

72160-2

11/20/2007

1/11

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

NOV. 20 2007



United States  
Environmental Protection  
Agency

**Office of Pesticide Programs**

**Flo-Tec, Inc.  
2151 34<sup>th</sup> Way No.  
Largo, FL 33771**

**Attention: Olivia D. Laird, Agent**

**Subject: Product Name: DI-OXY SOLV  
EPA Registration No. 72160-2  
Amendment Dated October 11, 2007**

**The amendment, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable, provided that you delete the statement "For Organic Production" from the product label.**

**A stamped copy of the "accepted" product labeling is enclosed for your records.**

**If you have any questions concerning this letter, please contact Martha Terry at (703) 308-6217.**

**Sincerely**

A handwritten signature in black ink that reads "Marshall Swindell".

**Marshall Swindell  
Product Manager (33)  
Regulatory Management Branch 1  
Antimicrobials Division (7510P)**

**Enclosure**

# Di-Oxy Solv Plus™

## Broad Spectrum Algaecide / Bactericide / Fungicide

### PREVENTATIVE TREATMENT

#### FOR GROWING PLANTS, SEEDS, FRUITS, NUTS, VEGETABLES AND CROPS AFTER HARVEST

A treatment for the prevention and control of horticultural diseases in field grown crops, Commercial Greenhouses, Garden Centers, Landscapes, Nurseries and Interiorscapes. Additionally, a treatment for the prevention and control of plant pathogenic diseases on surfaces, equipment and structures used in processing post harvest commodities.

For Horticultural, Agricultural And Commercial Use Only.

#### ACTIVE INGREDIENT:

Hydrogen Peroxide:	27%
<u>Inert Ingredients:</u>	<u>73%</u>
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 a physician or poison control center immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Avoid alcohol.

Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage.

**IF INHALED:** Remove victim 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.

For 24 Hour Emergency Assistance Call CHEMTREC: 1-800-424-9300

Hydrogen Peroxide, Aqueous Solutions 5.1, Oxidizer, UN2014, PGH



Sold by: Flo-Tec Inc.

2151 34<sup>th</sup> Way N. - Largo, FL 33771 (800) 335-6832

EPA Registration No. 72160-2

EPA Establishment No. 063720-MA-001



2.5 gallon

5 gallon

29 gallon

53 gallon

250 gallon

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with COMMENTS  
EPA Letter Dated:

NOV 20 2007

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. 72160-2

11/2

## PRECAUTIONARY STATEMENTS

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

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

## USER SAFETY RECOMMENDATIONS

Users should wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change clothing.

## ENVIRONMENTAL HAZARDS

**FOR TERRESTRIAL USES.** Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment authority. For additional guidance contact your State Water Board or Regional Office of the EPA. 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 mean high water mark. Do not contaminate water by cleaning of equipment or disposal of wash waters 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

Strong oxidizing agent. Corrosive. 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 use of this product, specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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EPA Letter Dated: 2/28/2007  
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 72160-01

## 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 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 at rates more concentrated than 1:100 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 (0) hours for pre-plant dip, soil drench, mop, sponge, dip, soak, rinse, or other non-spraying of fogging application methods when used in enclosed environments such as glasshouses or greenhouses.

### For field applications:

Keep unprotected persons out of the 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.

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NOV 20 2007

#### PESTICIDE STORAGE:

Store in original containers in a cool, well-vented area, away from direct sunlight. Do not allow product to become overheated during 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.

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 78160-2

#### 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 her 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:

Preventative treatment for suppressing fungal diseases including: Treats/ Controls/ Prevents: Algae - *Alternaria* - *Anthracnose* - *Aphanomyces* - Black Spot - *Botrytis* (grey mold) - Downy Mildew - *Erwinia Fusarium* (root rot) - Leaf Spot - *Phytophthora* (blights, rots) - *Plasmopara* - Powdery Mildew - *Pseudomonas* - *Fythyum* - *Rhizoctonia* - Rust - Scab - Smut - *Thielaviopsis* - *Uromyces* (powdery mildew) - *Xanthomonas* - Wilts and Blights.

May be used as a fungicide on bedding plants, flowering plants, roses, poinsettia, ornamentals, nursery stock, trees, turf, cut flowers, bulbs, cuttings, seedlings, seeds and seedbeds.

May be used as a fungicide and algaecide on greenhouse structures, benches, pots, watering systems, evaporative coolers, storage rooms, ventilation equipment, floors and other equipment.

