

	United States <b>Environmental Protection Agency</b> Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number  265251
	<b>Application for Pesticide - Section I</b>		

1. Company/Product Number <p style="text-align: center;">239-2406</p>	2. EPA Product Manager <p style="text-align: center;">Tina Levine</p>	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) ORTHENE Systemic Insect Spray	PM# <p style="text-align: center;">04</p>	
5. Name and Address of Applicant (Include ZIP Code) <b>The SOLARIS Group of Monsanto</b> P. O. Box 5006 San Ramon, CA 94583-0906 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____  Product Name _____

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>NOTIFICATION</b>  <b>JUN 26 1998</b> </div>
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.	
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.	

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

**Notification:** Add "Mole Cricket Control" claim, change reentry icon, & add new emergency telephone number and web site. Also capture Notifications of 5/30/96 and 9/16/96. This Notification is in compliance with 95-2.

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted		If "Yes" Unit Packaging wgt.    No. per container	If "Yes" Package wgt    No. per container		
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/>	
6. Manner in Which Label is Affixed to Product: <input type="checkbox"/> Lithograph <input type="checkbox"/> Other _____ <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled					

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name <p style="text-align: center;">Frank Kamienski</p>	Title <p style="text-align: center;">Registration Specialist</p>	Telephone No. (Include Area Code) <p style="text-align: center;">510/355-3335</p>
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received  <div style="border: 1px solid black; padding: 5px; text-align: center;">           (Stamp)         </div>
2. Signature 		
3. Title <p style="text-align: center;">Registration Specialist</p>		
4. Typed Name <p style="text-align: center;">Frank Kamienski</p>		5. Date <p style="text-align: center;">June 17, 1998</p>

**JUN 26 1998**

*Text for Various Sizes [1 lb, 12 oz; 1 lb, 4 oz; 1 lb; 8 oz; 1 oz; and 1/2 oz]*

**ORTHO®**

**ORTHENE® Systemic Insect Spray, EPA Reg. No. 239-2406**

*[ABN: Ant-Stop Orthene Fire Ant Killer]*

*[ABN: ORTHENE Fire Ant Killer]*

*[For one pound size package with dry treatment printed use instruction only]* Treats up to 108 mounds.

*[For one pound size package with dry and drench printed use instructions]* Treats up to 108 mounds as a dry treatment.

**NOTE: THIS PACKAGE IS SOLD BY WEIGHT. CONTENTS MAY HAVE SETTLED DURING SHIPMENT.**

**Premeasured Water Soluble Package**

**Contains Acephate**

**CONTROLS:** Aphids, Armyworms, Bagworms, Budworms, Cankerworms, Cuban Laurel Thrips, Flower Thrips, Gypsy Moth, Lace Bugs, Leaf Beetles, Leafhoppers, Leaf Miners, Leafrollers, Leaf tiers, Loopers, Mealybugs, [6/17/98] Mole Crickets, Pine Tip Moth, Sawfiles, Spittlebugs, Scale (crawlers), Spider Mites, Tent Caterpillars, Webworms, Whitefly, and other listed leaf eating caterpillars and worms.

**ON:** Ornamentals, Trees, Shrubs and Flowers around the home.

[5/30/96]: Concentrate

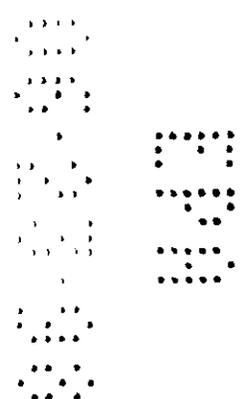
[6/17/98] Mole Cricket Control

- 
- **READY-TO-USE**
- Treats up to 189 Fire Ant Mounds as a dry powder [1 lb, 12 oz size]
- Treats up to 135 Fire Ant Mounds as a dry powder [1 lb, 4 oz size]
- Treats up to 108 Fire Ant Mounds as a dry powder [1 lb size]
- Treats up to 54 Fire Ant Mounds as a dry powder [8 oz size]
- Treats up to 6 Fire Ant Mounds as a dry powder [1 oz size]
- Treats up to 3 Fire Ant Mounds as a dry powder [1/2 oz size]
- Quick Kill of Fire Ants
- Destroys Entire Colonies Within 3 to 7 days

