



OXIDATE®

Broad Spectrum Bactericide/Fungicide

CALIFORNIA

SPECIMEN LABEL AND MSDS

PREVENTATIVE TREATMENT FOR 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 USE ONLY

ACTIVE INGREDIENT:

Hydrogen Dioxide27%

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 No. 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 or 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 four (4) hours for this product when applied via fogging or spraying to growing plants in enclosed environments such as glasshouses and greenhouses.

There is a restricted entry of four (4) 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.

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 safety goggles or visor, coveralls worn over long-sleeved shirt and pants, waterproof gloves and chemical resistant shoes plus socks.

For field applications: There is a restricted entry of four (4) hours for this product when applied by spraying to growing plants, surface soil areas in the field.

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.

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.

DIRECTIONS FOR USE

- OxiDate is most effective when used with water having a neutral pH and containing no, or minimal organic or inorganic materials. For best results and effectiveness thoroughly rinse out tank with water before mixing concentrate. OxiDate will readily mix with clean, neutral water and does not require agitation.
- Do not mix OxiDate concentrate with undiluted fertilizers or pesticides. Dilute OxiDate with water then add liquid fertilizers or pesticides.
- Before tank mixing OxiDate with fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution per manufacturer's label in a container, close the lid and shake or stir vigorously. Excessive bubbling and/or increased pressure are an indication 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 higher 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. OxiDate per 50 gallons of water, or a rate of (1:100).
- 2) Immerse plants or cuttings; actual time required will vary depending plant type and organic loading, 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. OxiDate per gallon of clean water or a rate of 1:100.
- 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 the 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 less 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 it is recommended 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.

BiSafe Systems^{LLC}

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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 50–100 gallons of spray solution per treated acre.	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.
Bananas Plantains	Sigatoka	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 gallons of spray solution per treated acre.	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.
Beans Snap & Dry	Anthrachnose 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.
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	128 fl. oz. of OxiDate per 100 gallons of water; apply 25–100 gallons of spray solution per treated acre.	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.
Celery	Early Blight Late Blight	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 gallons of spray solution per treated acre.	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.
Citrus Crops, including but not limited to: Grapefruit Kumquat Lemon Orange Tangerine	Alternaria Anthrachnose Brown Rot Citrus Canker Phytophthora Powdery Mildew Rust Scab	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 gallons of spray solution per treated acre.	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.
Cole Crops, including but not limited to: Broccoli Brussels Sprouts Cabbage Cauliflower Collards	Alternaria Leaf Spot Downy Mildew Early Blight Late Blight Powdery Mildew	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 gallons of spray solution per treated acre.	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.

CROPS	DISEASE	DILUTION RATE	APPLICATION RATE	DIRECTIONS
Cucurbit Crops, including but not limited to: Cucumber Melons Pumpkin 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	(See Cucurbit Application Instructions)	For specific application instructions, see Cucurbit Application Instructions.
Filberts	E. Filbert Blight Bacterial Blight	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 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.
Garlic Leeks Onions Shallots	Botrytis Downy Mildew Powdery Mildew	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 gallons of spray solution per treated acre.	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.
Grapes	Black Rot Botrytis Downy Mildew Powdery Mildew Sour Rot	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 gallons of spray solution per treated acre.	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.
Grasses grown for seed or sod	Leaf Rust Leaf Spot Stem Rust	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 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 1:500–1:1000	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 gallons of spray solution per treated acre. Direct Injection at a dilution ratio of 1:500 – 1:1000.	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. Direct Injection: Inject directly into misting systems for continual treatment during propagation.
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 50–100 gallons of spray solution per treated acre.	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.
Mushrooms	Bacterial Blotch Mycogone Necrotic Spot Trichoderma Verticillium Spot	1:100	1¼ fl. oz. of OxiDate per gallon of water; apply 6 gallons of solution per 1000 sq. ft.	Spray diseased mushrooms using 1¼ fl. oz. of OxiDate per gallon of water for one to three consecutive days.

CROPS	DISEASE	DILUTION RATE	APPLICATION RATE	DIRECTIONS
Peanuts	Early Blight Late Blight Rust	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 gallons of spray solution per treated acre.	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.
Peppers & Tomatoes	Alternaria Anthracnose Bacterial Speck Bacterial Spot Botrytis Cladosporium Mold Early Blight Late Blight Leaf Spot Phytophthora Powdery Mildew Pythium Rhizoctonia	1:100 - 1:2000	(See Tomato and Pepper Application Instructions)	(For specific application instructions, see Tomato and Pepper Application Instructions)
Pome Fruits, including but not limited to: Apples Pears	Powdery Mildew Rusts Scab	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 gallons of spray solution per treated acre.	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.
Potatoes	Early Blight Late Blight	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 gallons of spray solution per treated acre.	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.
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 Sweet Potato Yams	Alternaria Crown Rot Early Blight Late Blight	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 gallons of spray solution per treated acre.	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.
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 50–100 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.
Tobacco (Field)	Blue Mold	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 gallons of spray solution per treated acre.	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.
Tobacco (Float Beds)	Blue Mold Fusarium Pythium Phytophthora	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. Preventive: Treat water on a regular basis or maintain a residual 100 ppm concentration.
Tomatoes	(See Peppers section)			

CROPS	DISEASE	DILUTION RATE	APPLICATION RATE	DIRECTIONS
Tropical Fruits, including but not limited to: Casaba Coconut Dates Guava Kiwi Mango Passion Fruit Pineapple Poi Star Fruit	Alternaria Anthracnose Leaf Blight Powdery Mildew Rhizoctonia Sooty Mold Stem Rot	1:100	128 fl. oz. of OxiDate per 100 gallons of water; apply 50–100 gallons of spray solution per treated acre.	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.

