

FLORAMITE® SC

EPA Registration Number: 400-508-59807

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: FLORAMITE® SC
EPA Registration No.: 400-508-59807
Chemical nature: Miticide
Recommended use of the chemical and restrictions on use
Recommended use: Plant protection agent
Restrictions on use: Agriculture,
For professional users only.
Company information: OHP, Inc.
PO Box 51230
Mainland, PA 19451
(800) 659-6745

Emergency telephone number
TRANSPORTATION EMERGENCY
(24 hours a day) call: Chemtrec: 1-800-424-9300
MEDICAL EMERGENCY (24 hours a day) and Product Information call: 1-800-356-4647
SDS Information or Request: ohp.com

2. HAZARDS IDENTIFICATION

Emergency Overview
WARNING!
Appearance: liquid
Colour: off-white, to, tan
Odour: slight, sweet
Hazard Summary: May cause an allergic skin reaction.
Toxic to aquatic life with long lasting effects.
OSHA Regulatory status: This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.
GHS Classification
Skin sensitisation: Category 1
Acute aquatic toxicity: Category 2
Chronic aquatic toxicity: Category 2

GHS Label element

Hazard pictograms:



Signal word: Warning

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

Precautionary statements:

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

Response:
P302 + IF ON SKIN: Wash with plenty of soap and water.
P333 + If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

Skin: May cause allergic skin reaction.

Aggravated Medical Condition: None known.

Symptoms of Overexposure: sensitising effects

Carcinogenicity:

IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

FLORAMITE® SC

EPA Registration Number: 400-508-59807

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Miticide

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
Bifenazate	149877-41-8	>= 20 - < 30

4. FIRST AID MEASURES

If inhaled : Call a POISON CENTER or doctor/ physician.

In case of skin contact : Remove contaminated clothing and shoes.
Call a POISON CENTER or doctor/ physician.

In case of eye contact : Call a POISON CENTER or doctor/ physician.

If swallowed : Call a physician or poison control center immediately.
Do not induce vomiting without medical advice.

Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

5. FIREFIGHTING MEASURES

Suitable extinguishing media : Extinguishing media - large fires
Alcohol-resistant foam (on small fires)
Carbon dioxide (CO₂)
Dry chemical

Unsuitable extinguishing media : Water spray jet

Specific hazards during fire-fighting : No information available.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment

for firefighters : In the event of fire, wear self-contained breathing apparatus.
Complete suit protecting against chemicals
Full protective flameproof clothing

6. ACCIDENTAL RELEASE MEASURES

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

Environmental precautions : Do not allow material to contaminate ground water system.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.
Dam up.
Large spills should be collected mechanically (remove by pumping) for disposal.
In accordance with local and national regulations.

7. HANDLING AND STORAGE

Advice on safe handling : Avoid inhalation, ingestion and contact with skin and eyes.
Use only in area provided with appropriate exhaust ventilation.
Wash thoroughly after handling.

Conditions for safe storage : Keep in a dry, cool place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters
Contains no substances with occupational exposure limit values.

Engineering measures : effective ventilation in all processing areas
Ensure that eyewash stations and safety showers are close to the workstation location.

FLORAMITE® SC

EPA Registration Number: 400-508-59807

Personal protective equipment

Respiratory protection . . . : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection

Remarks : Impervious gloves

Eye protection : Safety glasses with side-shields

Skin and body protection . . : impervious clothing

Hygiene measures : Ensure adequate ventilation, especially in confined areas.
Remove and wash contaminated clothing before re-use.
Handle in accordance with good industrial hygiene and safety practice.
Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Colour : off-white, to, tan
Odour : slight, sweet
Odour Threshold : No data available
pH : 5 - 9
Melting point/range : Not applicable
Boiling point/boiling range : > 100 °C
Flash point : does not flash
Evaporation rate : No data available
Upper explosion limit : Not explosive
Lower explosion limit : Not explosive
Vapour pressure : No data available
Relative vapour density : No data available
Relative density : 1.050 - 1.070 (25 °C)
Density : > 1 g/cm³
Solubility(ies)
Water solubility : dispersible
Solubility in other solvents : Description: miscible with most organic solvents
Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature . . : > 399 °C

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : 300 - 700 mPa.s (20 °C)
Viscosity, kinematic : No data available

Explosive properties : Not explosive

Self-Accelerating decomposition temperature (SADT) : Method: No information available.

Surface tension : 42.1 mN/m, 25 °C

Oxidising potential : The substance or mixture is not classified as oxidizing.

10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Hazardous polymerisation does not occur.

Conditions to avoid : Extremes of temperature and direct sunlight.

