

SIROCCO®

EPA Registration Number: 400-582-59807

1. PRODUCT AND COMPANY IDENTIFICATION

Product name SIROCCO®
EPA Registration No. 400-582-59807
Chemical nature Formulated product
Recommended use of the chemical and restrictions on use
Recommended use Miticide
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, light tan
Odour mild
Hazard Summary Harmful if swallowed.
 Causes eye irritation.
 Very 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
Acute toxicity (Oral) Category 4
Eye irritation) Category 2B
Acute aquatic toxicity Category 1
Chronic aquatic toxicity Category 1
GHS Label element
Hazard pictograms



Signal word Warning

Hazard statements:
 H302 Harmful if swallowed.
 H320 Causes eye irritation.
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P273 Avoid release to the environment.

Response:
 P301 +
 P312 +
 P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
 P305 +
 P351 +
 P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 +
 P313 If eye irritation persists: Get medical advice/ attention.
 P391 Collect spillage.

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

Potential Health Effects
Inhalation May cause irritation of respiratory tract.
Skin May irritate skin.
Eyes Causes eye irritation.
Ingestion Harmful if swallowed.
Aggravated Medical Condition None known.
Symptoms of Overexposure Eye irritation irritant 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

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0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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: Formulated product
Hazardous components

Chemical Name	CAS-No.	Concentration (%)
Bifenazate	149877-41-8	>= 30 - < 50
Avermectin B1	71751-41-2	< 0.1

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: Burning produces irritant fumes.

Exposure to decomposition products may be a hazard to health.

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: Body covering protective clothing, full "turn-out" gear.
Self-contained breathing apparatus (EN 133)

6. ACCIDENTAL RELEASE MEASURES

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

Environmental precautions: Should not be released into the environment.
Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

Methods and materials for containment and cleaning up: Dam up.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Pick up and transfer to properly labelled containers.
Large spills should be collected mechanically (remove by pumping) for disposal.

7. HANDLING AND STORAGE

Advice on safe handling: Handle in accordance with good industrial hygiene and safety practice.
Avoid contact with skin and eyes.
Avoid inhalation of vapour or mist.
Use with adequate 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

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Contains no substances with occupational exposure limit values.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Colour : off-white, to, light tan
Odour : mild
Odour Threshold : No data available
pH : ca. 7.2
Melting point/range : Not applicable
Boiling point/boiling range : 100 °C
Flash point : > 110 °C
Evaporation rate : No data available
Upper explosion limit : No data available
Lower explosion limit : No data available
Vapour pressure : similar to water
Relative vapour density : No data available
Relative density : 1.104
Solubility(ies)
Water solubility : dispersible
Solubility in other solvents : No data available
Partition coefficient:
n-octanol/water : No data available
Auto-ignition temperature . . : No data available
Decomposition temperature : No data available
Viscosity
Viscosity, dynamic : 333 mPa.s (20 °C)
Viscosity, kinematic : No data available
Self-Accelerating decomposition temperature (SADT) : Method:
 No information available.

10. STABILITY AND REACTIVITY

Reactivity : Stable under recommended storage conditions.
Chemical stability : No decomposition if stored and applied as directed.
Possibility of hazardous reactions : Hazardous polymerisation does not occur.
Conditions to avoid : No data available
Incompatible materials : Strong oxidizing agents
 Strong acids and strong bases
Hazardous decomposition products : Carbon oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Skin contact
 Inhalation
 Ingestion
Acute toxicity
Product:
Acute oral toxicity : LD50 (Rat): 310 mg/kg
Acute inhalation toxicity : LC50 (Rat): 0.52 - 2.4 mg/l
Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg
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

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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

Avermectin B1:

Acute oral toxicity : LD50 (Rat): 11 mg/kg
LD50 (Rat, male and female): 8.7 - 12.8 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity

. : LC50 (Rat): 1,100 mg/l
Exposure time: 4 h
LC50 (Rat, male and female): 0.21 mg/l
Exposure time: 4 h
Method: OECD Test Guideline 403
GLP: yes

Acute dermal toxicity . . . : LD50 (Rabbit): > 2,000 mg/kg
LD50 (Rabbit, male and female): > 2,000 mg/kg
Method: OECD-Guideline No. 402

