

Notice of Insect Control Application

Date of Application: May 4-8, 2026

Location: Vistas Park Cypress Trees

Reason for Application: To control spider mites in the Italian Cypress trees.

Product Manufacturer Name: Sultan Miticide

-EPA registration no. 7969-337

-Active ingredients: Cyflumetofen

Signal Word: Caution

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

***Attached is the Product Label and Safety Data Sheet**

***Dates are subject to change due to weather**

SPECIMEN

Cyflumetofen Group 25 Acaricide

Sultan® miticide

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

EPA Est. No.

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:

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

 **BASF**
We create chemistry

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. For additional information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), you may contact BASF Corporation at 1-800-832-HELP (4357), twenty-four (24) hours per day seven (7) days per week.</p>	

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)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber (≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber (includes natural rubber blends and laminates) ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or viton ≥ 14 mils
- 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.

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.

USE RESTRICTIONS ON ALL CROPS

- Apply this product only as specified the EPA approved label and any supplemental 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.
- **DO NOT** exceed the maximum seasonal use rate of 27.4 fl ozs (0.36 lb ai/A), the maximum rate per application, or the total number of **Sultan® miticide** applications per season as stated in **Table 1. Instructions for Using Sultan® miticide on Ornamental Plants.**
- Preharvest Interval (PHI) restrictions are also included in this table.
- **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.

(continued)

USE RESTRICTIONS ON ALL CROPS

(continued)

- **DO NOT** tank mix **Sultan® miticide** 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.
- 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 such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber (includes natural rubber blends and laminates) ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or viton ≥ 14 mils
- 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

Keep this product in its tightly closed original container. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals. **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.

Container Handling

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) 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 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.

In Case of Emergency

In case of large-scale spill of this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

Steps to take if this material is released or spilled:

- In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to label.
- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

Product Information

Sultan® miticide is a suspension concentrate formulation containing the active ingredient cyflumetofen. When used as directed, **Sultan** provides knockdown and residual control of tetranychid mites on the ornamental plants listed on this label. **Sultan** is a highly active on egg, nymph, and adult stage tetranychid mites. **Sultan** is not effective against broad mite, bulb mite, cyclamen mite, flat mite, or rust mite. Common mite species controlled by **Sultan** include:

Pests Controlled

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

Sultan can be used on ornamentals in the following use sites:

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

Sultan can be used on the following ornamental plants:

- Annual bedding plants
- Perennials, herbaceous and woody
- Flowering and foliage plants
- Woody plants and trees
- Bulbs and bulb-like ornamentals harvested as whole plants, bulbs, roots or cut flowers

Sultan may also be applied to juvenile fruit and nut trees, vines, brambles and bushberries grown in commercial ornamental nurseries or greenhouses. Immature and/or inedible fruits, nuts or berries that may appear on the plant, are not intended for harvest or consumption.

Sultan may be applied to bearing citrus trees, nut trees, and grape vines in commercial and residential landscapes; fruit from these trees and vines cannot be harvested with intent to sell.

Sultan is not intended for use in agricultural production. With selective activity against tetranychid mites, **Sultan** is compatible with most biological control organisms used for pest control, including the following:

Beneficial Insects

Common Name	Scientific Name
Common lacewing	<i>Chrysopa carnea</i>
Insidious flower bug	<i>Orius insidiosus</i>
Predatory mite	<i>Amblyseius fallacis</i>
	<i>Phytoseiulus persimilis</i>
	<i>Typhlodromus pyri</i>
	<i>Zetzellia mali</i>
Seven-spotted lady beetle	<i>Coccinella septempunctata</i>
Six-spotted thrips	<i>Scolothrips sexmaculatus</i>
Spider mite destroyer	<i>Stethorus punctum</i>
Western predatory mite	<i>Galendromus occidentalis</i>

With selectivity against the tetranychid family of mites, **Sultan** is compatible with the use of beneficial/predacious insects or mites in integrated pest management (IPM) programs.

