For use in mite control on ornamentals grown in outdoor nurseries, retail nurseries, residential and commercial landscapes, interiorscapes, greenhouses, lathhouses and shadehouses, containers, and on forest and conifer nurseries and plantations

Active Ingredient:

cyflumetofen: (2-methoxyethyl(RS)-2-(4-tert-butylphenyl)-2-cyano-3-oxo-3-(α,α,α-trifluoro-o-tolyl)propionate) .......................... 18.7%

Other Ingredients: .................................................................................................................................................. 81.3%

Total: ................................................................................................................................................................. 100.0%

Sultan™ miticide contains 1.67 pounds of cyflumetofen per gallon.

EPA Reg. No. 7969-337

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 this label, find someone to explain it to you in detail.)

See inside for complete First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Net Contents:
Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Harmful if swallowed, absorbed through skin, or inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist.

Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below. For more options, refer to Category A on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material (such as nitrile, butyl, neoprene, and/or barrier laminate)
- Shoes plus socks

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

FIRST AID

| If swallowed                                      | • Call a poison control center or doctor immediately for treatment advice.  
|                                                 | • Have person sip a glass of water if able to swallow.  
|                                                 | • DO NOT induce vomiting unless told to do so by a poison control center or doctor.  
|                                                 | • DO NOT give anything by mouth to an unconscious person.  

| If on skin or clothing                           | • 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.  

| If inhaled                                        | • 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.  

| If in eyes                                        | • Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.  
|                                                 | • Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes.  
|                                                 | • Call a poison control center or doctor for treatment advice.  

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information at 1-800-832-HELP (4357).

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 this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

DO NOT apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. DO NOT contaminate water when disposing of equipment washwater or rinsate.

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. 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.
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 interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (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
- Chemical-resistant gloves, made of any waterproof material (such as nitrile, butyl, neoprene, and/or barrier laminate)
- Shoes plus socks

NONAGRICULTURAL USE REQUIREMENTS

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

DO NOT enter or allow others to enter treated areas until sprays have dried.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Storage
Store in original containers only. Keep container closed when not in use. DO NOT store near food or feed.

Pesticide Disposal
Wastes resulting from using this product may be disposed of on-site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representatives at the nearest EPA Regional Office for guidance.

(continued)
Sultan™ miticide, a suspension concentrate (SC), is a selective contact miticide for control of a variety of mite pests on ornamental plants. When used as directed, Sultan is effective, providing knockdown and residual control of tetranychid mites on ornamental plants listed on this label. Sultan is not effective against broad mite, bulb mite, cyclamen mite, flat mite, or rust mite. Sultan is active on egg and motile stages. Common mite species controlled by Sultan include:

**Common Name** | **Scientific Name**
---|---
Banks grass mite | Oligonychus pratensis
Brown almond mite | Bryobia rubrioculus
Brown wheat mite | Petrobia latens
Carmine spider mite | Tetranychus cinnabarinus
Citrus red mite | Panonychus citri
European red mite | Panonychus ulmi
McDaniel spider mite | Tetranychus mcdanieli
Pacific spider mite | Tetranychus pacificus
Spruce spider mite | Oligonychus ununguis
Strawberry spider mite | Tetranychus turkestani
Texas citrus mite | Eutetranychus banksi
Two-spotted spider mite | Tetranychus urticae
Willamette spider mite | Eotetranychus willamettei
Yuma spider mite | Eotetranychus yumensis

Sultan can be used on ornamental plants, including annual and perennial herbaceous plants such as foliage plants and woody trees and shrubs at the following use sites:

- Commercial and retail nurseries, field or container
- Commercial, public, and recreational gardens
- Forest tree and conifer nurseries or plantations
- Greenhouses, shadehouses, and lathhouses
- Interiorscapes
- Ornamentals in landscape
- Other commercial and residential landscape maintenance areas

Sultan is compatible with most biological control organisms used for mite control.

**NOTE:** Because of its selective activity on the Tetranychid family of mites, Sultan will not have activity on other species such as broad mite, bulb mite, cyclamen mite, flat mite, or rust mite. With selective activity against tetranychid mites, Sultan is also compatible with the use of beneficial/predacious insects or mites (including those listed following) within integrated pest management (IPM) programs.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
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</thead>
<tbody>
<tr>
<td>Common lacewing</td>
<td>Chrysopa carnea</td>
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<tr>
<td>Insidious flower bug</td>
<td>Orius insidiosus</td>
</tr>
<tr>
<td>Predatory mite</td>
<td>Amblyseius fallacis</td>
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<tr>
<td>Prey</td>
<td>Phytoseiulus persimilis</td>
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<tr>
<td>Typhlodromus pyri</td>
<td></td>
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<tr>
<td>Zezellia mal</td>
<td></td>
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<tr>
<td>Seven-spotted lady beetle</td>
<td>Coccinella septempunctata</td>
</tr>
<tr>
<td>Six-spotted thrips</td>
<td>Scolothrips sexmaculatus</td>
</tr>
<tr>
<td>Spider mite destroyer</td>
<td>Stethorus punctum</td>
</tr>
<tr>
<td>Western predatory mite</td>
<td>Galendromus occidentalis</td>
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</tbody>
</table>

**Resistance Management**

The active ingredient in Sultan is cyflumetofen, a member of the beta-ketonitrile class of chemistry. Sultan's mode of action is respiration inhibition classified by the Insecticide Resistance Action Committee (IRAC) as Mitochondria complex II electron transport inhibitor under Group 25. Unwarranted multiple use of a miticide with a given mode of action can result in the development of resistance. DO NOT exceed the maximum seasonal use rate or the total number of applications of Sultan per season. To reduce the potential for developing mite resistance, rotate to a miticide with a mode of action outside IRAC Group 25.

