## IPRODIONE 2FL TURF

A Fungicide For The Prevention And Control Of Certain Diseases Of Turfgrass and Ornamentals

#### ACTIVE INGREDIENT:

Iprodione: 3-(3,5-dichlorophenyl)-N-(1-methylethyl)-

TOTAL: . . . . . . . . . . 100.0%

\*Equivalent to 2 pounds Iprodione per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

#### FIRST AID

#### IF SWALLOWED:

- · Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.
- · Do not give anything by mouth to an unconscious person.
- IF ON SKIN CR 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 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 eve.
- Call a poison control center or doctor for treatment advice.
- IF INHALED:
- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

EPA Reg. No. 51036-362 AD 052201 EPA Est. No. 51036-GA-001

NET CONTENTS:

# ACCEPTED

JUL 2 2001

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under BPA Reg. No.51036 - 362 Manufactured By: MICRO FLO CO. P.O. BOX 772099 MEMPHIS, TN 38117

#### PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Avoid contact with skin, eyes, or clothing. Harmful if swallowed or inhaled. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists. Avoid breathing spray mist.

# EMERGENCY NUMBERS:

- Transportation or spill, call CHEMTREC 800-424-9300.
- Human health, call Poison Control Center at 800-900-4044.
- Animal health, call ASPCA at 800-345-4735.

## PERSONAL PROTECTIVE EQUIPMENT

Mixers, loaders, others exposed to the concentrate, cleaners/repairers of equipment, and applicators applying as a dip treatment must wear:

- 1. Long-sleeved shirt and long pants
- 2. Chemical-resistant gloves such as barrier laminate, nitrile rubber (>14 mils), neoprene rubber (>14 mils), or viton (>14 mils)
- 3. Chemical-resistant apron, and
- 4. Chemical-resistant footwear plus socks.

Applicators using hand held equipment must wear

- 1. Coveralls over long-sleeve shirt and long pants,
- 2. Chemical-resistant gloves such as barrier laminate, nitrile rubber(>14 mils), neoprene rubber (>14 mils), or viton (>14 mils)
- 3. Chemical-resistant footwear plus socks,
- 4. Chemical-resistant headgear for overhead exposures, and
- 5. A dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC21C), or a NIOSH approved respirator with any R, P or HE filter.

Applicators using aircraft or mechanical ground equipment (groundboom, airblast, etc.), and flaggers for aerial applications must wear

- 1. Long-sleeve shirt and long pants, and
- 2. Shoes plus socks

Applicators using truck-mounted equipment with a handgun at the end of the hose (i.e., for commercial turfgrass and ornamental applications) and all other handlers not specified above must wear

- 1. Long-sleeve shirt and long pants,
- 2. Chemical-resistant gloves such as barrier laminate, nitrile rubber(>14 mils), neoprene rubber (>14 mils), or viton (>14 mils), and
- 3. Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing or other materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

### ENGINEERING CONTROLS

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

# USER SAFETY RECOMMENDATIONS

Users should:

- 1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- 2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 3. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

This chemical can contaminate surface water through aerial and ground spray applications. Under some conditions, it may also have a high potential for runoff into surface water after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with infield canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

This pesticide is toxic to invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift or runoff may be hazardous to invertebrates in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

## DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire label before using this product.

To 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. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval of 12 hours for ornamental uses. The restricted entry interval for all other WPS uses is 24 hours.

PPE required 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:

- 1. Coveralls
- 2. Chemical-resistant gloves such as barrier laminate, nitrile rubber (>14 mils), neoprene rubber (>14 mils), or viton (>14 mils)
- 3. Shoes plus socks

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to turf uses (golf courses, landscape and institutional areas) of this product that are NOT within the scope of the Worker Protection Standard (WPS) 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.

Do not enter or allow others to enter the treated area until sprays have dried.

# STORAGE AND DISPOSAL

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

PESTÍCIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then puncture and dispose of in a sanitary landfill or by other procedures approved by State and local authorities.

General Use: In order to assure maximum crop tolerance and disease control, follow recommendations on this label and all the precautions and limitations of the package label.

## GENERAL PRECAUTIONS AND RESTRICTIONS

Use of this product at residential sites is prohibited.

