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BIOSAFE SYSTEMS, LLC

OxiDate®

SOLUTION

Broad-Spectrum Bactericide/Fungicide and Hard Surface Sanitizer

COMMERCIAL

A solution for the suppression or partial suppression of diseases on labeled crops grown in greenhouse, field and hydroponic systems, as well as a sanitizer for greenhouse surfaces and equipment.

READ THE LABEL BEFORE USING
KEEP OUT OF REACH OF CHILDREN

REGISTRATION NO.: 33469 PEST CONTROL PRODUCTS ACT

ACTIVE INGREDIENTS: Hydrogen Peroxide 27 %
Peroxyacetic acid 2.5 %

WARNING – POISON

DANGER- CORROSIVE TO EYES
DANGER-SKIN IRRITANT

NET CONTENTS: 1 Litres – 1050 Litres

BioSafe Systems, LLC
22 Meadow Street
East Hartford (CT) 06108
USA
Tel.: (888) 273-3088

CAUTION:
Do not use this product in a manner inconsistent with its labelling. Do not apply this product in a way that will contact workers or other persons, either directly or indirectly through drift. OxiDate works by surface contact with the plants being treated. It is important to ensure that all plant surfaces are thoroughly wetted.

PRECAUTIONS:
CORROSIVE to the eye. Severely irritating to the skin. Causes mucous membrane irritations. Avoid contact with skin, eyes and clothing. Wash immediately after contact and use. The product may be harmful if swallowed and be fatal if inhaled. Wear goggles or face shield, coveralls over long-sleeved shirt and long pants, boots, chemical-resistant gloves and a NIOSH-approved respirator during mixing, loading, application, clean-up and repair activities.

OxiDate is a strong oxidizing agent and has been demonstrated to be corrosive to metal surfaces. Rinse all application equipment thoroughly with water after use. Metal fasteners and surfaces that come into contact with diluted OxiDate, as a result of the daily applications, may also become corroded. Ship and store away from food, fertilizer, feed and seed.

For foliar sprays (greenhouse, field and hydroponic applications):

Keep unprotected persons out of the area for the duration of the application.

Do not enter or allow worker entry into treated areas for 4 hours or until sprays have dried.

For early entry to a treated area before sprays have dried, applicators/workers must wear goggles or face shield, coveralls over long-sleeved shirt and long pants, boots, chemical-resistant gloves and a NIOSH-approved respirator.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

For greenhouse mist/fog applications:

Keep unprotected persons out of the treatment area of the greenhouse for the duration of the application period.

Allow entry or re-entry to greenhouse only after thorough ventilation and the mists /fog have cleared.

Do not enter or allow worker entry into treated areas for 4 hours or until the sprays have dried

When entering a treated area of the greenhouse before thorough ventilation and the sprays have dried; applicators/workers must wear goggles or face shield, coveralls over long-sleeved shirt and long pants, boots, chemical-resistant gloves and a NIOSH-approved respirator.

Pre-harvest Interval (PHI) of 0 days.

ENVIRONMENTAL PRECAUTIONS:

TOXIC to aquatic organisms and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

This product may be toxic to bees and other beneficial insects exposed to direct contact. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging.

Greenhouse use: Toxic to bees and other beneficial insects. May harm bees and other beneficial insects, including those used in greenhouse production. Do not apply when bees or other beneficial insects are foraging in the treatment areas.

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with moderate to steep slope, compacted soil or clay. Avoid application when heavy rain is forecast.

Contamination of aquatic areas as result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

FIRST AID:
If swallowed: Call a poison control centre 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 centre or doctor. Do not give anything by mouth to an unconscious person.
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 centre 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 centre or doctor for treatment advice.
If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION:

This product is corrosive and severely irritating to the eyes, skin and mucous membranes. Probable mucosal damage may contraindicate the use of gastric lavage. No specific antidote is available. Treat symptomatically.

PLANT SENSITIVITY TESTING:
Use OxiDate at labeled rates. Do not use at higher than recommended concentration as leaf burn may result. Solutions more concentrated than prescribed on this label may result in leaf necrosis for some plants. 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. The safety of OxiDate has not been determined on all plants and crops. Plants grown in greenhouses vary greatly from those grown under field conditions. Determine if OxiDate can be safely used prior to application. Before treating large numbers of plants, test OxiDate or tank mixes of OxiDate and other pesticides or fertilizers at labeled rates on a separate set of plants and observe for symptoms of sensitivity prior to use. Symptoms on foliage include yellow or brown spotting, "burned" tips and/or yellow or brown scorching along the leaf edges.

Read the entire label before using this product. Use only according to label directions. Do not use OxiDate above labeled rates.

SOLUTION PREPARATION:
OxiDate works best when diluted with clean water containing little or no organic or inorganic materials and having a neutral pH. Thoroughly rinse out mixing tank with water before mixing concentrate. The spray solution should be prepared just before application and used as soon as possible. Do not reuse already mixed solution, make fresh daily.

