



OXIDATE®

Broad Spectrum Bactericide/Fungicide

SPECIMEN LABEL AND MSDS

PREVENTATIVE TREATMENT FOR SEEDS, GROWING PLANTS, FRUITS, NUTS AND VEGETABLES.

A treatment for the prevention and control of plant pathogenic diseases in field grown crops, commercial greenhouses

FOR AGRICULTURAL AND COMMERCIAL USE ONLY

ACTIVE INGREDIENT:

Hydrogen Dioxide: 27%

OTHER 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 a 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. 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

36 Commerce Street
Glastonbury, CT 06033

EPA Registration No. 70299-2

EPA Establishment No. 60156-IL-001

Patent #: 5723406

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), notification to workers, and Restricted-Entry Interval (REI). The requirements in this box only apply to the uses of this product that are covered by the Worker Protection Standard.

For enclosed environments:

There is a restricted entry of one (1) hour for this product when applied via fogging or spraying to growing plants, surfaces, equipment, structures and non-porous surfaces in enclosed 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 worn over long-sleeved shirt and pants, waterproof gloves and shoes plus socks.

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

For field applications:

Keep unprotected persons out of treated areas until sprays have dried.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural

pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

DIRECTIONS FOR USE

- OxiDate Broad Spectrum Bactericide/Fungicide® 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. OxiDate will readily mix with clean, neutral water and does not require agitation.
- Before tank mixing with fertilizers, fungicides, or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are indications of incompatibility.
- OxiDate is formulated with a minimal amount of surfactant. For plants having waxy or hairy surfaces the use of additional surfactant is acceptable.
- OxiDate works by surface contact with the plants and materials being treated. It is important to ensure that all surfaces are thoroughly wetted. OxiDate does not produce any visible residue, distinct odor or deleterious effects to plants 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

Pre-Plant Dip Treatment: Use OxiDate for the control of damping-off, root disease and stem rot disease caused by *Pythium*, *Phytophthora*, *Rhizoctonia*, *Fusarium* or *Thielaviopsis*, on seeds, seedlings, bulbs, or cuttings.

- 1) Mix 64 fl. oz. of OxiDate per 50 gallons of water.
- 2) Immerse plants or cuttings; remove and allow to drain. Do not rinse.

Soil Drench: OxiDate is effective for the control of soil-borne plant diseases such as *Pythium*, *Phytophthora*, *Rhizoctonia*, *Thielaviopsis* or *Fusarium*. Use as a soil drench at the time of seeding or transplanting, as well as a periodic drench throughout the plant's life. Use OxiDate on potting soil and growing mediums prior to planting.

- 1) Mix 1¼ fl. oz. of OxiDate per gallon of clean water.
- 2) Apply to soil or growing media to the point of saturation.
- 3) Wait fifteen minutes before planting or watering.

Foliar Spray Treatments for field grown crops, crops grown in commercial greenhouses or crops grown in other similar sites: OxiDate works immediately on contact with any plant surface for control of plant diseases—see Application Instructions chart. Good coverage and wetting of the foliage is required.

FOLIAR APPLICATIONS

Plant Sensitivity Testing: For foliar applications, be sure to use OxiDate at labeled dilutions as solutions more concentrated can result in leaf necrosis for some crops (i.e., do not use dilutions stronger than 1:100 for foliar treatments). OxiDate has been designed to provide a balanced source of the active ingredient directly to the plant surface. OxiDate has been used and tested on many varieties of plant material; however, the nature of the target plant, environmental conditions, plant vigor and the use of other pesticides can all affect plant sensitivity to OxiDate. Therefore, before treating large numbers of plants, test OxiDate on a few plants for sensitivity.

Application of OxiDate for curative control of obligate organisms living in the plant tissue (such as Downy and Powdery Mildew) can result in lesions on plant tissue. OxiDate will oxidize parasitic organisms living in plant tissue that are not always visible to the naked eye. Resulting oxidative effects can include spotting or drying of the plant tissue where organisms inhabited tissue.

For Clean, Non-Porous Surfaces:

Pots, flats, trays: Use a dilution of 1:100 – 1:300 or 1¼ fl. oz. – ½ fl. oz. of OxiDate 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 OxiDate 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 OxiDate per gallon of clean water. Use a dilution of 1:50 or 2½ fl. oz. of OxiDate 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.

For Surfaces, Equipment and Structures: Use OxiDate 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, 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 plant 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 OxiDate per gallon of clean water. Use a dilution of 1:50 or 2½ fl. oz. of OxiDate 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, pre-clean surfaces with water to remove any organic deposits. Fog the desired areas using dilution rates of 1:50 – 1:300, or 2½ fl. oz. – ½ fl. oz. of OxiDate 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 OxiDate to wash away dead growth.
- 6) Reapply as often as needed for control.