Mode of Action

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 a 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.

Resistance-Management Recommendations

For resistance management, please note that cyflumetofen, the active ingredient in **Sultan® miticide**, belongs to the group of respiration inhibitors classified by the Insecticide Resistance Action Committee (IRAC) as target site-of-action **Group 25** acaricide, a Mitochondria complex II electron transport inhibitor. Any mite population may contain individuals naturally resistant to **Sultan** and other **Group 25** acaricides. The resistant individuals may dominate the mite population if this group of acaricides are used repeatedly in the same use sites. Repeated use of miticides with similar modes of action can lead to the buildup of resistant strains of mites.

- **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 different mode of action.
- Monitor treated mite populations for resistance development.
- Read product label before applying any miticide and follow label directions.
- Use tank mixtures with acaricides from a different group that are equally effective on the target pest when such use is permitted. **DO NOT** rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
 - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
 - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
 - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).

- Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity.
 - Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Contact your local extension specialist, certified crop advisor, and/or BASF representative for additional resistance management or IPM recommendations.

Use and Application Instructions

For **Sultan** to be most effective, apply at the first sign of mites and before the build-up of heavy pressure. Applications 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 effective control. Foliar applications should be made using properly calibrated equipment.

Sultan is rainfast 1 hour after application. Applying **Sultan** if rainfall or irrigation is expected within 1 hour following application may effect product performance.

Application made with less than thorough coverage may result in slower activity and/or inadequate control.

To provide optimum coverage of ornamental with or on hard-to-wet foliage, an adjuvant can be used in conjunction with **Sultan**. 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 potential for phytotoxic response.

Use of an adjuvant with **Sultan** can mitigate spray residue on plants like poinsettia or other species where spray residues are often visible. Consult the **Plant Safety** section for more information.

Table 1. Instructions for Using Sultan® miticide on Ornamental Plants

Use Sites	Application Rate fl ozs/100 gallons Water	Use Directions
<ul style="list-style-type: none"> • Commercial and retail nurseries, field or container • Forest tree and conifer nurseries or plantations • Greenhouses, shadehouses and lathhouses • Interiorscapes • Commercial and residential landscape maintenance areas • Commercial, public, and recreational gardens 	13.7 fl ozs (0.18 lb ai)	<ul style="list-style-type: none"> • When mites appear, apply in sufficient volume of water to ensure thorough coverage of foliage. • When using conventional application equipment apply Sultan in 100 gallons of spray solution per acre. When using low volume, high pressure equipment apply Sultan in at least 20 gallons of spray solution per acre. If thorough crop coverage cannot be achieved with lower volumes, increase volumes. Applying Sultan at lower volumes may reduce coverage and/or reduce product performance. • DO NOT apply Sultan where thorough coverage of plants is not possible. • 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.

Plant Safety and Phytotoxicity Notice

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 phytotoxicity following **Sultan** application. In addition, not all possible tank mix combinations with **Sultan**, pesticide treatments preceding or following those with **Sultan**, or combinations of **Sultan** with surfactants or adjuvants have been tested. Local conditions can also influence plant response and may not match those under which BASF has conducted testing. Because many cultivars within a plant species vary in response 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 prior to large-scale use.

Grower assumes responsibility for testing species suitability under local growing conditions by treating a small number of plants at the specified label 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. 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 - Drift potential increases during high wind speeds and low wind speeds (below 3 mph, because of inversion potential). **DO NOT** apply when wind speeds are less than 3 mph or greater than 15 mph.

Inversion Restriction - **DO NOT** make applications during temperature inversions because drift potential is high during a temperature inversion.

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 ($DV_{0.5}$ of ≥ 180 microns) or coarser than fine.
- **Maximum wind speed** - 15 mph

Additives and Tank Mixing Information

Shake container well before use.

Sultan® miticide 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.

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**, 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.