1. Kills Imported Fire Ants Effectively.
2. Ready-to-use in home Lawns & Other Recreational Areas around the home.
3. Kills Fire Ant Workers Within Hours
4. **NO NEED TO WATER IN.**

Active Ingredient

By Wt.



3 of 11

Acephate ( <del>O,S</del> -dimethyl acetylphosphoramidothioate)	.....	75%
Other Inert Ingredients	.....	25%

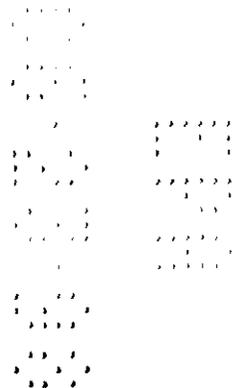
ORTHENE®, Acephate U.S. Pat. Nos. 3,716,600 & 3,914,417.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

See side panel for additional precautionary statements.

For home use only

NET WEIGHT \_\_\_\_\_



4 7 11

**DIRECTIONS FOR USE:** It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH LABEL PRECAUTIONARY STATEMENTS AND DIRECTIONS.**

tsp = teaspoon

Tbs = Tablespoon

ORTHENE Systemic Insect Spray effectively controls many of the insects that attack trees, shrubs and flowers around the home. ORTHENE Systemic Insect Spray controls insects on contact and remains effective for an extended period of time because it is systemically absorbed by plants.

**DIRECTIONS**

[9/16/96]: Point bottle away from face when breaking seal.

Mix thoroughly and spray entire plant covering both sides of foliage thoroughly. For specific directions refer to table below. May be applied with a teaspoon measure for dry powder or a sprinkling can as a drench for treating fire ant mounds. Use a hose-end sprayer (such as an ORTHO SPRAY-ETTE® 4 or an ORTHO All-Purpose Sprayer), or tank-type sprayer for spraying home lawns and controlling other listed insects.

**COMBINATION SPRAY WITH FUNGICIDE OR FERTILIZER ON ROSES**

ORTHENE Systemic Insect Spray may be used together with ORTHO FUNGINEX® Rose Disease Control, or ORTHOCIDE (captan) Garden Fungicide, or ORTHO Rose & Flower Food 8-12-4 (liquid) at the rates recommended on each product label. Apply fungicides on a regular schedule for disease control; add ORTHENE Systemic Insect Spray only when necessary for insect control. Do not apply more than two consecutive applications of ORTHENE Systemic Insect Spray in combination with any of the above fungicides.

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**Rate to Apply:** Apply 1 packet (1½ level Tbs or 9 grams) to 3 gals water. Spray as aphids appear. Repeat if reinfestation occurs.

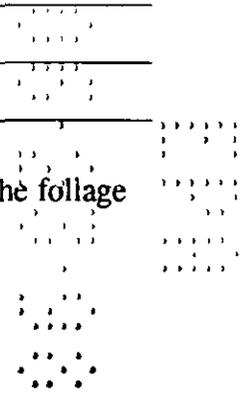
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Pest	Plants
<b>Aphids</b>	Rose, Aster, Azalea, Calendula, Carnation, Chrysanthemum, Impatiens, Pansy, Snapdragon, Boxwood, Euonymus, Hibiscus, Pyracantha, Spirea, Arborvitae, Ash, Beech, Birch, Flowering Plum, Flowering Quince, Linden, Oak, Ornamental Pear, Sycamore, Viburnum, Willow, Flowering Almond, Fir, Ivy, Photinia, Maple, Periwinkle, Pittosporum