For Foot Bath Mats: Make a dilution rate of 1:200 or ¾ fl. oz. of OxiDate per gallon of water and fill foot bath mat to capacity. Change solution as needed.

FOR SURFACE TREATMENT FOR THE CONTROL OF CITRUS CANKER

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

Field Equipment: Apply OxiDate to field equipment such as pickers, trailers, trucks (including truck body parts and tires), bins, packing crates, ladders, power tools, pruning shears, gloves, rubber boots, Tyvek suits or other equipment that can transfer *Xanthomonas* bacterial species including Citrus Canker.

- 1) Remove loose soil or organic matter with clean water and/or detergent rinse.
- 2) Use OxiDate at a dilution ratio of 1:600 to 1:800 or 21.3 fl. oz. to 16.00 fl. oz. of OxiDate per 100 gallons of water. Apply as a coarse spray until run-off.
- 3) Allow OxiDate treated equipment to air dry. Do not rinse.

FOR AGRICULTURAL SPRAY IRRIGATION AND DRAINAGE WATER AND DITCHES

Use OxiDate to suppress/control algae, bacteria and fungi in agricultural irrigation, drainage water and ditches. For irrigation water, apply 4 to 8 fl. oz. of OxiDate per 1000 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. Where existing algae mats are present at time of treatment, the most effective control will be obtained by breaking up mats and/or evenly dispersing diluted OxiDate over the algae mats. Apply OxiDate as needed to control and prevent algae growth; apply more frequently in times of higher water temperatures.

For stock tanks and livestock water:

Use OxiDate to suppress/control algae, bacteria and fungi in stock tanks, stock watering ponds, tanks and troughs, and livestock water. Apply 2 fl. oz. of OxiDate per 250 gallons of water for algae control. Product can be simply added to the body of water as the residual control will allow for even distribution throughout the water column. Where existing algae mats are present at time of treatment, the most effective control will be obtained by breaking up mats and/or evenly dispersing diluted OxiDate over the algae mats. Apply OxiDate as needed to control and prevent algae growth; apply more frequently in times of higher water temperatures.

Drip system application for livestock watering tanks:

Tanks fed by a continuous flow of spring or well water can be equipped with a chemical drip system designed to meter-in OxiDate based upon water flow rates. Pre-dilute OxiDate at a 1:100 rate or 4 mL/min. water flow rate. Treat continuously or as needed to control and prevent algae regrowth.

For water filter, water filter media, membranes and related components and systems treatment:

To suppress, control and prevent clogging of filters from growth of plant pathogenic algae, bacteria or fungi, as well as the oxidation of iron deposits. For reduction and removal on the surfaces of filter and membrane media, media housings, related devices and equipment, or for Clean in Place (CIP) systems.

For water filter and filter media treatment use a rate of 2.5 fl. oz. of OxiDate per gallon and allow to soak for ten (10) minutes. Drain filter or filter media and then rinse with clean water. For CIP applications involving filters use a rate of 1:500 – 1:2000.

DIRECTIONS, RATES AND USAGE

BEANS – SNAP AND DRY APPLICATION INSTRUCTIONS

At-Planting Application

For control of Early Blight, Late Blight, Phytophthora, Pythium, Rhizoctonia, Fusarium Root-Rot and Sclerotinia.

RATE	APPLICATION	NOTES
½ to 1 gallon of OxiDate per treated acre in 50 to 200 gallons of water.	Add OxiDate to setting water or starter fertilizer and make in-furrow application just prior to seed drop.	<ul style="list-style-type: none"> In fields with a history of disease pressure, use stronger rates. Before tank mixing OxiDate with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

Surface Application

For control of Early Blight, Late Blight, Phytophthora, Pythium, Rhizoctonia, Fusarium Root-Rot and Sclerotinia.

RATE – SPRAY APPLICATION	APPLICATION	NOTES
⅓ to 1 gallon of OxiDate per 100 gallons of water.	<ul style="list-style-type: none"> Apply OxiDate as a foliar spray with sufficient water to achieve runoff to soil. Repeat every seven days through infectious season. 	<ul style="list-style-type: none"> Typical applications use 30 to 100 gallons of spray per treated acre. During periods of wet, cloudy or rainy weather, use stronger rates and volumes, and reduce spray intervals. Before tank mixing OxiDate with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.
RATE – IRRIGATION APPLICATION	APPLICATION	NOTES
½ to 1 gallon of OxiDate per treated acre in 500 to 1000 gallons of water.	Apply through drip trickle, center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move or flood basin irrigation systems.	