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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Supersedes: NVA 2011-04-391-0232

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709


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Safety Data Sheet

Sultan® Miticide

Revision date : 2020/04/06
Version: 1.0

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1. Identification

Product identifier used on the label

Sultan® Miticide

Recommended use of the chemical and restriction on use

Recommended use*: crop protection product, insecticide

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Substance number: 994500
EPA Registration number: 7969-337
Synonyms: Cyflumetofen

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200

Classification of the product

Skin Sens.	1A	Skin sensitization
Aquatic Chronic	2	Hazardous to the aquatic environment - chronic

Label elements

Pictogram:

Safety Data Sheet

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Signal Word:
Warning

Hazard Statement:

H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280 Wear protective gloves.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P272 Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste collection point.

Hazards not otherwise classified

Labeling of special preparations (GHS):

May produce an allergic reaction. Contains: 1,2-benzisothiazol-3(2H)-one, mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200

Cyflumetofen

CAS Number: 400882-07-7
Content (W/W): 18.7 %
Synonym: No data available.

Oxirane, methyl-, polymer with oxirane, mono[2,4,6-tris(1-phenylethyl)phenyl] ether

CAS Number: 70880-56-7
Content (W/W): 1.0 - 3.0%
Synonym: (NON-PLC) Oxirane, methyl-, polymer with oxirane, mono[2,4,6-tris(1-phenylethyl)phenyl] ether

bronopol

CAS Number: 52-51-7
Content (W/W): < 0.1%
Synonym: 2-Bromo-2-nitro-1,3-propanediol; Bronopol

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4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

If on skin:

Wash thoroughly with soap and water

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

water spray, carbon dioxide, foam, dry powder

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, Hydrogen chloride, hydrogen fluoride, hydrogen bromide, nitrogen oxides, halogenated compounds, cyanides

The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire.

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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for safe handling

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect against heat. Protect contents from the effects of light. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

No occupational exposure limits known.

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Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	odourless	
Odour threshold:	not applicable, odour not perceivable	
Colour:	milky white	
pH value:	approx. 5 - 7 (10 g/l, 25 °C)	
Melting point:	< 20 °C	
onset of boiling:	99 °C	
Flash point:	No flash point - Measurement made up to the boiling point.	(Directive 92/69/EEC, A.9)
Flammability:	No dangerous quantities of flammable gases will be produced by contact with water. Based on the structure or composition there is no indication of flammability	

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Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Autoignition:	approx. 370 °C (Regulation 440/2008/EC, A.15)
Vapour pressure:	approx. 23.4 hPa (20 °C) Information applies to the solvent.
Density:	approx. 1.07 g/cm ³ (20 °C)
Vapour density:	not applicable
Partitioning coefficient n-octanol/water (log Pow):	not applicable
Thermal decomposition:	carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, To be archived: Hydrocarbons Stable at ambient temperature. If product is heated above decomposition temperature, toxic vapours will be released.
Viscosity, dynamic:	approx. 38.4 mPa.s (20 °C)
Solubility in water:	dispersible
Evaporation rate:	not applicable
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:
not fire-propagating

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

See SDS section 7 - Handling and storage.

Incompatible materials

strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products

Decomposition products:

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Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, To be archived: Hydrocarbons

Stable at ambient temperature. If product is heated above decomposition temperature, toxic vapours will be released.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Oral

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg (OECD Guideline 423)

No mortality was observed.

Inhalation

Type of value: LC50

Species: rat (male/female)

Value: > 5.18 mg/l (OECD Guideline 403)

Exposure time: 4 h

No mortality was observed.

Dermal

Type of value: LD50

Species: rat (male/female)

Value: > 5,000 mg/kg (OECD Guideline 402)

No mortality was observed.

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

The product has not been tested. The statement has been derived from the properties of the individual components.

Irritation / corrosion

Assessment of irritating effects: Not irritating to the skin. Not irritating to the eyes. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Skin

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Species: rabbit
Result: non-irritant
Method: OECD Guideline 404

Eye

Species: rabbit
Result: non-irritant
Method: OECD Guideline 405

Sensitization

Assessment of sensitization: The product has not been tested. The statement has been derived from the properties of the individual components. Sensitization after skin contact possible.

