

# FLORAMITE® SC

GROUP un ACARICIDE

## ORNAMENTAL MITICIDE SPECIMEN LABEL

**ACTIVE INGREDIENT: (% by weight)**

Bifenazate: Hydrazine carboxylic acid, 2-(4-methoxy-[1,1-biphenyl]-3-yl) 1-methylethyl ester . . . . . 22.6%

**OTHER INGREDIENTS:** . . . . . 77.4%

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

Contains 2 lbs. bifenazate per gallon.

EPA Reg. No. 400-508-59807

**(BO)** EPA Est. No. 37429-GA-2

**(BT)** EPA Est. No. 37429-GA-1

**(CJ)** EPA Est. No. 70815-GA-001

The EPA Establishment Number is identified by the circled letters above that match the letters in the batch number.

### KEEP OUT OF REACH OF CHILDREN

## CAUTION

FIRST AID	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call 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 the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</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 may also call the following telephone numbers for emergency medical treatment	
<b>MEDICAL (24 hours a day) AND PRODUCT INFORMATION</b> 800-356-4647	
<b>TRANSPORTATION EMERGENCY (24 hours a day)</b> (CHEMTREC) 800-424-9300	

### Personal Protective Equipment

#### Applicators and Other Handlers Must Wear:

- Long-sleeved shirt and long pants; shoes plus socks.

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

User Safety Recommendations
Users should: <ul style="list-style-type: none"> <li>• Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.</li> <li>• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing</li> </ul>

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds, estuarine/marine invertebrates, and fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.

### PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### CAUTION

Harmful if swallowed. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Wash thoroughly with soap and water after handling.

### 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 through any type of irrigation system.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Net Contents: 1 Quart (946 mL)



### 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), notification to workers and restricted-entry intervals. 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 (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
- shoes plus socks
- chemical-resistant gloves made of any waterproof material

### 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.

## USE INFORMATION

**FLORAMITE SC** is a selective miticide for the control of a variety of mite pests on the following plants:

- All ornamental plants, including bedding plants, flowering plants, foliage plants, bulb crops, perennials, trees and shrubs.
- All non-bearing fruit trees which will not bear fruit for a minimum of 12 months.
- Greenhouse tomatoes.

Except for applications to tomatoes, which is restricted to use in greenhouses only, **FLORAMITE SC** can be used in the following areas where these plants are grown and/or maintained in containers or in the ground:

- Greenhouses and shadehouses
- Nurseries, including Christmas tree/conifer plantations
- Landscapes
- Interiorscapes
- Residences
- Public, commercial, industrial and institutional areas
- Recreational sites, such as campgrounds, golf courses, parks and athletic fields
- Rights of way and other easements

When used as directed and applied to the foliage, **FLORAMITE SC** provides quick knockdown through contact activity, and long residual control. Due to its carbazate chemistry, mode of action and selective nature, **FLORAMITE SC** is relatively inactive against beneficial / predacious mites and insects, and **FLORAMITE SC** therefore is compatible with IPM and resistance management programs.

**FLORAMITE SC** is not systemic in action; therefore complete coverage of both upper and lower leaf surfaces and of fruit is necessary for effective control.

## MIXING INSTRUCTIONS

Fill the spray tank with 1/2 the desired amount of water. Then add the required amount of **FLORAMITE SC** with agitation running to fully disperse the product. Then fill the tank with the remaining amount of required water.

Like many pesticides, **FLORAMITE SC** stability can be impacted by high pH and high temperature. For optimum performance, maintain spray mixtures containing **FLORAMITE SC** within a range of pH 5.5 to 6.5.

**Compatibility:** To obtain broad spectrum insect control, **FLORAMITE SC** can be tank-mixed with other insecticide products. However, due to variations in water quality, e.g., hardness and pH, it is required that users conduct small scale trials under local conditions to ensure compatibility prior to any large scale use.

**Restrictions:** Tank mixtures are permitted only in those states where the tank mix partner is registered. When tank mixing, follow the label directions for the most restrictive of label precautions and limitations.

## USE RATES AND APPLICATION INFORMATION

Mix 4 to 8 fluid ozs. **FLORAMITE SC** in 100 gals. of water (1/4 - 1/2 tsp./gal) and apply as a full coverage spray to the foliage using a volume of 1-4 qts. of final solution per 100 sq.ft. (or 100 - 400 gals. per acre). Actual spray volume will vary depending on the size of plants being treated. Application should be made as soon as mites appear and will provide residual control for up to 28 days. Use the low rate for preventative applications or where mite infestations are light. The higher rate may be required for heavy infestations or for extended residual control. For optimum coverage of ornamentals with hard to wet foliage, an adjuvant can be added to the **FLORAMITE SC**/water solution. Those found to be effective are Silwet 77® or Sylgard 309® at 4 oz. per 100 gallons of water. Users should test safety and compatibility of all adjuvants prior to commercial use. Do not use adjuvants in solutions applied to greenhouse tomatoes.

When used as a directed, **FLORAMITE SC** is effective for the control of a variety of mites species, especially spider mites, red mites and grass mites. NOTE: It is not effective against rust mites, broad mites and flat mites. **FLORAMITE SC** is primarily active on the motile stages of mites, but also has ovicidal activity against spider mites (*Tetranychus* species). Common mite species controlled by **FLORAMITE SC** include:

COMMON NAME	SCIENTIFIC NAME
Two spotted spider mite	<i>Tetranychus urticae</i> (Koch)
Pacific mite	<i>Tetranychus pacificus</i> (McGregor)
Strawberry mite	<i>Tetranychus turkestanii</i>
European red mite	<i>Panonychus ulmi</i> (Koch)
Citrus red mite	<i>Panonychus citri</i> (McGregor)
Clover mite	<i>Bryobia praetiosa</i> (Koch)
Southern red mite	<i>Oligonychus ilicis</i> (McGregor)
Spruce spider mite	<i>Oligonychus ununguis</i> (Jacobi)
Bamboo spider mite	<i>Schizotetranychus celarius</i> (Banks)
Lewis mite	<i>Eotetranychus lewisii</i>

## RESTRICTIONS:

For greenhouse tomatoes, do not apply within 3 days of harvest.