Foliar Application

For control of Anthracnose, Bacterial Blights, Botrytis, Powdery Mildew, Rhizoctonia, Rust and White Mold.

RATE – SPRAY APPLICATION	APPLICATION	NOTES
⅓ to 1 gallon of OxiDate per 100 gallons of water. Complete coverage is essential.	<ul style="list-style-type: none"> Begin applications of OxiDate prior to or in early stages of disease development and continue throughout the season. Spray at first appearance or when conditions are favorable for disease development. Repeat applications at 7-day intervals. 	<ul style="list-style-type: none"> Under severe disease conditions and during periods of rainy weather, apply immediately after each rain, reduce spray intervals, and use stronger dilution rates. Use sufficient water to obtain complete coverage. Before tank mixing OxiDate with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.
RATE – IRRIGATION APPLICATION	APPLICATION	NOTES
½ to 1 gallon of OxiDate per treated acre in 500 to 1000 gallons of water.	Apply through center pivot, lateral move, end tow, side wheel roll, traveler, solid set or hand move irrigation systems.	<ul style="list-style-type: none"> Do not spray OxiDate during conditions of intense heat, drought or poor vine canopy.

CUCURBIT APPLICATION INSTRUCTIONS

At-Planting Application

For control of Belly Rot, Root Rots, Fusarium Wilt, Pythium, Phytophthora and Rhizoctonia.

RATE	APPLICATION	NOTES
1/2 to 1 gallon of OxiDate per treated acre in 50 to 200 gallons of water.	<ul style="list-style-type: none"> • Make in-furrow applications just before seed is covered. • Make band applications to soil surface after seed is covered. 	In fields with a history of disease pressure, use stronger rates.

Banded Application

For control of Belly Rot, Root Rots, Fusarium Wilt, Pythium, Phytophthora and Rhizoctonia.

RATE – SPRAY APPLICATION	APPLICATION	NOTES
1/3 to 1 gallon of OxiDate per 100 gallons of water.	<ul style="list-style-type: none"> • Apply OxiDate as a foliar spray with sufficient water to achieve runoff to soil when vines begin to run. • Repeat every seven days through infectious season. 	<ul style="list-style-type: none"> • Typical applications use 30 to 100 gallons of spray per treated acre. During periods of wet, cloudy or rainy weather, use stronger rates and volumes, and reduce spray intervals. • Before tank mixing OxiDate with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.
RATE – IRRIGATION APPLICATION	APPLICATION	NOTES
1/2 to 1 gallon of OxiDate per treated acre in 500 to 1000 gallons of water.	Apply through drip trickle, center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move or flood basin irrigation systems.	

Foliar Application

For control of Alternaria, Anthracnose, Downy Mildew, Gummy Stem Blight, Leaf Spot and Powdery Mildew.

RATE – SPRAY APPLICATION	APPLICATION	NOTES
1/3 to 1 gallon of OxiDate per 100 gallons of water. Complete coverage is essential.	<ul style="list-style-type: none"> • Begin applications of OxiDate prior to or in early stages of disease development and continue throughout the season. • Spray at first appearance or when conditions are favorable for disease development. • Repeat at 7-day intervals using sufficient water to obtain complete coverage. 	<ul style="list-style-type: none"> • Before tank mixing OxiDate with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility. • Under severe disease conditions and during periods of rainy weather, apply immediately after each rain, reduce spray intervals, and use stronger dilution rates. • Do not spray OxiDate during conditions of intense heat, drought or poor vine canopy.
RATE – IRRIGATION APPLICATION	APPLICATION	NOTES
1/2 to 1 gallon of OxiDate per treated acre in 500 to 1000 gallons of water.	Apply through center pivot, lateral move, end tow, side wheel roll, traveler, solid set or hand move irrigation systems.	<ul style="list-style-type: none"> • Before tank mixing OxiDate with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility. • Do not spray OxiDate during conditions of intense heat, drought or poor vine canopy.

STRAWBERRY APPLICATION INSTRUCTIONS

Pre-Plant Dip or Spray Application

For control of Botrytis, Crown Rot and Powdery Mildew.

RATE	APPLICATION	NOTES
64 fl. oz. of OxiDate per 100 gallons of water.	Thoroughly wet transplants by dipping or spraying prior to planting.	<ul style="list-style-type: none"> Excessive foaming or bubbling during the dipping process may be an indication of high levels of disease contamination. Removal of dead or dying foliage prior to dipping is suggested. Before tank mixing OxiDate with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

Setting Water Application

For control of Botrytis.

