DATE: September 22, 1978

SUBJECT: Substitution of the synthetic pyrethroid 3-phenoxybenzyl d-cis and trans 2, 2-dimethyl -3-(2-methylpropenyl) cyclopropanecarboxylate, 0.23% (synonyms: 3-phenoxybenzyl d-cis, trans chrysanthemate, d-phenothin, sumithrin) for synergized pyrethrins in sanitizer Reg. No. 00397-00007 (Steri-Fab). Caswell No. 25, 844, 652B

FROM: D.G. Van Ormer
TOX. Branch/HED (TS-769)

TO: Mr. John Lee
Product Manager No. 31

Intended Use: Sanitizer and insecticide for mattresses, sofas, and other furniture.

Recommendation: Due to the low over-all toxicity of the requested substituent, the above substitution should result in no significant alteration of formulation toxicity. The formulation is expected to fall in TOX. Category III or IV, and can be classified for general use.

Review:

1. Active Ingredient (d-phenothin)
   (D. Reisa, Caswell No. 844)

   Oral LD-50, rat \( > 10,000 \) mg/kg
   Dermal LD-50, rat \( > 5,000 \) mg/kg
   Inhalation LD-50 (rat, mouse, 4-hour) \( > 1180 \) mg/m\(^2\)

   Irritation --zero
   90-day feeding, rat NEL = 1000 ppm
   Teratology, mouse NEL = 200 ppm

2. Formulation Containing Phenothin and Two other Synthetic Pyrethroids
   (R. Engler, Caswell No. 844)

   Studies of this complex formulation containing total pyrethroids at about 20-times the above applicant's label concentration showed a rating of TOX. Category IV.

3. Some preparations containing synthetic pyrethroids are less likely (than pyrethrum extract) to result in allergic reactions.
   (Casarett and Doull, p. 437)

RD initial G.E.W./9/22/78:1f

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