Ventilation equipment -  
could not find a  
suitable site code

with the plants and re that all surfaces are not produce any visible blights or to postharvest blight directions. Do not leaf burn may result.

igation system unless as for Use.

balanced source of the active ingredient directly to the plant surface and has been shown to not cause adverse cosmetic effects on most plants. Since we have not tested all plant species, however, it is always advisable to test Di-Oxy Solv Plus on a few plants before treating large numbers.

#### SOLUTION PREPARATION:

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

Di-Oxy Solv Plus concentrate should not be combined or mixed with any other pesticide or fertilizer.

Di-Oxy Solv Plus is a strong oxidizing agent and may react with residues of metal-based fungicides or supplements. Care should be used when applying Di-Oxy Solv Plus as a foliar spray immediately following foliar applications of metal-based products.

4/11

## USE RATES AND DIRECTIONS FOR SURFACES AND EQUIPMENT:

Di-Oxy Solv *Plus* can be used to suppress/control bacteria, fungi and slime forming algae on surfaces and structures, such as: glazing, plastic, benches, walkways, floors, walls, fan blades, ventilation ducts, watering systems, vats, tanks, coolers, storage rooms, bins, elevators, storage areas, spray equipment, conveyors, irrigation systems, process equipment, process water systems, trucks, structures and related equipment.

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 ¼ fl. oz. - ½ fl. oz. per gallon of clean water. Use a dilution of 1:50 or 2 ½ 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. Fog enclosed areas as an adjunct to manual surface application. Wear protective eyewear (goggles or face shield) when fogging. Prior to fogging, surfaces should be pre-cleaned with water to remove any organic deposits. Fog the desired areas using dilution rates of 1:50 - 1:300, or 2 1/2 fl. oz. - ½ fl. oz. of Di-Oxy Solv *Plus*, using any type of fogging equipment including but not limited to cold foggers, thermal foggers, low pressure air assisted and high pressure systems. Solutions are corrosive to materials that are oxidized such as natural rubber, copper, galvanized and black iron pipe, Test solutions on surface prior to use.
4. Follow treatment of any food contact surfaces, equipment or structures with a potable water rinse.
5. Heavy growths of algae and fungi may have to be scrubbed off following application. Use a solution of Di-Oxy Solv *Plus* to wash away dead growth.
6. Reapply as often as need to control.

### For foot bath mats:

Make a solution using ¾ fl. oz. of Di-Oxy Solv *Plus* per gallon of water and fill foot bath mat to capacity. Change solution as needed.

### For packinghouses:

Apply Di-Oxy Solv *Plus* to all surfaces and equipment found in commercial packinghouses including dump tanks, drenches, crates, containers, conveyors, storages, walls, floors and process lines.

1. Remove loose soil or organic matter with clean water and/or detergent rinse.
2. Use Di-Oxy Solv *Plus* at a dilution ratio of 1:600 to 1:800 or 16 fl. oz. to 21.3 fl. oz. of Di-Oxy Solv *Plus* per 100 gallons of water. Apply as course spray until runoff.

3. Allow Di-Oxy Solv *Plus* treated surfaces to air dry. Do not rinse.

### For foaming Applications:

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

### 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.

1. Apply 1:50 or 2½ fl. oz. of Di-Oxy Solv *Plus* per gallon of water.
2. Soak filters in solution for a time period of not less than 5 minutes.
3. Drain and then rinse with clean water.

### FOR CLEAN, NON-POROUS SURFACES:

#### Pots, Flats, Trays:

Use a dilution of 1:100 -1:300 or 1¼ - ½ 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 1¼ - ½ fl. oz. per gallon of clean water. Soak tools to ensure complete coverage. Additional surfactant may be added, if needed.

#### Benches and Work Area:

Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 -1:300 or 1¼ - ½ fl. oz. per gallon of clean water. Use a dilution of 1:50 or 2 ½ 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.

#### For evaporative coolers:

Treat existing algae and slime-contaminated surfaces with a 1:100 dilution. Treat cooler water every week with a dilution of 1:500 or ¼ fl. oz. for every gallon of cooler water.

#### For irrigation systems (flooded floors, flooded benches, recycled water systems, capillary mats, humidification and misting systems):

Treat already contaminated water with a dilution of 1:500 or ¼ fl. oz. for every gallon of water. Treat clean water with a dilution of

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NOV 20 2007

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72160-2

5/11

1:10,000 or one gallon of Di-Oxy Solv *Plus* per 10,000 gallons of water.

#### For mist propagation of cuttings and plugs:

Inject Di-Oxy Solv *Plus* into misting systems to control/suppress algae, fungi and bacteria disease from becoming established on plant material. Inject Di-Oxy Solv *Plus* using a 1:1000 dilution rate, for four to ten days on a consecutive basis. Reduce concentration to 1:5000 and continuous application throughout propagation cycle. At the first sign of disease, increase the concentration of Di-Oxy Solv *Plus* to 1:1000.