DIRECTIONS FOR USE

OxiDate is used for the suppression or partial suppression of multiple diseases in the labeled crops in the greenhouse, field and hydroponic growing systems.

This product works immediately on contact with any plant surface for suppression or partial suppression of plant diseases – see Foliar Application Instructions chart. Good coverage and wetting of the foliage is required. For increased coverage and penetration of spray, use a compatible non-ionic wetting agent/surfactant.

For best suppression or partial suppression of targeted plant diseases, apply OxiDate prior to or in early stages of disease development.

Make a fresh working solution immediately before application. Do not use leftover solution for next application.

Thoroughly wet all surfaces of plant, upper and lower foliage, including stems, branches and stalks to ensure full contact with plant and flower tissue. Spray plants to the point of run-off to achieve full and even coverage of all plant parts above ground.

The working solution volume used per hectare varies with plant size, plant growth stage, density, weather conditions and other factors. Calibrate the spray solution volume per hectare with the spray equipment being used before application to ensure sufficient active ingredient in the solution.

Do not spray OxiDate during conditions of intense heat, drought or poor plant vigor. Avoid application before rain in outdoor uses. Ideal application time is early morning or late afternoon when temperature is lower.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Field sprayer application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

Airblast application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. **DO NOT** apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

DO NOT apply by air.

Spray buffer zones:

A spray buffer zone is NOT required for:

- Uses with hand-held application equipment permitted on this label
- Low-clearance hooded or shielded sprayers that prevent spray contact with crop, fruit or foliage

The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop		Spray Buffer Zones (metres) Required for the Protection of:				
			Freshwater Habitat of Depths:		Estuarine/Marine Habitat of Depths:		Terrestrial Habitat:
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field sprayer	Grape, lowbush blueberry, strawberry, tomato, lettuce, celery, watermelon, cucumber, Asian water spinach, caneberries, field and greenhouse transplant *Brassica* leafy greens and *Brassica* head and stem vegetables, and field red (garden) beets		1	1	1	1	1
	Pumpkin, zucchini, hops		2	1	1	1	1
Airblast	Apple, pear, grape, highbush blueberry, sweet cherry, caneberries	Early growth stage	20	10	4	1	1
		Late growth stage	10	4	2	1	1

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site.

Do not apply more than 93.5 L of OxiDate per hectare per application.

FIELD, GREENHOUSE AND HYDROPONIC APPLICATIONS

When applied as directed, OxiDate will suppress the diseases listed below unless indicated otherwise.

Foliar Application Instructions

Application Timing:

Start foliar/branch/stem applications before the disease occurs or at the first sign of disease and/or when weather conditions are favorable for disease development. Apply diluted spray to the point of run-off to achieve full and even coverage.

Maximum number of applications per year is 8.

Apply at 7-day spray intervals, depending upon the level of disease pressure. Under severe disease conditions, reduce spray intervals to once every 5 days, and use stronger dilution rates if a rate range is indicated for the crop.

Pre-Harvest Interval = 0 days

Crop **Indoor and Outdoor Grown**	**Target Diseases Suppressed**	**Application Rate**
Blueberry	Partial suppression of Mummy berry (*Monilinia vacinii-corymbosi)*	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)
	Partial suppression of Phomopsis twig blight (*Phomopsis vaccinii*)	
Grape	Partial suppression of Black rot (*Guignardia bidwellii*)	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)
	Downy mildew (*Plasmopara viticola*)	
	Cane and leaf spot and fruit rot (*Phomopsis viticola*)	
	Partial suppression of Powdery mildew (*Uncinula necator*)	
Strawberry (field and greenhouse)	Botrytis fruit rot (*Botrytis cinerea*)	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)
Red (Garden) Beet (field)	Partial suppression of cercospora leaf spot *(Cercospora beticola)*	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)

Apple Pear	Partial suppression of Fire blight (*Erwinia amylovora*)	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)
Apple	Partial suppression of Scab (*Venturia inaequalis*)	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)
	Powdery mildew (*Podosphaera leucotricha*)	
	Partial suppression of Black rot (*Botryosphaeria obtusa*)	
Sweet cherry	Reduction of slip-skin maceration disorder (associated yeast species: *Aureobasidium pullulans*, *Candida railenensis, Cryptococcus victoriae* and *Hanseniaspora uvarum*)	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)
Watermelon	Partial suppression of Gummy stem blight (*Didymella bryoniae*)	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)
CROP SUBGROUP 13-07A (Caneberries)***** (field)	Partial suppression of fire blight *(Erwinia amylovora*) Botrytis grey mould (*Botrytis cinerea*)	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)
Tomato	Partial suppression of Leaf mould (*Fulvia fulva* syn. *Cladosporium fulvum*), Botrytis grey mould (*Botrytis cinerea*)	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)
Cucumber	Partial suppression of Downy mildew *(Pseudoperonospora cubensis)* Bacterial wilt *(Erwinia tracheiphila)*	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)
Lettuce	Downy mildew (*Bremia lactucae*)	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)

