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MATERIAL SAFETY DATA SHEET
ZODIAC® FLEATROL™ CARPET & UPHOLSTERY PUMP SPRAY

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™ Carpet & Upholstery Pump Spray
Chemical Name/Synonym: (S)-Methoprene (Isopropyl(2E,4E,7S)-11-methoxy-3,7,11-trimethyl- 2,4-dodecadienoate), Permethrin;(3-phenoxyphenyl)methyl(+/-)cis-trans-3- (2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate
Chemical Family: Terpenoid, Pyrethroid
Formula: C19 H34 O3, C21 H20 Cl2 O3
EPA Registration No.: 2724-401
RF Number: 299

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	0.01%	Not established
Permethrin: (3-phenoxyphenyl)methyl(+/-)cis-trans-3-(2,2-dichloroethenyl)-2,2-dimethylcyclo-propanecarboxylate	52645-53-1	0.28%	Not established
Inert ingredients (non-hazardous and/or trade secret)		99.71%	

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENT

Caution: Keep out of the reach of children. Harmful if absorbed through the skin. Causes eye irritation. Avoid contact with skin., eyes, or clothing. Wash thoroughly after handling. Leave treated areas and do not return for at least one hour. Do not spray on pets or humans. Avoid contamination of food or foodstuffs. Do not use in edible product areas or food processing plants, restaurants or other areas where food is commercially prepared, processed or stored. Do not use in serving areas while food is exposed..

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Symptoms of intoxication to synthetic pyrethrins are hypersensitivity, tremors, diarrhea. Intoxication to solvents include dizziness, headache, nausea, narcosis, eye irritation, G.I. tract irritation.

PRIMARY ROUTE OF ENTRY **Dermal/Eye:** Yes **Oral:** Yes **Inhalation:** Yes

ACUTE TOXICITY
Oral: LD50 (rat): >34,000 mg/kg (HDT) (Based on (S)-Methoprene)
Dermal: LD50 (rabbit): >2,000 mg/kg (HDT) (Based on (S)-Methoprene)
Inhalation: LC50 (rat) 210mg/l air (Based on RS-Methoprene)

OTHER TOXICOLOGICAL INFORMATION

- Skin Irritation:** Non-irritating (rabbit) (Based on (S) Methoprene)
Eye Irritation: Mild to moderate irritant (rabbit) (Based on (S) Methoprene)
Sensitizer: Not a sensitizer (guinea pig) (Based on (RS) Methoprene)

4. FIRST AID MEASURES

- Eye:** Flush with plenty of water. If irritation persists, get medical attention.
Skin: Remove contaminated clothing. Wash with soap and water. If irritation persists, get medical attention.
Ingestion: Do not induce vomiting. Call a physician.
Inhalation: Remove person to fresh air
Note to Physician: Treat symptomatically

5. FIRE FIGHTING MEASURES

- NFPA Rating:** **Health: 0** **Fire: 2** **Reactivity: 0**
Flammability Class: Combustible Liquid
Flash Point: 144F
Explosive Limits (% of Volume): N/A
Extinguishing Media: Water, foam, CO2, dry chemical
Special Protective Equipment: Firefighters should wear full protective clothing including self contained breathing apparatus.
Fire Fighting Procedures: Normal procedures. Do not allow fire fighting water to escape into waterways or sewers.
Combustion Products: Nitrogen oxides, isobutylene gases, carbon monoxide, carbon dioxide
Unusual Fire/Explosion Hazards: Hazardous decomposition products

6. ACCIDENTAL RELEASE MEASURES

- Steps to be taken:** Do not allow spill to enter waterways inhabited by aquatic organisms. Soak up with absorbent material and place in a suitable container for disposal.
Absorbents: Clay granules, sawdust, dirt or equivalent.
Incompatibles: Strong acids and alkalies, strong oxidizers

7. HANDLING AND STORAGE

- Handling:** Avoid contact with eyes or skin. Wash thoroughly with soap and water after handling.
Storage: Do not use or store near heat or open flame. Store in original container, away from children. Protect from freezing or high temperatures.

