

**MATERIAL SAFETY DATA SHEET**  
**Vet-Kem TOTAL Yard & Patio Fogger**

**Manufacturer:** Wellmark International  
**Address:** 1501 E. Woodfield Rd., Suite 200-West, Schaumburg, IL 60173  
**Emergency Phone:** 800-950-4783

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

**1. CHEMICAL PRODUCT INFORMATION**

**Product Name:** Vet-Kem TOTAL Yard & Patio Fogger  
**Chemical Name/Synonym:** Etofenprox: 2-(4-ethoxyphenyl)-2-methylpropyl 3-phenoxybenzyl ether  
Tetramethrin: cyclohex-1-ene-1,2-dicarboximidomethyl chrysanthemate  
Piperonyl butoxide: 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether  
**Chemical Family:** Pyrethroid  
**Formula:** C<sub>25</sub>H<sub>28</sub>O<sub>3</sub> / C<sub>19</sub>H<sub>25</sub>NO<sub>4</sub> / C<sub>19</sub>H<sub>30</sub>O<sub>5</sub>  
**EPA Registration No.:** 2724-677  
**RF Number:** 2035

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

<u>Component (chemical, common name)</u>	<u>CAS Number</u>	<u>Weight</u>	<u>Tolerance</u>
Etofenprox	80844-07-1	0.50%	Not EST.
Tetramethrin	7696-12-0	0.20%	Not EST.
Piperonyl Butoxide	51-03-6	1.00%	Not EST.
Acetone	67-64-1	10.00%	1000 ppm TWA (OSHA) 500 ppm TWA (ACGIH)
Hydrocarbon Propellant Blend:		33.00%	
Propane	74-98-6		1000 ppm*
Isobutane	75-28-5		800 ppm*
n-Butane	106-97-8		800 ppm*

\* established by  
NIOSH

**3. HAZARD INFORMATION**

**PRECAUTIONARY STATEMENT**  
**CAUTION**  
**KEEP OUT OF REACH OF CHILDREN**  
**CAUSES MODERATE EYE IRRITATION**

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

No known health conditions are aggravated by exposure to this product.

**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.

### OTHER TOXICOLOGICAL INFORMATION

**Skin Irritation:** Avoid contact with skin. Slightly irritating.

**Eye Irritation:** Avoid contact with eyes. Causes moderate eye irritation.

**Sensitizer:** Not a sensitizer.

### 4. FIRST AID MEASURES

**Eye:** 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 eye. Call a poison control center or doctor for treatment advice.

**Note to Physician:** Treat symptomatically.

### 5. FIRE FIGHTING MEASURES

**NFPA Rating:**     **Health: 1**                     **Fire: 4**                     **Reactivity: 0**

**Flammability Class:** Level 2 Aerosol.

**Flash Point:** Not established.

**Explosive Limits (% of Volume):** Not determined.

**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:** Products of combustion are principally carbon dioxide, carbon monoxide, and water.

**Unusual Fire/Explosion Hazards:** None Known.

### 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:** None known.

## 7. HANDLING AND STORAGE

**Handling:** Wash hands with soap and water after handling material. Avoid contact with skin, eyes, or clothing.

**Storage:** Do not store above 130°F. Do not store near open flames. Store in a cool, dry place away from children. Do not contaminate water, food, or feed, by storage.

## 8. EXPOSURE CONTROL / PERSONAL MEASURES

**Exposure Limits:** Acetone: 500 ppm (ACGIH TWA) 1000 ppm (OSHA TWA). Propane: 1000 ppm (ACGIH TWA and OSHA TWA). Isobutane and n-butane: 800 ppm (OSHA TWA).

**Ventilation:** Fogger is to be used for outdoor use only.

**Personal Protective Equipment:** None required; however, professional applicators (those with repeated and extended exposure) should wear goggles at a minimum when working with this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Concentrate is a white liquid emulsion.