Except for use on golf courses, if applying this product adjacent to a water body such as a lake, reservoir, river, permanent stream, marsh or natural pond, estuary, or commercial fish pond, there must be at least a 25-foot vegetative buffer strip between the water body and the point of application.

For golf courses only, do not apply to turf cut higher than 1" on golf courses where water bodies are present.

Do not apply this product when wind direction is toward aquatic areas.

#### TURF

IPRODIONE 2FL TURF is a foliar applied fungicide, recommended for turfgrass disease control on golf courses, sod farms, and institutional areas where fine turf is grown. When used in conjunction with good turf management practices, IPRODIONE 2FL TURF is effective in controlling the following diseases:

Spring, Summer And Fall Diseases: Dollar Spct, Brown Patch, Large Patch\*, Fusarium Blight and Necrotic Ring Spot\*, Leaf Spots such as Helminthosporium Leaf Spot caused by *Dreschlera* spp. pathogens, Corticum Red Thread.

\* Not registered for use in California.

Winter Diseases: Fusarium Patch (Pink Snow Mold) and Gray Snow Mold.

Apply the recommended rates as indicated in the table in 0.5 to 10 gallons of water per 1000 square feet. Do not drench. Do not allow the spray mixture to stand for longer than 12 hours as some breakdown of the product may occur. Maintain agitation during spray operations. Apply with a properly calibrated sprayer.

### TURF

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Begin applications when conditions favor disease development or when the disease first appears unless otherwise noted.

DICENCE	INTERVAL OF	FLUID OZ. 1000
DISEASE		FLUID 02. 1000 FT <sup>2</sup>
-12	APPLICATIONS	Fil
Iollar Spot (Lanzia spp.	Greens and Tees: Repeat	
and Moellerodiscus spp.)	at 14 to 21 day interval	3 to 4
	3 to 4 as long as	
Erown Patch	required.	NOTE: On Fairways,
Rhizoctonia solanii)		for Dollar Spot
	Fairways and Other Turf	control use 2 to 4
Leaf Spot such as	Areas: Repeat at 14 to 28	Fluid Ounces/1000
Helminthosporium Leaf Spot	day intervals as long as	Ft. <sup>2</sup>
caused by (Drechslera spp.)	required.	<u></u>
Large Patch *	Make first application in	4
(Rhizoctonia solanii)	fall when conditions are	:
	favorable for disease	
	development but no	
	symptoms are visible.	
i	Make repeat applications	
	in spring as needed on a	
	14-21 day interval.	
Fusarium Blight	Use only preventative	8
(Fusarium spp.)	foliar applications when	,
	conditions first become	
Necrotic Ring Spot*	favorable for disease	,
(Leptosphaeria korrae)	development. Additional	
•	applications should be	
•	made as necessary at 28	
	day intervals.	
Fusarium Patch	Repeat at 14 to 21 day	4 to 8
(Microdochium nivalis)	intervals as long as	
	required.	
(Pacific Northwest Only -	1	
West of the Cascade		
Mountainsl		
Gray Snow Mold	One application before	4 to 8
(Typhula spp.)	first permanent snow	;
	cover If possible,	
Pink Snow Mold	another application	
(Fusarium nivale)	during a mid-winter thaw.	
Corticum Red Thread	Use as a preventative	4
(Laetisaria fuciformis)	every 14 days as long as	•
(DECCEDORING ENGLECTION AND A	required.	
<u> </u>	1 4	

Do not exceed a total of 35 fluid oz. product/1000 ft<sup>2</sup> per year.

Do not make more than 6 applications per year.

Under severe conditions, the higher rate and/or shorter interval of applications are recommended for all diseases. When disease pressure is light to moderate, the lower rates and longer intervals are recommended.

Do not mow or irrigate treated areas until the foliage is completely dry, usually a 24-hour waiting period following treatment is preferred.

Do not mix with any sticker, extender, or wetting agent. Do not graze animals on treated turf. Do not feed clippings from treated turf to livestock or poultry.

\*Not registered for use in California.