Do not make more than two (2) applications of **FLORAMITE SC** per crop per year.

Do not apply more than 32 fluid ozs. per acre, per year.

Apply **FLORAMITE SC** by ground equipment such as, but not limited to, compressed air sprayers, hydraulic sprayers, ground boom sprayers, air blast sprayers, hose-end sprayers. Do not apply by aerial application.

## STRATEGIES FOR RESISTANCE MANAGEMENT

**FLORAMITE SC**, when used as directed, combines high activity on mites with selectivity to beneficial / predacious mites and insects. In addition, the carbazate chemistry of **FLORAMITE SC** provides a means of controlling mites which have developed resistance to more commonly used products. These properties can result in fewer miticide/insecticide applications as well as general reduction in the problems caused by resistance.

**FLORAMITE SC** has demonstrated no cross resistance with other commercial miticides. **FLORAMITE SC** contains an active ingredient classified as a Group un acaricide. **FLORAMITE SC** is suitable to be used as a rotational partner with other miticides.

To reduce selection pressure which can lead to the development of resistance, **FLORAMITE SC** should be used in moderation. To help achieve this, the following strategies are recommended:

- Incorporate IPM techniques into your insect control program.
- Ensure thorough spray coverage to all foliage.
- Scout regularly and apply **FLORAMITE SC** as soon as infestations are observed. Do not wait until large populations have established.
- Always apply **FLORAMITE SC** at the required rates and according to label information.
- Apply only one application of **FLORAMITE SC** before rotating to products of an alternative chemical class.
- Use at least two alternative products between treatments of **FLORAMITE SC**.
- Use **FLORAMITE SC** in conjunction with biological control organisms available for mite control. **FLORAMITE SC** when used as directed, does not adversely affect populations of beneficial/predacious mites and insects, including:

Predatory Mites	Beneficial Insects
<i>Phytoseiulus persimilis</i>	<i>Chrysoperla carnea</i> (common green lacewing)
<i>Neoseiulus spp.</i>	<i>Aphidius colemani</i>
<i>Typhlodromus spp.</i>	<i>Aphidoletes aphidomyza</i>
<i>Amblyseius spp.</i>	<i>Orius insidiosus</i> (insidious pirate bug)
<i>Zetzellia mali</i>	<i>Coccinella septempunctata</i>
<i>Iphiseius degenerans</i>	<i>Hippodamia convergens</i>
	<i>Stethorus punctum</i>
	<i>Diglyphus isaea</i>
	<i>Eretmocerus eremicus</i>
	<i>Cotesia marginiventris</i>

The use of these organisms in conjunction or alternation with **FLORAMITE SC** is encouraged as a means of reducing the number of chemical applications.

Manufactured for:  
OHP, Inc.  
P. O. Box 230  
Mainland, PA 19451  
(800) 356-4647  
ESL111708 REV060811  
OHP982718

## PLANT TOLERANCE

Neither the manufacturer nor the seller has determined whether or not **FLORAMITE SC** can be used safely on all ornamental plants. **FLORAMITE SC** has been tested on a variety of ornamental plants with no phytotoxicity observed at label rates. However, all plant species and their varieties and cultivars have not been tested with possible tank mix combinations, sequential pesticide treatments and adjuvants and surfactants. Therefore, prior to any large scale application to ornamental plants, the user should determine the safety of **FLORAMITE SC** by testing a small number of the plant cultivar to be treated at the recommended rates to ensure that phytotoxic response will not occur. The end user assumes all risks arising out of application in a manner inconsistent with its labeling.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a dry location.

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

**CONTAINER DISPOSAL:**

**Nonrefillable container. Do not reuse or refill this container.** Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows:

Empty the remaining contents into application equipment or mix tank and drain container for 10 seconds after the flow begins to drip. Fill the container 1/4 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 container for 10 seconds after the flow begins to drip. Repeat this procedure two more times. If pressure rinsing: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once triple rinsed, recycle if available. Some agricultural pesticide containers can be taken to a container collection site or picked up for recycling.

To find the nearest site, contact your chemical dealer or manufacturer, or Ag Container Recycling Council (ACRC) at 877-952-2272 or <http://www.acrecycle.org>. If recycling is not available, dispose of in a sanitary landfill or by incineration if allowed by state and local ordinances..

**IMPORTANT NOTICE** – Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions and instructions specified on the label under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and to the extent consistent with applicable law, the buyer assumes the risk of any such use.

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# MATERIAL SAFETY DATA SHEET

OHP, INC.  
P.O. BOX 230, MAINLAND, PA 19451  
800-659-6745

Revision Date: 01/10/2008  
Approval Date: 06/25/2007

TRANSPORTATION EMERGENCY (24 hours a day)  
CHEMTREC: .....(800)-424-9300

EMERGENCY (24 hours a day) AND PRODUCT INFORMATION  
OHP, Inc.: .....(800)-356-4647

## Floramite® SC

EPA Registration Number: 400-508-59807

### I. PRODUCT AND COMPANY IDENTIFICATION

Product name .....: FLORAMITE® SC  
Chemical name .....: Bifenazate  
Use of substance/preparation ..: Miticide

minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

#### Notes to physician

ROUTES OF ENTRY .....: Eyes, skin, ingestion, inhalation, mist.

### II. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**  
CAUTION!  
MAY CAUSE EYE IRRITATION.  
MAY CAUSE SKIN SENSITIZATION.

