

# 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 and commercial greenhouses.

# FOR AGRICULTURAL AND COMMERCIAL USE ONLY

#### **ACTIVE INGREDIENT:**

TOTAL:	100%
INERT INGREDIENTS:	73%
Hydrogen Dioxide:	27%

#### KEEP OUT OF REACH OF CHILDREN DANGER - PELIGRO

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

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

#### **FIRST AID**

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

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

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

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

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

**Sold by:** BioSafe Systems, 36 Commerce Street, Glastonbury, CT 06033

EPA Registration No. 70299-2 EPA Establishment No. 68660-TX-01

#### **PRECAUTIONARY STATEMENTS**

HAZARDS TO HUMAN AND DOMESTIC ANIMALS

CORROSIVE: Concentrate causes irreversible eye damage. Concentrate may be fatal if swallowed. Concentrate causes skin irritation or temporary discoloration on exposed skin. Do not breathe vapor of concentrate. Do not get concentrate in eyes, on skin or on clothing.

#### 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.

#### **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**

FOR TERRESTRIAL USES. Keep out of lakes, ponds and streams. This pesticide is toxic to birds and fish. Do not apply directly to water, or to areas where surface water is present or to inter-tidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of wash waters.

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

#### PHYSICAL AND CHEMICAL HAZARDS

Corrosive. Strong oxidizing agent. Do not

use in concentrated form. Mix only with water in accordance with label instructions. Never bring concentrate in contact with other pesticides, cleaners or oxidative agents.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and Restricted-Entry Interval (REI). The requirements in this box only apply to the uses of this product that are covered by the Worker Protection Standard.

#### For enclosed environments:

There is a restricted entry of one (1) hour for this product when applied via fogging or spraying to growing plants, surfaces, equipment, structures and non-porous surfaces in enclosed environments such as glasshouses and greenhouses. PPE requirement for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is coveralls, waterproof gloves and shoes plus socks.

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

### For field applications:

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

### Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Act Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

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

### STORAGE AND DISPOSAL

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

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

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Open dumping is prohibited. If wastes cannot be disposed of according to label directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or dispose in a sanitary landfill, or incineration, if allowed by state and local authorities by burning. Stay out of smoke.

### **DIRECTIONS FOR USE:**

- OxiDate 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.
- OxiDate concentrate should not be combined or mixed with any other pesticide or fertilizer.

- OxiDate is formulated with a minimal amount of surfactant for plants having waxy or hairy surfaces. Additional surfactant may be added if needed.
- 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 or postharvest commodities when used in accordance with label directions. Do not use at higher than recommended 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. 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. OxiDate can also be used on potting soil and growing mediums prior to planting.

- 1) Mix 1<sup>1</sup>/<sub>4</sub> fl. oz. 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.

### For water filter treatment:

To suppress, control and prevent clogging of filters from growth of algae, bacteria or fungi, as well as the oxidation of iron deposits.

- Apply 1:50 or 2<sup>1</sup>/<sub>2</sub> fl. oz. per gallon of water.
   Soak filters in solution for time period of not less than 5 minutes.
- 3) Drain and then rinse with clean water.

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. Good coverage and wetting of the foliage is necessary.

### For surfaces, equipment and structures:

OxiDate can be used to suppress/control fungi and slime forming algae on surfaces, equipment and structures, such as: glazing, 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. Treatment of any food contact surfaces, equipment or structures must be followed 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  $1\frac{1}{4}$  fl oz.  $-\frac{1}{2}$  fl. oz. per gallon of clean water. Use a dilution of 1:50 or  $2\frac{1}{2}$  fl. oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. Additional surfactant may be added, if needed.
- 3) Apply solution with mop, sponge, power sprayer or fogger to thoroughly wet all surfaces. Enclosed areas can also be fogged as an adjunct to manual surface application. Wear protective eyewear (goggles or face shield) when fogging. Prior to fogging, surfaces should be pre-cleaned with water to remove any organic deposits. Fog the desired areas using dilution rates of 1:50 - 1:300, or 21/2 fl. oz. - 1/2 fl. oz., 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 may be 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) Treatment of any food contact surfaces, equipment or structures must be followed with a potable water rinse.
- 5) Heavy growths of algae and fungi may have to be scrubbed off following application. Use a solution of OxiDate to wash away dead growth.
- 6) Reapply as often as needed for control.

