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

006185

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

APR 23 1987

MEMORANDUM

SUBJECT: EPA File Symbol 527-REA
NIX Non-Selective Vegetation Killer

FROM: Deloris F. Graham DFG 4/30/87
Technical Support Section
Fungicide-Herbicide Branch
Registration Division (TS-767C)

E 4/30/87

TO: Robert J. Taylor, PM 25
Fungicide-Herbicide Branch
Registration Division (TS-767C)

APPLICANT: Rochester Midland
P.O. Box 1515
Rochester, NY 14603

ACTIVE INGREDIENTS:
Prometon: 2,4-bis (isopropylamino)-
6-methoxy-s-triazine 12.5%
INERT INGREDIENTS: 87.5%

BACKGROUND:

Submitted Acute Oral, Acute Dermal, Acute Inhalation, Eye Irritation, Skin Irritation, and Dermal Sensitization Studies to support conditional registration of this product. Studies conducted by Stillmeadow, Inc. Data under EPA MRID Nos.: 400741-02, 401237-01, -02, -03, -04, and -05. Method of support not indicated.

RECOMMENDATION:

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

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2. Based on the eye irritation study the appropriate signal word is DANGER.

LABEL:

1. The statement "Keep out of reach of children" should precede signal word.

2. See enclosed copy for appropriate labeling procedures and format.

REVIEW:

(1) Acute Oral Toxicity Study: Stillmeadow, Inc.; Project No. 4431-86; December 12, 1986; EPA MRID No.: 400741-02.

PROCEDURE:

Four groups consisting of five male and five female rats each were dosed with one of the following doses: 2000, 3000, 4000 or 5050 mg/kg. Observations made for 14 days postdosing. Necropsy performed on all animals.

RESULTS:

At 3000 mg/kg, 2/5 M and 2/5 F died; at 4000 mg/kg, 3/5 M and 5/5 F died; at 5050 mg/kg, 4/5 M and 5/5 F died. Toxic signs reported include activity decrease, ataxia, bradypnea, chromodacryorrhea, constricted pupils, diarrhea, dilated pupils, exophthalmos, gasping, lacrimation, muscle tremors, nasal discharge, pilorection, polyuria, ptosis, respiratory gurgle, salivation, and sensitivity to touch. Necropsy report revealed chromodacryorrhea, epistaxis, lacrimation, oral discharge, nasal discharge, polyuria, salivation; discoloration of the contents of the gastrointestinal tract; gastrointestinal tract distended with gas, serosal blood vessels pronounced along gastrointestinal tract, lungs edematous, discoloration of lungs, kidneys and liver; kidneys firm or hard; testes drawn into abdominal cavity. LD_{50} for males reported to be 3610 mg/kg (with 95% confidence limits between 2831 and 4603) mg/kg. LD_{50} for females reported to be 3066 (2755-3411) mg/kg. LD_{50} for males and females combined reported to be 3325 (2821-3917) mg/kg.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: III - CAUTION.

(2) Acute Dermal Toxicity Study: Stillmeadow, Inc.; Lab. Project ID.: 4432-86; November 14, 1986; EPA MRID No.: 401237-01.

PROCEDURE:

Five male and five female rabbits with intact skin sites each were treated with 2010 mg/kg of the test material. The treated sites were placed under occlusive wrap for 24-hour exposure period. Observations made for 14 days posttreatment. Necropsy performed on all animals.

RESULTS:

No deaths reported. Toxic signs reported included small feces, decreased urination, no defecation, activity decrease, decreased defecation, diarrhea and lacrimation. Necropsy report revealed gastrointestinal tract distended with gas; green liquid in stomach. These necropsy findings were reported in one male animal only. LD_{50} reported to be greater than 2010 mg/kg.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: III - CAUTION.

(3) Acute Inhalation Toxicity Study: Stillmeadow, Inc.; Lab. Project ID.: 4436-86; January 9, 1987; EPA MRID No.: 401237-02.

PROCEDURE:

Five male and five female rats were exposed for 4 hours to a 4.54 mg/L maximum attainable analytical concentration (nominal conc. = 7.36 mg/L). Mass median diameter reported to be 2.315 micrometers and geometric standard deviation = 1.806. Mean temperature reported to be 69.3 °F and relative humidity 64.4%. Observations made for 14 days posttreatment. Necropsy performed on all animals.