### V. FIRE-FIGHTING MEASURES

Flash point .....: > 219 °F

> 104 °C

Autoignition temperature .....: > 400 °C

#### Hazardous combustion

products .....: Irritating fumes.  
Oxides of carbon.  
Oxides of nitrogen.

#### Special fire fighting

procedures .....: Do not discharge extinguishing waters into streams, rivers and lakes.

#### Special protective equipment

for firefighters .....: Body covering protective clothing, full "turn-out" gear.  
Self-contained breathing apparatus.

#### Extinguishing media

##### Suitable

Large fires .....: alcohol-type foam or universal-type foams

Small fires .....: CO2  
dry chemical

Unsuitable .....: water jets

### III. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	CAS#	% BY WEIGHT
Bifenazate	149877-41-8	22.6

Ingredients not precisely identified are non-hazardous and/or proprietary.

### IV. FIRST AID MEASURES

**Swallowing** .....: 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.

**Inhalation** .....: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**Skin contact** .....: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**Eye contact** .....: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lens, if present, after the first 5

### VI. ACCIDENTAL RELEASE MEASURES

**Personal precautions** .....: Wear suitable protective equipment., Avoid contact with eyes and skin.

**Environmental precautions** ...: Prevent from entering sewer system, surface water or soil.

**Methods for cleaning up** .....: Observe government regulations.

**Small spills** .....: Absorb on inert material such as sand, earth, vermiculite.  
Collect for disposal.

# MATERIAL SAFETY DATA SHEET

## Floramite® SC

EPA Registration Number: 400-508-59807

**Large spills** .....: Dike to contain spill.  
Pump excess material into suitable container  
(metal drums, metal tank, or such).

### VII. HANDLING AND STORAGE

#### HANDLING

**Handling precautions** .....: Do not get in eyes., Avoid prolonged or repeated contact with skin., Avoid breathing vapor., Use with adequate ventilation., Wash thoroughly after handling.

**Other precautions** .....: NOTE TO END-USERS:  
The employee protection recommendations on this MSDS may differ from those on the product label. For normal use of this product, always refer to the personal protective equipment requirements on the product label.

#### STORAGE

**Storage requirements** .....: Store in a cool, dry place.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### EXPOSURE LIMIT VALUES

##### PERSONAL PROTECTION

**Respiratory protection** .....: In case of insufficient ventilation, wear suitable respiratory equipment., The determination of appropriate respiratory protection is best performed, on a case by case basis, taking into consideration the exposure conditions of the particular operation., The respirator manufacturer should be consulted to ensure that the air-purifying cartridges utilized will provide adequate protection for the exposure conditions and period of wear concerned.

**Hand protection / protective gloves** .....: Chemical resistant protective gloves

**Eye protection** .....: Safety glasses with side shields.

**Skin protection** .....: Wear protective clothing, such as long sleeves to minimize skin contact.

**Other protective equipment** ..: Eye bath, Safety shower

#### ENGINEERING CONTROLS

**Ventilation** .....: General (mechanical) room ventilation is expected to be satisfactory. Special, local ventilation is needed at points where vapors can be expected to escape to the workplace air.

### IX. PHYSICAL AND CHEMICAL PROPERTIES

#### APPEARANCE

**Physical state** .....: Liquid  
**Color** .....: Off-white to light tan  
**Odor** .....: Characteristic

#### OTHER PROPERTIES

**Boiling point** .....: Not available  
**pH** .....: 6.9  
Concentration: 10 g/l  
**Density** .....: 1.061 g/cm<sup>3</sup>  
**Solubility in water** .....: Dispersible  
**Solubility in organic solvents** .....: Miscible with organic solvents

**Evaporation rate (Butyl Acetate=1)** .....: Similar to water

**Flash point** .....: > 219 °F  
> 104 °C

**Autoignition temperature** .....: > 400 °C

**Dynamic viscosity** .....: 83 mPa.s

**Oxidizing properties** .....: Not applicable

**Surface tension** .....: 42.1 dyn/cm at 25 °C

**Explosive properties** .....: Not applicable

### X. STABILITY AND REACTIVITY

**Stability** .....: This product is stable under normal storage and handling conditions.

**Incompatible materials** .....: Oxidizing agents.

**Hazardous combustion products** .....: Irritating fumes.  
Oxides of carbon.  
Oxides of nitrogen.

**Hazardous polymerization** .....: Will not occur.

### 11. TOXICOLOGICAL INFORMATION

#### Component data

**Bifenazate** .....: Acute toxicity - Swallowing:  
LD50 - Rat  
Result: > 5,000 mg/kg

#### Component data

**Bifenazate** .....: Acute toxicity - Skin absorption:  
LD50 - Rat  
Result: > 5,000 mg/kg

# MATERIAL SAFETY DATA SHEET

## Floramite® SC

EPA Registration Number: 400-508-59807

### Component data

**Bifenazate** . . . . .: Acute toxicity - Inhalation:  
LC50 - Rat  
Result: > 4.4 mg/l  
Exposure time: 4 h

### Component data

**Bifenazate** . . . . .: Skin irritation -  
Skin contact:  
Species: Rabbit  
Exposure time: 4 h  
Classification: Not irritant

### Component data

**Bifenazate** . . . . .: Eye irritation - Eye contact:  
Species: Rabbit  
Classification: Not irritant

### Component data

**Bifenazate** . . . . .: Sensitization: Species:  
Guinea pigs  
Result: Positive

### MUTAGENICITY:

**Component (Bifenazate)** . . .: Negative

### CARCINOGENICITY

**Component (Bifenazate)** . . .: Negative

### TOXICITY TO REPRODUCTION/FERTILITY

**Component(Bifenazate)** . . .: Negative

## XII. ECOLOGICAL INFORMATION

### Component ecotoxicology

#### Bifenazate

**Acute toxicity fish** . . . . .: LC50 - Rainbow trout  
(Oncorhynchus mykiss)  
Result: 0.76 mg/l  
Exposure time: 96 h