### For clean, non-porous surfaces:

**Pots, flats, trays:** Use a dilution of 1:100 - 1:300 or  $1\frac{1}{4}$  fl. oz.  $-\frac{1}{2}$  fl. oz. per gallon of clean water. Spray until runoff. Additional surfactant may be added, if needed.

**Cutting tools:** Use a dilution of 1:100 - 1:300 or  $1\frac{1}{4}$  fl. oz.  $-\frac{1}{2}$  fl. oz. per gallon of clean

water. Soak tools to ensure complete coverage. Additional surfactant may be added, if needed. **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  $1\frac{1}{4}$  fl. oz.  $-\frac{1}{2}$  fl. oz. per gallon of clean water. Use a dilution of 1:50or  $2\frac{1}{2}$  fl. oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. Additional surfactant may be added, if needed.

#### CHEMIGATION DIRECTIONS FOR USE General Requirements:

- 1) Apply this product only through a sprinkler including a center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move, flood basin or drip trickle irrigation system. Do not apply this product through any other type of irrigation system.
- Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
- 3) Ensure that the irrigation system used is properly calibrated and if you have questions, call the state extension service or the equipment manufacturer.
- 4) Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless proper safety devices for public water systems are in place. *Read label for instructions.*
- 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 any necessary adjustments should the need arise.

#### **Specific Requirements:**

- 1) Public water supply 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 25 individuals daily at least 60 days throughout the year.
- 2) Chemigation systems connected to the public water systems must contain a functional, reduced-pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply 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 of the 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 liquid back towards the injector.
- 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 drawn 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, or equivalent, 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.

#### **Application Instructions:**

- 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.
- 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) OxiDate should not be applied in conjunction with any other pesticides or fertilizers; this may cause reduced performance of the product and should be avoided.

#### 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.

#### FOLIAR APPLICATIONS: PLANT SENSITIVITY TESTING

For foliar applications, be sure to use OxiDate at recommended dilutions since solutions more concentrated than recommended may 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, before treating large numbers of plants, test OxiDate on a few plants for sensitivity.

Care should be taken when using OxiDate for curative control of obligate organisms living in the plant tissue (such as Downy and Powdery Mildew). These treatments may 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 may include spotting, or drying of the plant tissue where organisms inhabited tissue.

A Product of:

# Bi⇔Safe Systems

Glastonbury, CT 06033 www.biosafesystems.com 888-273-3088

# 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
<sup>1</sup> / <sub>2</sub> to 1 gallon of OxiDate per treated acre in 50 to 200 gallons of water.	0	In fields with a history of disease pressure, use higher rates.

# **Surface Application**

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

RATE – SPRAY APPLICATION	APPLICATION	NOTES
<sup>1</sup> / <sub>3</sub> to 1 gallon of OxiDate per 100 gallons of water.	<ul> <li>Apply OxiDate as a foliar spray with sufficient water to achieve runoff to soil.</li> <li>Repeat every seven days through infectious season.</li> </ul>	Typical applications use 30 to 100 gallons of spray per treated acre. During periods of wet, cloudy or rainy weather, use higher rates and volumes, and shorten spray intervals.
RATE – IRRIGATION APPLICATION	APPLICATION	NOTES
<sup>1</sup> / <sub>2</sub> to 1 gallon of OxiDate per treated acre in 500 to 1000 gallons of water.	Apply through drip trickle, center pivot, lat- eral move, end tow, side wheel roll, traveler, solid set, hand move or flood basin irrigation systems.	Lower rates of OxiDate may be combined with other non metal-based fungicides.