#### As a pre-plant dip treatment:

Use Di-Oxy Solv *Plus* for the control / suppression of damp-off, root and stem rot diseases such as *Pythium*, *Phytophthora*, *Rhizoctonia*, *Fusarium* or *Thielaviopsis* on ornamental and nursery plants, seed beds, seeds seedlings, bulbs or cuttings.

1. Use 64 fl. oz. per 50 gallons of water, a dilution of 1:100.
2. Immerse plants or cuttings. Remove and allow to drain. Do not rinse.

Do not use treated seed for food or feed purposes or process oil. Treat only those seeds for immediate use, minimizing the interval between treatments and planting. Do not store excess treated seeds beyond planting time.

Seed treatment on agricultural establishments in hopper-box, planter-box or other seed treatment application at or immediately before planting is within the scope of WPS, while commercial treatment of seeds is not within the scope.

#### As a seed treatment:

Use Di-Oxy Solv *Plus* for control of damp-off, root disease and stem rot disease caused by *Pythium*, *Phytophthora*, *Rhizoctonia*, *Fusarium* or *Thielaviopsis*, on seeds of seed sprout crops such as mung bean, red clover, soybeans and alfalfa, and on crops grown exclusively for seed for planting.

1. Mix 64 fl. oz. of Di-Oxy Solv *Plus* per 50 gallons of water.
2. Immerse seeds and let soak for two minutes. Do not rinse.

#### As a soil or media drench:

Di-Oxy Solv *Plus* is effective for the control/suppression of soil borne plant soil 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. Di-Oxy Solv *Plus* can also be used on potting soil and growing mediums prior to planting.

1. Use a dilution of 1:100 or 1 ¼ fl. oz. 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.

#### As a foliar spray treatment in greenhouses:

Di-Oxy Solv *Plus* works immediately on contact with any plant surface for control/suppression of fungi. Apply Di-Oxy Solv *Plus* to ornamentals, bedding plants, flowering plants, shrubs, and trees. To ensure that this contact fungicide is effective, thorough coverage and wetting of the foliage is necessary.

#### Initial (Curative) Application:

1. Use a dilution of 1:100 or 1 ¼ fl. oz. per gallon of clean water. Do not reuse already mixed solution, make fresh daily.
2. Spray, mist or fog plants in the early morning or late evening.
3. Thoroughly wet all surfaces of plant, upper and lower foliage, including stems, branches and stalks to ensure full contact with plant and flower tissue.
4. Apply for one to three consecutive days and then follow directions for preventive treatment after the initial application.

#### Weekly Preventative Treatment:

1. Use a dilution of 1:300 or ½ fl. oz. per gallon of clean water.
2. Spray, mist or fog plants.
3. Thoroughly wet all surfaces of plant, upper and lower foliage, including stems, branches and stalks.
4. Spray every five to seven days as a preventative treatment.
5. At the first sign of disease, spray daily with a dilution of 1¼ fl. oz. per gallon of water for three consecutive days and then resume weekly preventative treatment.

#### Foliar applications: Plant sensitivity testing.

For foliar applications, be sure to use Di-Oxy Solv *Plus* 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). Di-Oxy Solv *Plus* has been designed to provide a balanced source of the active ingredient directly to the plant surface. Di-Oxy Solv *Plus* 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 Di-Oxy Solv *Plus*. Therefore, before treating large numbers of plants, always test Di-Oxy Solv *Plus* on a few plants for sensitivity.

Application of Di-Oxy Solv *Plus* for curative control of obligate organisms living in the plant tissue (such as Downy and Powdery Mildew) can result in lesions on plant tissue. Di-Oxy Solv *Plus* 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 inhabit tissue.

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72160-2

6/11

Use Di-Oxy Solv Plus to reduce the number of potential plant pathogenic organisms in the soil that will prevent beneficials from becoming established. Use a dilution of 1:50 or 2½ fl. oz per gallon of clean water. Thoroughly wet or drench the area to be inoculated. Wait one day before inoculating soil.

**For grasses grown for seed or sod:**

Treat with 40-128 fl. oz. of Di-Oxy Solv Plus per 100 gallons of water; apply 50-100 gallons of spray solution per acre. Use sufficient water to achieve good coverage. Begin applications during stem elongations. Repeat weekly or as needed. Livestock can graze treated areas.

