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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

FEB 18 1987

MEMORANDUM

SUBJECT: EPA File Symbol: 9779-EIN
Riverside Chlorothalonil 90DF

FROM: Deloris F. Graham DFG 2/24/87 F. 2/24/87
Technical Support Section
Fungicide-Herbicide Branch
Registration Division (TS-767C)

TO: Lois A. Rossi, Acting PM 21
Fungicide-Herbicide Branch
Registration Division (TS-767C)

APPLICANT: Riverside Chemical Company
A Subsidiary of Terra Chemicals
International, Inc.
P.O. Box 171376
Memphis, TN 38187

ACTIVE INGREDIENT:
Chlorothalonil 90.0%
INERT INGREDIENTS: 10.0%

BACKGROUND:

Submitted Eye Irritation, Primary Dermal Irritation, Acute Dermal, and Acute Oral Studies to support conditional registration of this product. Studies conducted by Bio/dynamics, Incorporated. Data under Accession No. 263341. Method of support indicated as "Owner Submission."

RECOMMENDATIONS:

1. FHB/TSS finds these data acceptable to support conditional registration of this product.

2. According to a letter from the applicant dated June 3, 1986 to the Agency, no more than 0.4% of the product is less than 150 microns; therefore,

Acute Inhalation Study is not required.

3. Based on the Registration Standard issued September 28, 1984, chlorothalonil is a skin sensitizer which the applicant acknowledges and has labeled his product as a sensitizer.

4. The appropriate signal word is DANGER.

LABEL:

The following statement must be deleted from under the heading "Precautionary Statements" and placed under the heading "Directions For Use": "Do not apply this product in such a manner as to directly or through drift, expose workers or other persons. The area being treated must be vacated by unprotected persons."

REVIEW:

(1) Eye Irritation Study: Bio/dynamics, Inc.; Project No. 5972-85; August 16, 1985.

PROCEDURE:

Six rabbits received 0.1 cc (49.0 mg) of the test material in one eye each. Observations made for 21 days posttreatment.

RESULTS:

At 24 hours posttreatment, 5/6 had corneal opacity (2/6 = 40, 2/6 = 60, 1/6 = 80); 1/6 could not be scored for opacity and iris irritation due to severity of response; 5/6 iris irritation (3/6 = 5, 2/6 = 10); 6/6 conjunctive redness (6/6 = 3), chemosis (1/6 = 3, 5/6 = 4) and discharge (1/6 = 2, 5/6 = 3); necrosis, ulceration and stippling noted. At day 7, 6/6 had corneal opacity (2/6 = 5, 2/6 = 15, 1/6 = 30, 1/6 = 40), iris irritation (6/6 = 5), redness (1/6 = 1, 4/6 = 2, 1/6 = 3), chemosis (5/6 = 1, 1/6 = 2), and 2/6 had discharge (2/6 = 2); necrosis, ulceration, stippling, pannus, protruding cornea, and alopecia also reported.

At day 21, 2/6 had corneal opacity (1/6 = 5, 1/6 = 15) and pannus. All other irritation had cleared.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: I - DANGER.

(2) Primary Dermal Irritation Study: Bio/dynamics, Inc.; Project No. 5971-85; August 16, 1985.

PROCEDURE:

Six rabbits with intact skin sites each were treated with 0.5 g of the test material under occlusive wrap for 4-hour exposure period. Observations made for 7 days posttreatment.

RESULTS:

At 24 hours, 6/6 had slight to moderate erythema (1/6 = 1, 4/6 = 2, 1/6 = 3) and 5/6 slight to well defined edema (3/6 = 1, 2/6 = 2). At 72 hours, 6/6 had erythema (2/6 = 1, 4/6 = 2) and no edema. Desquamation noted in one animal at day 7.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: III - CAUTION.

(3) Acute Dermal Toxicity Study: Bio/dynamics, Inc.; Project No. 5970-85; August 16, 1985.

PROCEDURE:

Five male and five female rabbits with intact skin sites each received a single 2000 mg/kg dose of the test material. Treated sites were placed under occlusive wrap for 24-hour exposure. Observations made for 14 days postdosing. Necropsy performed on all animals.

RESULTS:

One of five males reported dead on day 6. Toxic signs reported included oral discharge, soft stool, hypoactivity, food consumption decrease, superficial necrosis. Necropsy report revealed lungs - red foci, discoloration; liver - accentuated lobular pattern; ovaries - cysts; testes - found in body cavity. LD_{50} reported to be greater than 2000 mg/kg.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: III - CAUTION.

(4) Acute Oral Toxicity Study: Bio/dynamics, Inc.; Project No. 5969-85; August 16, 1985.

PROCEDURE:

Five male and five female Sprague-Dawley rats each received a single 5000 mg/kg dose of the test material orally. Observations made for 14 days postdosing. Necropsy performed on all animals.

RESULTS:

No mortalities reported. Toxic signs reported included oral discharge, wet rales, dry rales, fecal staining, unthrifty coat, soft stool, hypoactivity, and food consumption decrease. Necropsy report revealed lungs - red foci and discoloration, changes reported due to carbon dioxide inhalation; uterus - swollen. LD_{50} reported to be greater than 5000 mg/kg.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: IV - CAUTION.