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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

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 Magnussen and Kligman an acceptable protocol for this purpose. The compound is not a sensitizer.

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Data Evaluation Report

Compound Propoxur (Baygon®)

Citation

Propoxur (The Active Ingredient of Baygon® and Unden®) Study of Sensitization Effect on Guinea Pigs. K.G. Heimann, Bayer AG, Institut fuer Toxicologie, Study No T 8011718 Oct 15, 1982

Reviewed by [signature] 8/14/85
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
BOQ 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 diplatory 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 sulfate 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.