RATE	APPLICATION	NOTES
½ to 1 gallon of OxiDate in 50 to 200 gallons of water per treated acre.	Add OxiDate to transplant water or starter fertilizer and make in-furrow or dibble application at the time of plant set.	<ul style="list-style-type: none"> OxiDate is chemically compatible with most water soluble fertilizers. Before tank mixing OxiDate with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

At-Planting Foliar Application

For control of Powdery Mildew, Leaf Blight, Angular Leaf Spot, Crown Rot and Botrytis.

RATE	APPLICATION	NOTES
40 to 128 fl. oz. of OxiDate per 100 gallons of water. Complete coverage is essential.	Immediately following planting, apply OxiDate as a foliar spray with sufficient water to achieve runoff to soil or plastic.	<ul style="list-style-type: none"> Typical applications use 30 to 100 gallons of spray solution per treated acre. In fields with a history of disease pressure, use the high rate. Before tank mixing OxiDate with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

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STRAWBERRY APPLICATION INSTRUCTIONS CONTINUED

Existing Plantings – Foliar and Crown Disease Control

For control of Powdery Mildew, Leaf Blight, Angular Leaf Spot, Crown Rot and Botrytis.

RATE – FOLIAR SPRAY	APPLICATION	NOTES
<p>40 to 128 fl. oz. of OxiDate per 100 gallons of water. Complete coverage is essential.</p>	<ul style="list-style-type: none"> • Begin applications of OxiDate prior to or in the early stages of disease development and continue throughout the season. • Spray at first appearance or when conditions are favorable for disease development. • Repeat applications at seven-day intervals. 	<ul style="list-style-type: none"> • Typical applications use 30 to 100 gallons of spray solution per treated acre. • Before tank mixing OxiDate with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility. • Under severe disease conditions, and during periods of rainy weather, apply immediately following each rain, reduce spray intervals, and use the stronger dilution rate. • Use sufficient water to obtain complete coverage. • OxiDate may be applied up to and including the day of harvest.

Botrytis Control on Existing Plantings

RATE – FOLIAR SPRAY	APPLICATION	NOTES
<p>40 to 128 fl. oz. of OxiDate per 100 gallons of water. Complete coverage is essential.</p>	<ul style="list-style-type: none"> • Apply OxiDate at the first growth flush. Repeat applications at 10% bloom, full bloom and at late or extended bloom. • Use additional sprays in late winter just after plant bed cleaning. 	<ul style="list-style-type: none"> • Typical applications use 30 to 100 gallons of spray solution per treated acre. • Use sufficient water to obtain complete coverage. • Remove dead plant growth from the beds immediately prior to making OxiDate application. • Before tank mixing OxiDate with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

TOMATO AND PEPPER APPLICATION INSTRUCTIONS

Seed Treatment

For control of Bacterial Speck and Bacterial Spot.

RATE	APPLICATION	NOTES
1:100 or 1 gallon of OxiDate to 100 gallons of water.	If seed has not been treated by the seed company, immerse seed in the OxiDate solution for one minute, remove seed and allow to drain.	Rinsing of the seed after application is not required.

Seedling Production Treatment

For control of Bacterial Speck, Bacterial Spot, Damping-Off Pythium, Early Blight, Late Blight and Phytophthora.

RATE AT SEEDING	APPLICATION	NOTES
½ to 1¼ fl. oz. of OxiDate per gallon of water.	Apply one application of OxiDate to the point of saturation.	Apply on newly seeded plug trays, seed flats or beds with the initial watering.
RATE FOR POST-EMERGENCE	APPLICATION	NOTES
½ fl. oz. of OxiDate per gallon of water.	Apply OxiDate at the 2 to 4 true leaf stage as a foliar spray with sufficient water to achieve complete coverage.	Repeat at seven-day intervals.

At-Planting Application

For control of Early Blight, Late Blight, Phytophthora and Pythium.

RATE	APPLICATION	NOTES
½ to 1 gallon of OxiDate per treated acre in 50 to 200 gallons of water.	Add OxiDate to transplant water or starter fertilizer and make in-furrow or dibble application just prior to plant set.	<ul style="list-style-type: none"> • In fields with a history of disease pressure, use the high rate. • Before tank mixing OxiDate with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

Surface Application

For control of Early Blight, Late Blight, Phytophthora and Pythium.