**Boiling Point:** 212°F.

**Melting Point:** Not applicable.

**Vapor Pressure (mm Hg):** (PSIG @ 70°F) Not Det.

**Vapor Density (Air = 1):** Not known.

**Specific Gravity:** Concentrate: 0.9.

**Bulk Density:** Concentrate: 7.5 lbs/gallon.

**Solubility:** In Water: Miscible.

**Evaporation Rate:** (Water): 1.0.

**pH:** Not known.

## 10. STABILITY AND REACTIVITY

**Stability:** Stable.

**Reactivity:** None Known.

**Incompatibility w/ Other Materials:** None Known.

**Decomposition Products:** Products of combustion are principally carbon dioxide, carbon monoxide, and water, with trace decomposition of C1-NOx, POx, and Sox.

**Hazardous Polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

### **ACUTE TOXICITY**

#### **Etofenprox**

Acute oral toxicity (rat): LD50 >42,880 mg/kg  
Acute dermal toxicity: LD50 >2,140 mg/kg  
Acute inhalation toxicity: 4-hr LC50 >5,900 mg/m<sup>3</sup>  
Skin irritation: Not an irritant  
Eye irritation: Not an irritant  
Dermal Sensitization: Not a sensitizer

#### **Tetramethrin**

Acute oral toxicity: LD50 >5000 mg/kg  
Acute dermal toxicity: LD50 >5000 mg/kg  
Acute inhalation toxicity: LC50 >2740 mg/m<sup>3</sup>  
Skin irritation: Not an irritant  
Eye irritation: Not an irritant  
Dermal Sensitization: Not a sensitizer

#### **Piperonyl butoxide**

Acute oral toxicity: LD50 = 4300 mg/kg  
Acute dermal toxicity: LD50 >2000 mg/kg  
Acute inhalation toxicity: 4-Hour LC50 >5.0 mg/L  
Skin irritation: Essentially non-irritating

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

**Etofenprox** 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.

Carcinogenicity: NTP: No      IARC: No      OSHA: No

**Tetramethrin** is classified by EPA as Class C (possible human carcinogen).

**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

### **SUBCHRONIC TOXICITY [Specific to Active Ingredient(s)]**

**Etofenprox** is a mild skin irritant after 4-weeks of treatment. No systemic toxicity from dermal exposure was observed at doses up to 1000 mg/kg/day.

**Tetramethrin** in rats the NOEL for 13-week inhalation study is >5.03 mg/m<sup>3</sup> and for 6-month feeding study is 1500 ppm. In dogs the NOEL for a 90-day feeding study is >5000 ppm.

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

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

**Tetramethrin** is not a teratogen. It 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)]**

**Etofenprox** is not a mutagen.

**Tetramethrin** is not a mutagen when tested for gene mutations, Chromosomal aberrations, and unscheduled DNA synthesis.

**Piperonyl butoxide** is not genotoxic in several tests including the Ames 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

### ENVIRONMENTAL FATE [Active Ingredients Only]

- Hydrolysis:** Not determined.  
**Photolysis:** Not determined.  
**Soil half life:** Not determined.  
**Water solubility:** Not determined.

### ECOTOXICITY [Active Ingredients Only]

- Acute Toxicity:** This product is highly toxic to fish. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent areas. Do not contaminate water when disposing of equipment washwaters.

## 13. DISPOSAL CONSIDERATIONS

Do not puncture or incinerate. If empty, place in trash or offer for recycling if available. If partly filled, call your solid waste agency or 1-800-CLEANUP for disposal instructions.

## 14. TRANSPORT INFORMATION

- DOT49CFR Description:** Consumer Commodity ORM-D.  
**Freight Classification:** INSECTICIDES N.O.I. OTHER THAN POISON, NMFC 102120 CLASS 60.

## 15. REGULATORY INFORMATION

- CERCLA (Superfund):** Acetone: Reportable Quantity = 5000 lbs.  
**RCRA:** Regulated due to ignitability. (D001).

### SARA 311/312 HAZARD CATEGORIES

- Immediate Health:** Yes (Irritant).  
**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.*

27-12-001