

Product name: Floramite® SC

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Floramite® SC**Chemical name:** Bifenazate Acaricide**Supplier:** Crompton Corporation
199 Benson Road
Middlebury, CT 06749, USA**Emergency telephone number:** CHEMTREC (24 hours) 800-424-9300Crompton Corporation Emergency Response (24 hours)
800-292-5898**For MSDS, Product Safety, or regulatory inquiries, call:** 866-430-2775

2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS#	CONCENTRATION
Bifenazate	149877-41-8	22.6 %

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW**CAUTION!**

MAY CAUSE EYE IRRITATION.

MAY CAUSE SKIN SENSITIZATION.

4. 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.

Skin

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.

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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.

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

5. FIRE-FIGHTING MEASURES

Flash point: 104 °C**Flammable limits**

Lower limit: Not applicable

Upper limit:

Autoignition temperature: > 400 °C**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

6. 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.

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

7. 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

PERSONAL PROTECTION

Respiratory protection

Self-contained breathing apparatus in high vapor concentrations.

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.

EXPOSURE LIMITS

No exposure limits have been established

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9. 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 ³
Solubility in water	Dispersible
Solubility in organic solvents	Miscible with organic solvents
Evaporation rate (Butyl Acetate=1)	Similar to water
Flash point	>104 °C
Autoignition temperature	> 400 °C
Lower explosion limits	Not applicable
Dynamic viscosity	83 mPa.s
Oxidizing properties	Not applicable.
Surface tension	42.1 dyn/cm at 25 °C
Explosive properties	Not applicable.

10. STABILITY AND REACTIVITY

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

Incompatible materials

Strong acids.
Strong bases.
Oxidizing agents.

Hazardous combustion products

Irritating fumes.
Oxides of carbon.
Oxides of nitrogen.

Product name: Floramite® SC**Hazardous polymerization:** Will not occur.**11. TOXICOLOGICAL INFORMATION**

<u>Component toxicology</u> Bifenazate Acute toxicity - Swallowing:	LD50 - Rat Result: > 5,000 mg/kg
<u>Component toxicology</u> Bifenazate Acute toxicity - Skin absorption:	LD50 - Rabbit Result: > 5,000 mg/kg
<u>Component toxicology</u> Bifenazate Acute toxicity - Inhalation:	LC50 - Rat Result: > 4.4 mg/l Exposure time: 4 h
<u>Component toxicology</u> Bifenazate Skin irritation - Skin contact:	Species: Rabbit Exposure time: 4 h Classification: Not irritant
<u>Component toxicology</u> Bifenazate Eye irritation - Eye contact:	Species: Rabbit Classification: Not irritant
<u>Component toxicology</u> Bifenazate <u>Test results</u> - Sensitization:	Species: - Guinea pigs Result: Positive

Component (Bifenazate): Negative**Component (Bifenazate):** Negative**Toxicity to reproduction/fertility****Component(Bifenazate):** Negative**12. ECOLOGICAL INFORMATION**

<u>Component ecotoxicology</u> Bifenazate <u>Acute toxicity fish:</u>	- LC50 - Rainbow trout Result: 0.58 mg/l Exposure time: 96 h
<u>Component ecotoxicology</u> Bifenazate	- LC50 - Bluegill Result: 0.58 mg/l

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<u>Acute toxicity fish:</u>	Exposure time: 96 h
<u>Component ecotoxicology</u> Bifenazate <u>Aquatic toxicity to plants:</u>	- EC50 - Selenastrum capricornutum Result: 0.9 mg/l Exposure time: 96 h
<u>Component ecotoxicology</u> Bifenazate <u>Acute toxicity to aquatic invertebrates:</u>	- LC50 - Daphnia magna Result: 0.5 mg/l Exposure time: 48 h

13. DISPOSAL CONSIDERATIONS

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

Non-cleaned packages

Empty drums should be decontaminated and either passed to an approved drum reconditioner or destroyed. Containers that cannot be cleaned must be treated as waste.

14. TRANSPORT INFORMATION

DOT Classification

Not regulated by ground or rail if shipped or transported in containers less than 450 liters.

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Class: 9
UN ID #: UN3082
Packing group: III
marine pollutant: MARINE POLLUTANT

Not regulated by ground or rail 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

ICAO Classification

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s.
Class: 9
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15. 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 ****

Massachusetts Right-To-Know Substance List (MSL)--Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products.

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

**** NONE ****

Pennsylvania Right-To-Know Hazardous Substance List--Hazardous Substances and Special Hazardous Substances on the list must be identified when present in products.

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

**** NONE ****

New Jersey Worker and Community Right-To-Know Act (Labeling Requirements)

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

EPA Hazard Categories (SARA 311, 312): Immediate Health Hazard

California Proposition 65

**** NONE ****

FDA

Food contact

Not applicable.

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

FURTHER INFORMATION

MAY BE ON THE INVENTORY LIST BUT NOT NECESSARILY REGISTERED, (Korea, China, New Zealand)
CONSULT REGULATORY SPECIALIST.



MATERIAL SAFETY DATA SHEET

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LEGEND

STP	Standard temperature and pressure
W/W	Weight/Weight
0 (HMIS)	Minimal 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

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The opinions expressed herein are those of qualified experts within Crompton Corporation. 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 Crompton Corporation, it is the user's obligation to determine the conditions of safe use of the products.