RATE – SPRAY APPLICATION	APPLICATION	NOTES
½ to 1 gallon of OxiDate per 100 gallons of water.	<ul style="list-style-type: none"> • Apply OxiDate as a foliar spray with sufficient water to achieve runoff to soil. • Repeat applications every seven days through infectious season. 	<ul style="list-style-type: none"> • Typical applications use 30 to 100 gallons of spray solution per treated acre. • During periods of wet, cloudy or rainy weather, use stronger rates and volumes and reduce spray intervals.
RATE – IRRIGATION APPLICATION	APPLICATION	NOTES
½ to 1 gallon of OxiDate per treated acre in 500 to 1000 gallons of water.	Apply through drip trickle, center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move or flood irrigation systems.	

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TOMATO AND PEPPER APPLICATION INSTRUCTIONS CONTINUED

Foliar Application

For control of Anthracnose, Bacterial Speck and Spot, Botrytis, Early Blight, Late Blight, Powdery Mildew and Rhizoctonia Fruit Rot.

RATE – SPRAY APPLICATION	APPLICATION	NOTES
1/3 to 1 gallon of OxiDate per 100 gallons of water. Complete coverage is essential.	<ul style="list-style-type: none"> • Begin applications of OxiDate prior to or in early stages of disease development and continue throughout the season. • Spray at first appearance or when conditions are favorable for disease development. • Repeat applications at seven-day intervals. 	<ul style="list-style-type: none"> • Under severe disease conditions and during periods of rainy weather, apply immediately after each rain, reduce spray intervals, and use the stronger dilution rate. • Use sufficient water to obtain complete coverage. • Before tank mixing OxiDate with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.
RATE – IRRIGATION APPLICATION	APPLICATION	NOTES
1/2 to 1 gallon of OxiDate per treated acre in 500 to 1000 gallons of water.	Apply through center pivot, lateral move, end tow, side wheel roll, traveler, solid set or hand move irrigation systems.	<ul style="list-style-type: none"> • Do not spray OxiDate during conditions of intense heat, drought or poor vine canopy.

APPLICATION INSTRUCTIONS (ALPHABETICAL BY CROP)

CROPS	DISEASE	DILUTION RATE	APPLICATION RATE	DIRECTIONS
Asparagus	Phytophthora	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	<p>Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals.</p> <p>Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.</p>
		1:100 - 1:300	40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	
Bananas Plantains	Sigatoka	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	<p>Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals.</p> <p>Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.</p>
		1:100 - 1:300	40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	

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APPLICATION INSTRUCTIONS (ALPHABETICAL BY CROP) CONTINUED

CROPS	DISEASE	DILUTION RATE	APPLICATION RATE	DIRECTIONS
Beans Lima Beans Peas Snap & Dry Soybeans	Anthracnose Botrytis Downy Mildew Early & Late Blight Fusarium Phytophthora Powdery Mildew Pythium Rhizoctonia Sclerotinia Rust White Mold	1:100 - 1:2000	(See Beans – Snap and Dry Application Instructions)	For specific application instructions, see Beans – Snap and Dry Application Instructions in previous section.
Berries, including but not limited to: Blackberry Blueberry Cranberry Raspberry Strawberry (see Strawberry Application Instructions)	Alternaria Angular Leaf Spot Botrytis Crown Rot Downy Mildew Fruit Rot Leaf Blight Powdery Mildew	1:100 1:100 - 1:300	128 fl. oz. of OxiDate per 100 gallons of water; apply 25-100 gallons of spray solution per treated acre. 40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	<p>Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals.</p> <p>Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.</p>
Celery	Early Blight Late Blight	1:100 1:100 - 1:300	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre. 40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	<p>Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals.</p> <p>Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.</p>
Citrus Crops, including but not limited to: Grapefruit Kumquat Lemon Orange Tangerine	Alternaria Anthracnose Brown Rot Citrus Canker Phytophthora Powdery Mildew Rust Scab	1:100 1:100 - 1:300	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre. 40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	<p>Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals.</p> <p>Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.</p>
Cole Crops, including but not limited to: Broccoli Brussel Sprouts Cabbage Cauliflower Collards	Alternaria Leaf Spot Downy Mildew Early Blight Late Blight Powdery Mildew	1:100 1:100 - 1:300	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre. 40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	<p>Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals.</p> <p>Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.</p>