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**Rate to Apply:** Apply 1 packet (1½ level Tbs or 9 grams) to 2 gals water. Spray when

insects are present or feeding injury is first noticed. Repeat if reinfestation occurs.	
<b>Armyworms</b> (Southern, Fall, East, Yellow-Striped)	Crapemyrtle, Chinese Elm, Aster, Calendula, Rose, Petunia, Dahlia, Snapdragon
<b>Bagworm</b>	Arborvitae, Cedar, Juniper, Cypress, Pine, Maple, Sycamore, Locust, Boxelder, Linden, Willow
<b>Bandworms</b> (Tobacco and Calendula)	Geranium, Ageratum, Snapdragon, Calendula
<b>Cankerworms</b> (Spring and Fall)	Maple, Oak, Linden, Birch, Hickory Beech, Hawthorn, Cockspur Thorn, Silver Maple
<b>Cuban Laurel Thrips</b>	Cuban Laurel (Ficus)
<b>Fall Webworm</b>	Ash, Alder, Boxelder, Birch, Hickory, Linden, Poplar, Sycamore, Oak, Willow, Eastern Redbud
<b>Gladiolus Thrips</b>	Gladiolus
<b>Gypsy Moth</b>	Birch, Hawthorn, Oak, Poplar, Willow, Black Gum, Hickory, Maple, Sassafras, Hemlock, Cedar, Spruce, Pine
<b>Honeylocust Pod Gall Midge</b>	Honeylocust
<b>Lace Bugs</b>	Azalea, Pyracantha, Sycamore, Zinnia, Oak, Ash
<b>Leafhopper</b> (Potato)	Calendula, Dahlia
<b>Leafbeetles</b> (Elm, Willow)	Elm (Chinese or Siberian), Willow
<b>Leafminers</b>	Birch, Holly, Locust, Columbine, Spruce, Alder, Oak Yaupon, Zinnia
<b>Leafrollers</b> (Oblique-banded and Omnivorous)	Sycamore, Oak, Sweet Gum, Hickory, Boxelder, Locust, Holly, Staghorn Sumac, Flowering Cherry, Rose, Begonia, Oleander, Carnation
<b>Leaf tiers</b> (Cherry Laurel, Sycamore and Sweet Gum)	Cherry Laurel, Sycamore, Sweet Gum
<b>Loopers</b> (Barberry, Omnivorous, Cabbage)	Mahonia, Gerbera, Chrysanthemum, Kalanchoe, Petunias, Ornamental Cabbage
<b>Maple Shoot Moth</b>	Maple
<b>Mimosa Webworm</b>	Mimosa, Honeylocust
<b>Nantucket Pine Tip Moth</b>	Pine
<b>Obscure Root Weevil</b> (Adults)	Rhododendrons, Azaleas, Viburnum, Roses <b>Special Directions:</b> Apply full coverage spray to the foliage