Skin corrosion/irritation

Product:

Species : Rabbit
Result : slight irritation

Components:

Bifenazate:

Species : Rabbit
Exposure time : 4 h
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : yes

Avermectin B1:

Species : Rabbit
Method : OECD-Guideline No. 404
Result : No skin irritation

Serious eye damage/eye irritation

Product:

Species : Rabbit
Result : Mild eye irritation

Components:

Bifenazate:

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

Avermectin B1:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405

Respiratory or skin sensitisation

Product:

Species : Guinea pig
Result : Did not cause sensitisation on laboratory animals.

Components:

Bifenazate:

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

Avermectin B1:

Test Type : Maximisation Test (GPMT)
Species : Guinea pig
Assessment : Did not cause sensitisation on laboratory animals.
Method : OECD Test Guideline 406

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Germ cell mutagenicity

Components:

Bifenazate:

- Genotoxicity in vitro** : Test Type: Ames test
Metabolic activation:
with and without meta-
bolic activation
Result: negative
GLP: yes
- : Test Type: In Vitro mam-
malian Cell Gene
Mutation Test
Metabolic activation: with
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.

Avermectin B1:

- Genotoxicity in vitro** : Test Type: Ames test
Metabolic activation: with
and without metabolic
activation
Method: Mutagenicity
(Escherichia coli -
reverse mutation assay)
Result: negative
- Genotoxicity in vivo** : Test Type: in vivo assay
Species: Mouse (males)
Cell type: Bone marrow
Result: negative

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.

Avermectin B1:

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

Avermectin B1:

Reproductive toxicity

- Assessment** : No toxicity to
reproduction
Effects on or via lactation

STOT - single exposure

Components:

Bifenazate:

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

STOT - repeated exposure

Components:

Bifenazate:

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

Avermectin B1:

Exposure routes : Oral

Target Organs : Central nervous system

Assessment : May cause damage to
organs through prolonged or repeated exposure.

Exposure routes : Inhalation

Target Organs : Central nervous system

Assessment : May cause damage to
organs through prolonged or repeated exposure.

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Further information

Product:

Remarks: The product itself has not been tested. The following information is applicable to a component of this material:

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 pelliculosa): 0.52 mg/l
Exposure time: 96 h
GLP: yes

EbC50 (Navicula pelliculosa): 0.82 mg/l
Exposure time: 96 h
GLP: yes

ErC50 (Navicula pelliculosa): 1.4 mg/l
Exposure time: 96 h
GLP: yes

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

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

EbC50 (Anabaena flos-aquae (cyanobacterium)): 1.8 mg/l
Exposure time: 96 h
GLP: yes

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

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

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

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

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	<p>EbC50 (Skeletonema costatum): 0.3 mg/l Exposure time: 96 h GLP: yes</p> <p>ErC50 (Skeletonema costatum): 0.36 mg/l Exposure time: 96 h GLP: yes</p>	<p>(Oncorhynchus mykiss (rainbow trout)): 0.036 mg/l Exposure time: 96 h Test Type: static test</p>
<p>M-Factor (Acute aquatic toxicity): 1</p>	<p>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</p>	<p>Toxicity to daphnia and other aquatic invertebrates . . .: EC50 (Daphnia magna (Water flea)): 0.00037 mg/l Exposure time: 48 h Test Type: static test</p>
<p>Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)</p>	<p>NOEC (Daphnia magna (Water flea)): 0.15 mg/l Exposure time: 21 d Analytical monitoring: yes GLP: yes</p>	<p>Toxicity to algae: (Scenedesmus species): > 100 mg/l Exposure time: 9 d (Pseudokirchneriella subcapitata (green algae)): 0.006 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201</p>
<p>M-Factor (Chronic aquatic toxicity): 1</p>	<p>Toxicity to soil dwelling organisms: LC50 (Eisenia fetida (earthworms)): > 1,250 mg/kg Exposure time: 14 d GLP: yes</p> <p>NOEC (Eisenia fetida (earthworms)): 95 mg/kg Exposure time: 14 d GLP: yes</p>	<p>Toxicity to fish (Chronic toxicity): NOEC: 0.00052 mg/l Exposure time: 72 d Test Type: flow-through test</p>
<p>Toxicity to terrestrial organisms</p>	<p>LD50 (Apis mellifera (bees)): 8.50 µg/bee Exposure time: 48 h End point: mortality GLP: yes</p>	<p>Persistence and degradability</p> <p>Product:</p> <p>Biodegradability :</p> <p>Remarks: No data available</p>
<p>Avermectin B1: Toxicity to fish</p>	<p>LC50 (Lepomis macrochirus (Bluegill)): 0.0096 mg/l Exposure time: 96 h</p>	<p>Components</p> <p>Bifenazate:</p> <p>Biodegradability: Result: According to the results of tests of biodegradability this product is not readily biodegradable.</p> <p>Avermectin B1:</p> <p>Biodegradability: aerobic Inoculum: activated sludge Concentration: 100 mg/l Result: According to the results of tests of biodegradability this product is not readily biodegradable. Biodegradation: 3 % Exposure time: 28 d</p>

