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MATERIAL SAFETY DATA SHEET APISTAN® ANTI-VARROA MITE STRIP

Manufacturer: Wellmark International

Address: 1501 E. Woodfield Rd., Suite 200 W, Schaumburg, IL 60173

Emergency Phone: 1-800-248-7763

Transportation Emergency Phone: CHEMTREC: 1-800-424-9300

1. CHEMICAL PRODUCT INFORMATION

Product Name: Apistan® Anti-Varroa Mite Strip

Chemical Name/Synonym: tau-Fluvalinate: (RS)- α -cyano-3-phenoxybenzl N-(2-chloro- α , α , α -trifluoro-p-

tolyl)-D-valinate

Chemical Family: Synthetic pyrethroid

Formula: C26 H22 CI F3 N2 O3

EPA Registration No.: 2724-406

RF Number: 318G

Inventory Control Number 300507997

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component (chemical, common name)	<u>CAS</u> <u>Number</u>	Weight	<u>Tolerance</u>
tau-Fluvalinate: (RS)- α -cyano-3-phenoxybenzl N-(2-chloro- α,α,α -trifluoro-p-tolyl)-D-valinate	102851-06-9	10.25 %	Not established
Inert Ingredients (non-hazardous/trade secret)		89.75 %	

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENT KEEP OUT OF REACH OF CHILDREN. HAZARDS TO HUMANS AND DOMESTIC ANIMALS- CAUTION:

Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. If workers contact treated material or surfaces: pesticide residues that get on their skin may cause itching and/or irritation that can be severe and they should avoid contact with treated strips or surfaces, and they should wash the affected skin immediately if irritation begins to occur.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Clinical symptoms may include salivation, depression, labored breathing, diarrhea. In certain individuals, a temporary sensory effect (itching, tingling, and numbness) may occur which usually subsides without medical treatment.

PRIMARY ROUTE OF ENTRY Dermal/Eye: Yes Oral: No Inhalation No

ACUTE TOXICITY Oral: Harmful if swallowed

Dermal: Harmful if absorbed through the skin

Inhalation: No specific hazard identified

Apistan® Anti-Varroa Mite Strip

OTHER TOXICOLOGICAL INFORMATION

Skin Irritation: May cause severe skin irritation Eye Irritation: Causes moderate eye irritation

Sensitizer: Not a skin sensitizer

4. FIRST AID MEASURES

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes.

Remove contact lenses, if present, after the first 5 minutes, then continue

rinsing eyes.

If on Skin: Take off contaminated clothing.

Rinse skin immediately with plenty of water for 15-20 minutes.

Call a poison control center or doctor for treatment advice.

If swallowed: 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.

5. FIRE FIGHTING MEASURES

NFPA Rating: Health: 1 Fire: Reactivity: 0

Flammability Class: Combustible solid

> Flash Point: Does not flash

Not established **Explosive Limits (% of Volume):**

> **Extinguishing Media:** Water, foam, dry chemical, CO2

Firefighters should wear protective clothing and self contained breathing **Special Protective Equipment:**

apparatus.

Fire Fighting Procedures: Normal procedures. Do not allow fire fighting water to escape into waterways

or sewers.

Combustion Products: Hydrogen cyanide, hydrogen chloride and hydrogen fluoride may form on

Unusual Fire/Explosion Hazards: None known

6. ACCIDENTAL RELEASE MEASURES

Because of product form and packaging, possibilities of a spill are remote. Steps to be taken:

> However, should one occur, wear proper protective equipment (See Special Protective Equipment) and sweep up spill. Place in a container for disposal.

Due to product form, no absorbents should be necessary. If in liquid form, use Absorbents:

clay granules, sawdust, dirt or equivalent.

Incompatibles: Strong acids or bases

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin or clothing. Wear appropriate chemical resistant

> gloves when handling the strips. Wash hands, face and arms thoroughly with soap and water after handling product. Container Handling: Non-refillable

container. Do not reuse or refill this container. Do not reuse strips.

Storage: Store in a cool, dry place. Keep in original unopened package until ready to

use. Storage area must be dry, well-lit, & well-ventilated. Do not store in direct sunlight. Do not store unused strips in anything but original package. Do not store unused strips near pesticides or other chemicals that could contaminate

the strips and result in bee toxicity. Keep storage areas clean.

