

## **INSECT GROWTH REGULATOR**

SPECIMEN LABEL

FOR CONTROL OF INSECTS ON SHRUBS, ORNAMENTALS, FLOWERING PLANTS, FOLIAGE PLANTS, GROUND COVERS, ORNAMENTAL TREES, AND NON-BEARING FRUIT, NUT TREES AND VINES.

ACTIVE INGREDIENT:	By Wt.
Pyriproxyfen: 2-[1-Methyl-2-(4-phenoxyphenoxy)ethoxy] pyridine	11.23%
OTHER INGREDIENTS:	88.77%
TOTAL:	100.00%

Contains 0.86 pound ai per gallon.

### EPA Reg. No.: 59807-14

# KEEP OUT OF REACH OF CHILDREN CAUTION

OAUTION				
FIRST AID				
IF ON SKIN OR CLOTHING:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
IF IN EYES:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
IF SWALLOWED:	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>			
IF INHALED:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> </ul>			
HOT LINE NUMBER				
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You				

poison control center or doctor, or going for treatment. You may also contact 1-800-356-4647 for emergency medical treatment information.

# EPA Est. No.: 88746-TX-001 PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes skin and eye irritation. Do not get on skin, in eyes or on clothing. Harmful if inhaled, swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some materials that are chemical-resistant to **FULCRUM** are listed below. If you want more options, follow the instructions for category G on an EPA chemical resistance category selection chart.

#### Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants, or long sleeved shirt and long pants,
- Chemical-resistant gloves, such as barrier laminate or viton  $\geq$  14 mils,
- Chemical-resistant footwear plus socks,
- Chemical-resistant headgear for overhead exposure, and
- Chemical-resistant apron when cleaning equipment, mixing or loading product.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with **FULCRUM's** concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.



#### **User Safety Recommendations**

Users should:

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

#### **ENVIRONMENTAL HAZARDS**

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

#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use **FULCRUM** in a manner inconsistent with its labeling. Do not apply **FULCRUM** 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 **FULCRUM** 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 statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of **FULCRUM** that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 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:

- Coveralls over short-sleeved shirt and short pants, or long sleeved shirt and long pants,
- Chemical-resistant gloves, such as barrier laminate or viton ≥ 14 mils,
- Chemical-resistant footwear plus socks,
- Chemical-resistant headgear for overhead exposure.

#### NON-AGRICULTURAL USE REQUIREMENTS

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

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

#### **CHEMIGATION**

**California Only:** Do not apply **FULCRUM** through any type of irrigation system.

**NOTE:** If user is not familiar with application of **FULCRUM** through an irrigation system, apply to a small area with only a few plants to make sure a uniform and even application is being delivered.

Do not apply **FULCRUM** through any type of irrigation system when applying for control of foliar insects.

Apply **FULCRUM** through overhead irrigation at rates stated in this label to provide proper coverage of all surfaces when treating for fungus gnats and shore flies. Overhead irrigation systems include overhead sprinklers such as impact or micro-sprinklers, mist-type irrigation such as fog systems and hand-held calibrated irrigation equipment such as hand-held wand with injector. Do not apply **FULCRUM** through any other type of irrigation system.

Plant injury or lack of effectiveness, or illegal pesticide residues in a crop, can result from non-uniform distribution of treated water.

If you have questions about calibration, contact a State Extension Specialist, equipment manufacturer or other expert.

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

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 to make necessary adjustments should the need arise.

Operation Instructions:

- The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quick closing check-valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor

- when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speed favors drift beyond the area intended for treatment. Avoid spray overlap, as injury may result.

Prepare a minimum mixture of 1 gallon of water with the desired rate of **FULCRUM** and inject mixture into the system. Injecting a larger volume of a more dilute mixture will usually provide a more accurate calibration of the metering equipment. Maintain sufficient agitation to keep product in suspension. Meter into irrigation water during the beginning of the irrigation cycle. It is important to continue running the system after the application is finished to remove all product from the foliage and into areas where the immature insects are located.

Systems Connected to Public Water Systems:

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

#### **PRODUCT INFORMATION**

Use **FULCRUM** to control whiteflies, scale, shore flies and fungus gnats on/around shrubs, ornamental plants, flowering plants, foliage plants, ground covers, ornamental trees, and non-bearing fruits, tree nuts and vines. **FULCRUM** is both a

contact and ingestion pesticide. While **FULCRUM** does not control adult insects, it negatively affects development of viable eggs. **FULCRUM** controls eggs, nymphs/larvae and pupae by inhibiting their growth. Since the activity of this insecticide depends on the insect's growth and development, control may appear slower than with other contact insecticides, especially when treating later insect growth stages.

**FULCRUM** also penetrates the leaf surface of several ornamental plants. It is, therefore, active to the insect when feeding on plant tissue. While adequate coverage is always required, **FULCRUM** provides effective control in instances when complete coverage of underside of leaves has not been achieved.