### Component ecotoxicology

#### Bifenazate

**Acute toxicity fish** . . . . .: LC50 - Bluegill  
(Lepomis macrochirus)  
Result: 0.58 mg/l  
Exposure time: 96 h

### Component ecotoxicology

#### Bifenazate

**Aquatic toxicity to plants** . . .: EC50 - Selenastrum  
capricornutum  
Result: 0.89 mg/l

### Component ecotoxicology

#### Bifenazate

**Acute toxicity to aquatic invertebrates** . . . . .: LC50 - Water flea  
(Daphnia magna)  
Result: 0.5 mg/l  
Exposure time: 48 h

## XII. DISPOSAL CONSIDERATIONS

**General** . . . . .: Dispose of in accordance with appropriate Federal, State, and local regulations., Avoid discharge to sewers and natural waters.

## XIV. TRANSPORT INFORMATION

**DOT Classification** . . . . .: Not regulated if shipped or transported in containers less than 450 liters.

### IMDG Classification

**Proper shipping name** . . . . .: Environmentally hazardous substance, liquid, n.o.s.

**Class** . . . . .: 9

**Subsidiary risk** . . . . .: marine pollutant

**UN ID #** . . . . .: UN 3082

**Packing group** . . . . .: III

**Technical description** . . . . .: (Bifenazate)

### ICAO Classification

**Proper shipping name** . . . . .: Environmentally hazardous substance, liquid, n.o.s.

**Class** . . . . .: 9

**UN ID #** . . . . .: UN 3082

**Packing group** . . . . .: III

**Technical description** . . . . .: (Bifenazate)

Only regulated by air Into, Out of or Within the United States in containers 881.8 lbs (400 kg) or greater.

## XV. REGULATORY INFORMATION

Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of hazardous substances equal to or greater than the reportable quantities (RQ's) in 40CFR302.4.

Components present in this product at a level which could require reporting under the statute are:

\*\*\*\* NONE \*\*\*\*

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40CFR372 (for SARA 313). This information must be included in MSDS's that are copied and distributed for this material.

Components present in this product at a level which could require reporting under the statute are:

\*\*\*\* NONE \*\*\*\*

For New Jersey Worker and Community Right-To-Know Act (Labeling Requirements) information please contact the Product Safety and Regulatory Affairs Department of the Chemtura Corporation.

# MATERIAL SAFETY DATA SHEET

## Floramite® SC

EPA Registration Number: 400-508-59807

### EPA Hazard Categories

(SARA 311, 312) .....: Immediate Health Hazard

### California Proposition 65

\*\*\*\* NONE \*\*\*\*

### CHEMICAL INVENTORY

**Canada** .....: This product is exempt from the New Substances Notification Regulations under CEPA when used as a component in a registered pesticide formulation., PCP# 27924

**United States** .....: This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from TSCA Inventory listing requirements.

**Food contact** .....: Not applicable

Directions for Use of this product by end-users are contained on the product label and must be followed at all times.

**STP** .....: Standard temperature and pressure

**W/W** .....: Weight/Weight

**0 (HMIS)** .....: No hazard

**1 (HMIS)** .....: Slight hazard

**2 (HMIS)** .....: Moderate hazard

**3 (HMIS)** .....: Serious hazard

**4 (HMIS)** .....: Severe hazard

**X (HMIS)** .....: Personal protection rating to be supplied by user depending on use conditions

THE OPINIONS EXPRESSED HEREIN ARE THOSE OF QUALIFIED EXPERTS WITHIN OHP, Inc. WE BELIEVE THAT THE INFORMATION CONTAINED HEREIN IS CURRENT AS OF THE DATE OF THIS SAFETY DATA SHEET. SINCE THE USE OF THIS INFORMATION AND OF THESE OPINIONS AND THE CONDITIONS OF USE OF THIS PRODUCT ARE NOT WITHIN THE CONTROL OF OHP, Inc., IT IS THE USER'S OBLIGATION TO DETERMINE THE CONDITIONS OF SAFE USE OF THE PRODUCTS

### XVI. OTHER INFORMATION

RECOMMENDED USES AND RESTRICTIONS: NOTE TO END-USERS: This MSDS is being provided to all interested persons in accordance with federal and state right-to-know laws. Precautionary Statements, First Aid Statements and





Partners with solutions

# MATERIAL SAFETY DATA SHEET

OHP, INC.  
P.O. BOX 230, MAINLAND, PA 19451  
800-659-6745

Revision Date: 07/24/2008  
Approval Date: 06/08/2007

TRANSPORTATION EMERGENCY (24 hours a day)  
CHEMTREC: .....(800)-424-9300

EMERGENCY (24 hours a day) AND PRODUCT INFORMATION  
OHP, Inc.: .....(800)-356-4647

## Shuttle™ O

EPA Registration Number: 66330-38-59807

### I. PRODUCT IDENTIFICATION

PRODUCT NAME .....: SHUTTLE™ O

PRODUCT USE .....: MITICIDE

### II. COMPOSITION/INFORMATION ON INGREDIENTS

Active Ingredient(s)/ Hazardous Inert Ingredient(s)	CAS #	Exposure Limits*	% Weight	% Volume
Acequinocyl (3-Dodecyl-1,4-dihydro-1,4-dioxo-2-naphthylacetate)	57960-19-7	TWA <sup>a</sup> OSHA PEL <sup>b</sup> : None ACGIH TLV <sup>c</sup> : None NIOSH REL <sup>d</sup> : None	15.8	NA

Only the identities of the active ingredient(s) and any hazardous inert ingredients are listed. Specific information on all of this product's ingredients can be obtained by the treating medical professional or spill emergency responder for the management of exposures, spills, or safety assessments.

