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MATERIAL SAFETY DATA SHEET
ZODIAC® TICK COLLAR FOR DOGS

Manufacturer: Wellmark International
Address: 1501 E. Woodfield Rd., Suite 200-West, Schaumburg, IL 60173
Emergency Phone: 1-800-950-4783
Transportation Emergency Phone: CHEMTREC: 1-800-424-9300

1. CHEMICAL PRODUCT INFORMATION

Product Name: Zodiac® Tick Collar for Dogs
Chemical Name/Synonym: Propoxur: 2-(1-methylethoxy) phenyl methylcarbamate
Chemical Family: Carbamate
Formula: C11 H15 NO3
EPA Registration No.: 2724-254
RF Number: 34D

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	10.0%	.5 mg/m3 (OSHA & ACGIH)
Inert ingredients (non-hazardous and/or trade secret):		90.0%	

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENT

Caution: Do not allow children to play with this collar. Do not open protective pouch until ready to use. Dust will form on this collar during storage. Do not get dust or collar in mouth, harmful if swallowed. Do not get in eyes, will cause temporary pupillary constriction. The dust released by this collar is a cholinesterase inhibitor. Wash hands thoroughly with soap and water after handling.

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, anorexia, tearing, sweating, salivation, pin-point pupils, pulmonary edema, cyanosis, 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 with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.

Skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

Ingestion: Call a physician or poison Control Center immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by poison control 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 and preferably given I.V. to effect if toxic signs are present.

5. FIRE FIGHTING MEASURES

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

Flammability Class: Combustible solid

Flash Point: Not applicable

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 can be formed during 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

Absorbents: None necessary due to product form

Incompatibles: Strong acids

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. Do not open protective pouch until ready to use.

Exposure Limits: Not established except for Propoxur: .5 mg/m3 (OSHA PEL & ACGIH TLV)
Ventilation: Natural ventilation is sufficient
Personal Protective Equipment: If extensive exposure is anticipated, users and handlers should wear a MSHA/NIOSH approved organic vapor/dust/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 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: Nonreactive
Incompatibility w/ Other Materials: Strong acids
Decomposition Products: Methyl isocyanate gas, toxic fumes of C1, oxides of nitrogen can be formed on burning.
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.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE [Active Ingredients Only]

Hydrolysis: Not available

Photolysis: Not available

Soil half life: Not available

Water solubility: Negligible

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. Do not contaminate water, feed or food by disposal. If household waste, wrap and put in trash. For larger quantities: dispose of at a state/EPA approved hazardous waste 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: Yes

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.