UNITED ATES ENVIRONMENTAL PROTECT I AGENCY

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DATE: October 11, 1979

SUBJECT: EPA File Symbol: 239-EUTL ORTHO CHINCH BUG KILLER
Caswell #845A

FROM: B. T. Backus
IRB/TSS

TO: Mr. William Miller
Product Manager 16

Applicant: Chevron Chemical Company
Ortho Consumer Products Division
940 Hensley St.
Richmond, CA 94804

Active Ingredients:
0,0,0,0-Tetrapropyldithiophosphate.....13%
Deodorized Kerosene.....76%
Inert Ingredients:.....11%

Recommendations:

1. The Acute Oral LD50, Dermal LD50, Inhalation LC50, Eye and Dermal Irritation studies are adequate and acceptable to support the conditional registration of this product for the proposed uses.

2. The appropriate signal word is CAUTION, as proposed by the applicant.

3. IRB/TSS would have no objection, on the basis of hazard to humans and domestic animals to the conditional registration of this product with the labeling as proposed by the applicant.

4. In a telephone conversation on October 11, 1979, between this reviewer and Dr. Kamienski of Chevron Chemical Company, Dr. Kamienski indicated that, since the product readily emulsifies with water, the risk of aspiration is minimized by the first aid statement to induce vomiting after drinking a large quantity of water. On this basis, IRB/TSS has no objection to this proposed first aid statement for this product.

Review:

The following studies were conducted by the Chevron Safety and Health Division, 225 Bush St., San Francisco, Calif. 94104, using the product (CC7273) as proposed for registration. In Acc. 241027.

1. The Acute Oral Toxicity of CC7273;S-1145; SOCAL 1093/31:62, Feb. 13, 1978.

Procedure: 5M (226-262 gms) and 5F (200-226 gms) Sprague-Dawley derived rats each received a dosage of 5 gm/kg of test material by intubation, with a 14-day observation period, survivor sacrifice, and examination for gross pathology.

Results: No mortalities. No symptomology in males. Slight depression, reduced food consumption and rhinorrhea observed in females. No gross

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pathological changes attributable to the test material were noted. Oral LD50 above 5 gm/kg.

Study Classification: Core Minimum Data

Product Classification: Tox. Cat. IV:CAUTION

2. The Acute Dermal Toxicity of CC7273; S-1146; SOCAL 1094/29:51, Feb. 13, 1978.

Procedure: 6M rabbits were initially exposed for 24 hrs to an occluded dermal application of 5 gm/kg of the test material. Subsequently, groups of 6M rabbits were exposed to 1.0 and 5.0 gm/kg of the test material with 24-hr occluded exposure. Half the subjects had abraded skin. There was a 14-day observation period, survivor sacrifice, and examination for gross pathological changes.

Results: In the first group of 6 animals exposed to 5 gm/kg, there was one mortality ~~less than~~ within 6 days afterwards. In the second group of 6 exposed to this level, there were 2 deaths within 3 days after treatment. There were no deaths in the 1.0 gm/kg group. Signs of toxicity (observed in all groups) included hypoactivity, salivation, diarrhea and reduced food consumption. At autopsy, thickened, flaky skin was observed (presumably at the exposure site). One animal exposed to 5 gm/kg was small and emaciated. Despite this, the statement is made that there was no statistically significant difference in weights of surviving treated vs control animals at 7 and 14 days (or perhaps the emaciated animal was not a survivor).

Study Classification: Core Minimum Data (no individual body weight data; no females used).

Product Classification: Tox. Cat. III:CAUTION

3. The Skin Irritation Potential of CC7273; S-1057; SOCAL 1001/30:23, Feb. 9, 1977.

Procedure: 0.5 ml of product was applied to an intact and an abraded area on each of 6M New Zealand white rabbits, with 24-hr occlusive exposure, and Draize scoring at 24, 48, 72 hrs and 7 days.

Results: Erythema scores of 2-4 at both intact and abraded sites at 24, 48, 72 hrs and 7 days. Edema was slightly more pronounced at 7 days than at 72 hrs. Primary Dermal Irritation Score = 4.21 (If figures for 7 days were substituted for those of 72 hrs, score would be 4.46, which would still keep the product in Tox. Cat. III by this exposure route).

Study Classification: Core Guideline Data

Product Classification: Tox. Cat. III:CAUTION

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4. The Eye Irritation Potential of CC7273; S-1148; SOCAL 1096/30:86, Sept. 14, 1977.

   Procedure: 0.1 ml was placed in the conjunctival sac of each of 6 rabbits, with no wash, with readings at 24, 48, and 72 hrs.

   Results: No irritation at 24, 48 and 72 hrs. All these scores were zero.

   Study Classification: Core Guideline Data

   Product Classification: Tox. Cat. IV:CAUTION

5. The Acute Inhalation Toxicity of CC7273; S-1147; SOCAL 1095/28:102, Feb. 13, 1978.

a. Vapor Exposure:

   Procedure: 5M, 5F Sprague-Dawley derived rats were exposed to a vapor generated by putting 5 gms test material into 300 liters of air during a one hour period (average nominal concentration = 16.67 mg/liter ÷ 2 = 8.33 mg/liter). Animals were observed 14 days, survivors sacrificed, and examined for gross pathology.

   Results: No deaths or signs of toxicity noted. At autopsy, no gross pathological changes were found which could be attributed to the test material.

   Study Classification: Core Supplementary Data (average concentration insufficient to categorize this product).

b. Aerosol Exposure:

   Procedure: 5M, 5F Sprague-Dawley derived rats were exposed to an aerosol generated by putting 22.3 gms test material into 300 liters of air during a one hour period (average nominal concentration = 74.33 mg/liter ÷ 2 = 37.17 mg/liter). Subjects observed 14 days, sacrificed, and examined for gross pathological changes.

   Results: No deaths. One female developed pulmonary rales the day after exposure; the rales lasted one day. No gross pathological changes attributable to test material were found.

   Study Classification: Core Minimum Data (diluted product would be an aerosol when used).

   Product Classification: Tox. Cat. IV:CAUTION

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