\*Source: Guide to Occupational Exposure Values 2000, published by ACGIH

<sup>a</sup>TWA: Time-weighted average exposure concentration for a conventional 8-hour (TLV, PEL) or up to a 10-hour (REL) workday and a 40-hour workweek.

<sup>b</sup>OSHA PEL: Occupational Safety and Health Administration Permissible Exposure Limits.

<sup>c</sup>ACGIH TLV: American Conference of Governmental Industrial Hygienists, Inc., Threshold Limit Values.

<sup>d</sup>NIOSH REL: National Institute for Occupational Safety and Health Recommended Exposure Limits.

### III. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**

**CAUTION:**

- HARMFUL IF INHALED
- MAY CAUSE SLIGHT EYE IRRITATION
- PROLONGED EXPOSURE MAY CAUSE SKIN SENSITIZATION
- KEEP OUT OF REACH OF CHILDREN

#### Acute Health Hazards

**Inhalation** .....: May be harmful if inhaled. Avoid breathing dust. Remove and wash contaminated clothing before reuse.

**Eyes** .....: May cause slight eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

**Skin** .....: May cause slight skin irritation. Avoid contact with skin and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**Ingestion** .....: Not expected to be an ingestion hazard under normal handling operations.

#### Chronic Health Hazards

**(Including Cancer)** .....: No evidence of carcinogenicity from animal studies. Effects to the liver, kidney, and hematology system have been observed following chronic exposure in laboratory animals.

#### Reproductive and

**Developmental Toxicity** ..: No evidence of reproductive or developmental toxicity.



# MATERIAL SAFETY DATA SHEET

## Shuttle™ O

EPA Registration Number: 66330-38-59807

### IV. FIRST AID MEASURES

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

### V. FIRE FIGHTING MEASURES

- Flammable Limits**  
**in Air (% by volume)** .....: Upper: NDA  
Lower: NDA
- Flash Point** .....: NDA  
**Method Used** .....: NDA
- Autoignition Temperature** .....: NDA
- LEL/UEL** .....: NDA
- NFPA Hazard Classification:**  
**Health** .....: 1  
**Flammability** .....: NDA  
**Reactivity** .....: NDA  
**Other** .....: NDA
- Extinguishing Media** .....: Foam, dry powder, CO<sub>2</sub> extinguisher, or water mist
- Special Fire**  
**Fighting Procedures** .....: Avoid inhaling or contact with the substance, any combustion products, or resulting gases. Wear full protective clothing and mask.
- Hazardous Combustion**  
**Products** .....: NDA

### VI. ACCIDENTAL RELEASE MEASURES

- EMERGENCY PHONE NUMBERS**  
**Exposure Calls (OHP, Inc.)** : 1-800-356-4647  
**Spill Calls (CHEMTREC)** : 1-800-424-9300
- Isolate and post spill area. Wear prescribed protective cloth-

ing and equipment. Keep out unprotected persons and animals. Large spills should be covered to prevent dispersal. Vacuum or shovel wastes into an approved drum. To decontaminate spill area, tools and equipment, wash with a suitable solution and add the solution to the drums of wastes already collected. Spillage or uncontrolled discharges into water-courses must be alerted to the appropriate regulatory body. Remove contaminated water for removal or treatment.

### VII. HANDLING AND STORAGE

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. Store in well ventilated place. Keep container tightly closed. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material. Keep out of reach of children.

### VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Eye Protection** .....: Do not get this material in your eyes. The use of chemical safety eyewear is recommended when handling this material.
- Respiratory/Ventilation**  
**Requirements** .....: Make sure that adequate ventilation is available to avoid breathing the spray mist. If needed, use a MSHA/NIOSH approved respirator for pesticides to eliminate inhaling the material.
- Skin Protection** .....: Avoid skin contact by wearing appropriate protective clothing, gloves and eye/face protection. Remove contaminated clothing and wash before re-wearing.

### IX. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** .....: Light yellowish
- Odor** .....: Slightly aromatic odor
- Physical State** .....: Viscous suspension
- pH** .....: 6.5-7.0 (20% in water)
- Boiling Point** .....: NDA
- Melting Point** .....: NA
- Freezing Point** .....: NA
- Vapor Pressure** .....: NDA
- Vapor Density** .....: NDA
- Specific Gravity** .....: 1.02-1.05 (20°C)
- Evaporation Rate** .....: NDA
- Solubility in Water** .....: NDA
- Percent Solids by Weight** .....: NDA
- Percent Volatile** .....: NDA
- Volatile Organic**  
**Compounds (VOC)** .....: NDA
- Molecular Weight** .....: NDA

# MATERIAL SAFETY DATA SHEET

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Viscosity . . . . .: NDA

### X. STABILITY AND REACTIVITY

**Chemical Stability** . . . . .: Stable under normal conditions

**Hazardous Polymerization** . . . . .: Will not occur

**Flash Point** . . . . .: NDA

**Flammable Point** . . . . .: NDA

**Auto Ignition** . . . . .: NDA

#### Incompatibility With

**Other Materials** . . . . .: Excessive heat and fire, oxidizers and acids

#### Hazardous

**Decomposition Products** . . . . .: None identified

### XI. TOXICOLOGICAL INFORMATION

#### Acute:

**Eye Irritation** . . . . .: This product produced slight eye irritation in rabbits (irritation cleared within 48 hours following exposure).

**Skin Irritation** . . . . .: This product was not irritating to the skin of rabbits following 4-hr exposure.

**Dermal Toxicity** . . . . .: The dermal LD50 of this product is > 2,000 mg/kg in male and female rats.

**Oral Toxicity** . . . . .: The oral LD50 of this product in rats and mice is > 5,000 mg/kg (male/female).

**Inhalation Toxicity** . . . . .: The inhalation LC50 (4-hr) of this product is > 4.56 mg/L in rats (male/female).

**Skin Sensitization** . . . . .: The test material has been shown to be negative in the modified Buehler test, and mild sensitization in the Magnusson/Kligman maximization test.