#### RESISTANCE MANAGEMENT

For resistance management purposes, **FULCRUM** is a Group 7C insecticide. Any insect population may contain individuals naturally resistant to **FULCRUM** and other Group 7C insecticides. The resistant individuals dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **FULCRUM** or other Group 7C insecticides although local experts should be consulted for local resistance recommendations. The Group 7C classification scheme is based on the insect growth regulator (IGR) mode of action of pyriproxyfen. It is recognized that resistance of insects and mites to insecticides and acaricides can also result from enhanced metabolism, reduced penetration or behavioral changes that are not linked to any site of action classification but are specific for individual chemicals or chemical groupings. Despite this, alternation of compounds from different chemical classes remains a viable management technique.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticides from the same chemical subgroup.
- Integrate other control methods (chemical, cultural, biological) into insect control programs.
- Follow local, state, and Federal Integrated Pest Management (IPM) and Insecticide Resistance Management (IRM) recommendations.

For further information contact your local Pest Control Advisor (PCA).

#### PLANT TOLERANCE

The large number of existing ornamental varieties and cultivars coupled with the constant introduction of new varieties makes it impossible to field test **FULCRUM** in every location and under every condition where sold or in all of the combinations created by these differences. These differences include the soil or media type, pH, moisture or fertility, environmental conditions such as temperature, lighting or degree-days and horticultural practice and the manner of use and application of **FULCRUM**.

Make sure **FULCRUM** is compatible with the variety or cultivar under your specific conditions by testing it on a limited scale and observe for phytotoxicity for two weeks before making large scale applications.

#### MIXING INSTRUCTIONS

Mix only enough spray mixture that is needed for the application. Clean spray equipment prior to using product. Agitate mixture continually throughout mixing and application. Add in the following order:

1. ½ to ¾ required amount of water

- 2. Required amount of product
- 3. Remainder of water

Ensure complete dispersion prior to application. Rinse spray equipment with clean water after each use.

\* Determine the rate/100 gallons from rate table below. Follow the proper rate across the row to determine how much to add for mixtures less than 100 gallons.

Rates of FULCRUM (fl.oz.) per 100 gallons*									
Rate/100 gallons			,		,			e/5 ons	
fl oz	ml	fl oz	ml	fl oz	ml	fl oz	ml	fl oz	ml
2	59	1	30	0.5	15	0.2	6	0.1	3
3	89	1.5	44	0.75	22	0.3	9	0.15	5
4	118	2	59	1.0	30	0.4	12	0.2	6
5	148	2.5	74	1.25	37	0.5	15	0.25	8
6	177	3	89	1.5	44	0.6	18	0.3	9
8	237	4	118	2.0	59	0.8	24	0.4	12
10	296	5	148	2.5	74	1.0	30	0.5	15
12	355	6	177	3.0	89	1.2	36	0.6	18

#### **COMPATIBILITY**

**FULCRUM** can be used with most insecticides, fungicides and spray adjuvants. When tank mixed with **FULCRUM**, follow all precautions and restrictions on the label of the other product. When products are being used in a tank mixture for the first time, treat a small number of plants for 2 to 4 weeks and check for injury. If no injury is observed, proceed with planned applications.

#### **LOW VOLUME SYSTEMS**

**FULCRUM** has been shown to be effective for foliar applications when applied through Electrostatic Spraying Systems, Puls-Fog® Systems or other low volume systems. To calculate the amount of product to be applied, use the appropriate amount of product for the square footage to be treated with spray as listed. The amount of water is dependent on the amount needed for adequate coverage. Do not use low volume systems to control soil-inhabiting insects such as fungus gnats and shore flies.

# SHRUBS, ORNAMENTALS, FLOWERING PLANTS, FOLIAGE PLANTS, GROUND COVERS, ORNAMENTAL TREES, NON-BEARING FRUIT, NUT TREES, AND VINES

**NOTE:** Do not apply to Salvia (*Salvia* spp.), Ghost Plant (*Graptopetalum paraguayense*), Boston Fern (*Nephrolepsis exaltata*), Schefflera (*Schefflera* spp.), Gardenia (*Gardenia* spp.), and Coral Bells (*Heuchera sanguinea*) due to observed injury.

Application Method	Pests	Rates of FULCRUM (fl. oz./100 gallons)	Application Directions
	Aphids*	6 to 8	100 gallons of insecticide solution at this rate will treat 20,000 square feet of growing space.
	Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly		Begin applications when adult insects are first observed. Make a second application 14 to 28 days after the first application, if necessary. If additional insecticide applications are needed within 14 days after the second application, observe resistant management practices by using another insecticide with a different mode of action.
			Lower rates and longer spray intervals are used when insects are newly established or when plants are not rapidly growing. Higher rates and shorter application intervals are used when insects are well established and plants are rapidly growing.
			Make no more than 2 applications per cropping cycle or not more than 2 times in six months. If control of adult insects is needed, apply an appropriate insecticide.
	Black Scale	8 to 12	100 gallons of insecticide solution at this rate will treat 20,000 square feet.
	California Red Scale		Make applications to all plant surfaces to the point of runoff. For scale control, time applications to
Faller.	Euonymus Scale		coincide with the crawler stage of insect.
Foliar	Florida Wax Scale		
	Mealybugs*		
	San Jose Scale		
	Snow Scale		
	Spotted Tentiform Leafminer		
	Fungus Gnats	3 to 6	100 gallons of insecticide solution at this rate will treat 5,000 square feet.
	Shore Flies (Sprench)		<b>Potting Media:</b> Make applications as a heavy, coarse spray (sprench) through conventional spray equipment to all infested surfaces or where insects breed.
			<b>Soil Surface:</b> Apply 2 to 3 gallons of spray mixture per 100 square feet of area. Allow a minimum of 21 days, if a second application is needed.
			For optimum control, treat under benches or where insects tend to breed when treating plants. Ensure complete coverage, which is indicated by moist soil surfaces.

