
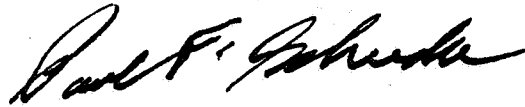


Shaughnessy No: 047802

Date Out of EAB: MAY 5 1988

To: Dennis Edwards
Product Manager #12
Registration Division (TS-767C)

From: Michael Firestone, Chief 
Special Review Section
Exposure Assessment Branch
Hazard Evaluation Division (TS-769C)

Thru: Paul F. Schuda, Chief 
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Attached, please find the EAB review of:

Reg./File # : 3125-174

Chemical Name : Propoxur

Type Product : Insecticide

Product Name : Sendran Liquid Tick and Flea Dip/Para-Ban

Company Name : Mobay Corporation

Purpose : Protocol Review for Exposure Study -
Dog Dip and Spray

Date Received : 4/8/88 Action Code: 352

Date Completed: _____ EAB #(s): 80648

Monitoring study requested: X Total Reviewing Time: 2 days

Monitoring study voluntarily: _____

Deferrals to: _____ Ecological Effects Branch
_____ Residue Chemistry Branch
_____ Toxicology Branch

1.0 INTRODUCTION

On 14 December 1987, the Agency issued a Data-Call-In Notice (DCI) requiring exposure data for products containing propoxur as the active ingredient. Mobay Corporation has responded with a protocol for determining the potential exposure of workers using products containing this active ingredient to treat animals by dipping, shampoo, or spray.

2.0 DESIGN OF STUDY

The proposed study is designed in two parts, one addressing the exposures during dipping and the second measuring exposures during the use of a spray product. The test materials to be used are Sendran Liquid Tick and Flea Dip and Para-Ban Pressurized Spray for parts one and two, respectively. The dip will be applied at the maximum label rate of 0.125 percent. The spray is a ready to use product containing 0.25 percent active ingredient. Three replicates, each consisting of the preparation of the product (for the dip), application, and cleanup and disposal, have been proposed. Dermal exposure will be measured using gauze patches attached to the outside of the clothing at locations selected to yield maximum exposure. Workers will wear long-sleeved cotton/polyester coveralls during treatment. Hand exposure will be measured by hand rinse with an appropriate solvent. Airborne concentrations of propoxur will be determined by drawing air, at a known rate, through samplers located in the workers breathing zone. Monitoring has been proposed during the entire period of use for the spray portion of the study. All sampling media will be collected and stored under conditions under which propoxur has been shown to be stable. All analyses will be carried out using a properly validated method. Good Laboratory Practices will be followed throughout the study.

3.0 CONCLUSIONS

The registrant did not submit complete protocols but rather presented a general outline explaining the conduct of the study. The methods to be used, although not explained in detail, are fairly standard and appear to be acceptable. There are however, two major areas that require changes.

A total of three replicates for each type of product were proposed. This number is insufficient to provide a statistically reliable estimate of exposures during application. The registrant is referred to the Agency's Pesticide Assessment Guidelines - Subdivision U Applicator Exposure (NTIS No. PB87-133286) for guidance regarding the appropriate number of replicates for these studies. The proper locations for the dermal patches can also be found in this document. EAB recommends that there be patches located on the upper arms because of possible contact of this area with a freshly

treated animal. The registrant has proposed to monitor respiratory exposure during the application of the spray product but not during treatment by dipping. In order to properly evaluate total exposure during treatment, respiratory exposures must also be monitored during application of the dip product.

If the registrant incorporates the above changes into the study design, EAB would find the protocol to be acceptable. The study would then yield a reliable estimate of exposures to propoxur when the material is applied as an animal dip or spray.



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