	in late spring, as soon as feeding damage is noticed (usually about May). Repeat every 4 weeks through September. (Mid-July through August are the peak feeding times.)
<b>Plant Bug (Ash)</b>	Ash
<b>Planthopper (Viburnum)</b>	Viburnum
<b>Psyllids</b>	Yaupon, Holly, Hackberry, Acacia, Laurel, Willow
<b>Sawflies (Dusky Birch, Brownheaded Ash, Willow, Redheaded Pine, Pine, European Pine, Nesting Pine, Rose Stem)</b>	Birch, Ash, Willow, Poplar, Pine, Rose
<b>Spittlebug</b>	Rose, Chrysanthemum, Juniper, Euryops
<b>Tent Caterpillars (Eastern, Western and Forest)</b>	Maple, Oak, Poplar, Ash, Birch, Hawthorn, Flowering Cherry, Black Cherry, Willow, Choke Cherry, Oak, Black Gum, Alder
<b>Tentmaker (Poplar)</b>	Poplar, Willow
<b>Tussock Moth</b>	Pine, Holly, Fir, Hickory, Maple, Beech, Ash, Birch, Poplar, Willow, Boxelder, Wild Cherry, Oak, Elm (Chinese or Siberian), Sycamore
<b>Catalpa Sphinx Moth</b>	Catalpa
<b>Cypress Tip Moth</b>	Juniper, Cypress
<b>Juvenile Dusky Wing Moth</b>	Oak
<b>Pine Tube Moth</b>	Pine
<b>Saddled Prominent Moth</b>	Rose, Beech, Maple, Oak, Poplar, Spirea
<b>Sunflower Moth</b>	Marigolds
<b>Ash Hornworm</b>	Ash
<b>Rosy Maple Moth</b>	Maple
<b>Oleander Caterpillar</b>	Oleander
<b>Yellownecked Caterpillar</b>	Oak, birch, Pyracantha, Beech, Hickory, Linden
<b>Walnut Caterpillar</b>	Hickory, Beech, Honeylocust, Sumac, Willow
<b>Spiny Elm Caterpillar</b>	Elm (Chinese), Poplar, Willow
<b>Variable Oak Leaf Caterpillar</b>	Oak, Birch, Hawthorn

<b>Oak Webworm</b>	Oak
<b>Orangestriped Oakworm</b>	Oak
<b>Casebearers</b>	Slippery Elm, Sycamore
<b>California Oakworm</b>	Oak
<b>Redhumped Caterpillar</b>	Birch, Flowering Plum, Locust, Poplar, Sweet Gum, Willow
<b>Rose Midge</b>	Rose

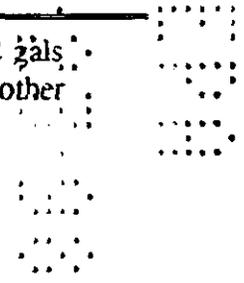
**When to Use:** Apply 1 packet (1½ Tbs or 9 grams) per 2 gals water. Spray 2 to 3 times about 7 to 10 days apart to control the following hard-to-kill pests. Additional sprays may be needed if plants become reinfested.

<b>Pest</b>	<b>Plant</b>
<b>Flower Thrips</b>	Rose, Daisy, Carnation, Gladiolus, Chrysanthemum, Snapdragon, Daylily, Alyssum, Aster, Dianthus, Celosia, Ageratum, Vinca, Zinnia, Hollyhock, Gardenia, Salvia, Petunia, Marigold, Calendula, Oleander
<b>Mealybugs</b>	Gardenia, Coleus, Yew (Taxus), Dieffenbachia, Croton, Azalea, Poinsettia, Oleander, Begonia, Gardenia, Camellia, Chrysanthemum, Ivy, Orchid, Fern
<b>Whitefly</b>	Gardenia, Poinsettia, Lantana, Azalea, Ageratum, Fuchsia, Gaillardia, Salvia, Zinnia, Privet, Camellia, Viburnum

For the following hard-to-control pests: Apply 1 packet (1½ Tbs or 9 grams) per 1½ gals water. Spray 2 to 3 times about 7 to 10 days apart. For best results apply at first sign of infestations. Additional sprays may be needed if plants become reinfested.

<b>Pest</b>	<b>Plants</b>
<b>Scale (crawlers) (Japanese Wax, Tea, Cottony Cushion, Pine Tortoise, Hemlock, Pine Needle, Black Hemispherical, Kuno)</b>	Holly, Euonymus, Azalea, Camellia, Gardenia, Elm, (Chinese), Bottlebrush, Dogwood, Chinese Holly, Orchid, Yaupon, Oak, Magnolia, Pine, Poinsettia, Rose, Willow, Boxwood, Chrysanthemum, Cypress, Hibiscus, Hackberry, Geranium, Sweet Gum, Hemlock, Fir, Croton, Palm, Shrimp Plant, Beech, Oleander, Laurel, Pyracantha
<b>Twospotted Mites</b>	Rose, Marigold, Daylily, Chrysanthemum, Dahlia, Phlox, Viburnum
<b>Spider Mites</b>	Holly, Yaupon, Pine, Juniper, Bottlebrush, Cypress, Arborvitae, Honeylocust, Fir, Hemlock, Spruce, Camellia, Azalea, Oak, Rose