\* Suppression Continued

## SHRUBS, ORNAMENTALS, FLOWERING PLANTS, FOLIAGE PLANTS, GROUND COVERS, ORNAMENTAL TREES, NON-BEARING FRUIT, NUT TREES, AND VINES

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Pests	Rates of FULCRUM (fl. oz./100 gallons)	1				
Fungus Gnats	2	Saturate only the top 1" to 1.5" of soil.				
Shore Flies		Potting Media: Make applications as a heavy, coarse spray through conventional spray equipment to all infested surfaces or where insects breed.  Soil Surface (Individual Containers): Apply 3 fluid ounces of mixture per 6" pot. See the Drench Mixing Chart below to adjust volume to the pot size. Do not saturate potting media with drench solutions. Make only one drench application per crop cycle.  For optimum control, treat under benches or where insects tend to breed when treating plants. Er sure complete coverage, which is indicated by moist soil surfaces.				
		Drench Mixing Chart				
		Pot Diameter (inches)	Drench Volume (fl oz/pot)	Rate/100 Gallons (fl oz)		
		4	1	2		
		5	2	2		
		6	3	2		
		8	5	2		
		10 7		2		
		12 10 2				
		Injury to certain poinsettia varie Jingle Bells) has been observed observed on plants exposed to I to dry out following application was unaffected after plants were shipment. To minimize the risk • Do not saturate the potting saturate the top 1" to 1. 2 oz of FULCRUM/100 g • Ensure that soil media rem tures during and following a plants and, if necessary, mo	following drench applications. It high air temperatures and on plar Malformation of affected leaves hydrated. Malformed leaves we of leaf malformations with drench media with drench solution. Ap 5" of media (3 oz solution/6" lallons of water.  ains uniformly moist and avoid application. If leaf malformation if ove these plants to an area of the poinsettia plants more than one time.	Leaf malformations are commonly into whose soil media was allowed is was permanent, but new growth are generally not evident at time of in applications:  Loply only enough solution to pot). Do not mix more than exposing plants to high temperas noted, thoroughly water affected greenhouse with higher humidity.		
	Fungus Gnats	Pests(fl. oz./100 gallons)Fungus Gnats2	Fungus Gnats Shore Flies  2 Saturate only the top 1" to 1.5" Potting Media: Make applications ment to all infested surfaces or with the solutions. Make only on For optimum control, treat under sure complete coverage, which Drench Mixing Chart  Pot Diameter (inches)  4  5  6  8  10  12  Poinsettia Applications Injury to certain poinsettia varie Jingle Bells) has been observed observed on plants exposed to to dry out following application was unaffected after plants were shipment. To minimize the risk  Do not saturate the top 1" to 1.2 oz of FULCRUM/100 g  Ensure that soil media rem tures during and following applants and, if necessary, me Do not drench individual Potential states and the post of the post of the post of the plants and the potting applants and, if necessary, me Do not drench individual Potential states and the post of th	Fungus Gnats Shore Flies  2 Saturate only the top 1" to 1.5" of soil.  Potting Media: Make applications as a heavy, coarse spray the ment to all infested surfaces or where insects breed.  Soil Surface (Individual Containers): Apply 3 fluid ounce Drench Mixing Chart below to adjust volume to the pot size. Double drench solutions. Make only one drench application per crop cy For optimum control, treat under benches or where insects tend to sure complete coverage, which is indicated by moist soil surface.  Drench Mixing Chart  Pot Diameter (inches) Drench Volume (fl oz/pot)  4 1 5 2 6 3 8 5 10 7 11 10 7		

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container in a dry, temperature-controlled, secure place.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of **FULCRUM** may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

## CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using **FULCRUM**. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded

The Directions for Use of **FULCRUM** must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of **FULCRUM**. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of OHP, Inc. or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold OHP, Inc. and Seller harmless for any claims relating to such factors.

OHP, Inc. warrants that **FULCRUM** conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions un-

der normal use conditions. This warranty does not extend to the use of **FULCRUM** contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or OHP, Inc., and Buyer and User assume the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, OHP, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.** 

To the extent consistent with applicable law, neither OHP, Inc. or Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of **FULCRUM**. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE** 

EXCLUSIVE LIABILITY OF OHP, INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF FULCRUM, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF OHP, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.

OHP, Inc. and Seller offer **FULCRUM**, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of OHP, Inc.

Fulcrum is a registered trademark of OHP, Inc.

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