#### ORNAMENTALS

NOT FOR RESIDENTIAL USE

FIELD, LANDSCAPE AND GREENHOUSE CRNAMENTALS AND CONIFER NURSERIES\*

IPRODIONE 2FL is a broad spectrum fungicide that may be applied safely to a wide range of ornamental flowering and foliage plants, either as a foliar spray, drench or dip. Please read specific instructions and use only as directed.

\* Conifer Nurseries not registered for use in California.

RECOMMENDED FOR USE BY COMMERCIAL NURSERY AND LANDSCAPE PERSONNEL.

IPRODIONE 2FL is recommended for use on a wide variety of container and field grown flowering and foliage ornamentals as follows:

### DISEASES

1 Aerial Web Blight

2. Alternaria Leaf Blight

3. Alternaria Leaf Spot

4. Botrytis Blight

5. Fusarium Leaf Spot

6. Helminthosporium Leaf Spot

7. Rhizoctonia stem and root rot

8. Ink Spot

9. Tulip Fire

10. Altenaria Leaf Blight

11. Ray Blight

12. Fusarium Corm rot

13. Daffodil Leaf Scorch

14. Blossom Blight

15. Botrytis Storage Rot

(Rhizoctonia sp.)

(Alternaria euphorbiae)

(Alternaria panax, Alternaria tenuissima)

(Botrytis Sp.)

(Fusarium moniliforme)

(Helminthosporium sp.)

(Rhizoctonia sp.)

(Drechslera iridis)

(Botrytis tulipae)

(Alternaria zinniae)

(Ascochyta chrysanthami)

(Fusarium oxysporum)

(Stagnospora curtissi)

(Monilinia fructicola)

(Botrytis sp.)

16. Cylindrocladium Blight and Wilt\* (Cylindrocladium scoparium)

PLANT TOLERANCE. Plant tolerances to IPRODIONE 2FL Fungicide have been found to be acceptable in the specific genera and species listed on this label. It is not possible to evaluate

every species or variety of ornamental plant for its tolerance to IPRODIONE 2FL. The user should test for possible phytotoxic responses in other plants on a small area basis using recommended rates prior to commercial use.

## ORNAMENTALS

Ageratum (1 to 7)	Dianthus (1 to 7)	Peach(ornamental)(1 to
Ajuga (1 to 7)	Dieffenbachia (1 to 7)	7)
Almond (ornamental) (1	Dizygotheca (1 to 7)	Peperomia (1 to 7)
to 7)	Dogweod (1 to 7)	Periwinkle (1 to 7)
Alyssum (1 to 7)	Dracena (1 to 7)	Philodendron (1 to 7)
Andromeda (1 to 7)	English Ivy (1 to 7)	Phlox (1 to 7)
Aphelandra (1 to 7)	Episcia (1 to 7)	Pilea (1 to 7)
Artemisia (1 to 7)	Euonymous (1 to 7)	Pine (1 to 7)
Aster (1 to 7)	Ficus (1 to 7)	Pitosporum (1 to 7)
Azalea (1 to 7, 16)	Forsythia (1 to 7)	Plum (ornamental) (1
Boxwood (1 to 7)	Gazania (1 to 7)	to 7, 14)
Cactus (1 to 7)	Geranium (1 to 7)	Poinsettia (1 to 7)
Calendula (1 to 7)	Gladiolus (1 to 7, 12)	Poppy (1 to 7)
Carnation (1 to 7)	Gloxinia (1 to 7)	Pothos* (1 to 6)
Cherry (ornamental) (1	Gypsophila (1 to 7)	Primrose (1 to 7)
to 7)	Hawthorn (1 to 7)	Privet (1 to 7)
Chrysanthemum (1 to 7,	Holly (1 to 7)	Protea (1 to 7)
11)	Hoya (1 to 7)	Pyracantha (1 to 7)
Cineraria (1 to 7)	Hydrangea (1 to 7)	Rhododendron (1 to 7,
Cistena Plum (1 to 7,	Impatiens* (1 to 7)	16)
14)	Iris (1 to 8)	Rose Tree of China (1
Coleus (1 to 7)	Juniper (1 to 7)	to 7)
Columbine (1 to 7)	Kalanchoe (1 to 7)	Rose (1 to 7, 15)
Coral Bells (Heuchera)	Lillies (1 to 7)	Salvia (1 to 7)
(1 to 7)	Lipstick vine (1 to 7	Schefflera (1 to 7)
Crape Myrtle (1 to 7)	(Aeschynanthus)	Snapdragon (1 to 7)
Crassula (1 to 7)	Marigold (1 to 7)	Statice (1 to 7)
Croton (1 to 7)	Monarda (Bee Balm) (1	Tree Ivy (1 to 7)
Cyclamen (1 to 7)	to 7)	Tulip (1 to 7, 9)
Daffodils (1 to 7, 13)	Pachysandra (1 to 7)	Viburnum (1 to 7)
Dahlia (1 to 7)	Palm (1 to 7)	Violet (1 to 7)
Delphinium (1 to 7)	Pansy (1 to 7)	Zinnia (1 to 7, 10)
Deutzia (1 to 7)	_	