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

RATE – SPRAY APPLICATION	APPLICATION	NOTES
<sup>1</sup> / <sub>3</sub> to 1 gallon of OxiDate per 100 gallons of water. Complete coverage is essential.	<ul> <li>Applications of OxiDate should begin prior to or in early stages of disease development and continue throughout the season.</li> <li>Spray at first appearance or when conditions are favorable for disease development.</li> <li>Repeat applications at 7-day intervals.</li> </ul>	<ul> <li>Under severe disease conditions and during periods of rainy weather, apply immediately after each rain, shorten spray intervals, and use the high rate.</li> <li>Use sufficient water to obtain complete coverage.</li> </ul>
RATE – IRRIGATION APPLICATION	APPLICATION	NOTES
<sup>1</sup> / <sub>2</sub> 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> <li>Lower rates of OxiDate may be combined with other non metal-based fungicides.</li> <li>Do not spray OxiDate during conditions of intense heat, drought or poor vine canopy.</li> </ul>

# At-Planting Application

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

RATE	APPLICATION	NOTES
<sup>1</sup> / <sub>2</sub> to 1 gallon of OxiDate per treated acre in 50 to 200 gallons of water.	<ul><li>Make in-furrow applications just before seed is covered.</li><li>Make band applications to soil surface after seed is covered.</li></ul>	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
<sup>1</sup> / <sub>3</sub> to 1 gallon of OxiDate per 100 gallons of water.	<ul> <li>Apply OxiDate as a foliar spray with sufficient water to achieve runoff to soil when vines begin to run.</li> <li>Repeat every seven days through infectious season.</li> </ul>	Typical applications use 30 to 100 gallons of spray per treated acre. During periods of wet, cloudy or rainy weather, use higher rates and volumes, and shorten spray intervals.
RATE – IRRIGATION APPLICATION	APPLICATION	NOTES
<sup>1</sup> / <sub>2</sub> 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.	Lower rates of OxiDate may be combined with other non metal-based fungicides that are labeled for Rhizoctonia and Phytophthora.

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

RATE – SPRAY APPLICATION	APPLICATION	NOTES
<sup>1</sup> / <sub>2</sub> to 1 gallon of OxiDate per 100 gallons of water. Complete coverage is essential.	<ul> <li>Applications of OxiDate should begin prior to or in early stages of disease development and continue throughout the season.</li> <li>Spray at first appearance or when conditions are favorable for disease development.</li> <li>Repeat applications at 7-day intervals using sufficient water to obtain complete coverage.</li> </ul>	<ul> <li>Lower rates of OxiDate may be combined with other non metal-based fungicides.</li> <li>Under severe disease conditions and during periods of rainy weather, apply immediately after each rain, shorten spray intervals, and use the high rate.</li> <li>Do not spray OxiDate during conditions of intense heat, drought or poor vine canopy.</li> </ul>
RATE – IRRIGATION APPLICATION	APPLICATION	NOTES
<sup>1</sup> / <sub>2</sub> 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> <li>Lower rates of OxiDate may be combined with other non metal-based fungicides.</li> <li>Do not spray OxiDate during conditions of intense heat, drought or poor vine canopy.</li> </ul>

# **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> <li>Excessive foaming or bubbling during the dipping process may be an indication of high levels of disease contamination.</li> <li>Removal of dead or dying foliage prior to dipping is suggested.</li> </ul>

# *Setting Water Application* For control of Botrytis.

RATE	APPLICATION	NOTES
<sup>1</sup> / <sub>2</sub> 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.	OxiDate is chemically compatible with most water soluble fertilizers. A compatibility test is recommended 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
	, ,	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 to 128 fl. oz. of OxiDate per 100 gallons of water. Complete coverage is essential.	<ul> <li>Applications of OxiDate should begin prior to or in the early stages of disease development and continue throughout the season.</li> <li>Spray at first appearance or when conditions are favorable for disease development.</li> <li>Repeat applications at 7-day intervals.</li> </ul>	<ul> <li>Typical applications use 30 to 100 gallons of spray solution per treated acre.</li> <li>Under severe disease conditions, and during periods of rainy weather, apply immediately following each rain, shorten spray intervals, and use higher rate.</li> <li>Use sufficient water to obtain complete coverage.</li> <li>OxiDate may be applied up to and including the day of harvest.</li> </ul>

