4-20-82

001784

Memorandum

Date: 20 April 1982

Subject: EPA File Symbol: 59-ROT Dermaton Flea and Tick Collar for Dogs
Caswell #187

From: B. T. Backus
IRB/TSS

To: Mr. George LaRocca
Product Manager 15

Applicant: Burroughs Wellcome Co.
3030 Cornwallis Rd.
Research Triangle Park, NC 27709

Active Ingredient:
Supona.....15%
Inert Ingredients:.....85%

Background:

Product is a dog collar. The applicant has sent in a 90-day dermal dog cholinesterase study.

Comments and Recommendations:

1. The dog cholinesterase study received 3-31-82 is acceptable. Although we would have preferred to see less than 57% plasma cholinesterase inhibition in the 1X group, the lack of detectable RBC cholinesterase inhibition in both the 1X and 5X groups indicates an acceptably low level of potential hazard from cholinesterase inhibition.

2. IRB/TSS would have no objection, on the basis of hazards to humans and domestic animals, to the conditional registration of this product for the proposed use with the labeling revisions as indicated below and with the stipulation that within one year of issuance of conditional registration a study will be submitted either on technical material, ground-up collar or some other material that will give a reasonable assessment of this product's dermal sensitization potential.

Labeling:

1. "ATROPINE IS ANTIDOTAL" should be revised to something like "ATROPINE IS ANTIDOTAL ONLY IF SYMPTOMS OF CHOLINESTERASE INHIBITION ARE PRESENT."

2. Labeling should specify that this product is not to be used on puppies less than 3 months old.

3. There should be a statement that other pesticides are not to be used while this collar is being worn.

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Review:

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The following study was received 3-31-82 and is in Acc. 247126.

1. Cholinesterase - 90 day dermal (collar) - beagle dog. Study conducted by Burroughs Wellcome Co., 3030 Cornwallis Rd., Research Triangle Park, NC 27709. Doc. No. TTEP/82/0024; dated March 26, 1982.

Procedure: Groups of 4M, 4F 6 month-old purebred beagles were exposed to either 5 placebo collars, 1 15% Supona collar, or 5 15% Supona collars for 90 days. There were 4 pre-collar exposure blood samples taken, and samples were also taken at 10, 15, 22, 29, 36, 43, 50, 57, 64, 71, 78, 85 and 92 days after collars were placed on animals (92 days = 1 day after collars were removed), with plasma and RBC ChE measurements made.

Review:

ChE measurements: observed/expected

| | Plasma ChE Measurements | | | | RBC ChE Measurements | | | |
|---|---|---|---|---|---|---|---|---|
| Day | 1XM | 1XF | 5XM | 5XF | 1XM | 1XF | 5XM | 5XF |
| 10 | 0.57 | 0.49 | 0.54 | 0.42 | 1.03 | 0.94 | 0.99 | 1.02 |
| 15 | 0.44 | 0.41 | 0.43 | 0.36 | 1.03 | 1.03 | 1.16 | 1.02 |
| 22 | 0.44 | 0.40 | 0.41 | 0.35 | 0.88 | 0.98 | 0.90 | 0.87 |
| 29 | 0.43 | 0.40 | 0.39 | 0.36 | 0.99 | 0.88 | 0.92 | 0.96 |
| 36 | 0.44 | 0.41 | 0.39 | 0.33 | 0.97 | 0.98 | 1.02 | 1.02 |
| 43 | 0.41 | 0.38 | 0.36 | 0.36 | 1.03 | 0.95 | 0.98 | 0.93 |
| 50 | 0.40 | 0.40 | 0.36 | 0.34 | 1.00 | 0.94 | 1.07 | 1.00 |
| 57 | 0.41 | 0.42 | 0.37 | 0.34 | 0.91 | 0.93 | 0.86 | 0.87 |
| 64 | 0.42 | 0.42 | 0.35 | 0.32 | 0.95 | 1.01 | 0.98 | 1.12 |
| 71 | 0.43 | 0.45 | 0.35 | 0.31 | 0.87 | 1.25 | 0.76 | 1.21 |
| 78 | 0.43 | 0.50 | 0.35 | 0.37 | 0.90 | 1.01 | 0.90 | 1.03 |
| 85 | 0.36 | 0.43 | 0.31 | 0.32 | 0.93 | 0.98 | 0.89 | 0.87 |
| 92 | 0.38 | 0.44 | 0.34 | 0.32 | 1.05 | 1.05 | 1.03 | 1.09 |
| AVERAGE | 0.428 | 0.427 | 0.381 | 0.346 | 0.965 | 0.995 | 0.958 | 1.001 |
| S.D. | 0.049 | 0.035 | 0.057 | 0.029 | 0.062 | 0.089 | 0.102 | 0.102 |

Considerable plasma ChE depression (about 57% in 1X dogs, 64% in 5X dogs) seen; no RBC ChE depression seen in either 1X or 5X groups.

No symptoms of cholinesterase depression; no effect noted on body weights, food consumption, RBC ChE, toxicological signs; no irritation noted around neck.

Study Classification: Core Minimum Data

Although the use of this product would result in a fairly high level of plasma ChE inhibition, there is no indication of any effect on RBC ChE. Therefore, there is an acceptably low level of potential for adverse effects from ChE inhibition.

Byron T. Backus, 8/20/82

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Byron T. Backus
IRB/TSS

CHLORFENVINPHOS

Page_____ is not included in this copy.

Pages 3 through 4 are not included.

The material not included contains the following type of information:

____ Identity of product inert ingredients.

____ Identity of product impurities.

____ Description of the product manufacturing process.

____ Description of quality control procedures.

____ Identity of the source of product ingredients.

____ Sales or other commercial/financial information.

X___ A draft product label.

____ The product confidential statement of formula.

____ Information about a pending registration action.

____ FIFRA registration data.

____ The document is a duplicate of page(s) _____.

____ The document is not responsive to the request.

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.