**Subchronic Toxicity** . . . . .: (based upon testing of the active ingredient) Following 13-week dietary exposure to mice (NOEL < 100 ppm), rats (NOEL ≥ 400 ppm), or dogs (NOEL < 40 ppm), at least one of the following adverse effects were observed: decreased body weight, decreased food consumption, hematological disturbance, death, anorexia, urine discoloration, altered activity, diarrhea, fecal discoloration, liver effects, heart effects, kidney lesions, hemorrhage.

**Chronic/Carcinogenicity** . . . . .: (based upon testing of the active ingredient) Not carcinogenic in rats, mice, or dogs. In general, the clinical signs and adverse effects that occurred in the subchronic tests were also observed during chronic testing.

#### Teratology/Developmental

**Toxicity** . . . . .: (based upon testing of the active ingredient) Not teratogenic in rabbits or rats. Only at maternally toxic doses was fetotoxicity observed in rabbits (≥ 60 mg/kg/d) and rats

(≥ 500 mg/kg/d).

**Reproduction** . . . . .: (based upon testing of the active ingredient) Not a reproductive toxicant in rat 2-generation study (NOEL > 1,500 ppm).

**Mutagenicity** . . . . .: (based upon testing of the active ingredient) Negative for bacterial reverse mutation, chromosomal aberration in CHO cells, and mouse micronucleus tests.

### XII. ECOLOGICAL INFORMATION

#### Avian Toxicity (based upon technical material):

Bobwhite quail (*C. virginianus*)

Oral LD50 > 2,000 mg a.i./kg b.w.

#### Aquatic Organism Toxicity:

Rainbow trout (*O. mykiss*)

96 hr LC50 = 65 mg a.i./L

Water flea (*D. magna*)

46 hr EC50 = 2.3 mcg a.i./L

#### Other Non-Target Organism Toxicity:

Earthworm (*E. foetida*)

14 d LC50 > mg a.i./kg soil

Honeybee (*A. mellifera* L.)

72 hr contact LD50 > 350 mcg /bee

Honeybee (*A. mellifera* L.)

72 hr oral LD50 > 315 mcg /bee

### XIII. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with local, state or national regulations. An acceptable method of disposal is to burn in an incinerator. Do not cut or weld metal containers. Vapors that form inside may create an explosion hazard.

### XIV. TRANSPORT INFORMATION

**D.O.T. Shipping Name** . . . . .: Not regulated

**Technical Shipping Name** . . . . .: NA

**Packing Group** . . . . .: NA

**D.O.T. Hazard Class** . . . . .: NA

**U.N./N.A. Number** . . . . .: NA

**Product RQ (lbs)** . . . . .: NA

**D.O.T. Label** . . . . .: NA

**D.O.T. Placard** . . . . .: NA

# MATERIAL SAFETY DATA SHEET

## Shuttle™ O

EPA Registration Number: 66330-38-59807

Marine Pollutant . . . . .: Yes  
IMO . . . . .:  
Shipping Name . . . . .: Environmentally hazardous  
substance liquid, N.O.S.  
IMO label . . . . .: 9  
IMO Placard . . . . .: 9

### XV. REGULATORY INFORMATION

#### U.S. Federal Regulations FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act):

All pesticides are governed under FIFRA. Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

#### CERCLA (Comprehensive Response Compensation, and Liability Act):

None.

#### OSHA (Occupational Safety and Health Administration):

NA

#### SARA Title III (SUPERFUND Amendments and Reauthorization Act):

Section 302 (EHS) TPQ . . . : NONE

Section 304 (EHS) RQ . . . : NONE

Section 311/312 CATEGORIES

1. Immediate (Acute) Health Effects; YES
2. Delayed (Chronic) Health Effect; YES
3. Fire Hazard; NDA
4. Sudden Release of Pressure Hazard; NDA
5. Reactivity Hazard; NDA

#### TSCA (Toxic

**Substance Control Act)** . . . : This product is exempt from TSCA Regulation under FIFRA Section 3 (2)(B)(ii) when used as a pesticide.

**State Regulations** . . . . .: Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities.

### XVI. OTHER INFORMATION

Prepared by . . . . .: Ashley R. Brown

Issue date . . . . .: 06/08/07

The information in this MSDS is based on data available to us as of the issue date given herein, and believed to be correct.

Judgments as to the suitability of information herein for the individual's own uses or purposes are necessarily the individual's own responsibility. Although reasonable care has been taken in the preparation of such information, OHP, Inc. extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to the individual's purposes or the consequences of its use.

Please read the entire document. This Material Safety Data Sheet contains important environmental, health and toxicology information for your employees, and anyone who will use, transport, store, dispose of or handle this product. Please make sure this information is given to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this MSDS must be given to the buyer or the information contained herein must be incorporated in your MSDS.

Shuttle is a trademark of Arysta LifeScience North America Corporation.



## MITICIDE

## SPECIMEN LABEL

**FOR USE IN COMMERCIAL GREENHOUSE AND SHADEHOUSE ON ORNAMENTAL, FLORAL, FOLIAGE AND ORNAMENTAL NURSERY CROPS AND GREENHOUSE GROWN FRUITING VEGETABLES (EXCEPT CUCURBITS)**

<b>ACTIVE INGREDIENT:</b>	<b>By wt.</b>
*Acequinocyl .....	15.8%
<b>OTHER INGREDIENTS:</b> .....	84.2%
<b>TOTAL:</b> .....	100.0%

\*3-dodecyl-1, 4-dihydro-1, 4-dioxo-2-naphthyl-acetate.  
Contains 1.25 lb ai/gal.

