

MATERIAL SAFETY DATA SHEET

Prescription Treatment® brand 2% Propoxur Bait

SECTION 11. TOXICOLOGICAL INFORMATION

ROUTES OF ENTRY

Primary: Inhalation **Secondary:** Skin Contact **Tertiary:** Skin Absorption
Only acute studies have been performed on this product as formulated. The non-acute information pertains to the active ingredient, propoxur.

ACUTE TOXICITY

Eyes: Rabbit: Mild irritation to the conjunctiva was observed with all irritation resolving within 7 days.
Skin: Acute dermal LD₅₀ > 2,000 mg/kg (rabbits). Not a dermal irritant when tested on rabbits. Product is not a dermal sensitizer when tested on guinea pigs.
Ingestion: Acute oral toxicity LD₅₀ > 2,012 mg/kg (male rat feeding study). Acute oral toxicity LD₅₀ > 1,795 mg/kg (female rat feeding study).
Inhalation: 4 hr exposure to dust: Rat: LC₅₀ > 0.850 mg/l (analytical) – 1 hr exposure to dust (extrapolated from 4 hr LC₅₀): Rat: LC₅₀ > 3.4 mg/l (analytical).

SUBCHRONIC TOXICITY

In a 3 mo dermal toxicity study, rabbits were treated with propoxur at levels up to and including the limit dose (1,000 mg/kg) for 6 hr/day, 5 days/wk. There were no local or systemic effects observed at any of the levels tested. The no-observed-effect-level (NOEL) was 1,000 mg/kg. In a 13 wk oral gavage study using Rhesus monkeys, a dose of 40 mg/kg/day resulted in cholinergic symptoms lasting 5 - 15 min after administration. These symptoms included salivation, chewing, twitching and rapid respiration. A 50% depression in plasma cholinesterase occurred by 1 hr. This returned to normal by 24 hr after administration. In an inhalation study in which rats were exposed to propoxur at aerosol concentrations of 15.3, 45.3 or 139.6 mg/m³ for 6 hr/day, 5 days/wk for a period of either 4 or 8 wks, cholinesterase inhibition occurred. In a subchronic study in dogs, propoxur was administered at dietary concentrations of 60, 600 or 1,800 ppm. Effects observed included decreased food consumption and terminal body weights, and changes in clinical chemistries and organ weights. The NOEL was 60 ppm.

CHRONIC TOXICITY

In a 1 yr study, dogs were administered propoxur at dietary concentrations of 200, 600 or 1,800 ppm. The high dose was increased to 3,600 ppm during the 41st wk and subsequently to 5,400 ppm from the 45th wk until the end of the study. Effects at the high dose included reduced body weight gain, cholinesterase inhibition, elevated plasma cholesterol levels, increased liver weights and thymus atrophy. An additional study was conducted in which the NOEL was determined to be 70 ppm on the basis of plasma cholesterol. In a 2 yr study, propoxur was administered to rats at dietary concentrations of 200, 1,000 or 5,000 ppm. Treatment with 5,000 ppm resulted in decreased food consumption, decreased body weight gain, cholinesterase inhibition, neuropathy and muscular atrophy. The NOEL was 200 ppm. Rats were exposed to propoxur at liquid aerosol concentrations of 2.2, 10.4 or 50.5 mg/m³ for 6.3 hr/day, 5 days/wk for 2 yr. Cholinesterase inhibition occurred at concentrations of 10.4 mg/m³ and above. The NOEL was determined to be 2.2 mg/m³.

CARCINOGENICITY

Propoxur was investigated for carcinogenic effects in a 2 yr feeding study on mice. Dietary concentrations of 500, 2,000 or 8,000 ppm were employed in the study. An increased incidence of benign liver adenomas occurred in male mice at 2,000 ppm and greater. When rats were fed propoxur for 2 yr in a single type of diet, urinary bladder neoplasias were observed at concentrations of 1,000 ppm and above. Propoxur was not carcinogenic in other types of diets administered to rats at high doses up to and including the maximum tested concentration of 8,000 ppm. In a 2 yr inhalation study on rats, propoxur was determined to be noncarcinogenic at liquid aerosol concentrations up to and including the maximum tested concentration of 50.5 mg/m³.

MUTAGENICITY

A large mutagenicity database supports the conclusion that propoxur is not genotoxic. This data base includes a special study to evaluate genotoxic potential using urinary bladder cells from propoxur-treated rats. This study clearly demonstrated that propoxur and its metabolites are nongenotoxic to urinary bladder cells.

DEVELOPMENTAL TOXICITY

In a developmental toxicity study using rats, propoxur was administered during gestation by oral gavage at doses of 3, 9 or 27 mg/kg. The NOEL for maternal toxicity was 3 mg/kg. No developmental effects were observed at any of the levels tested. In a developmental toxicity study using rabbits, propoxur was administered during gestation at oral doses of 3, 10 or 30 mg/kg. Developmental toxicity occurred at the maternally toxic level of 30 mg/kg. The NOEL for maternal and developmental toxicity was 10 mg/kg.