**For disease control on fruits and vegetables:**

**For curative treatment,** spray diseased plants with a 1:100 or 1 ¼ fl. oz. dilution of Di-Oxy Solv Plus per gallon of clean water. Apply for three consecutive days and then continue to apply a 1:100 dilution treatment at intervals of 5 to 7 days.

**For preventive treatment,** begin when plants are small. Apply treatments at a dilution of 1:100 or 1 ¼ fl. oz. of Di-Oxy Solv Plus per gallon of clean water at 5-day intervals. On the fourth treatment, reduce the Di-Oxy Solv Plus dilution rate to 1:300 or .5 fl. oz. per gallon of clean water and continue to apply at 5-day intervals until harvest.

**For direct injection into spray waters used on process lines:**

Treat water containing plant pathogens by injecting Di-Oxy Solv Plus directly into spray system water with 12.8 fl. oz. of Di-Oxy Solv Plus for every 100 gallons of water or use a dilution rate of 1:1,000. Applicable for use on all types of post harvest commodities.

**For post harvest spray treatment on process and packing lines:** Inject Di-Oxy Solv Plus directly into spray system water on process and packing lines to control bacterial and fungal diseases on post harvest fruits and vegetables. Inject at 1:100 - 1:1,000 Di-Oxy Solv Plus to clean water. For best results, where dump tanks are used, perform post harvest spray treatment as fruit is leaving dump tanks. Applicable for use on all types of post harvest commodities.

**For post harvest spray treatment:**

Use Di-Oxy Solv Plus to prevent bacterial and fungal diseases on post harvest fruits and vegetables. Mix 5 - ½ fl. oz. of Di-Oxy Solv Plus per gallon of clean water. Spray fruit or vegetables to runoff using hydraulic, backpack, air-assisted or other similar sprayer or foamer.

Also use at above dilution rates for storage humidification and for remedial spray/fog treatment of diseased areas during storage.

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

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

1. Determine biological loading prior to treatment if possible.
2. For waters that contain low levels of biological and organic loading, inject Di-Oxy Solv Plus at 2 ½ fl. oz. - 1 ¼ fl. oz. of Di-Oxy Solv Plus for every 100 gallons of water or at a dilution rate of 1:5,000 - 1:10,000.
3. For clean water inject Di-Oxy Solv Plus at 1 ¼ fl. oz. - 5/8 fl. oz. of Di-Oxy Solv Plus for every 100 gallons of water or at a dilution rate of 1:10,000 - 1:20,000 to prevent the formation of algae, bacteria and fungi.

**Treatment for non-potable water systems (wash tanks, dip tanks, drench tanks, evaporators, humidification systems and / or storage tanks):**

Treat water containing plant pathogens with 1 ½ fl. oz. of Di-Oxy Solv Plus for every 10 gallons of water or use a dilution rate of 1:2,000. For direct injection into humidification water for post harvest storage, inject 1 ¼ fl. oz - ½ fl. oz. per gallon of clean water.

**CHEMIGATION DIRECTION FOR USE:**

**General Requirements**

1. Apply this product only through a drip system or sprinkler including a center pivot, lateral move, end tow, side wheel roll, traveler, big gun, solid set, hand move, flood basin furrow, border, drip trickle irrigation system, or through misting systems. Do not apply this product through any other type of irrigation system.
2. Crop injury or lack of effectiveness, or illegal pesticide residues in the crop 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, the 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 proper safety devices for public safety 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.
6. Posting of areas to be chemigated is required when:

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NOV 20 2007

578-10-2  
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72160-2

11/2

- a. any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, inpatient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or
  - b. when the chemigated area is open to the public such as golf courses or retail greenhouses.
7. Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.
8. All words shall consist of letters at least 2.5 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

#### Specific Requirements for Chemigation Systems Connected to Public Water Systems:

1. Public water 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 system 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 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 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 (e.g., diaphragm 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 speeds 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 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) or equivalent, 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.

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Fungicide, and Rodenticide Act,  
amended, for the pesticide,  
Registered under EPA Reg. No.

72118-2

11/8



**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 System utilizing a pressurized water and pesticide injection system must meet the following requirements:
  - a. The system must contain a functional check 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 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 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. Di-Oxy Solv Plus 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 expressed or implied warranty of fitness or merchantability is made.

F/T Label #6099

REV.5A - 8/21/07

ACCEPTED  
with COMMENTS  
EPA Letter Dated:

NOV 20 2007

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide, registered under EPA Reg. No.

