MEMORANDUM

SUBJECT: Baygon (Propoxur); Dermal Sensitization in Guinea Pigs

TO: Jay Ellenberger (PM-12 Registration Division (TS-767)

FROM: Robert P. Zendzian PhD Acting Head
       Review Section III
       Toxicology Branch
       HED (TS-769)

THROUGH: William Burnam, Chief
          Toxicology Branch

Compound Baygon (propoxur) Registrant Mobay
Registration #3125-174 Accession #253352
Tox Chem #508

Action Requested

The registrant has submitted a dermal sensitization study
of propoxur in the guinea pig for review.

Conclusion

The method has been identified as the guinea pig maximization
test of Magnusen and Kligman an acceptable protocol for this
purpose. The compound is not a sensitizer.
Data Evaluation Report

Compound  Propoxur (Baygon®)

Citation


Reviewed by  Robert P. Zendian PhD
Pharmacologist

Core Classification  Minimum

Tox Catagory  Not a sensitizer

Conclusion  The method has been identified as the guinea pig maximization test of Magnussen and Kligman an acceptable protocol for this purpose. The compound is not a sensitizer.

Materials

Propoxur, 2-(1-Methylethoxy)phenol methylcarbamate
80Q 5812315; Batch No. 234; Purity 98.8%

Male guinea pigs, Pirbright White W 58 form Winkelmann.

Methods

Animals were assigned randomly to a control and a treatment group of 15 animals each. The dermal area was clipped and remaining hair removed with a depilatory cream. After 24 hours each animal received 6 intradermal injections in pairs down the line of the back. Test animals were dosed as follows;

1st Injection Pair (head)
Freund's complete adjuvant, 1:1 in water.

2nd Injection pair (middle)
1% propoxur formulated with polyethylene glycol 400

3rd Injection pair (tail)
1% propoxur formulated with equal parts polyethylene glycol 400 and Freund's complete adjuvant, 1:1 in water.

The control group was dosed identically except that sites 2 and 3 did not receive propoxur.

Six days later the application sites were depilated and the site massaged with 10% sodium laural sulfite in vaseline. Twenty-four hours later filter paper saturated with either 2.5%
propoxur formulated with polyethylene glycol 400 (test group) or the vehicle (control group) was applied to the injection sites for 24 hours, secured by an elastic adhesive bandage.

Three weeks after the intradermal injection all animals were challenged for 24 hours with a filter paper saturated with 1.2% propoxur formulation applied to the left site sites and a vehicle saturated filter paper applied to the right hand sites.

Twenty-four and 48 hours after removal of the challenge material the sites were examined and scored for reaction.

Results

No reactions were observed in the test group and one reaction in the control group.