Incompatible materials : Oxidizing agents

Hazardous decomposition products : Carbon oxides
Nitrogen oxides (NO_x)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat, male):
> 5,000 mg/kg
GLP: yes
LD50 (Rat, female):
> 2,000 mg/kg
GLP: yes

Acute inhalation toxicity : LC50 (Rat): > 1.94 mg/l
Exposure time: 4 h
Test atmosphere:
dust/mist
GLP: yes

FLORAMITE® SC

EPA Registration Number: 400-508-59807

Assessment: The substance or mixture has no acute inhalation toxicity

Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity LD50 Dermal (Rabbit):
> 5,000 mg/kg
GLP: yes

Components:

Bifenazate:

Acute oral toxicity LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

LD50 (Mouse, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute inhalation toxicity

. LC50 (Rat, male and female): > 4.4 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes

Assessment: The substance or mixture has no acute inhalation toxicity

Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes

Skin corrosion/irritation

Product:

Species Rabbit
Result No skin irritation
GLP yes

Components:

Bifenazate:

Species Rabbit
Exposure time 4 h

Method OECD Test Guideline 404

Result No skin irritation

GLP yes

Serious eye damage/eye irritation

Product:

Species Rabbit
Result No eye irritation
GLP yes

Components:

Bifenazate:

Species Rabbit
Result No eye irritation
Exposure time 48 h
Method OECD Test Guideline 405
GLP yes

Respiratory or skin sensitisation

Product:

Species Guinea pig
Assessment May cause sensitisation by skin contact.
GLP yes

Components:

Bifenazate:

Test Type Maximisation Test (GPMT)
Species Guinea pig
Assessment May cause sensitisation by skin contact.
Method OECD Test Guideline 406
GLP yes

Germ cell mutagenicity

Components:

Bifenazate:

Genotoxicity in vitro Test Type: Ames test
Metabolic activation: with and without metabolic activation
Result: negative
GLP: yes
: Test Type: In Vitro mammalian Cell Gene Mutation Test
Metabolic activation: with

FLORAMITE® SC

EPA Registration Number: 400-508-59807

and without metabolic activation
Result: negative
GLP: yes

: Test Type: Chromosome aberration test in vitro
Metabolic activation: with and without metabolic activation
Result: negative
GLP: yes

Genotoxicity in vivo: Test Type: In vivo micronucleus test
Species: Mouse
Result: negative
GLP: yes

Germ cell mutagenicity - Assessment: Animal testing did not show any mutagenic effects.

Carcinogenicity

Components:

Bifenazate:

Carcinogenicity - Assessment: Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Components:

Bifenazate:

Reproductive toxicity - Assessment: No toxicity to reproduction
No effects on or via lactation

STOT - single exposure

Product:

Assessment: Based on available data, the classification criteria are not met.

Components:

Bifenazate:

Assessment: Based on available data, the classification criteria are not met.

STOT - repeated exposure

Product:

Assessment: Based on available data, the classification criteria are not met.

Components:

Bifenazate:

Assessment: Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): 1.4 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 1.4 mg/l
Exposure time: 48 h

Toxicity to algae: EC50 (Algae): 1.3 mg/l
Exposure time: 72 h

Components:

Bifenazate:

Toxicity to fish: LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.58 mg/l
Exposure time: 96 h
Test Type: flow-through test
GLP: yes

LC50 (Oncorhynchus mykiss (rainbow trout)): 0.76 mg/l
Exposure time: 96 h
Test Type: flow-through test
GLP: yes

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 0.5 mg/l
Exposure time: 48 h
Test Type: flow-through test
GLP: yes

LC50 (Crassostrea virginica): 0.42 mg/l
Exposure time: 96 h
Test Type: flow-through test
GLP: yes

FLORAMITE® SC

EPA Registration Number: 400-508-59807

Toxicity to algae IC50 (Lemna gibba):
> 3.82 mg/l
Exposure time: 7 d
Analytical monitoring: yes
GLP: yes

NOEC (Lemna gibba): >
3.82 mg/l
Exposure time: 7 d
Analytical monitoring: yes
GLP: yes

NOEC (Selenastrum
capricornutum (green
algae)): 0.25 mg/l
Exposure time: 96 h
GLP: yes

ErC50 (Selenastrum
capricornutum (green
algae)): > 2.02 mg/l
Exposure time: 96 h
GLP: yes

EbC50 (Selenastrum
capricornutum (green
algae)): 0.9 mg/l
Exposure time: 96 h
GLP: yes

