spray until runoff. The use of additional surfactant is acceptable.

Cutting Tools:

Use a dilution of 1:100 - 1:300 or 1¼ fl. oz. - ½ fl. oz. of StorOx per gallon of clean water. Soak tools to ensure complete coverage. The use of additional surfactant is acceptable.

Benches and Work Areas:

Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 - 1:300 or 1¼ fl. oz. - ½ fl. oz. of StorOx per gallon of clean water. Use a dilution of 1:50 or 2½ fl. oz. of StorOx per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. The use of additional surfactant is acceptable.

Treatment for nonpotable water systems (wash tanks, dip tanks, drench tanks, evaporators, humidification systems and/or storage tanks):

Treat water containing plant pathogens with 1½ fl. oz. of StorOx for every 10 gallons of water or use a dilution rate of 1:2000.

For direct injection into spray waters used on process lines:

Treat water containing plant pathogens by injecting StorOx directly into spray system water with 12.8 fl. oz. of StorOx for every 100 gallons of water or use a dilution rate of 1:1000. Applicable for use on all types of postharvest commodities.

For postharvest spray treatment on process and packing lines:

Inject StorOx directly into spray system water on process and packing lines for bacterial and fungal diseases on postharvest fruits and vegetables.

Inject at 1:100 – 1:1,000 StorOx to clean water. For best results, where dump tanks are used, make postharvest spray treatment as fruit is leaving dump tanks. Applicable for use on all types of postharvest commodities.

For postharvest spray treatment:

Use StorOx to prevent bacterial and fungal diseases on postharvest fruits and vegetables. Mix 1¼ – ½ fl. oz. of StorOx per gallon of clean water. Spray fruit or vegetables to runoff using hydraulic, backpack, air-assisted or other similar sprayer or foamer.

For direct injection into dump tanks, hydro coolers and process waters:

For treatment of water containing plant pathogens, inject StorOx and maintain a predetermined residual level by using metering equipment, coupled with ORP measuring probes.

- 1) Determine biological loading prior to treatment if possible.
- 2) For waters that contain low levels of biological and organic loading inject StorOx at 2½ fl. oz. – 1¼ fl. oz. of StorOx for every 100 gallons of water or at a dilution rate of 1:5000 – 1:10,000.
- 3) For clean water inject StorOx at 1¼ fl. oz. – ⅝ fl. oz. of StorOx for every 100 gallons of water or at a dilution rate of 1:10,000 – 1:20,000 to prevent the formation of algae, bacteria and fungi.

Chemigation

General Requirements

- 1) Apply this product only through a drip system or sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, hand move, flood (basin), furrow, border or drip (trickle) irrigation systems. Do not

apply this product through any other type of irrigation system.

- 2) Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- 3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- 4) Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- 5) A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- 6) Posting of areas to be chemigated is required when:
 - a. any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, inpatient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or
 - b. 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

favours drift beyond the area intended for treatment.

Specific Requirements for Sprinkler Chemigation

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

capable of being filled with a system interlock.

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

Specific Requirements for Flood (Basin), Furrow and Border Chemigation

- 1) Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.
- 2) The systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

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

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

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

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

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

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

Specific Requirements for Drip (Trickle) Chemigation

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

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

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

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

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

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

Application Instructions

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

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

3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into suspension without any required agitation.

4) Do not apply StorOx in conjunction with any other pesticides or fertilizers; this has the potential to cause reduced performance of the product. Avoid application in this manner.

WARRANTY

To the fullest extent permitted by law this material conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing, method of application,

weather, watering practices, nature of soil, potting medium, disease problem, condition of crop, incompatibility with other chemicals, pre-existing conditions and other conditions influencing the use of this product are beyond the control of

the seller. Buyer assumes all risks associated with the use, storage, or handling of this material not in strict accordance with directions given herewith. NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY IS MADE.

DIRECTIONS, RATES AND USAGE

Spray Treatments for newly harvested potatoes before storage

CROPS	DISEASE	APPLICATION RATE	DIRECTIONS
Potatoes	Bacteria Soft Rot Early Blight Fusarium Tuber Rot Late Blight Silver Scurf	5- 1¼ fl. oz. of StorOx per gallon of water.	Spray diluted solution on tuber to runoff to achieve full and even coverage. The use of additional surfactant is acceptable to aid in sticking. Use 1 to 2 gallons of water per ton of potatoes.

Direct injection into humidification water for postharvest potatoes in storage

CROPS	DISEASE	APPLICATION RATE	DIRECTIONS
Potatoes	Bacteria Soft Rot Early Blight Fusarium Tuber Rot Late Blight Silver Scurf	1¼ – ½ fl. oz. of StorOx per gallon of water.	Inject concentrate into makeup water used in humidification of postharvest potatoes in storage.

Treatment of rinses for postharvest potatoes; prior, during or after storage

CROPS	DISEASE	APPLICATION RATE	DIRECTIONS
Potatoes	Odor-causing and/or slime-forming bacteria	1:5000 – 1:1000	Inject concentrate into process water used in potato rinses, and associated tanks, flumes and lines.

BiSafe Systems_{L.L.C.}

For additional information on StorOx, call us toll free: 1.888.273.3088
or visit our website: www.biosafesystems.com