MATERIAL SAFETY DATA SHEET

Vet Kem Ovitrol X-Tend Flea & Tick Spray for Cats

Manufacturer: Wellmark International
Address: 1501 East Woodfield Road, Suite 200 West, Schaumburg, IL 60173
Emergency Phone: 1-888-914-2082
Transportation Emergency Phone: CHEMTREC: 1-800-424-9300

1. CHEMICAL PRODUCT INFORMATION

Product Name: Vet Kem Ovitrol X-Tend Flea & Tick Spray for Cats
Chemical Name/Synonym: Etofenprox: 2-(4-ethoxyphenyl)-2-methylpropyl-3-phenoxynbenzyl ether, (S)-Methoprene; isopropyl (2E,4E,7S)-11-methoxy-3,7,11-trimethyl-2,4-Dodecadionoate, Piperonyl Butoxide; 5-[2-(2-butoxyethoxy)ethoxymethyl]-6-propyl-1,3-benzodioxole
Chemical Family: Pyrethroid, Terpenoid, Benzodioxole
Formula: C_{25}H_{28}O_3, C_{19}H_{34}O_3, C_{19}H_{30}O_5
EPA Registration No.: 2724-797
RF Number: RF2063

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component (chemical, common name)</th>
<th>CAS Number</th>
<th>Weight</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etofenprox: 2-(4-ethoxyphenyl)-2-methylpropyl-3-phenoxynbenzyl ether</td>
<td>80844-07-1</td>
<td>0.5%</td>
<td>Not established</td>
</tr>
<tr>
<td>(S)-Methoprene; isopropyl (2E,4E,7S)-11-methoxy-3,7,11-trimethyl-2,4-Dodecadionoate</td>
<td>65733-16-6</td>
<td>0.27%</td>
<td>Not Established</td>
</tr>
<tr>
<td>Piperonyl Butoxide; 5-[2-(2-butoxyethoxy)ethoxymethyl]-6-propyl-1,3-benzodioxole</td>
<td>51-03-6</td>
<td>1.75%</td>
<td>Not Established</td>
</tr>
<tr>
<td>Inert ingredients: (nonhazardous and/or trade secret)</td>
<td></td>
<td>97.48%</td>
<td></td>
</tr>
</tbody>
</table>

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENTS
KEEP OUT OF REACH OF CHILDREN
HAZARDS TO HUMANS AND DOMESTIC ANIMALS – CAUTION:
CAUSES MODERATE EYE IRRITATION. AVOID CONTACT WITH EYES OR CLOTHING.
WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING,
DRINKING, CHEWING GUM, USING TOBACCO, OR USING THE TOILET. REPEATED
EXPOSURE TOETOOFENPROX CAN CAUSE SKIN IRRITATION.

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

ACUTE TOXICITY
Oral: No specific hazard identified
Dermal: No specific hazard identified
Inhalation: No specific hazard identified

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OTHER TOXICOLOGICAL INFORMATION

Skin Irritation: Slight skin irritant
Eye Irritation: Moderate eye irritant
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.
- Call a poison control center or doctor for treatment advice.

5. FIRE FIGHTING MEASURES

NFPA Rating: Health: 1 Fire: 2 Reactivity: 0
Flammability Class: Combustible Liquid
Flash Point: 41.8 °C (107.24°F)
Explosive Limits (% of Volume): UEL: 3; LEL: 12 (Based on 1-methoxy – 2 – propanol)
Extinguishing Media: Dry chemical, CO2, Alcohol foam, or water spray
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 water-ways or sewers.
Combustion Products: Incomplete combustion may produce carbon monoxide
Unusual Fire/Explosion Hazards: None known

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 container for disposal.
Absorbents: Clay granules, sawdust, dirt or equivalent.
Incompatibles: Strong oxidizers

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.
Storage: Do not store near heat or open flame. Store away from children and animals.