APPLICATION INSTRUCTIONS (ALPHABETICAL BY CROP) CONTINUED

CROPS	DISEASE	DILUTION RATE	APPLICATION RATE	DIRECTIONS
Cucurbit Crops, including but not limited to: Cucumber Melons Pumpkins Squash	Alternaria Anthracnose Belly Rot Downy Mildew Fusarium Wilt Gummy Stem Blight Leaf Spot Phytophthora Powdery Mildew Pythium Rot Rhizoctonia Root Rots	1:100 - 1:2000	<i>(See Cucurbit Application Instructions)</i>	For specific application instructions, see Cucurbit Application Instructions in previous section.
Filberts	E. Filbert Blight Bacterial Blight	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	Pre-Bloom: Begin applications at 1/4-1/2 inch green tip and continue on a five to seven day schedule through bloom. Curative: Spray diseased trees for three consecutive days and continue treatments on five to seven day intervals.
Garlics Leeks Onions Green Onions Scallions Shallots	Botrytis Downy Mildew Powdery Mildew	1:100 1:100 - 1:300	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre. 40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals. Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.
Grapes	Black Rot Botrytis Downy Mildew Powdery Mildew Sour Rot	1:100 1:100 - 1:300	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre. 40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals. Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.
Grasses grown for seed or sod	Gray Leaf Spot Stem Rust Leaf Rust Leaf Spot	1:100 - 1:300	40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	Use sufficient water to achieve good coverage. Begin applications during stem elongations. Repeat weekly or as needed. Livestock can graze treated areas.
Herbs and Spices, including but not limited to: Basil Chives Cilantro Coriander Dill Mint Rosemary Sage	Anthracnose Downy Mildew Powdery Mildew Pythium Rot	1:100 1:100 - 1:300 1:500 - 1:1000	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre. 40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre. Direct inject at a dilution ratio of 1:500-1:1000.	Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals. Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest. Direct Injection: Inject directly into misting systems for continual treatment during propagation.

APPLICATION INSTRUCTIONS (ALPHABETICAL BY CROP) CONTINUED

CROPS	DISEASE	DILUTION RATE	APPLICATION RATE	DIRECTIONS
Leafy Vegetables	Brown Rot Botrytis Downy Mildew Early Blight Late Blight Phytophthora Powdery Mildew Rust	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	<p>Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals.</p> <p>Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.</p>
		1:100 - 1:300	40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	
Mushrooms	Verticillium Spot Trichoderma Bacterial Blotch Mycogone Necrotic Spot	1:100	1¼ fl. oz. of OxiDate per gallon of water; apply 6 gallons of solution per 1000 sq. ft.	<p>Curative: Spray diseased mushrooms using 1¼ fl. oz. of OxiDate per gallon of water for one to three consecutive days.</p> <p>Preventative: Spray mushrooms using ½ fl. oz. of OxiDate per gallon of water on five to seven day intervals. Begin at pinning stage and continue through harvest.</p>
		1:300	½ fl. oz. of OxiDate per gallon of water; apply 6 gallons of solution per 1000 sq. ft.	
Peanuts	Early Blight Late Blight Rust	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	<p>Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals.</p> <p>Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.</p>
		1:100 - 1:300	40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	
Peppers & Tomatoes	Alternaria Anthracnose Bacterial Speck Bacterial Spot Botrytis Cladosporium Mold Early/Late Blight Leaf Spot Phytophthora Powdery Mildew Pythium Rhizoctonia	1:100 - 1:2000	(See <i>Tomato and Pepper Application Instructions</i>)	For specific application instructions, see Tomato and Pepper Application Instructions in previous section.
Pome Fruits, including but not limited to: Apples Pears	Powdery Mildew Rusts Scabs	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	<p>Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals.</p> <p>Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.</p>
		1:100 - 1:300	40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	
Potatoes	Early Blight Late Blight	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	<p>Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals.</p> <p>Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.</p>
		1:100 - 1:300	40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	