RESULTS:

No mortalities or abnormalities at necropsy reported. Toxic signs reported include piloerection, activity decrease, ptosis, salivation, lacrimation, epistaxis, polyuria, body tremors, constricted pupils, and swollen neck. LC_{50} reported to be greater than 4.54 mg/L.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: III - CAUTION.

(4) Eye Irritation Study: Stillmeadow, Inc.; Lab. Project ID.: 4433-86; December 17, 1986; EPA MRID No.: 401237-03.

PROCEDURE:

Nine rabbits each received 0.1 ml of the test material in one eye each. The treated eyes of three of the rabbits were washed with deionized water for 1 minute beginning 30 seconds after treatment. Observations made for 21 days posttreatment.

RESULTS:

At 24 hours posttreatment, 6/6 rabbits of the unwashed group and 2/3 rabbits of the washed group had corneal opacity (1/6 = 15, 4/6 = 20, 1/6 = 30) (1/3 = 10, 1/3 = 20); 1/6 + 1/3 iris irritation (1/6 = 5) (1/3 = 5); 6/6 and 2/3 conjunctive redness (3/6 = 2, 3/6 = 3) (1/3 = 2, 1/3 = 3), chemosis (5/6 = 2, 1/6 = 3) (2/3 = 2) and discharge (3/6 = 2, 3/6 = 3) (1/3 = 1, 1/3 = 2).

At day 7, 5/6 + 1/3 corneal opacity (1/6 = 15, 4/6 = 20) (1/3 = 15); 3/6 iris irritation (3/6 = 5); 6/6 + 2/3 redness (2/6 = 1, 3/6 = 2, 1/6 = 3) (1/3 = 1, 1/3 = 2), chemosis (3/6 = 1, 2/6 = 2, 1/6 = 3) (1/3 = 1, 1/3 = 2), and discharge (5/6 = 1, 1/6 = 2) (2/3 = 1). Apparent invasion of cornea by blood vessels and slight hair loss adjacent to eyelids also noted.

At day 21, 3/6 corneal opacity (3/6 = 15); 1/6 iris irritation (1/6 = 5); 6/6 + 1/3 redness (6/6 = 1) (1/6 = 1); 3/6 chemosis (3/6 = 1); 4/6 + 1/3 discharge (4/6 = 1) (1/3 = 1); apparent invasion of cornea by blood vessels and slight hair loss adjacent to eyelids also noted.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: I - DANGER.

(5) Dermal Irritation Study: Stillmeadow, Inc.; Lab. Project ID.: 4434-86; December 14, 1986; EPA MRID No.: 401237-04.

PROCEDURE:

Six rabbits with intact skin sites each received 0.5 ml of the test material under occlusive wrap for 4-hour exposure period. Observations made for 21 days.

RESULTS:

At 24 hours posttreatment, 3/6 rabbits had slight erythema (3/6 = 1) and edema (3/6 = 1). At 72 hours, 6/6 had slight to well-defined erythema (1/6 = 1, 5/6 = 2) and edema (1/6 = 1, 5/6 = 2); sloughing of skin of various thicknesses also reported. Irritation and/or sloughing of skin persisted through day 21.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: III - CAUTION.

(6) Dermal Sensitization Study: Stillmeadow, Inc.; Lab. Project ID.: 4435-86; December 17, 1986; EPA MRID No.: 401237-05.

PROCEDURE:

During induction phase, two groups consisting of ten male guinea pigs each were treated using the topical match method on alternate days totaling ten applicatiors (0.5 ml per application) with one of the following substances: 50% v/v solution of the test material in diethyl ether or 0.05% w/v solution of 2,4-dinitrochlorobenzere in ethanol, positive control. Two weeks after final induction phase application a challenge dose was applied at previously treated site and virgin skin site in group using appropriate material. Observations made for 24 and 48 hours after each induction and challenge application.

RESULTS:

Slight to well-defined erythema and edema, shallow lateral fissuring and sloughing of skin of various thicknesses reported during induction of test group. At challenge of previously treated site and virgin site no irritation produced.

Slight to moderate erythema and edema during induction phase of positive control group. At challenge of previously treated site well-defined to moderate erythema and slight to moderate edema and eschar formation reported. At challenge of virgin site, slight to well-defined erythema and edema reported.

It is concluded that the test material did not produce a sensitizing reaction while the positive control (DNCB) did produce a sensitization reaction.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: Nonsensitizing.

RIN-0334-94 PROMETON REVIEWS (080804)

Page 6 is not included in this copy.

Pages _____ through _____ 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.

__✓__ 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.