8. EXPOSURE CONTROL/PERSONAL MEASURES

Exposure Limits: Solvent (trade secret) = 100ppm (ACGIH TLV)
Ventilation: Use with adequate ventilation.
Personal Protective Equipment: Use appropriate protective equipment to prevent contact with eyes, clothing and skin, including chemical resistant gloves and protective eyewear. If ventilation is inadequate to control airborne vapor concentrations below recommended exposure limits, respiratory protection may be necessary. End users of this product should consult product labeling for personal protective equipment recommendations.
9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance and Odor:** Clear liquid
- **Boiling Point:** N/A
- **Melting Point:** N/A
- **Vapor Pressure (mm Hg):** N/A
- **Vapor Density (Air = 1):** N/A
- **Specific Gravity:** N/A
- **Bulk Density:** 0.9544 g/ml at 20 º C
- **Solubility:** Miscible with water
- **Evaporation Rate:** N/A
- **pH:** 6.38 @25 º C

10. STABILITY AND REACTIVITY

- **Stability:** Stable
- **Reactivity:** N/A
- **Incompatibility w/ Other Materials:** N/A
- **Decomposition Products:** N/A
- **Hazardous Polymerization:** Will not occur

11. TOXICOLOGICAL INFORMATION

**ACUTE TOXICITY**

- Acute oral toxicity: LD50 >5,000 mg/kg
- Acute dermal toxicity: LD50 >5,000 mg/kg
- Skin irritation: Slightly irritating
- Eye irritation: Moderately irritating
- Not a dermal sensitizer

**CHRONIC TOXICITY [Specific to Active Ingredient(s)]**

- **Methoprene** is not considered a carcinogen. The NOEL for non-carcinogenic effects in an 18 month mouse study was 250 ppm.

- **Etofenprox** is not listed as a carcinogen by NTP or IARC and is not regulated by OSHA.

- In rats the target organs are the liver and thyroid. The NOAEL for chronic toxicity is 3.7 mg/kg/day for male rats. The target organ in mice is the kidney. The NOAEL is 3.1 mg/kg/day for mice.

- **Piperonyl butoxide:** An increase in the number of benign liver tumors in mice fed piperonyl butoxide technical at doses which far exceeded any anticipated daily human intake. Independent and industry toxicology experts have reviewed the data and agree that the findings of the study do not indicate a health risk to humans.

  - Carcinogenicity: NTP: No IARC: No OSHA: No

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

- **Methoprene** is not a teratogen. The NOEL for maternal and embryo toxicity in rabbits was 200 mg/kg/day. The NOEL for reproductive effects in rats was 2500 ppm.

- **Etofenprox** is not a teratogen. It is does not have adverse effects on reproduction.

- **Piperonyl butoxide:** There were no birth defects or adverse effects on reproductive parameters in tests with rats or rabbits. It is not considered to be teratogenic.
MUTAGENICITY [Specific to Active Ingredient(s)]
Methoprene is not a mutagen.
Etofenprox is not a mutagen.

Piperonyl butoxide is not genotoxic in several tests including the Ames mutagenicity assay, chromosome aberrations in Chinese hamster ovary (CHO) cells, CHO/HGPRT assay with S9 activation, and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells.

12. ECOLOGICAL INFORMATION

ECOTOXICITY [Active Ingredients Only]
Methoprene
Acute Toxicity: Fish: LC50 (trout): 760 ppb, (bluegill): > 370 ppb ((S)-Methoprene);
Aquatic invertebrates: LC50 (Daphnia): 360 ppb ((S)-Methoprene)

Etofenprox
Acute Toxicity: Rainbow trout: LC50 = 3.3 ppb
Bluegill: LC50 = 8.5 ppb

Piperonyl butoxide
Acute Toxicity: Rainbow trout: LC50 = 6.12 ppm
Bluegill: LC50 = 8.5 ppm 5.37 ppm
Sheepshead minnow: LC50 = 3.94 ppm
Mysid shrimp: LC50 = 0.32 ppm

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 VIA HIGHWAY OR RAIL
Consumer Commodity ORM-D-AIR Air transport within U.S.

Freight Classification: Insecticides Spray

15. REGULATORY INFORMATION

CERCLA (Superfund): Not regulated
RCRA: Regulated due to ignitability

SARA 311/312 HAZARD CATEGORIES

Immediate Health: Yes (irritant)
Delayed Health: No
Fire: Yes
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.