



Uniroyal Chemical

Material Safety Data Sheet

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MSDS No. A320006

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

IDENTIFICATION

Trade Name: FLORAMITE® SC/LS

CAS Number: 149877-41-8 (actives)

Chemical Name:

Chemical Family: Carboxylic acid ester

Hydrazine carboxylic acid, 2-(4-methoxy-[1,1-biphenyl] 3-yl)-1-methylethyl ester 22.6%

Inerts: 77.4%

Common Name: Bifenazate

SPECIAL REGULATORY HAZARDS

<u>Ingredient</u> Product	<u>CAS No.</u> Mixture	<u>Exposure Limit</u> ND	<u>OSHA (1910.1200)</u> Sensitizer Irritant	<u>EEC*</u> Sensitizer Irritant
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Hazard assessment based on available data.

Transportation: IATA/ICAO: Not regulated DOT/IMO Hazard Class: 9, Miscellaneous: ID No. UN3082 Marine Pollutant (DOT only package equal to or greater than 119 gals.)

PHYSICAL DATA

Appearance and Odor: Off-white, beige liquid; slight odor

Solubility: ND

Specific Gravity (H₂O=1): 1.06

Vapor Pressure @ 20°C: NA

Melting Point: NA

Vapor Density (Air = 1): NA

Boiling Point: ND

Volatility @ 70°F: Low

Other Data: pH: 6-8

FIRE AND EXPLOSION HAZARD DATA

Flash Point: >104°C

Autoignition Temperature: >400°C

Extinguishing Media: Water fog, dry chemical, CO₂. Do not use direct stream of water. Product will float and may reignite.

Flammable Limits: ND

Special Fire Fighting Procedures: Protect against inhalation of combustion products.

Unusual Hazards: None identified.

REACTIVITY DATA

Stability: Stable at ambient temperatures and pressures.

Incompatibility: None identified.

Decomposition Products: Oxides of carbon under burning conditions.

NA = Not Applicable

ND = Not Determined

* European Economic Community

Crompton makes no representation or warranty with respect to the information in this Material Safety Data Sheet. The information is however, as of this date provided, true and accurate to the best of Crompton's knowledge. This list of information is not intended to be all inclusive. Actual conditions of use and handling may require considerations of information other than, or in addition to, that which is provided herein.

SPECIAL PROTECTION INFORMATION

Engineering Controls: Sufficient ventilation to minimize vapor exposure.

Personal Protection Equipment: Avoid all personal contact. Observe good personal hygiene. Chemical resistant gloves, protective clothing and eye protection should be worn when handling. Launder clothing before reuse. In the absence of adequate ventilation, a NIOSH-certified pesticide cartridge respirator should be used.

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, SPILLS AND DISPOSAL INFORMATION

Storage: Store in a dry area.

Spills: Absorb on inert material. Shovel into secure containers for proper disposal. Use personal protective equipment as outlined above.

Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Environmental Information: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark, except under the forest canopy when used to control forest pests. Drift or runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

FOR BIFENAZATE TECHNICAL:

Bluegill sunfish 96 hr. LC₅₀ - 0.58 ppm

Rainbow trout 96 hr. LC₅₀ - 0.76 ppm

Daphnia magna 48 hr. EC₅₀ - 0.50 ppm

Bobwhite quail LD₅₀ - 1142 mg/kg

Bobwhite quail LC₅₀ - 2298 ppm

Mallard duck LC₅₀ - 726 ppm

These data show Bifenazate is highly toxic to aquatic organisms.

HEALTH RELATED DATA

SPECIFIC HAZARDS: Contact with eyes may cause irritation. Contact with skin may cause sensitization.

Primary Route(s) of Entry: Skin and/or eye contact

First Aid Procedures: **IF IN EYES:** Flush with water for 15 minutes. Get medical attention.

IF ON SKIN: Wash with soap and water.

IF INHALED: Remove to fresh air. Give artificial respiration if needed. Get medical attention.

IF SWALLOWED: Induce vomiting only at the instruction of a physician. Never give anything by mouth to an unconscious person. See physician immediately.

TOXICOLOGY INFORMATION:

Oral toxicity: LD₅₀ (rats) - >5 g/kg (males)
>2 g/kg (females)

Dermal toxicity: LD₅₀ (rats) - >5 g/kg

Inhalation toxicity: LC₅₀ (rats) - > 1.9 mg/l

Irritation: eye (rabbits) - Irritant

skin (rabbits) - Non-irritating

Sensitization: Buehler - Non-sensitizing

MK - Sensitizer

These data are for Bifenazate:

3-week rat dermal study: Doses of 80, 400 and 1,000 mg/kg/day. Effects seen on body weight, RBC level, spleen weight and histopathology. NOEL = 80 mg/kg/day.

13-week rat feeding study: Doses of 2, 10 and 20 mg/kg/day. Effects seen on food intake, RBC level and spleen, liver and adrenal histopathology. NOEL = 2 mg/kg/day.

1-year dog feeding study: Doses of 1, 10 and 25 mg/kg/day. Effects seen on food consumption and body weight, RBC level and marrow, kidney and liver histopathology, NOEL = 1 mg/kg/day.

2-year rat feeding study: Doses of 1, 4 and 8 (females) or 10 (males) mg/kg/day. Effects seen on body weight, RBC level and spleen histopathology. No increase in tumor incidence. NOEL = 1 mg/kg/day.

Mouse oncogenicity study: Doses of 1.4, 14 and 25 (females) or 32 (males) mg/kg/day. Effects seen on body weight and RBC and leukocyte levels. No increase in tumor incidence.

Rat reproduction study: Doses of 1.4 and 10 mg/kg/day. Effects seen on parental body weight. No reproductive effects.

Parental NOEL = 1 mg/kg/day.

Rabbit teratology study: Doses of 10, 50 and 200 mg/kg/day. No effects seen. NOEL = >200 mg/kg/day.

Rat teratology study: Doses of 10, 100 and 500 mg/kg/day. Effects seen on maternal body weight and clinical signs. No teratogenic or developmental effects. Maternal NOEL = 10 mg/kg/day.

Mutagenicity: Negative in the following assays: Ames reverse mutation, Mouse lymphoma, CHO chromosome aberration and Mouse micronucleus.