Celery	Downy mildew (*Peronospora umbellifarum*)	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)
Hydroponically Grown Lettuce	Partial suppression of Powdery mildew (*Erysiphe cichoracearum*)	Dilute 0.3 L product in 100 L of water, 0.3% (v:v)
Hops	Partial suppression of Alternaria cone blight *(Alternaria alternata)* Partial suppression of Botrytis grey mould *(Botrytis cinerea)*	Dilute 1 to 2.5 L product in 100 L of water, i.e. 1.0 – 2.5% (v:v)
	Downy mildew *(Pseudoperonospora humuli),* Powdery mildew *(Podosphaera macularis)*	Dilute 1 L product in 100 L of water, i.e. 1.0% (v:v)
Pumpkin	Partial suppression of Powdery mildew (*Podosphaera fusca*)	Dilute 2.5 L product in 100 L of water, i.e. 2.5% (v:v)
Zucchini	Partial suppression of Powdery mildew (*Erysiphe cichoracearum)*	Dilute 2.5 L product in 100 L of water, i.e. 2.5% (v:v)
Asian Water Spinach (field and greenhouse)	Partial suppression of Botrytis grey mould (*Botrytis cinerea*)	Dilute 1.0 L product in 100 L of water, i.e. 1.0%
CROP SUBGROUP 4-13B (Brassica leafy greens) (field and greenhouse transplants): Arugula, Broccoli raab, Broccoli, Chinese, Cabbage, Abyssinian, Cabbage, seakale, Chinese Cabbage, bok choy, Collards, Cress, garden, Cress, upland, Hanover salad, Kale, Maca, Mizuna, Mustard greens, Radish, leaves, Rape greens, Rocket, wild, Shepherd's purse, Turnip greens, Watercress and	Downy mildew (*Peronospora parasitica)*	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)

cultivars, varieties and/or hybrids of these.		
CROP GROUP 5-13 (Brassica head and stem vegetables) (field and greenhouse transplants): Broccoli, Brussels sprouts, Cabbage, Cabbage, Chinese (napa), Cauliflower and cultivars, varieties and/or hybrids of	Downy mildew (*Peronospora parasitica)*	Dilute 1.0 L product in 100 L of water, i.e. 1.0% (v:v)

**CROP SUBGROUP 13-07A (Caneberries): Blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, Lucretiaberry,* mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, and cultivars, varieties and/or hybrids of these), loganberry, raspberry (black and red), wild raspberry, and cultivars, varieties and/or hybrids of these

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS.

Aerosol/Fog Treatments for Management of Foliar Diseases in Labeled Crops (refer to table above) Grown in Greenhouses and Hydroponic Growing Systems

OxiDate can be applied as an aerosol/fog using commercial cold or thermal fogging equipment. Apply a 1.0%-2.0% v/v solution of OxiDate with water until an even distribution is achieved on the leaf and stem (fruit) surface and a contact time of at least 10 seconds with the applied fog solution is achieved.

Always test by fogging on few plants first at these concentrations and ensure no injury to plants before using on large scale. For crops that are in bloom and/or have low tolerance to OxiDate, do not exceed solution concentration of 1%. Repeat applications once every 5-7 days up to a maximum of 8 applications per year. Use a compatible dispersal agent to minimize evaporation of applied aerosol and better deposition on plant surface.

For Greenhouse Surfaces and Equipment Applications

To clean and sanitize wood and non-porous hard-surfaces: Dilute between 3.3 mL and 20 mL of OxiDate per litre of clean water. Use the higher concentration (i.e. 20 mL/L) when treating heavily soiled or contaminated areas.

Directions:

1) Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
2) Use the appropriate dilution of OxiDate (see use rates).
3) Apply solution with a sprayer or foamer to thoroughly wet all surfaces. Allow solution to remain in contact with surfaces for a minimum of 10 minutes, allow to air dry.
4) Heavy growths of algae and fungi may have to be scrubbed off following application and after scrubbing, reapply OxiDate to the area.
5) Apply as part of a normal cleaning practice.

Spray: Spray until runoff. Allow surfaces to remain wet with solution for 10 minutes.

Foam: Apply OxiDate as a foam treatment to enhance contact on wood surfaces, vertical surfaces and irregular surfaces such as metal grating and structural steel where contact is difficult to maintain with coarse spray treatments. Add a foaming agent to the spray tank that contains the diluted OxiDate solution. Apply foam until the surface treated is completely covered and let stand for 10 minutes. Allow foam treated surface to air dry. Do not rinse.

STORAGE:

Store in original container in a cool, well-ventilated area inaccessible to children and away from direct sunlight, food and feed. Do not allow product to become overheated in storage. The high temperature may increase the degradation of the product, which will decrease product effectiveness. Since OxiDate is a strong oxidizing agent, contact with combustibles may cause fire. Keep containers tightly closed when not in use.

To prevent contamination store this product away from food or feed.

DISPOSAL:

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency

in case of a spill, and for clean-up of spills.

NOTICE TO USER:
This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.