\*NOTE: Do not use IPRODIONE 2FL Fungicide as a soil drench on Impatiens, and Pathos. Do not use IPRODIONE 2FL Fungicide on Spathiphyllum.

# HOW TO USE IPRODIONE 2FL AS A FOLIAR SPRAY

Apply IPRODIONE 2FL Fungicide as a foliar spray to run-off, at the following rates and intervals, when conditions become favorable for disease development.

DISEASE	QTS. PRODUCT/100 GALS.	INTERVAL OF APPLICATION	III
Aerial Web Blight (Rhizoctonia sp.) Alternaria Leaf Blight (Altenaria zinniae) Altenaria Leaf Blight (Alternaria euphorbiae) Alternaria Leaf Spot (Alternaria panax) (Altenaria tenissima) Botrytis Blight (Botrytis sp.) Fusarium Leaf Spot (Fusarium moniliforme) Helminthosporium Leaf Spot (Helminthosporium sp.) Ink Spot (Drechslera iridis) Ray Blight (Ascochyta chrysanthami) Tulip Fire (Botrytis tuilpae) Daffodil Leaf Scorch* (Stagnospora curtissi) Blossom Blight* (Monilinia fructicola)	1.0 TO 2.5	Days	Spray plants to insure thorough coverage.

Do not apply more than 2.5 quarts product/acre/application.

Do not apply more than 4 applications/year

Do not exceed a total of 10 quarts product/acre/year.

Under severe disease pressure, use the highest recommended rate and/or the shortest spray interval. When disease pressure is light to moderate, the lower rates and longer intervals are recommended.

HOW TO USE IPRODIONE 2FL AS A DRENCH

Apply IPRODIONE 2FL as a drench at seeding and/or after transplanting for Rhizoctonia control at the following rates and interval:

DISEASE	PRODUCT/100 GALS.	INTERVAL OF APPLICATION
Rhizoctonia Stem and Root Rot	13 fluid ounces Apply 1 to 2 pints	14 days
(Rhizoctonia spp.)	of solution per square foot.	

Do not exceed a total of 35 ounces product/1000 ft<sup>2</sup> per year.

Do not make more than 6 applications per year.

Under severe pressure, use the highest recommended rate, when disease pressure is light to moderate, the lower rate is recommended.

NOTE: Do not use IPRODIONE 2FL as a drench on impatiens and pathos. Do not use IPRODIONE 2FL on Spathiphyllum.

PLANT SPECIES	DISEASE	QTS. PRODUCT 100 GALLONS	DIP DURATION	DIRECTIONS
Roses	Botrytis Storage Rot (Botrytis sp.)	1.0	5 minutes	Dip bare root roses prior to cold storage.
Azalea and Rhododendr on	Cylindrocladium Blight and Wilt* (Cylindrocladium scoparius)	1.0	5 minutes	Dip cuttings prior to planting.
Gladiolus	Fusarium Corm Rot	2.0	5 minutes	Dip corms prior to

HOW TO USE IPRODIONE 2FL AS A DIP

## TANK MIXTURES

## ADDITIONAL DISEASE CONTROL

(Fusanium

oxysporum)

If turf is threatened by additional diseases, IPRODIONE 2FL TURF is compatible with most commonly used fungicides. If a tank mixture is used, follow label directions for the use of that product.