Monitor treated mite populations to determine the need for reapplication, product rotation, or additional management practices. Read and follow product label before applying any miticide. Contact your local extension specialist, certified crop advisor, and/or BASF representative for additional IPM recommendations and specific steps for avoiding resistance. More information on managing mite resistance can be found on the IRAC website at http://IRAC-online.org.

**Use and Application Instructions**

For Sultan to be most effective, apply it at the first sign of mites and before the build-up of heavy pressure. Application must be timed to coincide with locally recommended treatment thresholds in developing mite populations.

Sultan is not systemic or translaminar. Thorough and uniform coverage of the leaf surface and/or direct contact of the spray mixture with the target pest is required for satisfactory control. Foliar application may be made using properly calibrated ground sprayers. Apply Sultan in a minimum of 100 gallons/acre (or 100 gallons spray solution applied per acre). Because Sultan is NOT a systemic miticide, complete coverage is necessary for effective control. Applying Sultan at spray volumes lower than directed can
make it harder to obtain thorough coverage and may reduce performance. Consult with your local or state extension personnel for advice on miticide use and selection.

**DO NOT** apply where thorough coverage of plants is not possible. Application made with less than thorough coverage may result in slower activity and/or inadequate control.

To provide optimum coverage of ornamentals with hard-to-wet foliage, an adjuvant can be used in the Sultan™ miticide spray solution. Test the safety and compatibility of all adjuvants before use. Always read and follow the specific adjuvant label using the proper concentration of adjuvant to avoid plant injury.

**DO NOT** apply Sultan if rain or irrigation event is expected within 1 hour following application. The product can be expected to be rainfast 1 hour after application.

### Sultan Use-specific Application Instructions

<table>
<thead>
<tr>
<th>Use Sites</th>
<th>Application Rate per 100 gallons</th>
<th>Application Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outdoor Uses</strong></td>
<td></td>
<td></td>
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</tbody>
</table>
| **Nurseries** (container, bench, flat, plug, bed-grown, field-grown, shadehouses, screenhouses, lathhouses) | 13.7 fl ozs (0.18 pound active ingredient)       | • When mites appear, apply in sufficient volume of water to ensure thorough coverage of foliage. Apply in a minimum of 100 gallons of finished spray solution per acre by ground equipment including tractor ground boom, backpack, or hand wand. Applying Sultan at spray volumes lower than directed can make it harder to obtain thorough coverage and may reduce performance.  
• **DO NOT** exceed the maximum seasonal use rate of 27.4 fluid ounces of Sultan per crop growing cycle.  
• **DO NOT** make more than two (2) applications of Sultan per crop per year. |
| **Forest and conifer plantations**                                       |                                                  |                                                                                                                                                     |
| **Residential and commercial landscape**                                 |                                                  |                                                                                                                                                     |
| **Recreational areas and gardens with ornamental landscapes**            |                                                  |                                                                                                                                                     |
| **Indoor Uses**                                                         |                                                  |                                                                                                                                                     |
| **Greenhouses** (container, bench, flat, plug)                           | 13.7 fl ozs (0.18 pound active ingredient)       | • When mites appear, apply in sufficient volume of water to ensure thorough coverage of foliage. Apply in a minimum of 100 gallons of finished spray solution per acre by ground equipment including backpack or hand wand. Applying Sultan at spray volumes lower than directed can make it harder to obtain thorough coverage and may reduce performance.  
• Use higher specified dosage for increased mite pressure or increased residual control. Lower rates can be used where mite infestations are light.  
• **DO NOT** exceed the maximum seasonal use rate of 27.4 fl ozs of Sultan per crop growing cycle.  
• **DO NOT** make more than two (2) applications of Sultan per crop growing cycle. |
| **Interiorscapes**                                                       |                                                  |                                                                                                                                                     |
Restrictions and Limitations

- **DO NOT** exceed the maximum seasonal use rate of 27.4 fluid ounces (0.36 lb ai/A) of Sultan™ miticide per crop per year.
- **DO NOT MAKE MORE THAN 1 APPLICATION BEFORE ROTATING TO A PRODUCT OF A DIFFERENT MODE-OF-ACTION GROUP.
- **DO NOT** make more than two (2) applications of Sultan per crop per year.
- **DO NOT** make Sultan applications at intervals shorter than 14 days.
- **DO NOT** tank mix Sultan with:
  - Insect growth regulators
  - Plant growth regulators
  - Carbamate insecticides
  - Organophosphate insecticides
  - Pyrethroid insecticides
- For use in ground application equipment only.
- **DO NOT** apply by chemigation or aerial application.
- Not for use on plants intended for feed or forage.
- **DO NOT** use on vegetable transplants.
- **DO NOT** apply to plants exhibiting symptoms of stress or injury, such as stunting, wilting, leaf burn or drop, or abnormal growth.