APPLICATION INSTRUCTIONS (ALPHABETICAL BY CROP) CONTINUED

CROPS	DISEASE	DILUTION RATE	APPLICATION RATE	DIRECTIONS
Potatoes (Seed)	Fusarium	1:50	2½ fl. oz. of OxiDate per gallon of water.	Dip whole or cut tubers into tank of working solution. Let soak for a period of five minutes before removing seed pieces.
Root Crops, including but not limited to: Beets Carrots Ginseng Horseradish Sweet Potato Yams	Alternaria Crown Rot Early Blight Late Blight	1:100 1:100 - 1:300	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre. 40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals. Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.
Stone Fruits, including but not limited to: Cherries Nectarines Peaches Plums Prunes	Brown Rot Downy Mildew Powdery Mildew	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	Pre-Bloom: Begin applications at ¼-½ inch green tip and continue on a five to seven day schedule through bloom. Curative: Spray diseased trees for three consecutive days and continue treatments on five to seven day intervals.
Sugar Beets	Alternaria Bacterial Leaf Spot Crown Rot Leaf Blight Leaf Spot Powdery Mildew Rhizoctonia	1:100 1:100 - 1:300	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre. 40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals. Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.
Tobacco Field	Blue Mold	1:100 1:100 - 1:300	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre. 40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals. Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.
Tobacco Float Beds	Blue Mold Fusarium Phytophthora Pythium	1:500 - 1:1000 1:5000 - 1:10,000	1¼-2½ fl. oz. of OxiDate per 10 gallons. 6-24 fl. oz. of OxiDate per 1000 gallons.	Curative: Initial treatment of float bed water. Preventative: Treat water on a regular basis or maintain a residual 100 ppm concentration.
Tomatoes	(See Peppers section)			
Tropical Fruits, including but not limited to: Mango Casaba Poi Star Fruit Pineapple Passion Fruit Kiwi Guava Coconut Dates	Alternaria Anthracnose Leaf Blight Powdery Mildew Rhizoctonia Sooty Mold Stem Rot	1:100 1:100 - 1:300	128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre. 40-128 fl. oz. of OxiDate per 100 gallons of water; apply 30-100 gallons of spray solution per treated acre.	Curative: Spray diseased plants using 128 fl. oz. of OxiDate per 100 gallons of water for one to three consecutive days and continue treatments on five to seven day intervals. Preventative: Begin when plants are small. Apply first three treatments using the curative rate at five-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain five-day interval spray cycle until harvest.

CHEMIGATION

General Requirements:

- 1) Apply this product only through a drip system or sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, hand move, flood (basin), furrow, border or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.
- 2) Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- 3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- 4) Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- 5) A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- 6) Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.
- 7) Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted

until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

- 8) All words shall consist of letters at least 2.5 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

Specific Requirements for Chemigation Systems Connected to Public Water Systems:

- 1) Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2) Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4) The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump

when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

- 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.

Specific Requirements for Sprinkler Chemigation:

- 1) The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3) The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5) The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.

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

- 1) Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.
- 2) The systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
 - a. The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
 - b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
 - c. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
 - d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
 - e. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
 - f. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock.

Specific Requirements for Drip (Trickle) Chemigation:

- 1) The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to

prevent water source contamination from backflow.

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

Application Instructions:

- 1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
- 2) Determine the treatment rates as indicated in the directions for use and make proper dilutions.
- 3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into suspension without any required agitation.
- 4) Do not apply OxiDate in conjunction with any other pesticides or fertilizers; this has the potential to cause reduced performance of the product. Avoid application in this manner.

STORAGE AND DISPOSAL

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

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

PESTICIDE DISPOSAL: 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 reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY

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.**

BioSafe Systems^{L.L.C.}

OxiDate Broad Spectrum Bactericide/Fungicide® is manufactured by BioSafe Systems LCC.

For additional information on OxiDate, call us toll free at 1.888.273.3088 or visit www.biosafesystems.com.

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION

Product Name: OxiDate®

Product Type: Bactericide/Fungicide

Manufacturer:

BioSafe Systems LLC

36 Commerce St, Glastonbury, CT 06033

Creation Date: 03/06

NOTE: Not valid two years after creation date.

EPA Registration No. 70299-2

EPA Establishment No. 60156-IL-001

Patent # 5723406

2. HAZARDOUS COMPONENTS

Peroxyacetic Acid 79-21-0

Hydrogen Dioxide 7722-84-1

3. HEALTH HAZARDS DATA

Health effects to over exposure to CONCENTRATE:

- Corrosive to mucous membranes, eyes and skin.
- The seriousness of the lesions and the prognosis of intoxication depend directly on the concentration and duration of exposure.

Skin: May cause TEMPORARY skin discoloration and irritation.

Eyes: May cause severe eye damage.

If swallowed: HARMFUL OR FATAL: Causes chemical burns of mouth, throat and stomach.

- Corrosive to gastrointestinal tract
- Paleness and cyanosis of the face
- Excessive fluid in the mouth and nose
- Bloating of stomach and belching
- Nausea and vomiting
- Risk of chemical pneumonitis and pulmonary edema

If inhaled: Vapors or mist can cause irritation. People with asthma or other lung problems may be more affected.

4. FIRST AID

General recommendations:

- In case of product splashing in eyes, treat eyes first
- Submerge soiled clothing in water
- Contact physician in all cases

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.

Skin: 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. You may also contact 1.800.222.1222 for emergency treatment information.

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

5. FIRE AND EXPLOSION DATA

Special fire hazards: Product (concentrate) can decompose and will release oxygen thereby adding to the fire hazard.

Fire fighting methods: Product is not flammable and can be quickly diluted with clean water.