REPRODUCTION

In reproduction studies using rats, propoxur was administered at dietary concentrations ranging from 30 to 6,000 ppm. Reproductive effects observed at parentally toxic levels included reductions in the following parameters: gestation rates, mean number of implantation sites, litter size, pup body weights and survival rate of young. The parental and reproductive NOELs were 30 and 80 ppm respectively.

NEUROTOXICITY

Propoxur has been investigated for delayed neurotoxicity in acute and subacute studies using hens. Maximum levels tested in the acute studies were 100 and 1,000 mg/kg via intraperitoneal injection and oral gavage, respectively. Dietary concentrations up to and including 4,500 ppm were tested in a 30 day subacute

feeding study. There was no indication of propoxur causing delayed neurotoxicity in any of these studies. In an acute neurotoxicity study using rats, propoxur was administered as a single oral dose at levels of 2, 10 or 25 mg/kg. The NOEL for motor and locomotor activity was 2 mg/kg for males and 10 mg/kg for females based on decreased activity in the figure eight maze. All clinical signs and neurobehavioral effects were ascribed to acute cholinergic toxicity. The NOEL for neurotoxicity was 25 mg/kg for both sexes. In a 13 wk neurotoxicity study, propoxur was administered to rats at dietary concentrations of 500, 2,000 or 8,000 ppm. Evidence of toxicity at the mid and high dose included reduced body weight and feed consumption, body weight related effects on grip strength, foot spray and organ weights and clinical chemical findings (cholinesterase inhibition and liver enzyme induction). Primary neurobehavioral changes were not evident at any dose level. There were no micropathological findings in neural or muscle tissues. Excluding cholinergic responses, the NOEL for neurotoxicity is 8,000 ppm.

SECTION 12. ECOLOGICAL INFORMATION

This product is toxic to wildlife and aquatic invertebrates. Birds and small mammals feeding on treated bait may be killed. Do not apply directly to water. Do not apply where runoff is likely to occur. Do not contaminate water by cleaning of equipment or disposal of wastes. Apply this product only as specified on the label.

SECTION 13. DISPOSAL CONSIDERATION

Do not contaminate water, food or feed by disposal of container or waste. Dispose of container and waste in accordance with all federal, state and local regulations.

Container Disposal: Completely empty container by using the product according to the label directions. Do not reuse this container. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned stay out of smoke. If container is partly filled, call your local solid waste agency or call 1-800-CLEANUP for disposal instructions. NEVER PLACE UNUSED PRODUCT DOWN ANY INDOOR OR OUTDOOR DRAIN OR SEWER.

Waste Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

SECTION 14. TRANSPORT INFORMATION

SHIPMENT BY GROUND WITHIN U.S. (DOT CLASSIFICATION)

Hazard Class or Division: Not Regulated

SHIPMENT BY WATER (IMDG CLASSIFICATION)

Hazard Class Division Number: Not Regulated

SHIPMENT BY AIR (IATA CLASSIFICATION)

Hazard Class Division Number: Not Regulated

SECTION 15. REGULATORY INFORMATION

CERCLA

This product contains the CERCLA listed chemical Propoxur which has a reportable quantity (RQ) of 100 lbs.

OSHA STATUS

This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355): No components listed

SECTION 311/312 HAZARD CATEGORIES: Immediate Health Hazard, Delayed Health Hazard

SECTION 313 TOXIC CHEMICALS: Propoxur (CAS #114-26-1) 2.0%

RCRA STATUS

When discarded in its purchased form, this product is a listed RCRA hazardous waste and should be managed as a hazardous waste. (40 CFR261.20-24) Propoxur is listed as U411.

TSCA

All components of this product are listed or excluded from listing on the US Toxic Substance Control Act (TSCA) Chemical Substance Inventory

SECTION 16. OTHER INFORMATION

NFPA 704M RATING INFORMATION

HEALTH - 2 FLAMMABILITY - 1 REACTIVITY - 1

NFPA 704M RATING INFORMATION

HEALTH - 2 FLAMMABILITY - 1 REACTIVITY - 1

KEY: 4 = Severe
3 = Serious
2 = Moderate
1 = Slight
0 = Minimal

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. For automatic MSDS updates, register at www.wmmg.com.

Questions concerning the safe handling of the product should be referred to the Whitmire Micro-Gen Customer Service Department at 800-777-8570.

NA - Not Applicable
NE - Not Established
PEL - Permissible Exposure Limit
TLV - Threshold Limit Value
STEL - Short Term Exposure Limit (15 min)
TWA - Time Weighted Average (8 hr)



WHITMIRE MICRO-GEN
RESEARCH LABORATORIES, INC.

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