For the following hard-to-control pest: Apply 1 packet (1½ Tbs or 9 grams) per 2 gals water. Apply with ORTHO Lawn & Garden Sprayer, ORTHO SPRAY-ETTE or other



suitable equipment. Thoroughly spray foliage and soil beneath plants. Begin applications in mid-June and make 3 more applications at 3-week intervals.

PEST	PLANTS
Black Vine Weevil	Azalea, Rhododendron, Yew (Taxus sp.)

Gives quick knockdown and kills fire ant workers within hours. Colonies are destroyed within 3 to 7 days. Fire ant workers track and powder deep into the mound where it also kills the queens, destroying the mound.

**IMPORTED FIRE ANTS, Red Harvester Ants and Pavement Ants** in home lawns and around ornamental plantings.

**Dry Treatment:**

Sprinkle 2 tsp dry powder over each mound. **NO NEED TO WATER IN.** Treat new mounds as they appear. For best results, apply when ants are active. Applications during prolonged hot or dry conditions may be less effective. Try not to disturb mounds while treating. Do not apply during a heavy dew or just before a rain. Repeat treatment if ants reappear.

**Drench Treatment:**

Mix 1 Tbs per 1 gal of water. Use a sprinkling can and gently apply one gal of solution over each mound. One pound will treat approximately 80 medium-sized mounds (1 to 2 ft in diameter).

**Fall Armyworm, Leafhoppers, Sod Webworms, Greenbug, Mole Crickets on Home Lawns:** Use a hose-end or tank-type sprayer.

Spray when insects are present or damage is first noticed. Apply 6 gals of spray per 1000 sq ft. Repeat if reinfestation occurs.

PEST	Tbs To Apply Per 2 gals of water	Tbs To Apply Per 6 gals of water
Greenbug, Fall Armyworm, Leafhoppers, Sod Webworms	1 1/2 Tbs	4 1/2 Tbs
Mole Crickets	3 Tbs	9 Tbs

**NOTE:** Keep children and domestic animals off treated areas until these areas are completely

dry. NOTE: Do not allow livestock to graze in treated areas. Do not feed treated grass to livestock.

Keep children and domestic animals off treated areas until these areas are completely dry.

**NOTE:** Apply this product only as specified on this label. Do not apply to American Elm, Flowering Crabapple, Sugar Maple and Cottonwood, as foliage injury may occur. Clean sprayer after use by flushing with water, do not use household bleach as a cleaning agent.

**STORAGE AND DISPOSAL**

**STORAGE:** Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Avoid contamination of feed and foodstuffs. Store in a cool, dry place, preferably in a locked storage area. Do not store diluted spray.

**DISPOSAL: PRODUCT** - Partially filled canister may be disposed of by securely wrapping original container in several layers of newspaper and discard in trash. **CONTAINER** - Do not reuse canister. Discard canister in trash.

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**CAUTION:** Harmful if swallowed. Causes eye irritation. Avoid contact with eyes, skin and clothing. Avoid breathing dust or spray mist. When handling this product, wear chemical resistant gloves, long pants, and long sleeved shirt. When using outdoors, spray with the wind to your back and do not use when wind speeds are 10 mph or more. Wash the outside of the gloves with soap and water before removing. Do not allow children or pets to come into contact with treated surfaces until sprays have dried.

**FIRST AID:** If swallowed, give a large amount of water to drink. make person vomit and call a doctor. In case of eye contact, wash eyes with fresh water for 15 minutes. If irritation continues, see a doctor.