NOEC (Navicula pellicu-
losa): 0.52 mg/l
Exposure time: 96 h
GLP: yes

EbC50 (Navicula pellicu-
losa): 0.82 mg/l
Exposure time: 96 h
GLP: yes

ErC50 (Navicula pellicu-
losa): 1.4 mg/l
Exposure time: 96 h
GLP: yes

NOEC(b) (Anabaena
flos-aquae (cyanobacteri-
um)): 0.53 mg/l
Exposure time: 96 h
GLP: yes

NOEC(r) (Anabaena
flos-aquae (cyanobacteri-
um)): 1.13 mg/l
Exposure time: 96 h
GLP: yes

EbC50 (Anabaena flos-
aquae (cyanobacteri-
um)): 1.8 mg/l
Exposure time: 96 h

GLP: yes

ErC50 (Anabaena flos-
aquae (cyanobacteri-
um)): > 4.48 mg/l
Exposure time: 96 h
GLP: yes

NOEC (Skeletonema
costatum): 0.2 mg/l
Exposure time: 96 h
GLP: yes

EbC50 (Skeletonema
costatum): 0.3 mg/l
Exposure time: 96 h
GLP: yes

ErC50 (Skeletonema
costatum): 0.36 mg/l
Exposure time: 96 h
GLP: yes

**M-Factor (Acute
aquatic toxicity)** 1

**Toxicity to fish
(Chronic toxicity)** NOEC (Oncorhynchus
mykiss (rainbow trout)):
0.017 mg/l
Exposure time: 87 d
Test Type: flow-through
test
Analytical monitoring: yes
GLP: yes

**Toxicity to daphnia and other aquatic invertebrates
(Chronic toxicity)** NOEC (Daphnia magna
(Water flea)): 0.15 mg/l
Exposure time: 21 d
Analytical monitoring: yes
GLP: yes

**M-Factor (Chronic
aquatic toxicity)** 1

**Toxicity to soil
dwelling organisms** LC50 (Eisenia fetida
(earthworms)): > 1,250
mg/kg
Exposure time: 14 d
GLP: yes

NOEC (Eisenia fetida
(earthworms)): 95 mg/kg
Exposure time: 14 d
GLP: yes

FLORAMITE® SC

EPA Registration Number: 400-508-59807

Toxicity to terrestrial organisms

LD50 (Apis mellifera (bees)): 8.50 µg/bee
Exposure time: 48 h
End point: mortality
GLP: yes

Persistence and degradability

Product:

Biodegradability : Result: Not readily biodegradable.
Remarks: Not readily biodegradable.

Components:

Bifenazate:

Biodegradability : Result: According to the results of tests of biodegradability this product is not readily biodegradable.

Bioaccumulative potential

Components:

Bifenazate:

Partition coefficient: n-octanol/water : log Pow: 3.4 (25 °C)

Mobility in soil

Product:

Mobility : Remarks: No data available

Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container.
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging . . . : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

14. TRANSPORT INFORMATION

International Regulation

IATA-DGR

UN/ID No. : UN 3082
Proper shipping name . . . : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bifenazate)

Class : 9
Packing group : III
Labels : Miscellaneous

Packing instruction (cargo aircraft) : 964

Packing instruction (passenger aircraft) : 964

IMDG-Code

UN number : UN 3082
Proper shipping name . . . : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bifenazate)

Class : 9
Packing group : III
Labels : 9

EmS Code : F-A, S-F

Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR

UN/ID/NA number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Bifenazate)

Class : 9
Packing group : III
Labels : CLASS 9

ERG Code : 171

Marine pollutant : yes(Bifenazate)

Remarks : Above applies only to containers over 119 gallons or 450 liters. Not regulated if shipped in packages less than or equal to 119 gallons (450 liters).
Not regulated by DOT and TDG if shipped or transported in packaging less than 450 liters by road and/or rail.

FLORAMITE® SC

EPA Registration Number: 400-508-59807

15. REGULATORY INFORMATION

OSHA Hazards: Skin sensitiser

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 311/312 Hazards: Chronic Health Hazard

California Prop 65: WARNING! This product contains a chemical known to the State of California to cause cancer.

1,4-dioxane	123-91-1
ethylene oxide	75-21-8
methyloxirane	75-56-9

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

ethylene oxide	75-21-8
----------------	---------

FIFRA Hazard Information:

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use.

The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION

Harmful if swallowed. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

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.

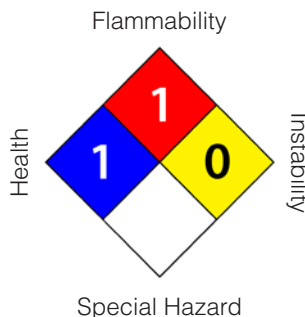
This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.

Do not use or store near heat or open flame.

16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	1*
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = Not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Floramite is a registered trademark of MacDermid Agricultural Solutions, Inc.