

4-23-79

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: April 23, 1979

SUBJECT: EPA File Symbol: 778-GI SERGEANT'S LONG-LASTING HOUSEHOLD INSECTICIDE  
(NALED INSECTICIDE STRIP), Caswell #586

FROM: B.T. Backus  
IRB/TSS

TO: Marilyn Mautz  
Acting Product Manager 16

Applicant: Miller-Morton Company  
2007 North Hamilton St.  
P.O. Box 6235

Active Ingredients:

Naled (1,2 dibromo-2,2 dichloroethyl dimethyl phosphate).....25%  
Inert Ingredients:.....75%

Background:

The applicant is proposing a Naled-containing insecticide strip for use in the home. The Naled is slowly released from a plastic (or plastic-like material) at a rate which makes the strip effective for 4 months.

The weight of one strip is 3.5 ounces. Technical Naled represents 31% of this, or roughly 30.8 grams.

The applicant has referenced data indicating the technical material has an LD50 in rats of 430 mg/kg, and in guinea pigs of 197 mg/kg. Dividing these figures by 0.31 yields 1387 and 635 mg/kg respectively, indicating this formulation is in toxicity category III on the basis of oral effects.

Use directions specify one unit per thousand cubic feet of enclosed area. Since 1 ft<sup>3</sup> = 28.3 liters, if all the active material was simultaneously released, the concentration would be 30.8 gms/28300 liters = about 1 mg per liter. Since the material is being released over a 4-month period human exposure would be to a concentration several orders of magnitude below this figure.

With respect to acute dermal toxicity, primary eye irritation, and primary skin irritation, the memorandum of August 5, 1977, by Dr. Gessert states that he did not consider these studies necessary. In his memorandum of May 25, 1977, Dr. Gessert stated that because of the nature of this formulation and its use, we would not consider these data necessary or applicable to the formulation. Since the material is in toxicity category III on the basis of oral effects, this would indicate a precautionary signal word of CAUTION.

Recommendation:

IRB/TSS has no objection, on the basis of human and environmental safety, to the registration of this formulation for the proposed uses, provided

appropriate label revisions (see below) are made.

Labeling:

1. The statement: "Because of its special ingredient, it can be used in every room in the house..." can be construed as implying safety, particularly for the active ingredient Naled, and an implication that comparable pest strips cannot be used in such a fashion. We could accept a statement such as: "This product can be used in every room in the house." but not the statement proposed.
2. Use directions specify that this product can be either hung or allowed to stand. Since the product is in toxicity category III, with respect to oral effects, the PRECAUTIONARY STATEMENTS and HAZARDS TO HUMANS AND DOMESTIC ANIMALS (under those headings) should be revised to something like the following:

CAUTION: Harmful if chewed or swallowed. Hang or place out of reach of children or animals. Do not open, tamper with or mutilate preassembled unit. After prolonged storage, a small amount of liquid may form on dispenser. Do not get in eyes. Wash hands thoroughly with soap and water after handling.
3. At the applicant's option, an additional statement in the HAZARDS TO HUMANS AND DOMESTIC ANIMALS something like: "Do not keep aquariums in rooms being treated." may be added.
4. There should be a STORAGE AND DISPOSAL statement (under that heading) something like the following: "Do not open package until ready for use. Wrap outer packaging or expired unit and discard in trash."
5. Precautionary labeling and the disposal statement should be included on the unit itself, and not just the outer packaging.

Byron T. Backus 4/23/79

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