# **Botrytis Control on Existing Plantings**

RATE – FOLIAR SPRAY	APPLICATION	NOTES
40 to 128 fl. oz. of OxiDate per 100 gallons of water. Complete coverage is essential.	<ul> <li>Apply OxiDate at the first growth flush. Repeat applications at 10% bloom, full bloom and at late or extended bloom.</li> <li>Additional sprays in late winter are recommended just after plant bed cleaning.</li> </ul>	<ul> <li>Typical applications use 30 to 100 gallons of spray solution per treated acre.</li> <li>Use sufficient water to obtain complete coverage.</li> <li>It is recommended that dead plant growth be removed from the beds immediately prior to making OxiDate application.</li> <li>Lower rates of OxiDate may be combined with non metal-based fungicides.</li> </ul>

# **Tomato and Pepper Application Instructions**

# Seed Treatment

# For control of Bacterial Speck and Bacterial Spot.

RATE	APPLICATION	NOTES
0	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.

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RATE AT SEEDING	APPLICATION	NOTES
$^{1\!/_{3}}$ to $1^{1\!/_{4}}$ 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
<sup>1</sup> / <sub>2</sub> 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
0		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 – SPRAY APPLICATION	APPLICATION	NOTES
<sup>1</sup> / <sub>3</sub> to 1 gallon of OxiDate per 100 gallons of water.	<ul> <li>Apply OxiDate as a foliar spray with sufficient water to achieve runoff to soil.</li> <li>Repeat applications every 7 days through infectious season.</li> </ul>	<ul> <li>Typical applications use 30 to 100 gallons of spray solution per treated acre.</li> <li>During periods of wet, cloudy or rainy weather use a higher rate and volumes and shorten spray intervals.</li> </ul>
RATE – IRRIGATION APPLICATION	APPLICATION	NOTES
<sup>1</sup> / <sub>2</sub> 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.	• Lower rates of OxiDate may be combined 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 – SPRAY APPLICATION	APPLICATION	NOTES
<sup>1</sup> / <sub>3</sub> to 1 gallon of OxiDate per 100 gallons of water. Complete coverage is essential.	<ul> <li>Applications of OxiDate should begin prior to or in early stages of disease development and continue throughout the season.</li> <li>Spray at first appearance or when conditions are favorable for disease development.</li> <li>Repeat applications at 7-day intervals.</li> </ul>	<ul> <li>Under severe disease conditions and during periods of rainy weather, apply immediately after each rain, shorten spray intervals, and use the high rate.</li> <li>Use sufficient water to obtain complete coverage.</li> </ul>
RATE – IRRIGATION APPLICATION	APPLICATION	NOTES
<sup>1</sup> / <sub>2</sub> 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> <li>Lower rates of OxiDate may be combined with other non metal-based fungicides.</li> <li>Do not spray OxiDate during conditions of intense heat, drought or poor vine canopy.</li> </ul>

# Application Instructions (Alphabetical By Crop)

CROPS	DISEASE	APPLICATION RATE	DIRECTIONS
Asparagus	Phytophthora	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
		40-128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
Bananas Plantains	Sigatoka	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
		40-128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
Beans Snap & Dry	Anthracnose Botrytis Downy Mildew Early & Late Blight Fusarium Phytophthora Powdery Mildew Pythium Rhizoctonia Sclerotinia Rust White Mold	(See <i>Beans – Snap and Dry</i> 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	Alternaria Angular Leaf Spot Botrytis Crown Rot Downy Mildew	128 fl. oz. of OxiDate per 100 gallons of water; apply 25-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
Raspberry Strawberry (see Strawberry Application Instructions)	Fruit Rot Leaf Blight Powdery Mildew	40-128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
Celery	Early Blight Late Blight	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
		40-128 fl. oz. of OxiDate per 100 gal- lons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.