DIRECTIONS, RATES AND USAGE

TECHNICAL BULLETIN

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 50-200 gallons of water.	Add OxiDate to setting water or starter fertilizer and make in-furrow application just prior to seed drop.	In fields with a history of disease pressure, use the high rate.

Surface Application

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

RATE – FOLIAR SPRAY	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 applications every 7 days through infectious season. 	Typical applications use 30 to 100 gallons of spray solution per acre. During periods of wet, cloudy or rainy weather use a higher rate and volumes and shorten spray intervals.
RATE – IRRIGATION SYSTEMS	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.	Combine lower rates of OxiDate with other non-metal based fungicides.

Foliar Application

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

RATE – FOLIAR SPRAY	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 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 7-day intervals. 	<ul style="list-style-type: none"> Under severe disease conditions, and during periods of rainy weather, apply immediately following each rain, shorten spray intervals, and use higher rate. Use sufficient water to obtain complete coverage.
RATE – IRRIGATION SYSTEMS	APPLICATION	NOTES
½ to 1 gallon of OxiDate per treated acre in 500-1000 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"> Combine lower rates of OxiDate with non-metal based fungicides. 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
½ to 1 gallon of OxiDate per treated acre in 50-200 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 higher rates.

Surface Application

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

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 when vines begin to run. • Repeat every seven days through infectious season. 	<ul style="list-style-type: none"> • Typical applications use 30-100 gallons of spray per acre. During periods of wet, cloudy or rainy weather, use higher rates and volumes and shorten spray intervals. • Combine lower rates of OxiDate with non-metal based fungicides that are labeled for Rhizoctonia and/or Phytophthora.
RATE – IRRIGATION APPLICATION	APPLICATION	NOTES
½ to 1 gallon of OxiDate per treated acre in 500-1000 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.	Combine lower rates of OxiDate with non-metal based fungicides that are labeled for Rhizoctonia and/or Phytophthora.

Foliar Application

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

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 at 7-day intervals using sufficient water to obtain complete coverage. 	<ul style="list-style-type: none"> • Combine lower rates of OxiDate with non-metal based fungicides that are labeled for Rhizoctonia and/or Phytophthora. • Under severe disease conditions, and during periods of rainy weather, apply immediately after each rain, shorten spray intervals, and use the high rate. • Do not spray OxiDate during conditions of intense heat, drought or poor vine canopy.
RATE – IRRIGATION APPLICATION	APPLICATION	NOTES
½ to 1 gallon of OxiDate per treated acre in 500-1000 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"> • Combine lower rates of OxiDate with non-metal based fungicides that are labeled for Rhizoctonia and/or Phytophthora. • 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 is an indication of high levels of disease contamination. Remove dead or dying foliage prior to dipping.

Setting Water Application

For control of Botrytis.

RATE	APPLICATION	NOTES
½ to 1 gallon of OxiDate in 50 – 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.	OxiDate is chemically compatible with most water soluble fertilizers. Conduct a compatibility test for each combination before tank mixing. Shake or stir test solution vigorously. Excessive bubbling and/or pressure is 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 – 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.	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.

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
40 – 128 fl. oz. 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 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 7-day intervals. 	<ul style="list-style-type: none"> Typical applications use 30 to 100 gallons of spray solution per treated acre. Under severe disease conditions, and during periods of rainy weather, apply immediately following each rain, shorten spray intervals, and use higher rates. 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
40 – 128 fl. oz. of OxiDate per 100 gallons of water. Complete coverage is essential.	<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 an OxiDate application. Combine low rates of OxiDate with non-metal based fungicides.

TECHNICAL BULLETIN

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 7-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 50-200 gallons of water.	Add OxiDate to transplant water or starter fertilizer and make in-furrow or dibble application just prior to plant set.	In fields with a history of disease pressure, use the high rate.

Surface Application

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

RATE – FOLIAR SPRAY	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 applications every 7 days through infectious season. 	<ul style="list-style-type: none"> Typical applications use 30 to 100 gallons of spray solution per acre. During periods of wet, cloudy or rainy weather use a higher rate and volumes and shorten spray intervals.
RATE – IRRIGATION SYSTEMS	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.	Combine lower rates of OxiDate with other non-metal based fungicides.

Foliar Application

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

RATE – FOLIAR SPRAY	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 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 7-day intervals. 	<ul style="list-style-type: none"> Under severe disease conditions, and during periods of rainy weather, apply immediately following each rain, shorten spray intervals, and use higher rate. Use sufficient water to obtain complete coverage.
RATE – IRRIGATION SYSTEMS	APPLICATION	NOTES
½ to 1 gallon of OxiDate per treated acre in 500-1000 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"> Combine lower rates of OxiDate with non-metal based fungicides. Do not spray OxiDate during conditions of intense heat, drought or poor vine canopy.

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.

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

Specific Requirements for Chemigation Systems Connected to Public Water Systems:

- 1) Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2) Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4) The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.

Specific Requirements for Sprinkler Chemigation:

- 1) The system must contain a functional check

valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

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

Specific Requirements for Flood (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.

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.**

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

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