Memorandum

002829

Date: May 17, 1982

Subject: EPA File Symbol: 1624-RRL
MC 2-113 Weed and Grass Killer

From: Deloris F. Graham 5/19/82
FHB/TSS

To: Robert Taylor
Product Manager (25)

Applicant: United States Borax & Chemical Corporation
P.O. Box 4111
Anaheim, CA 92803

Active Ingredients:
Anhydrous Sodium Metaborate ($Na_2B_2O_4$).....12.91%
Sodium Chlorate ($NaClO_3$)..... 9.71%

Inert Ingredients.....77.38%

Background: Submitted Acute Oral, Acute Dermal, Eye Irritation and Skin Irritation studies. Studies conducted by Hill Top Research. Data not accessioned. Combined Cite-All and Alternate Method of Support.

Recommendation:

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

(2) An Acute Inhalation Study was not submitted, but one must be submitted and/or cited or a justification as to why this study is not necessary.

3. The appropriate signal word is WARNING.

Label:

(1) The statement "Avoid contamination of food and feed. Keep livestock off treated areas," must be deleted from precautionary statements and placed under Directions For Use.

002829

(2) Under the statement of practical treatment, the "If swallowed" statement must be revised similar to following.

> "If swallowed: Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water and induce vomiting by placing fingers in back of throat. Avoid alcohol. Never give anything by mouth to an unconscious person."

Review:

(1) Acute Oral Toxicity Study: Hill Top Research; Project #82-0194-21; March 22, 1982.

Procedure: 5 M and 6 F Sprague-Dawley rats received 5g/kg of the test material. Observations were made at 1 1/2, 2 1/2, 4 1/2 and 5 1/2 hours post-treatment, then twice daily for 14 days. Necropsy performed on all animals.

Results: 1/6 died. Diarrhea, central nervous system depression, ataxia, violent muscle contraction observed. Necropsy revealed cannibalization of the tail of one female rat; red stained fur around the nose and neck. LD_{50} greater than 5g/kg.

Study Classification: Core Guideline Data.

Toxicity Category: IV - CAUTION

(2) Acute Dermal Toxicity Study: Hill Top Research Project #82-0194-21; March 22, 1982.

Procedure: 5 M and 5 F New Zealand rabbits received 2g/kg of the test material at abraded skin sites under occlusive wrap for 24 1/4 hours exposure. Observations were made at 1, 2 1/4 and 4 1/4 hours, then twice daily thereafter for 14 days. Necropsy performed on all animals.

Results: One male rabbit sacrificed 7 days after treatment due to a large swelling on the right side of its face, nasal discharge and less of weight plus emaciation. At necropsy of this animal subcutaneous mass of cheesy consistency. Erythema, ataxia, desquamation, edema, ichor, formation, necrosis, coriaceousness, sloughing, and scar tissue formation observed. Necropsy revealed one case was embedded in liver while other considered of multiple freely floating pieces [redacted] parasitic cases with a jelly-like consistency in the intestinal cavity.

Study Classification: Core Guideline Data.

Toxicity Category: III - CAUTION

2

002829

(3) Eye Irritation Study: Hill Top Research, project #82-0194-21; March 22, 1982.

Procedure: Nine New Zealand rabbits received 0.1 ml of the test material in one eye each. The treated eyes of three of the rabbits were washed for one minute with lukewarm tap water, thirty seconds posttreatment. Observations made at 24 1/2, 48 3/4, 68 hours and 4 and 7 days posttreatment.

Results: At 24 hours, 1/9 corneal opacity (1/9 = 5); 5/9 iris irritation (5/9 = 1); 9/9 erythema (9/9 = 3); swelling (3/9 = 1, 2/9 = 2, 4/9 = 3); discharge (2/9 = 1, 2/9 = 2, 4/9 = 3). At 4 days, 1/9 corneal opacity (1/9 = 5); 9/9 erythema (9/9 = 3); 2/9 swelling (2/9 = 1); 6/9 discharge (3/9 = 1, 2/9 = 2, 1/9 = 3). At 7 days, no corneal opacity or iris irritation; 9/9 erythema (2/9 = 1, 5/9 = 2, 2/9 = 3); 4/9 swelling (4/9 = 1); 6/9 discharge (3/9 = 1, 2/9 = 2, 1/9 = 3). At 13 days, 1/9 erythema (1/9 = 1). At 16 days, 1/9 erythema (1/9 = 1) and discharge (1/9 = 1).

Study Classification: Core Guideline Data.

Toxicity Category: II - WARNING

(4) Primary Dermal Irritation Study: Hill Top Research; Project #82-0194-21; March 22, 1982.

Procedure: Six New Zealand rabbits received 0.5 ml of the test material at 2 abraded and 2 intact skin sites under occlusive wrap for 24 hour exposure. Observations made at 24 and 72 hours and at 6 days.

Results: At 24 hours, 6/6 erythema (2/6 = 1, 4/6 = 2) and edema (4/6 = 1, 2/6 = 2). At 72 hours, 6/6 erythema (6/6 = 1). At 6 days, 6/6 erythema (6/6 = 1). Blanching, small darkened spot, coriaceousness and desquamation observed but clear by 72 hours. Primary Irritation Index = 1.6.

Study Classification: Core Guideline Data

Toxicity Category: III - CAUTION

RIN 5117-93 SODIUM METABORATE
TOX REVIEW 002829

Page_____ is not included in this copy.

Pages 4 through 6 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.