Do not exceed a total of 35 fluid oz. IPRODIONE 2FL TURF per 1000  ${\rm ft}^2$  per year with a maximum of 6 applications.

Summer Stress Complex/Summer Decline: For management of Summer Stress Complex/Summer Decline, apply ALIETTE brand fungicide at 4 to 8 ounces of product per 1000 square feet with IPRODIONE 2FL TURF at 2 to 4 fluid ounces per 1000 square feet.

Pythium Blight: Pythium blight will be controlled by the tank mixing of Aliette brand fungicide with IPRODIONE 2FL TURF. If a tank mixture is used, follow label directions for the use of that

storage

<sup>\*</sup> Not registered for use in California.

product and apply at the rate recommended for control of the target disease organism.

Gray Snow Mold: For control of Gray Snow Mold (Typhula spp.) in areas where continuous snow cover occurs, refer to the following table for tank mixture recommendations.

PRODUCT	DISEASE	RATE
		FLUID OZ./1000ft2
IPRODICNE 2FL TURF	Gray Snow Mold	4 - 8
+		+
Daconil 2787 Flowable		8
or		
Daconil 2787 WG		4.5
or		
Daconil Ultrex 82.5 WG		4.9
or		j
Daconil Weather Stik 6F		5.5
or		}
Turfcide 400		8

Application must be made in autumn before snow cover occurs. Apply with sufficient water to obtain adequate coverage (1 to 5 gallons of spray solution per 1000 square feet). Use the higher rate if the turf remains frozen prior to snow cover. For optimal control, reapply this treatment if a winter thaw and loss of snow cover occurs.

### DIRECTIONS THROUGH SPRINKLER IRRIGATION SYSTEMS

Do not use through sprinkler irrigation systems in California.

Apply this product only through sprinkler irrigation systems including center pivot. Do not apply this product through any other type of irrigation system.

SPRAY PREPARATION: Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

APPLICATION INSTRUCTIONS: First prepare a suspension of IPRODIONE 2FL TURF in a mix tank. Fill tank with 1/2 to 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of IPRODIONE 2FL TURF, and then the remaining volume of water. (Suspension concentrations using the appropriate dosage per acre recommended on this label of IPRODIONE 2FL TURF per 1 to 4 gallons of water are recommended). Then set sprinkler to deliver 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of IPRODIONE 2FL TURF into the irrigation water line so as to deliver the desired rate per acre. The suspension of IPRODIONE 2FL TURF should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. If you should have

any other questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

NOTE: When treatment with IPRODIONE 2FL TURF has been completed, further field irrigation over the treated area should be avoided for 24 to 48 hours to prevent washing the chemical off the crop.

GENERAL PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER IRRIGATION SYSTEMS

Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension.

Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute solution per unit time.

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 The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must always 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 shutdown. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. 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. Systems must use a metering pump, such as a positive displacement injection pump (e. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being flitted with a system interlock.

Do not apply when wind speed favors drift, when system connection or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product must be dismantled and drained.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from nonuniform distribution of treated water.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation must shut the system down and make necessary adjustments should the need arise.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label described safety devices for public water supplies are in place.

## SPRAY DRIFT MANAGEMENT

#### Sensitive Areas:

This pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitats for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- 1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- 2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the <u>Aerial Drift Reduction Advisory Information</u>.

The following section is advisory in nature and does not supersede the mandatory label requirements.

# INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).

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## CONTROLLING DROPLET SIZE

Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produces larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produces the largest droplets and the lowest drift.

## BOOM LENGTH

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

## APPLICATION HEIGHT

Applications should not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

# SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced windward. Therefore, on the up and down edges of the field, the applicator should compensate for the displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with the increasing drift potential (higher wind, smaller drops, etc.).

### WIND

Drift potential is lowest between winds speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type

determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY RESMITS:

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS :

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present. inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use when it is used in accordance with such directions; and (c) that the directions, warnings and other statements on this label are based upon responsible experts' evaluation of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants, and of residues on food crops and upon reports of field experience. Tests have not been made on all varieties or in all states or under all conditions. THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE, ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM

THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE

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