**Note to Physicians:** Emergency Information call 1-800-454-2333.

Acephate is a cholinesterase inhibitor. Atropine is antidotal. 2-PAM is also antidotal and may be used in conjunction with atropine but should not be used alone.

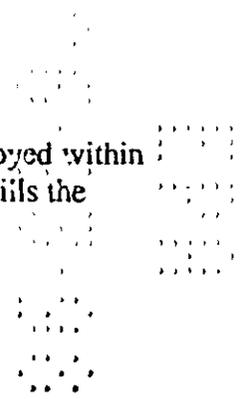
**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to birds. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of wastes. Cover or soil-incorporate spills.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting treatment area.

**[.5 OZ AND 1 OZ SIZES ONLY]**

Gives quick knockdown and kills fire ant workers within hours. Colonies are destroyed within 3 to 7 days. Fire ant workers track the powder deep into the mound where it also kills the queens, destroying the mound.



**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. **READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH LABEL PRECAUTIONARY STATEMENTS AND DIRECTIONS.**

tsp = teaspoon

**IMPORTED FIRE ANTS, Red Harvester Ants and Pavement Ants** in home lawns and around ornamental plantings. Sprinkle 2 tsp dry powder over each mound. **NO NEED TO WATER IN.** Treat new mounds as they appear. For best results, apply when ants are active. Applications during prolonged hot or dry conditions may be less effective. Try not to disturb mounds while treating. Do not apply during a heavy dew or just before a rain. Repeat treatment if ants reappear.

**STORAGE AND DISPOSAL**

**STORAGE:** Once this packet is open, use all of the product as directed. Do not attempt to reseal for future use. Store in a cool, dry place, preferably in a locked storage area.

**DISPOSAL: PRODUCT** - Empty or partially filled packet may be disposed of by securely wrapping original container in several layers of newspaper and discard in trash.

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**CAUTION:** Harmful if swallowed. Causes eye irritation. Avoid contact with eyes, skin and clothing. Avoid breathing dust. When handling this product, wear chemical resistant gloves, long pants, and long sleeved shirt. Wash the outside of the gloves with soap and water before removing.

[*Reentr:child/dog icon*] Do not allow children or pets to come into contact with treated surfaces.

**FIRST AID:** If swallowed, give a large amount of water to drink, make person vomit and call a doctor. In case of eye contact, wash eyes with fresh water for 15 minutes. If irritation continues, see a doctor. **Note to Physicians:** Emergency Information call 1-800-454-2333. Acephaz is a cholinesterase inhibitor. Atropine is antidotal. 2-PAM is also antidotal and may be used in conjunction with atropine but should not be used alone. **ENVIRONMENTAL**

**HAZARDS:** This pesticide is toxic to birds. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of wastes. Cover or soil-incorporate spills. This product is highly toxic to bees.

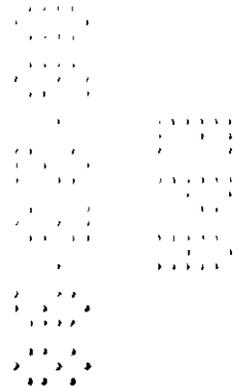
**NOTE:** This package is sold by weight. Contents may have settled during shipment.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

[telephone icon] **Medical Information call 1-800-454-2333**  
**Product Information call 1-800-225-2883**

[or]  
= **Questions, Comments or Medical Information?**  
**call 1-800-225-2883    [www.ortho.com](http://www.ortho.com)**

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Manufactured for  
**The SOLARIS Group of**  
Monsanto Company  
P.O. Box 5008  
San Ramon, CA 94583-0808  
Product 5153  
Form ~~RS8454-U~~  
EPA Reg. No. 239-2406  
EPA Est. 239-IA-3<sup>1</sup>, 58996-MO-1<sup>A</sup>, 33967-NJ-1  
Superscript is first letter of lot number  
Made in USA