



ENERVATE™

4 SC

SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC)

1. IDENTIFICATION

PRODUCT NAME: Enervate 4 SC
DESCRIPTION A liquid miticide/acaricide
EPA REGISTRATION NUMBER: 91234-20
COMPANY IDENTIFICATION: Atticus, LLC
5000 CentreGreen Way, Suite 100
Cary, NC 27513

2. HAZARDS IDENTIFICATION



WARNING

May cause an allergic skin reaction



Very toxic to aquatic life with long lasting effects

3. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name	Chemical Name	CAS #	Composition
Bifenazate	Hydrazine carboxylic acid, 2-(4-methoxy[1,1'-biphenyl]-3-yl)-, 1-methylethyl ester	149877-41-8	43.2%

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical assistance, call SafetyCall: 1-844-685-9173. For chemical emergency: spill, leak, fire, exposure or accident, call CHEMTREC: 1-800-424-9300.

IF ON SKIN: Take off contaminated clothing and wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.

5. FIRE-FIGHTING MEASURES

Flash Point: N/A

Fire and Explosion Hazards: No information available.

Extinguishing Medium: Water fog, foam, dry chemical or carbon dioxide (CO₂).

Fire Fighting Equipment: Firefighters should be equipped with self-contained positive pressure breathing apparatus and full bunker gear.

Fire Fighting Instructions: Evacuate area of all unnecessary personnel and fight fire from a safe distance upwind. Contain contaminated water / firefighting water; do not allow to enter drains or waterways. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.

Hazardous Combustion Products: Oxides of carbon and nitrogen.

NFPA Ratings: Health – 2 / Flammability – 1 / Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Isolate area and keep unnecessary and unprotected personnel from entering. Wear suitable personal protective clothing and equipment as described in Section 8 of this document.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Spill Cleanup: Dike spill using suitable absorbent or impervious materials such as earth, sand, or clay. Collect and contain contaminated absorbent and place in an appropriate container for disposal. Pump any free liquid into an appropriate closed container and decontaminate tools and equipment following cleanup. Collect washings for disposal.

7. HANDLING AND STORAGE

Handling: Avoid breathing spray mist. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Keep out of reach of children and domestic animals.

Storage: Do not contaminate water, food or feed by storage or disposal. Store in a dry location.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

Protective Clothing: Applicators and other handlers must wear long-sleeved shirt and long pants, shoes plus socks. For mixing and loading activities when not using a closed system, wear an apron and waterproof gloves made of barrier laminate, polyethylene, butyl rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), natural rubber (≥ 14 mils), polyvinyl chloride (≥ 14 mils), or Viton (≥ 14 mils).

General: Follow manufacturer's instructions for cleaning and maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	off-white opaque liquid
ODOR:	Mildly sour
FLASHPOINT:	$> 110^{\circ}\text{C}$ ($> 230^{\circ}\text{F}$)
PH:	6.17 (corrected to 25°C) 1% aq.
DENSITY (TAP):	1.12 g/cm ³ (9.35 lbs./gal.) @ 25°C
SOLUBILITY:	Soluble

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Extreme temperatures, heat or open flame, direct sunlight.

CHEMICAL STABILITY: Stable under all normal use and storage conditions.

INCOMPATIBILITY WITH OTHER MATERIALS: Oxidizing agents, strong acids, strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS: This product is chemically stable and no hazardous reactions should occur if stored and handled as prescribed / indicated. Do not mix or allow to come into contact with oxidizing agents. Hazardous chemical reaction may occur.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ORAL TOXICITY (RAT LD₅₀):	$> 5,000$ mg/kg (male), $> 2,000$ mg/kg (female)		
DERMAL TOXICITY (RAT LD₅₀):	$> 5,000$ mg/kg		
INHALATION TOXICITY (RAT LC₅₀):	> 1.94 mg/L (4-hour)		
EYE IRRITATION:	Rabbit - Non irritating		
SKIN IRRITATION:	Rabbit - Non irritating		
SKIN SENSITIZATION:	Guinea Pig – May cause sensitization by skin contact		
CARCINOGENICITY:			
EPA:	Not Listed	NTP:	Not Listed
ACGIH:	Not Listed	OSHA:	Not Listed
IARC:	Not Listed		

MUTAGENIC TOXICITY: No evidence of mutagenic effects during *in vivo* and *in vitro* assays.

REPRODUCTIVE TOXICITY: Not known to cause reproductive or birth defects at normal exposure levels.

12. ECOLOGICAL INFORMATION

This pesticide is toxic to birds, estuarine/marine invertebrates and fish. This product is toxic to bees exposed to direct treatment.

The following information is the best available for this material:

AQUATIC TOXICITY

Rainbow Trout (96-hour LC₅₀): 1.4 mg/L
Daphnia (48-hour EC₅₀): 1.4 mg/L
Green Algae (72-hour EC₅₀): 0.043 mg/L

The following information is for the active ingredient, Bifenazate:

AQUATIC TOXICITY

Rainbow Trout (96-hour LC₅₀): 0.58 mg/L
Bluegill (96-hour LC₅₀): 0.76 mg/L
Daphnia (48-hour EC₅₀): 0.5 mg/L
Green Algae (72-hour EC₅₀): 0.9 mg/L

AVIAN TOXICITY

Bobwhite Quail (acute LD₅₀): 1142 mg/kg
Bobwhite Quail (dietary LC₅₀): 2298 mg/kg
Mallard Duck (dietary LC₅₀): 726 mg/kg

OTHER TOXICITY

Bees (48-hr oral LD₅₀): > 100 μg /bee
Bees (contact): 8.5 μg /bee

13. DISPOSAL CONSIDERATIONS

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

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Refer to the product label for specific container disposal instructions.

14. TRANSPORT INFORMATION

US DOT (shipments by ground):

Containers < 119 Gallons Net Contents: Not regulated by DOT.

Containers > 119 Gallons Net Contents:

Shipping Name: UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (bifenazate), 9, PG III

DOT Emergency Response Guide: 171

Marine Pollutant: Yes

IMDG (shipments by vessel):

UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (bifenazate), 9, III, Marine Pollutant

IATA (shipments by air):

UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (bifenazate), 9, III, Marine Pollutant



Manufactured for:
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5000 CentreGreen Way, Suite 100
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15. REGULATORY INFORMATION

FIFRA -

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 for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if swallowed. Harmful if inhaled. Avoid breathing spray mist. Prolonged or repeated skin contact may cause allergic reaction in some individuals.

Environmental Hazards

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 wash waters or rinsate. This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are foraging the treatment area.

Physical or Chemical Hazards

Do not use or store near heat or open flame. Do not mix or allow to come into contact with oxidizing agents. Hazardous chemical reaction may occur.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

SARA Title III - Section 302 Extremely Hazardous Substances

Not listed

SARA Title III - Section 311/312 Hazard Categories

Immediate

SARA Title III - Section 312 Threshold Planning Quantity

The threshold planning quantity (TPQ) for this product treated as a mixture is 10,000 lbs. This product contains no ingredients with a TPQ of less than 10,000 lbs.

SARA Title III - Section 313 Reportable Ingredients

None

CERCLA Reportable Quantity (RQ) -

None

CALIFORNIA PROP 65 STATUS -

This product does not contain any chemicals known to the state of California to cause cancer or reproductive harm.

CANADA -

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

16. OTHER INFORMATION

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

To the extent consistent with applicable law, neither Atticus, LLC nor Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ATTICUS, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ATTICUS, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SDS Version: 1.0

Effective Date: 12/30/2016



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