CROPS	DISEASE	APPLICATION RATE	DIRECTIONS
Citrus Crops, including but not limited to: Grapefruit Kumquat	Alternaria Anthracnose Brown Rot Citrus Canker Phytophthora	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
Lemon Orange Tangerine	Powdery Mildew Rust Scab	40-128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
Cole Crops, including but not limited to: Broccoli	Alternaria Leaf Spot Downy Mildew Early Blight Late Blight	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
Brussel Sprouts Cabbage Cauliflower Collards	Powdery Mildew	40-128 fl oz. of OxiDate per 100 gal- lons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Cucurbit Crops,</b> <b>including but not</b> <b>limited to:</b> 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	(See <i>Cucurbit</i> Application Instructions)	For specific application instructions, see Cucurbit Application Instructions in previous section.
Filberts	E. Filbert Blight Bacterial Blight	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Pre-Bloom:</b> Begin applications at <sup>1</sup> /4- <sup>1</sup> /2 inch green tip and continue on a five to seven day schedule through bloom. <b>Curative:</b> Spray diseased trees for three consecutive days and continue treatments on five to seven day intervals.
Garlics Leeks Onions Shallots	Botrytis Downy Mildew Powdery Mildew	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
		40-128 fl. of oz. OxiDate per 100 gal- lons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
Grapes	Black Rot Botrytis Downy Mildew Powdery Mildew Sour Rot	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
	Sour Kot	40-128 fl. oz. of OxiDate per 100 gal- lons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
Grasses grown for seed or sod	Stem Rust Leaf Rust Leaf Spot	40-128 fl. oz. of OxiDate per 100 gal- lons 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.

CROPS	DISEASE	APPLICATION RATE	DIRECTIONS
Herbs and Spices, including but not limited to: Basil Chives	Anthracnose Downy Mildew Powdery Mildew Pythium Rot	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
Cilantro Coriander Dill Mint		40-128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
Rosemary Sage		Direct inject at a dilution ratio of 1:500-1:1000.	mamam 5-day mervar spray cycle until harvest.
Leafy Vegetables	Brown Rot Botrytis Downy Mildew Early Blight Late Blight	128 fl oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
	Phytophthora Powdery Mildew Rust	40-128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
Mushrooms	Verticillium Spot Trichoderma Bacterial Blotch Mycogene	1¼ fl. oz. of OxiDate per gallon of water; apply 6 gallons of solution per 1000 sq. ft.	<b>Curative:</b> Spray diseased mushrooms using 1 <sup>1</sup> / <sub>4</sub> fl. oz. of OxiDate per gallon of water for one to three consecutive days.
	Necrotic Spot	<sup>1</sup> / <sub>2</sub> fl. oz. of OxiDate per gallon of water; apply 6 gallons of solution per 1000 sq. ft.	<b>Preventative:</b> 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.
Peanuts	Early Blight Late Blight Rust	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
		40-128 fl. oz. of OxiDate per 100 gal- lons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
Peppers & Tomatoes	Alternaria Anthracnose Bacterial Speck Bacterial Spot Botrytis Cladosporium Mold Early/Late Blight Leaf Spot Phytophthora Powdery Mildew Pythium Rhizoctonia	(See <i>Tomato and Pepper</i> Application Instructions)	For specific application instructions, see Tomato and Pepper Application Instructions in previous section.
<b>Pome Fruits,</b> <b>including but not</b> <b>limited to:</b> Apples Pears	Powdery Mildew Rusts Scabs	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<ul> <li>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.</li> <li>Preventative: Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons</li> </ul>
			of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.

