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MATERIAL SAFETY DATA SHEET
ZODIAC® FLEATROL™ FOGGER

Manufacturer: Wellmark International
Address: 1100 East Woodfield Road, Suite 500 Schaumburg, IL 60173
Emergency Phone: 1-800-950-4783
Transportation Emergency Phone: CHEMTREC: 1-800-424-9300

1. CHEMICAL PRODUCT INFORMATION

Product Name: Zodiac® Fleatrol™ Fogger
Chemical Name/Synonym: (S)-Methoprene: Isopropyl (2E, 4E, 7S)- 11-methoxy-3,7,11-trimethyl- 2,4-dodecadienoate, and Permethrin: [(3-phenoxyphenyl) methyl (+/-) cis/trans-3-(2,2-dichloroethyl)-2,2-dimethylcyclopropanecarboxylate] (cis/trans ratio: min. 35% (+/-) cis and max. 65% (+/-) trans.
Chemical Family: Terpenoid/Pyrethroid
Formula: C₂₁ H₂₀ C₁₂ O₃ / C₁₉ H₃₄ O₃
EPA Registration No.: 2724-454
RF Number: 9026.005

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component (chemical, common name)</u>	<u>CAS Number</u>	<u>Weight</u>	<u>Tolerance</u>
(S)-Methoprene: Isopropyl (2E,4E,7S)-11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate	65733-16-6	0.09%	Not established
Permethrin: (3-phenoxyphenyl) methyl (+/-) cis/trans-3- 2,2-dichloroethyl)-2,2-dimethylcyclopropanecarboxylate	52645-53-1	0.58%	Not established
Inert ingredients: (nonhazardous and/or trade secret):		99.33%	
Acetone	67-64-1		750 ppm (ACGIH TWA 1000ppm (OSHA TWA))

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENT

Caution: Keep out of the reach of children. Harmful if inhaled, swallowed or absorbed through the skin. Avoid breathing vapors or spray mist. May cause eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after using. In case of contact, immediately flush eyes or skin with plenty of water. Obtain medical attention if irritation persists. Avoid contamination of food, foodstuffs and food preparation areas. Leave room or house at once after activating fogger.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

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

ACUTE TOXICITY

Oral: LD50 (rat): >34,000 mg/kg (highest dose tested)(Based on (S)-Methoprene)

Dermal: LD50 (rabbit): >2000 mg/kg (highest dose tested) (Based on (S)-Methoprene)

Inhalation: LC50 (rat): >2 mg/kg (highest dose tested)

OTHER TOXICOLOGICAL INFORMATION

Skin Irritation: Non-irritant

Eye Irritation: Mild irritant

Sensitizer: Sensitizer

4. FIRST AID MEASURES

Eye: Flush eyes with plenty of water. Obtain medical attention if irritation persists.

Skin: Remove contaminated clothing and wash affected areas with soap and water. Get medical attention if irritation persists.

Ingestion: Call a physician or Poison Control Center immediately. Do not induce vomiting.

Inhalation: Remove individual to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. Call a physician if effects occur.

Note to Physician: May present an aspiration hazard.

5. FIRE FIGHTING MEASURES

NFPA Rating: **Health: 2** **Fire: 4** **Reactivity: 0**

Flammability Class: Level 1 aerosol

Flash Point: 17(F) (-8.3(C) (propellant-free portion of concentrate)

Explosive Limits (% of Volume): LEL = 3.4, UEL = 18.0 (based on Dimethyl ether)

Extinguishing Media: Water spray, foam, dry chemical, CO2

Special Protective Equipment: Firefighters should wear full protective clothing including self-contained breathing apparatus.

Fire Fighting Procedures: Use water to keep fire exposed containers cool. Do not allow run-off to enter waterways or sewers. Contents under pressure.

Combustion Products: Oxides of carbon.

Unusual Fire/Explosion Hazards: Extremely flammable. Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130 F may cause bursting.

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken: Absorb spills with an inert material. Place in container for disposal. Do not allow spill to enter waterways or sewers.

Absorbents: Clay granules, sawdust, dirt, or equivalent.

Incompatibles: Strong oxidizers

7. HANDLING AND STORAGE

Handling: Wash hands before eating or handling food. Avoid contact with skin, eyes, or clothing. Newspaper should be spread on the floor for several feet around area of release.

Storage: Store in a cool, dry, area away from heat or open flame.

Exposure Limits: Acetone: 750 ppm (ACGIH TWA) 1000ppm (OSHA TWA)

Ventilation: General ventilation should be sufficient. Users should leave building when fogger is activated.

Personal Protective Equipment: If prolonged exposure is expected, wear a NIOSH approved organic vapor/pesticide respirator, impervious gloves, goggles, and other appropriate clothing to avoid skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Clear, light straw colored or almost colorless liquid. Characteristic sweetish, ethereal odor.
Boiling Point:	N/A
Melting Point:	N/A
Vapor Pressure (mm Hg):	N/A
Vapor Density (Air = 1):	N/A
Specific Gravity:	0.80 (with propellant)
Bulk Density:	7.87 lbs./gal. (Propellant-free concentrate)
Solubility:	Appreciable
Evaporation Rate:	N/A
pH:	8.2

10. STABILITY AND REACTIVITY

Stability:	Stable
Reactivity:	Non-reactive
Incompatibility w/ Other Materials:	Strong oxidizers
Decomposition Products:	None except oxides of carbon from incomplete combustion.
Hazardous Polymerization:	Will not occur

11. TOXICOLOGICAL INFORMATION

CHRONIC TOXICITY [Specific to Active Ingredient(s)]

(S)-Methoprene is not considered an oncogenic compound. [Based on (RS)-Methoprene Technical

Permethrin showed no evidence of oncogenicity. A NOEL of 100 mg/kg was based on decreased body weight gain in the rat oncogenicity study.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY [Specific to Active Ingredient(s)]

Methoprene is not a teratogenic compound. [Based on (RS)-Methoprene Technical.

Permethrin showed no evidence of developmental or reproductive effects. The NOEL was determined to be 180 mg/kg in the rat study.

MUTAGENICITY [Specific to Active Ingredient(s)]

(S)-Methoprene is not a mutagenic compound. [Based on (RS)-Methoprene Technical

ENVIRONMENTAL FATE [Active Ingredients Only] (Based on RS-Methoprene)

Hydrolysis: T1/2 > 4 weeks

Photolysis: T1/2 < 10 hours

Soil half life: ~ 10 days

Water solubility: < 2 ppm

ECOTOXICITY [Active Ingredients Only] (Based on S-Methoprene)

Acute Toxicity: LC50 (trout): 760ppb, (Bluegill): >370ppb
aquatic invertebrates: LC50 (Daphnia): 360 ppb

13. DISPOSAL CONSIDERATIONS

Replace cap, wrap container in several layers of newspaper and discard in trash. Do not puncture or incinerate. As a waste material, this product may be classified as a hazardous waste due to ignitability. Recommended disposal is by an EPA approved hazardous waste management facility.

14. TRANSPORT INFORMATION

DOT49CFR Description: Consumer Commodity ORM-D

Freight Classification: Insecticides, Animal NOI o/t Poison NMFC I-102120 class 60

15. REGULATORY INFORMATION

CERCLA (Superfund): Acetone: Reportable Quantity = 5000 lbs.

RCRA: Regulated due to ignitability.

SARA 311/312 HAZARD CATEGORIES

Immediate Health: Yes (irritant, sensitizer)

Delayed Health: No

Fire: Yes

Sudden Pressure: Yes

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.