Use Precautions

**Sultan** has been applied to a wide variety of common ornamental plants without observed plant injury. Not all species, varieties, and cultivars have been tested for tolerance to Sultan, possible tank mix combinations with Sultan, pesticide treatments preceding or following those with Sultan, and combinations of Sultan with surfactants or adjuvants. Local conditions can also influence plant tolerance and may not match those under which BASF has conducted testing. Because many cultivars within a plant species vary in tolerance to chemical applications and growing conditions, the grower must recognize these differences and test the product accordingly. At a minimum, always test a small group of representative plants for tolerance to Sultan under local growing conditions and before large-scale use.

Grower assumes responsibility for testing species suitability under local growing conditions by treating a small number of plants at the specified rate. At a minimum, this should include evaluating treated plants for several weeks following treatment for possible injury or other effects. To the extent consistent with applicable law, by applying Sultan, the user assumes responsibility for any crop damage or other liability associated with factors beyond the manufacturer's control, such as weather, presence of other materials, and manner or use of application.

Spray Drift Management

**Water Volume** - Apply in at least 100 gallons/A spray solution for optimum performance. Because Sultan is not systemic or translaminar, thorough coverage of plant surfaces is necessary for effective control. Applying Sultan at spray volumes lower than directed can make it harder to obtain thorough crop coverage and may reduce performance.

**Fixed Boom Nozzle Height** - Maximum nozzle height (release height) should be no greater than 2 feet above the plant canopy.

**Variable Winds** - **DO NOT** apply in variable wind conditions.

**Wind Direction** - Base wind direction (e.g. away from nontarget areas) on the average direction (not instantaneous).

**Wind Speed** - Maximum sustained wind must not exceed 15 mph measured at nozzle height (release height).

**Inversion Restriction** - **DO NOT** apply if conditions will capture and potentially transport spray droplets off target (consult Pasquill stability categories).

**Terrain Precaution** - Local terrain can influence wind patterns. The applicator must be familiar with these patterns and understand their impact on drift.

**Sensitive Areas** - To ensure the protection of threatened or endangered species, it is important to maintain spray drift loadings below levels of concern for any area adjacent to the application site that is not excluded as possible habitat for these organisms. The following restrictions apply:

- **Buffer distance** - 15 feet
- **Release height** - 20 inches
- **Droplet size** - A combination of spray nozzles and appropriate pressure must be selected to provide ASABE standard S571.1 droplet size category of fine (DV0.5 of ≥ 180 microns) or coarser than fine.
- **Maximum wind speed** - 15 mph

Additives and Tank Mixing Information

Shake container well before use.

**Sultan** can be tank mixed with most recommended fungicides, insecticides, liquid fertilizers, biological control products, adjuvants, and additives except as noted in the Restrictions and Limitations section of this label.

Under some conditions, the use of additives or adjuvants may improve the performance of Sultan. Local conditions can influence crop tolerance and may not match those under which BASF has conducted testing. Physical incompatibility, reduced mite control, or crop injury may result from mixing Sultan with other products.

Before using any tank mix (fungicides, insecticides, liquid fertilizers, biological control products, adjuvants, and additives), test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will
not occur as a result of application. Treat a small group of plants including all cultivars, and evaluate for 3 to 7 days before applying to the entire crop.

When an adjuvant is to be used with this product, BASF recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

Consult a BASF representative or local agricultural authorities for more information concerning additives.

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**Tank Mixing Order**

1. **Water** - Begin by agitating a thoroughly clean sprayer tank 3/4 full of clean water.
2. **Agitation** - Maintain constant agitation throughout mixing and application.
3. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
4. **Products in PVA bags** - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
5. **Water-dispersible products** (such as Sultan™ miticide, dry flowables, wettable powders, other suspension concentrates, or suspo-emulsions)
6. **Water-soluble products**
7. **Emulsifiable concentrates** (such as oil concentrates when applicable)
8. **Water-soluble additives**
9. **Remaining quantity of water**

Thoroughly mix and suspend each component before adding tank mix partners.

Maintain constant agitation during application.

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**Cleaning Application Equipment**

Before application, start with clean, well-maintained application equipment. Following spray application, thoroughly clean all application equipment. Drain application equipment of any excess product. Thoroughly rinse application equipment and flush hoses, boom, and nozzles with clean water. Clean all other associated application equipment.

Take all necessary safety precautions when cleaning equipment. **DO NOT** clean equipment near wells, water sources, or desirable vegetation. Dispose of waste rinse-water in accordance with local regulations.

Spraying equipment must be cleaned thoroughly before and after applying this product, particularly if a product with the potential to injure crops was used before Sultan.
### Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION (“BASF”) or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER’S EXCLUSIVE REMEDY AND BASF’S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.**

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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The Chemical Company