Oxidizing Agent may cause spontaneous ignition with oxidizing agents.

6. SPILL OR LEAK PROCEDURES

Cleanup: Rinse small amounts to drain when possible. Dike or dam large spills, pump to containers or soak in inert absorbent. Flush residue to sanitary sewer, rinse area thoroughly with clean water.

Avoid materials that are incompatible with concentrate.

Waste Disposal: Consult state and local authorities for restrictions on disposal of chemical wastes. Unused product (concentrate) is classified as a (D002) by RCRA criteria.

7. HANDLING AND STORAGE

- Never return product back to the original container
- Keep concentrate away from reactive substances
- Prevent contact with organic materials
- Keep product in original container
- Store in cool, ventilated area
- Keep out of direct sunlight
- Never use metal containers or spigots
- Use vented container
- Warn personnel of dangers of concentrated product

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory: Avoid breathing mists or vapors of concentrate.

Eyes: Use chemical splash goggles when handling concentrate. For continued severe exposure, wear a face shield over the goggles.

Skin: Rubber gloves - protective or gauntlet type preferred when handling concentrate. Use aprons.

ACGIH TLV: 1 PPM 8 HOUR TWA

1.4 mg/m³ TWA

OSHA PEL: 1 PPM 8 HOURS TWA

1.4 mg/m³ TWA

Respiratory protection:

- NIOSH approved full-face respirator for excessive conditions
- Hand gloves for handling concentrate = butyl rubber
- Eye protection - chemical proof goggles/face shield for splash risk
- Skin protection - coveralls when handling concentrate

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid

Odor: Pungent

Freezing Point: -30°C (-22°F)

Boiling Point: Not applicable, product decomposes

Specific gravity: 1.09

pH: 1.33

Solubility: Complete

Decomposition temperature: self-accelerating decomposition temperature > 55°C

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions, with slow oxygen release

Conditions to avoid: Heat / Direct Sunlight

Materials to avoid: Acids · Bases · Reducing Agents · Organic Materials · Metals · Salts of Metals

11. TOXICOLOGICAL INFORMATION

Acute Toxicology:

- Oral route, LD50, rat 330 mg/kg. Test substance: 7% solution
- Dermal route, LD50 rabbit, 1410 mg/kg. Test substance: 10% solution
- Inhalation, LD50, four hours, rat 4080 mg/kg. Test substance: 5% solution

Irritation:

- Rabbit, corrosive (eyes). Test substance: 4% solution
- Rabbit, corrosive (skin). Test substance: 5% solution
- Rat, irritant (respiratory tract)

Chronic Toxicity:

- Dermal = >0.12% solution, irritating effect
- Inhalation = > 5 mg/m³, irritant
- Route of entry = Inhalation / ingestion

12. ECOLOGICAL INFORMATION

Toxic to simple cell and aquatic organisms.

Danger to the environment limited due to product properties.

- No bioaccumulation
- Soil degradation = 99% in 20 minutes
- Considerable abiotic and biotic degradability

- Sediments = Non-significant adsorption
- Weak persistence of degradation products
- Degradation products = water & oxygen

Acute Ecotoxicity:

- Fish, Rainbow trout LC50, 48 hours > 40 mg/L
- Crustaceans, EC 50,48 hours 126.8 mg/L 1 mg/L
- Bacteria, Pseudomonas aeruginosa, EC 100, 5 minutes, 5mg/L

13. DISPOSAL CONSIDERATIONS

- 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.
- 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.
- 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.

14. TRANSPORT INFORMATION

DOT Shipping Name: Hydrogen Peroxide and peroxyacetic acid mixture, stabilized, not more than 5% Peroxyacetic acid.

UN Number: 3149

Hazard Class: 5.1

Primary Hazard Label: Oxidizer

Subsidiary Risk Label: Corrosive

Packing Group: II

Shipping Container: UN Certified vented polyethylene. 2.5, 5, 30, 55 and 275 gallon polyethylene drums

Regulatory Information

TSCA Inventory List: YES

CERCLA Hazardous Substance (40 CFR 302)

Listed substance: NO

Unlisted Substance: YES

Characteristic: Corrosive

Reportable Quantity: 100 pounds

NFPA Rating Health – 2 Flammability – 0 Reactivity – 3 Special – OXY

HMIS Rating Health – 2 Flammability – 0 Reactivity – 2 PPE - Required

Canadian WHMIS Classification

C – Oxidizing E – Corrosive F – Dangerously Reactive

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BioSafe Systems L.L.C.

1.888.273.3088

www.biosafesystems.com

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