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Bioaccumulative potential	IMDG-Code
Product:	UN number : UN 2902
Bioaccumulation : Remarks: No data available	Proper shipping name . . . : PESTICIDES, LIQUID, TOXIC, N.O.S. (Abamectin, Bifenazate)
Components:	Class : 6.1
Bifenazate:	Packing group : III
Partition coefficient: n-octanol/water : log Pow: 3.4 (25 °C)	Labels : 6.1
Avermectin B1:	EmS Code : F-A, S-A
Partition coefficient: n-octanol/water : log Pow: 4.4 (20 °C)	Marine pollutant : yes
Mobility in soil	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Product:	Not applicable for product as supplied.
Mobility : Remarks: No data available	National Regulations
Other adverse effects	49 CFR
Product:	UN/ID/NA number : UN 2902
Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.	Proper shipping name . . . : PESTICIDES, LIQUID, TOXIC, N.O.S. (Abamectin, Bifenazate)
13. DISPOSAL CONSIDERATIONS	Class : 6.1
Disposal methods	Packing group : III
Waste from residues : In accordance with local and national regulations.	Labels : TOXIC
14. TRANSPORT INFORMATION	ERG Code : 151
International Regulation	Marine pollutant : yes (Abamectin, Bifenazate)
IATA-DGR	15. REGULATORY INFORMATION
UN/ID No. : UN 2902	OSHA Hazards : Moderate eye irritant
Proper shipping name . . . : PESTICIDE, LIQUID, TOXIC, N.O.S. (Abamectin, Bifenazate)	EPCRA - Emergency Planning and Community Right-to-Know Act
Class : 6.1	SARA 311/312 Hazards . . . : Acute Health Hazard Chronic Health Hazard
Packing group : III	California Prop 65 : WARNING! This product contains a chemical known to the State of California to cause cancer.
Labels : Toxic	1,4-dioxane 123-91-1
Packing instruction (cargo aircraft) : 663	ethylene oxide 75-21-8
Packing instruction (passenger aircraft) : 655	methyloxirane 75-56-9
	WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
	Avermectin B1 71751-41-2
	ethylene oxide 75-21-8

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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.

WARNING

May be fatal if swallowed. Harmful if inhaled. Avoid breathing spray mist.

This pesticide is toxic to birds, estuarine/marine invertebrates, fish and wildlife. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from target areas. Do not contaminate water when disposing of equipment wash water or rinsate.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

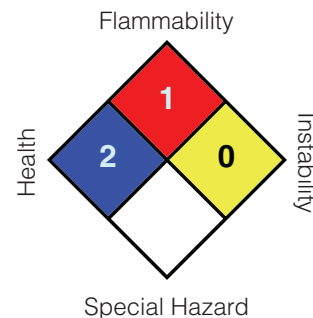
Use of this product may pose a risk to threatened and endangered species of fish, amphibians, crustaceans (including fresh water shrimp), and Insects. All use of this product in the state of California should comply with the recommendations of the CA Endangered Species Project. Before using this product in California, consult with your county agriculture commissioner to determine use limitations that apply in your area.

Do not use or store near heat or open flame.

16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	2*
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.

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