72160-2

11/6

10/11

### MSDS – Material Safety Data Sheet

#### 1. IDENTIFICATION

Product Name: Di-Oxy Solv Plus™  
 Product Type: Bactericide / Fungicide  
 Manufacturer: Flo-Tec Inc.  
 2151 34<sup>th</sup> Way N. Largo, Fl. 33771  
 Office Number (727-531-8796)  
 Emergency: Chemtrec: 800-424-9300  
 (24 HOURS EVERY DAY)  
 Creation Date: 10-5-07  
 NOTE: NOT VALID TWO YEARS AFTER CREATION DATE.

#### 2. HAZARDOUS COMPONENTS

Peroxyacetic Acid 79-21-0  
 Hydrogen Peroxide 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 depends 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

- Corrosive to gastrointestinal tract
- Paleness and cyanosis of the face
- 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 lung problems may be more affected.

#### 4. FIRST AID

General recommendations:

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

*Eyes:* 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.

*Ingestion:* 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 the 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 method: Product is not flammable and can be quickly diluted with clean water.
- Oxidizing Agent: May cause spontaneous ignition with oxidizing agents.

#### 6. SPILL OR LEAK PROCEDURES

- Cleanup: Rinse small amounts to drain when possible. Dike or dam large spills, pump to containers or soak in inert absorbent. Flush residue to sanitary sewer, rinse area thoroughly with clean water.
- Avoid materials that are incompatible with concentrate.
- Waste Disposal: Consult state and local authorities for restrictions on disposal of chemical wastes. Unused product (concentrate) is classified as a (D002) by RCRA criteria.

#### 7. HANDLING AND STORAGE

- Never return product back to the original container
- Keep concentrate away from reactive substances
- Prevent contact with organic materials
- Keep product in original container
- Store in cool, ventilated area
- 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 gloves – protective or gauntlet type preferred when handling concentrate. Use aprons.

ACGIH TLV: 1PPM 8 HOUR TWA, 1.4 mg/m3 TWA  
 OSHA PEL: 1PPM 8 HOURS TWA, 1.4 mg/m3 TWA

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*Respiratory protection:*

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

9. PHYSICAL AND CHEMICAL PROPERTIES

*Appearance:* Clear, colorless liquid

*Odor:* Pungent

*Freezing Point:* Not applicable, product decomposes

*Specific gravity:* 1.09

*pH:* 1.33

*Solubility:* Complete

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

10. STABILITY AND REACTIVITY

*Stability:* Stable under normal conditions, with slow oxygen release

*Conditions to avoid:* Heat / Direct Sunlight

*Materials to avoid:* Acids, Bases, Reducing Agents, Organic Materials, Metals & Salts of Metals

11. TOXICOLOGICAL INFORMATION

*Acute Toxicology:*

- Oral route, LD50, rat 330 mg/kg. – Test substance: 7% solution
- Dermal route, LD50 rabbit, 1410 mg/kg. Test substance: 10% solution
- Inhalation, LD%<sub>4</sub>, 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)

*Chronic Toxicity:*

- Dermal = > 0.12% solution, irritating effect
- Inhalation = > 5mg. 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 absorption
- Weak persistence of degradation products
- Degradation products = water & oxygen

*Acute Ecotoxicity:*

- Fish, Rainbow trout LC50, 48 hours > 40 mg/L
- Crustaceans, EC50, 48 hours 126.8 mg/l 1mg/L

- Bacteria, *Pseudomonas aeruginosa*, EC 100. 5 minutes, % 5mg/L

13. DISPOSAL CONSIDERATIONS

- Store in original containers in a cool, well-vented area, away from direct sunlight. Do not allow product to become overheated in storage. This may cause increased degradation of the product, which will decrease product effectiveness. In case of spill, flood area with large quantities of water. Do not store in a manner where cross-contamination with other pesticides or fertilizers could occur.
- Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Open dumping is prohibited. If wastes cannot be disposed of according to label directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.
- Triple rinse (or equivalent). Then offer for recycling or dispose in a sanitary landfill, or incineration, if allowed by state and local authorities by burning. Stay out of smoke.

14. TRANSPORTATION INFORMATION

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

UN Number 3149

Hazard Class 5.1

Primary Hazard Label: Oxidizer

Subsidiary Risk Label: Corrosive

Packing Group II

Shipping Container: UN Certified vented polyethylene. 2.5, 5, 20,30, 55 gallon drums

Regulatory Information

TSCA Inventory List Yes

CERCLA Hazardous Substance (40 CFR 302)

Listed substance: No

Unlisted substance: Yes

Characteristic: Corrosive

Reportable Quantity: 100 pounds

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

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

Canadian WHMIS Classification: C - Oxidizing E - Corrosive

F - Dangerously Reactive

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MSDS #5038

REV. 5A – 08/21/07

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