CROPS	DISEASE	APPLICATION RATE	DIRECTIONS
Potatoes	Early Blight Late Blight	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
		40-128 fl. oz. of OxiDate per 100 gal- lons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
Potatoes (Seed)	Fusarium	2 <sup>1</sup> / <sub>2</sub> 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	Alternaria Crown Rot Early Blight Late Blight	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
Ginseng Sweet Potato Yams		40-128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
Stone Fruits, including but not limited to: Cherries	Brown Rot Downy Mildew Powdery Mildew	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Pre-Bloom:</b> Begin applications at <sup>1</sup> / <sub>4-</sub> <sup>1</sup> / <sub>2</sub> inch green tip and continue on a five to seven day schedule through bloom.
Nectarines Peaches Plums Prunes			<b>Curative:</b> Spray diseased trees for three consecutive days and continue treatments on five to seven day intervals.
<b>Tobacco</b> Field	Blue Mold	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
		40-128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
Tobacco	Blue Mold	$1^{1/4}-2^{1/2}$ fl. oz. of OxiDate per	Curative: Initial treatment of float bed water.
Float Beds	Fusarium Phytophthora Pythium	10 gallons. 6-24 fl. oz. of OxiDate per 1000 gallons.	<b>Preventative:</b> 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	Alternaria Anthracnose Leaf Blight Powdery Mildew Rhizoctonia	128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Curative:</b> 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.
Poi Star Fruit Pineapple Passion Friut Kiwi Guava Coconut Dates	Sooty Mold Stem Rot	40-128 fl. oz. of OxiDate per 100 gallons of water; apply 50-100 gallons of spray solution per treated acre.	<b>Preventative:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 40 fl. oz. of OxiDate per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.

CROPS	DISEASE	APPLICATION RATE	DIRECTIONS
Potatoes: Spray treatments for newly harvested potatoes before storage	Bacteria Soft Rot Early Blight Fusarium Tuber Rot Late Blight Silver Scurf	5-1 <sup>1</sup> /4 fl. oz. of OxiDate per gallon of water.	Spray diluted solution on tuber to runoff to achieve full and even coverage. Additional surfactant can be added as needed to aid in sticking. Use 1-2 gallons of water per ton of potatoes.
Potatoes: Direct injection into humidification water for post-harvest potatoes in storage	Bacteria Soft Rot Early Blight Fusarium Tuber Rot Late Blight Silver Scurf	1 <sup>1</sup> / <sub>4</sub> - <sup>1</sup> / <sub>2</sub> fl. oz. of OxiDate per gallon of water.	Inject concentrate into makeup water used in humidification of post-harvest potatoes in storage.
<b>Potatoes:</b> Treatment of rinses for post-harvest potatotoes; prior to, during or after storage	Odor-causing and/or slime-forming bacteria	1:1000-1:5000	Inject concentrate into process water used in potato rinses, and associated tanks, flumes and lines.

# Material Safety Data Sheet

#### **1. IDENTIFICATION**

Product Name: OxiDate" Product Type: Bactericide / Fungicide Manufacturer: BioSafe Systems, 36 Commerce St, Glastonbury, CT 06033 Office Telephone Number (860) 657-2211 Green electronic window (2007) 577211 Emergency: CHEMTREC: 800-424-9300 (24 HOURS EVERY DAY) Creation Date: February 2003 NOTE: NOT VALID TWO YEARS AFTER CREATION DATE.

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 Ingestion: 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

Inhalation: Vapors or mist can cause irritation. People with asthma or other luna problems may be more affected.

#### 4. FIRST AID

General recommendations:

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

Eyes: Immediately flush with plenty of cool running water. Remove contact lenses. Continue flushing for at least 15 minutes, holding eyelids apart to ensure rinsing of the entire eye. Administer analgesic eyewash (oxybuprocaine) Call a physician immediately.

Skin: Immediately flush skin with plenty of cool, running water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Inaestion: Rinse mouth at once: then drink 1 or 2 large glasses of water or milk. DO NOT induce vomiting. NEVER give anything by mouth to an unconscious person. Take person to the hospital.

Inhalation: Immediately move a person to fresh air.

#### **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 (DOO2) 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.

Skins: Rubber aloves - protective or aguntlet 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:

- NIOŚH 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 Ódor: Pungent Freezing Point: -30 C (-22F) Boiling Point: Not applicable, product decomposes Specific gravity: 1.09 *р*Н: 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, ID50, 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, 5minutes, % 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 land-fill, 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: 11 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

C – Oxidizing

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

To the extent of our knowledge, the information herein is accurate as of the date

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F - Dangerously Reactive

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E – Corrosive

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