*Information on: Cyflumetofen
Guinea pig maximization test
Species: guinea pig
Result: sensitizing
Method: OECD Guideline 406*

*Information on: 1,2-benzisothiazol-3(2H)-one
Guinea pig maximization test
Species: guinea pig
Result: sensitizing
Method: OECD Guideline 406*

*Information on: mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one
(3:1)
Mouse Local Lymph Node Assay (LLNA)
Species: mouse
Result: sensitizing
Method: OECD Guideline 429*

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: bronopol
Assessment of repeated dose toxicity: After repeated exposure the prominent effect is local irritation.*

*Information on: mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one
(3:1)
Assessment of repeated dose toxicity: After repeated exposure the prominent effect is local irritation.
Based on available Data, the classification criteria are not met.*

Genetic toxicity

Assessment of mutagenicity: Mutagenicity tests revealed no genotoxic potential. The product has not been tested. The statement has been derived from the properties of the individual components.

Carcinogenicity

Assessment of carcinogenicity: The results of various animal studies gave no indication of a carcinogenic effect. The product has not been tested. The statement has been derived from the properties of the individual components.

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Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Teratogenicity

Assessment of teratogenicity: Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals. The product has not been tested. The statement has been derived from the properties of the individual components.

Other Information

Misuse can be harmful to health.

Medical conditions aggravated by overexposure

Individuals with pre-existing diseases of the respiratory system, skin or eyes may have increased susceptibility to excessive exposures.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Toxic to aquatic life with long lasting effects.

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Toxicity to fish

LC50 (96 h) > 5.0 mg/l, *Oncorhynchus mykiss*

Aquatic invertebrates

EC50 (48 h) > 5.0 mg/l, *Daphnia magna*

Aquatic plants

EC50 (72 h) > 5.0 mg/l (growth rate), *Pseudokirchneriella subcapitata*

Chronic toxicity to fish

Information on: Cyflumetofen

Chronic toxicity to aquatic invertebrates

Information on: Cyflumetofen

Persistence and degradability

Assessment biodegradation and elimination (H2O)

The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment biodegradation and elimination (H2O)

Information on: Cyflumetofen

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Bioaccumulative potential

Assessment bioaccumulation potential

The product has not been tested. The statement has been derived from the properties of the individual components.

Bioaccumulation potential

Information on: Cyflumetofen

*Bioconcentration factor: < 100, Cyprinus carpio
Does not accumulate in organisms.*

Mobility in soil

Assessment transport between environmental compartments

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Cyflumetofen

Adsorption to solid soil phase is expected.

Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Hazard class: 9
Packing group: III

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ID number: UN 3082
Hazard label: 9, EHS
Marine pollutant: YES
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains CYFLUMETOFEN)

Air transport

IATA/ICAO

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHS
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains CYFLUMETOFEN)

Further information

The following provisions may apply for product in packages containing a net quantity of 5 L or less

ADR, RID, ADN: Special Provision 375;

IMDG: 2.10.2.7;

IATA: A197;

TDG: Special Provision 99(2);

49CFR: §171.4 (c) (2).

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US blocked / not listed

Crop Protection TSCA, US released / exempt

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

State regulations

State RTK

PA

NJ

CAS Number

57-55-6

57-55-6

Chemical name

Propylene glycol

Propylene glycol

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

BASF Risk Assessment, CA Prop. 65:

Based on an evaluation of the product's composition and the use(s), this product does not require a California Proposition 65 Warning.

NFPA Hazard codes:

Health: 1 Fire: 1 Reactivity: 1 Special:

Labeling requirements under FIFRA

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This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION:

HARMFUL IF SWALLOWED.

HARMFUL IF ABSORBED THROUGH SKIN.

HARMFUL IF INHALED.

Causes eye irritation.

Avoid inhalation of mists/vapours.

Avoid contact with the skin, eyes and clothing.

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2020/04/06

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