EPA Reg. No. 66330-38-59807

EPA Est. No. 70815-GA-001

### KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label find someone to explain it to you in detail.)

**For Transportation Emergencies (call 24 hours a day)  
1-800-424-9300.**

**For Medical (call 24 hours a day) and Product Use  
Information call 1-800-356-4647.**

FIRST AID	
<b>If inhaled</b>	<ul style="list-style-type: none"> <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> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <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>
<b>If in eyes</b>	<ul style="list-style-type: none"> <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 eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call 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 the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>

#### FIRST AID continued

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

**FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE:**  
Call OHP, Inc. at 1-800-356-4647

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if inhaled. Avoid breathing spray mist. Harmful if absorbed through the skin. Causes moderate eye irritation. Harmful if swallowed. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Wear long-sleeved shirt and long pants, socks and shoes and chemical resistant gloves made of waterproof material.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Socks
- Shoes
- Chemical resistant gloves made of waterproof material

Follow the 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 before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing

**Net Contents: 1 pint, 16 fluid ounces (473 mL)**

## ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates such as Eastern oysters and mysid shrimp. 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 may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

### Surface Water Statement

This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several days after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

## DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Carefully read and understand the Directions for Use and restrictions before applying this product.

Do not apply this product in any 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 on this label about personal protective equipment (PPE), notification to workers 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 entry into treated areas during restricted entry interval (REI) of 12 hours.

PPE required for early entry into 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, socks, shoes, chemical resistant gloves made of waterproof material.

### 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.

#### RESTRICTIONS

- The area being treated must be vacated by unprotected persons.
- Keep children, pets and unprotected persons out of treated areas until sprays have dried.

## PRODUCT INFORMATION

**SHUTTLE O** is a miticide for the control of Citrus red mite (*Panonychus citri*), European red mite (*Panonychus ulmi*), Pacific spider mite (*Tetranychus pacificus*), Texas citrus mite (*Eutetranychus banksi*) and Spruce spider mite (*Oligonychus ununquus*), Strawberry spider mite (*Tetranychus turkestanii*), Willamette spider mite (*Eotetranychus willamettei*) and Two spotted spider mite (*Tetranychus urticae* and *Tetranychus cinnabarinus*), and Broad mite (*Polyphagotarsonemus latus*).

When applied to the foliage as directed, **SHUTTLE O** provides quick knockdown and long residual control. Due to its unique mode of action, **SHUTTLE O** is not expected to have cross-resistance to existing miticides and is very effective against various species of resistant and susceptible mites. **SHUTTLE O** is relatively harmless to most predacious mites and beneficial insects, making it compatible with IPM and resistance management programs.

**NOTICE TO USER:** Plant tolerance to this product has been found to be acceptable in research trials for the general plant species listed on the label. However, due to the large number of species and their associated varieties or cultivars of ornamental and ornamental nursery plants, and due to variable growing conditions, it is impossible to test every plant variety or cultivar for tolerance to this product. Neither the Manufacturer nor the Seller has determined whether or not this product can be safely used on all ornamental or ornamental nursery plants. The user should determine if this product can be used safely prior to commercial use. In a smaller test area, test the recommended rates on plants for phytotoxicity prior to general use.

Certain varieties of impatiens and miniature roses are known to be sensitive to certain pesticides. Before using this product for mite control in the production of these ornamentals in particular, test them for sensitivity to this product on a limited scale before widespread use.

### RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, **SHUTTLE O** contains a Group 20B insecticide. Mites with acquired resistance to Group 20B insecticides may eventually dominate the mite population if this group of insecticides is used repeatedly in the same field or in successive years as the primary method of control for targeted pests. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance management strategies should be followed. If resistance develops, the product may lose effectiveness in controlling the target pests.

To delay insecticide resistance:

- Where possible, rotate the use of **SHUTTLE O** or other Group 20B insecticides with different groups that control the same pests in a field.
- Use tank mixtures with insecticides from a different group when such use is permitted.
- Insecticide use should be based on an IPM program that includes scouting, record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or IPM recommendations for the specific site and pest problems in your area.

- For further information or to report suspected resistance contact OHP, Inc. at 1-800-356-4647.
- Incorporate IPM techniques into your insect/mite control program.
- Ensure thorough spray coverage of all foliage.
- It is recommended that **SHUTTLE O** not be used in successive applications. Rotation with other miticides having different modes of action is recommended.

#### ORNAMENTAL PLANT TOLERANCE

Neither the manufacturer nor the seller has determined whether or not **SHUTTLE O** can be used safely on all varieties and cultivars. **SHUTTLE O** has been tested on a variety of plants with no phytotoxicity observed at label rates. Since all plant species and their varieties and cultivars have not been tested for tolerance, it is recommended that a small number of plants be sprayed to make certain that no phytotoxicity occurs, prior to any large scale application to plants. The end user assumes all risks arising from application of **SHUTTLE O** in a manner inconsistent with its labeling. **Certain varieties of IMPATIENS and MINIATURE ROSES are known to be sensitive to certain pesticides. Before using SHUTTLE O for mite control in the production of these ornamentals in particular, test them for sensitivity to SHUTTLE O on a limited scale before widespread use.**

#### COMPATIBILITY OF MIXTURES

**SHUTTLE O** can be combined with most commonly used pesticides with the exception of strongly alkaline material, which can reduce the activity of this product. **DO NOT** combine **SHUTTLE O** with Phos-ethyl (Fosetyl). To obtain broad-spectrum insect control, **SHUTTLE O** can be tank-mixed with most other miticide/insecticide products. However, all plant species and their varieties and cultivars have not been tested with possible tank mix combinations, sequential pesticide treatments and adjuvants and surfactants. The user should conduct a spray mix compatibility and phytotoxicity trial under local conditions to ensure compatibility prior to any large-scale use.

