

MATERIAL SAFETY DATA SHEET
VET KEM BREAKAWAY PLUS FLEA & TICK COLLAR FOR CATS

Manufacturer: Wellmark International
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1. CHEMICAL PRODUCT INFORMATION

Product Name: Vet Kem Breakaway Plus Flea & Tick Collar for Cats
Chemical Name/Synonym: Propoxur; o-isopropoxyphenyl methylcarbamate and (S)-Methoprene: Isopropyl (2E,4E,7S)-11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate
Chemical Family: Carbamate
Formula: C₁₁ H₁₅ NO₃ (propoxur) / C₁₉ H₃₄ O₃ (methoprene)
EPA Registration No.: 2724-491
RF Number: 9907

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component (chemical, common name)</u>	<u>CAS Number</u>	<u>Weight</u>	<u>Tolerance</u>
Propoxur: 2-(1-methylethoxy)phenol methylcarbamate	114-26-1	10.00%	0.5 mg/m ³ (ACGIH)
(S) Methoprene: Isopropyl (2E,4E,7S)-11-methoxy-3,7,11- trimethyl-2,4-dodecadienoate	65733-16-6	2.10%	Not established
Inert ingredients (non-hazardous and/or trade secret)		87.9%	

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENT
DO NOT ALLOW CHILDREN TO PLAY WITH THIS COLLAR
CAUTION: DO NOT GET DUST OR COLLAR IN MOUTH. HARMFUL IF SWALLOWED. DO NOT GET DUST IN EYES, WILL CAUSE TEMPORARY PUPILLARY CONSTRICTION. THE DUST RELEASED BY THIS COLLAR IS A CHOLINESTERASE INHIBITOR. DO NOT OPEN INNER ENVELOPE UNTIL READY TO USE. DUST WILL FORM ON THIS COLLAR DURING STORAGE. WASH HANDS THOROUGHLY WITH SOAP AND WATER AFTER HANDLING COLLAR.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Due to product form, method of use, and use history, human intoxication has not been reported. However, propoxur is a cholinesterase inhibitor that may produce the following symptoms: headache, nausea, vomiting, diarrhea, tightness in chest, ataxia, tearing, sweating, pin-point pupils, pulmonary edema, cyanosis, and convulsions.

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

ACUTE TOXICITY

Oral: LD50 (rat): >68 mg/kg (Propoxur)
Dermal: LD50 (rabbit): >2.000 mg/kg (Propoxur)
Inhalation: LC50 (rat): 0.5 mg/L (4 hour study) (Propoxur)

OTHER TOXICOLOGICAL INFORMATION

Skin Irritation: Minimally irritating
Eye Irritation: Mildly irritating
Sensitizer: Not a sensitizer

4. FIRST AID MEASURES

Eye: Hold eye open and rinse slowly and gently 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.

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.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison center or doctor. Do not give anything by mouth to an unconscious person.

Inhalation: Remove victim to fresh air.

Note to Physician: Atropine is antidotal only if symptoms of cholinesterase inhibition are present.

5. FIRE FIGHTING MEASURES

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

Flammability Class: Combustible solid

Flash Point: N/A

Explosive Limits (% of Volume): N/A

Extinguishing Media: Water Fog, foam, CO₂.

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: Highly irritating methyl isocyanate gas (and fumes of hydrogen chloride) may form on burning.

Unusual Fire/Explosion Hazards: None known

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken: Because of individual packaging, possibilities of a release or spill are remote. However, should one occur, place in container for proper disposal. Do not allow large quantities to enter waterways.

Absorbents: If in liquid form, use clay granules, sawdust, dirt or equivalent.

Incompatibles: Strong acids, strong oxidizers

7. HANDLING AND STORAGE

Handling: Wash hands and face thoroughly with soap and water after handling product. Do not allow children to handle collar.

Storage: Store in original unopened container away from children. Do not open protective pouch until ready to use.

8. EXPOSURE CONTROL / PERSONAL MEASURES

Exposure Limits: Propoxur = 0.5 mg/m³ (ACGIH TLV)

Ventilation: General ventilation should suffice

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Plastic strips with powdery surface, faint characteristic phenolic odor.

Boiling Point: N/A

Melting Point: 90 °C

Vapor Pressure (mm Hg): 1.29 mPa at 20 °C

Vapor Density (Air = 1): N/A

Specific Gravity: 1.2 (H₂O=1)

Bulk Density: N/A

Solubility: Slightly soluble in water (0.2% at 20 °C)

Evaporation Rate: N/A

pH: N/A

10. STABILITY AND REACTIVITY

Stability: Stable

Reactivity: Non-reactive

Incompatibility w/ Other Materials: Strong acids, strong oxidizers

Decomposition Products: Methyl isocyanate gas can be formed on burning, toxic fumes of Cl, oxides of nitrogen

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

CHRONIC TOXICITY [Specific to Active Ingredient(s)]

In a combined chronic/carcinogenicity toxicity study, rats were fed doses at a maximum 5,000 ppm (222-292 mg/kg/day) for up to 2 years. The NOEL was 200 ppm (8.2 mg/kg/day for males and 11.0 mg/kg/day for females) based on reduced weight gain and urinary bladder hyperplasia.

Propoxur is highly toxic to honey bees.

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

In a developmental toxicity study in rabbits, animals were orally dosed at concentrations up to 30 mg/kg/day. The NOEL for maternal and developmental toxicity was 10 mg/kg/day based on fetal body weight.

MUTAGENICITY [Specific to Active Ingredient(s)]

The weight of evidence suggests that Propoxur is not a mutagen. Methoprene is not a mutagenic compound.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE: Based on (RS)-Methoprene Technical]

- Hydrolysis:** T1/2 > 4 weeks (Methoprene)
Photolysis: T1/2 < 10 hours (Methoprene)
Soil half life: ~ 10 days (Methoprene)
Water solubility: < 2 ppm (Methoprene)

ECOTOXICITY [Active Ingredients Only]

- Acute Toxicity:** fish:LC50 (bluegill): 4.8 ppm (96 hour study), (trout): 3.55 ppm (96 hour study); **aquatic invertebrates:** Daphnia: very highly toxic.

13. DISPOSAL CONSIDERATIONS

Do not reuse container or used collar. For household waste, put in trash. For large quantities, dispose of in state/EPA approved hazardous waste management facility.

14. TRANSPORT INFORMATION

- DOT49CFR Description:** Not regulated as hazardous by D.O.T.
Freight Classification: Collars, animal insect repellent, in individual retail containers in boxes: NMFC 49998 Sub 1 Class 100. In individual paper and foil laminated pouches other than individual retail containers, in boxes: NMFC 49998 Sub 2 Class 85

15. REGULATORY INFORMATION

- CERCLA (Superfund):** Reportable Quantity (RQ): Propoxur = 1 lb
RCRA: Propoxur - U411

SARA 311/312 HAZARD CATEGORIES

- Immediate Health:** Yes (irritation)
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.