Exposure Limits: Not established

Ventilation: Provide mechanical ventilation when handling

Personal Protective Equipment: Wear appropriate chemical resistant gloves. All handlers must wear: Long-

sleeved shirt and long pants, Shoes and socks, and chemical-resistant gloves.

Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Light golden colored, clear plastic strip, very low odor.

Boiling Point: N/A **Melting Point:** N/A

Vapor Pressure (mm Hg): Not determined

Vapor Density (Air = 1): Not determined

Specific Gravity: N/A

Bulk Density: about 1.14 g/cc

Solubility: None Evaporation Rate: N/A

pH: N/A

10. STABILITY AND REACTIVITY

Stability: Stable

Reactivity: Not reactive

Incompatibility w/Other Materials: Strong oxidizing agents

Decomposition Products: Hydrogen cyanide, hydrogen fluoride, hydrogen chloride, carbon monoxide,

carbon dioxide

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY [Based on tau-fluvalinate]

Acute oral toxicity: LD50 = 1402 mg/kg Acute dermal toxicity: LD50 >2000 mg/kg

Acute inhalation: No data – tau-fluvalinate is viscous liquid with vapor pressure >1 X 10⁻⁷ torr at 25°C

Skin irritation: Mild or slight irritation Eye irritation: Moderate eye irritant

Not a dermal sensitizer

CHRONIC TOXICITY [Based on tau-fluvalinate]

Rats received tau-fluvalinate via gavage. No oncogenic potential was shown. The NOEL was 1 mg/kg/day.

Mice were fed diets containing tau-fluvalinate. With the exception of skin lesions, no compound-related toxicity was observed. No oncogenic potential was shown. The systemic NOEL was considered to be 20 mg/kg/day.

Dogs were treated with racemic tau-fluvalinate daily for six months. Vomiting and diarrhea occurred at 50 mg/kg/day and skin lesions at the 3 highest levels. The NOEL was determined to be 2 mg/kg/day.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY [Based on tau-fluvalinate]

Rats were administered racemic tau-fluvalinate during presumed gestation. The developmental NOEL was 10 mg/kg/day. Skin lesions were observed at 100 ppm and above. Treatment-related mortality occurred at 500 and 1000 ppm. In the first generation, pup growth was inhibited at levels of 250 ppm and above during lactation. The NOEL was 20 ppm.

Rabbits were administered tau-fluvalinate during presumed gestation. Signs of maternal toxicity were anorexia, depression, and decreased body weights. The NOEL was 25 mg/kg/day.

MUTAGENICITY [Based on tau-fluvalinate]

The weight of evidence suggests tau-fluvalinate is not a mutagen.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE [Active Ingredients Only]

Hydrolysis: Main mechanism of dissipation at basic pH
Photolysis: Degraded rapidly in sunlight and artificial light
Soil half life: 6-15 days depending on soil type and oxygen

Water solubility: 0.002 mg/L at 25C

ECOTOXICITY [Active Ingredients Only]

Acute Toxicity: fish LC50: rainbow trout 0.91 ug/L (96 hour study); bluegill 1.2 ug/L (96 hour

study); sheephead minnow 1.5 ug/L (96 hour study)

aquatic invertebrates LC50: Daphnia magna 0.94 ug/L (48 hour study); Mysid

shrimp 0.1179 ug/L (96 hour study)

13. DISPOSAL CONSIDERATIONS

Wastes resulting from use of this product should be disposed of in accordance with all federal, state and local requirements. For additional regulatory information, see section 15 of this document.

14. TRANSPORT INFORMATION

DOT49CFR Description: Not regulated as hazardous by D.O.T.

Freight Classification: Insecticide, NOI, other than poison in boxes. NMFC 1055050 sub 3 class 92.5

15. REGULATORY INFORMATION

CERCLA (Superfund): Not regulated

RCRA: Not regulated

SARA 311/312 HAZARD CATEGORIES

Immediate Health: Yes (irritant)

Delayed Health: No

Fire: No

Sudden Pressure: No

Reactivity: No

The information presented herein, while not guaranteed, was prepared by technically knowledgeable personnel and to the best of our knowledge is true and accurate. It is not intended to be all inclusive and the manner and conditions of use and handling may involve other or additional considerations.