8. EXPOSURE CONTROL / PERSONAL MEASURES

Exposure Limits: Not established

Ventilation: General ventilation is sufficient.

Personal Protective Equipment: If prolonged exposure is anticipated it is recommended for users and handlers to wear a NIOSH approved organic vapor/pesticide respirator, impervious gloves, goggles with side shields, and other appropriate clothing to avoid skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Opaque to translucent liquid

Boiling Point: N/A

Melting Point: Not applicable

Vapor Pressure (mm Hg): N/A

Vapor Density (Air = 1): Unknown

Specific Gravity: 1.0000+/-0.01 (H₂O=1)

Bulk Density: 8.3 lbs/gal

Solubility: Miscible with water

Evaporation Rate: N/A

pH: Not known

10. STABILITY AND REACTIVITY

Stability: Stable

Reactivity: Nonreactive

Incompatibility w/ Other Materials: Strong acids and alkalis, strong oxidizers

Decomposition Products: Nitrogen oxides, isobutylene gases, carbon monoxide, carbon dioxide

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

CHRONIC TOXICITY [Specific to Active Ingredient(s)]

Methoprene is not considered as an oncogenic compound. The NOEL for non-carcinogen effects in an 18-month mouse study was 250ppm. (Based on RS-Methoprene Technical)

Rats fed 3,000 ppm of Permethrin in their diet for 6 months showed typical motor symptoms in the early stages of the study but no other changes except for a slight increase in liver weight associated with an increase in smooth endoplasmic reticulum. Rats fed 5,000 ppm or more for 14 days developed acute poisoning and deaths occurred. Animals showing severe symptoms showed axonal swelling and myelin degeneration in the sciatic nerve. The no observed effect level (NOEL) in rats administered Permethrin ranged from 20/mg/kg diet (in studies lasting 90 days) to 1,500 mg/kg diet (in a 6-month study).

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

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

Permethrin was fed to pregnant rats at levels of 500, 1,000, 1,500, 2,000, 2,500, 3,000, 3,500 and 4,000 mg/kg diet from day 6-15 of gestation. No significant dose-related effects on the fetuses was observed. These results confirm that Permethrin possesses low mammalian toxicity. Rats were fed Permethrin at dose levels of 20 and 100 mg/kg diet in a 3-generation reproduction study. There was no effect on mortality, mating, pregnancy, or fertility. Pup survival and growth were unaffected. Permethrin does not adversely affect reproduction in the rat.

MUTAGENICITY [Specific to Active Ingredient(s)]

Methoprene is not a mutagenic compound. The NOEL for maternal and embryotoxicity in rabbits was 200/mg/kg/day. The NOEL for reproductive effects in rats was 500 ppm. (Based on RS-Methoprene Technical)

Permethrin is not a mutagenic compound.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE [Based on (RS)-Methoprene]

Hydrolysis: T1/2 > 4 week

Photolysis: T1/2 < 10 hours

Soil half life: ~ 10 days

Water solubility: < 2 ppm

ECOTOXICITY [Based on (S)-Methoprene]

Acute Toxicity: fish:LC50 (trout): 760 ppb, (bluegill): > 370 ppb

aquatic invertebrates:LC50 (Daphnia): 360 ppb (Methoprene)

13. DISPOSAL CONSIDERATIONS

Entire contents must be used according to label directions. Empty containers may be wrapped in paper and placed in trash. Larger quantities, as waste material, may be classified as a regulated waste. Recommended disposal is at an state approved waste management facility.

14. TRANSPORT INFORMATION

DOT49CFR Description: Not regulated by U.S. DOT

Freight Classification: Insecticides, Animal, N.O.I. other than poison NMFC 102120 Class 60

15. REGULATORY INFORMATION

CERCLA (Superfund): Not regulated

RCRA: Not regulated as hazardous

SARA 311/312 HAZARD CATEGORIES

Immediate Health: Yes (irritation)

Delayed Health: No

Fire: Yes (combustible)

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.