#### PREPARATION OF SPRAY SOLUTION

Begin with clean equipment. Add sufficient clean water to the spray tank for one-half of the mix load. Start tank agitation. Add and properly suspend the necessary amount of product before adding any other products. Agitate to ensure thorough mixing while adding the remaining required water. A high quality wetting agent or other spray adjuvant, approved for use on your crop, may be added to spray solutions according to the manufacturer's use instructions. **SHUTTLE O** should be properly suspended and diluted prior to the addition of any adjuvant. Consult the adjuvant label or manufacturer for crop tolerance and safety information when used with this product. Maintain agitation during mixing and application. Allowing the spray mixture to stand without agitation may result in an improperly suspended mixture. If agitation is stopped for any reasons, thoroughly re-mix the spray solution prior to any further use. Apply with properly calibrated spray equipment.

#### APPLICATION INFORMATION

**SHUTTLE O** should be applied when threshold populations are observed and before large mite populations have been established.

Apply **SHUTTLE O** in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for optimum control. To achieve adequate coverage, use proper spray pressures, nozzles, nozzle spacing, and water volume per acre.

When used as directed, **SHUTTLE O** is effective for the control of a variety of mite species. **SHUTTLE O** shows efficacy on all mite life stages of susceptible mites. Using **SHUTTLE O** in successive miticide applications is not recommended. Use **SHUTTLE O** as part of a sound resistance management program that includes rotation with other miticide treatments having different modes of action.

#### Rotational Crop Restrictions

Food and feed crops not listed on this label must not be planted within 30 days of the last **SHUTTLE O** application.

#### RESTRICTIONS AND LIMITATIONS

- Do not apply this product through any type of irrigation system.
- Do not apply by air.
- Do not apply within 75 feet of aquatic areas.
- Not for indoor residential use.

#### FRUITING VEGETABLES (EXCEPT CUCURBITS) (GREENHOUSE GROWN EGGPLANT, GROUNDCHERRY (*PHYSALIS* SPP.), PEPINO, PEPPER (INCLUDES BELL PEPPER, CHILI PEPPER, COOKING PEPPER, PIMENTO, SWEET PEPPER), TOMATILLO, and TOMATO)

PEST	USE RATE
Two spotted spider mite ( <i>Tetranychus urticae</i> and <i>Tetranychus cinnabarinus</i> )	31 fl oz/A (0.3 lbs ai/A)
<b>RESTRICTIONS</b>	
<ul style="list-style-type: none"> <li>• Do not use less than 100 gallons of water volume per acre.</li> <li>• Allow a minimum of 21 days between treatments.</li> <li>• Do not apply by air.</li> <li>• Do not make more than two applications of <b>SHUTTLE O</b> per year.</li> <li>• Do not apply more than 62 fl oz of <b>SHUTTLE O</b> per acre (0.6 lbs ai) per season.</li> <li>• Preharvest interval is 1 day.</li> <li>• Restricted entry interval (REI) is 12 hours.</li> <li>• The use of an adjuvant or surfactant is prohibited.</li> </ul>	

#### APPLICATION TO PRODUCTION AND LANDSCAPE ORNAMENTALS

**SHUTTLE O** is a miticide for the control of Citrus red mite (*Panonychus citri*), European red mite (*Panonychus ulmi*), Pacific spider mite (*Tetranychus pacificus*), Texas citrus mite (*Eutetranychus banksi*) and Spruce spider mite (*Oligonychus ununquus*), Strawberry spider mite (*Tetranychus turkestanii*), Willamette spider mite (*Eotetranychus willamettei*) and Two spotted spider mite (*Tetranychus urticae*) on production and landscape ornamentals.

For control of susceptible mites, mix 6.4-12.8 fluid ounces of **SHUTTLE O** in 100 gallons of water. Apply as a full coverage spray to the foliage to the point of drip. Actual spray volume used per acre will vary depending on the size of plants being sprayed. Application should be made as soon as mite population reaches threshold infestation levels.

**SHUTTLE O** will control susceptible mite infestations on ornamental plants growing in interiorscapes, arboretums, field nursery plantings, container nurseries, forest nurseries, residential and commercial landscapes, greenhouses, lath and shade houses, parks and recreation areas and areas surrounding schools.

## APPLICATION RATES

PEST	RATE PER ACRE
Citrus red mite ( <i>Panonychus citri</i> ) European red mite ( <i>Panonychus ulmi</i> ) Pacific spider mite ( <i>Tetranychus pacificus</i> ) Spruce spider mite ( <i>Oligonychus ununquus</i> ) Two spotted spider mite ( <i>Tetranychus urticae</i> ) Willamette spider mite ( <i>Eotetranychus willamettei</i> ) Strawberry spider mite ( <i>Tetranychus turkestani</i> ) Texas citrus mite ( <i>Eutetranychus banksi</i> )	6.4 fl oz to 12.8 fl oz

### RESTRICTIONS AND LIMITATIONS

- **Apply a maximum of 12.8 oz/acre/application, not to exceed 25.6 oz/acre/year.**
- Do not use less than 100 gallons of water volume per acre.
- Allow a minimum of 14 days between treatments.
- Not for indoor residential use.

### STORAGE AND DISPOSAL

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

#### PESTICIDE STORAGE

Store in original container and keep tightly closed. Store in a cool dry place. Protect from excessive heat. For help with any spill, leak, fire or exposure involving this material, call CHEMTREC day or night at (703) 527-3887 or 1-800-424-9300.

#### PESTICIDE DISPOSAL

Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### CONTAINER HANDLING

Non-refillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by state or local ordinances. 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 1/4 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. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

### Warranty and Disclaimer Statement

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of OHP, Inc., and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer.

OHP, Inc. warrants that this product 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 described above, when used in accordance with the Directions for Use under normal conditions.

This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to OHP, Inc., and is subject to the inherent risks described above.

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