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

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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

NOV 12 1986
1986

MEMORANDUM

SUBJECT: EPA File Symbol 538-ERA
Proturf Fluid Fungicide III

FROM: Deloris F. Graham DFG 11/19/86
Technical Support Section
Fungicide-Herbicide Branch
Registration Division (TS-767C)

E 11/19/86

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

APPLICANT: O.M. Scott & Sons Company
14310 Scottslawn Road
Marysville, OH 43041

ACTIVE INGREDIENTS:

Triadimefon, 1-(4-Chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanone	1.59%
Thiram, tetramethylthiuram disulfide	40.76%
INERT INGREDIENTS:	57.65%

BACKGROUND:

Submitted Acute Oral, Acute Dermal, Eye Irritation, Primary Dermal Irritation, and Dermal Sensitization Studies. Studies conducted by Hazleton Laboratories America, Inc. Studies under Accession No. 264565. "Selective" method of support.

RECOMMENDATION:

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

2. According to information submitted by applicant less than 20 percent of this granular product is less than 10 microns. Therefore, Acute Inhalation Study is not required.

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3. The appropriate signal word is CAUTION.

LABEL:

Precautionary Statement must be revised to include "Harmful if swallowed. If swallowed, drink 1 or 2 glasses of water and induce vomiting by placing finger in back of throat."

REVIEW:

(1) Acute Oral Toxicity Study: Hazleton Laboratories, Inc.; Study No. 60403811; July 15, 1986.

PROCEDURE:

Three groups consisting of five male rats each received one of the following doses: 2.0, 3.0, or 5.0 g/kg. Three groups consisting of five female rats each received one of the following doses: 1.0, 2.0, or 5.0 g/kg. Observations made for 14 days postdosing. Necropsy performed on all animals.

RESULTS:

At 2.0 g/kg, 4/5 F died; at 3.0 g/kg, 3/5 M died; at 5.0 g/kg, 5/5 M and 5/5 F died. Clinical signs reported included hypoactivity, ataxia, miosis, excessive salivation, red-stained face, yellow or dark-stained urogenital region, piloerection, hypothermic to touch, and rough hair coat. Necropsy report revealed stomach--multiple black foci on glandular mucosa; small intestines--tan granular material; stomach--contents white, chalky semisolid, dark red areas, white creamy semifluid; kidney-pelvis enlarged. LD_{50} for males reported to be 2.8 g/kg with 95% confidence limits between 1.99 and 3.95 g/kg. LD_{50} for females reported to be 1.5 g/kg, 95% confidence limits between 0.98 and 2.43 g/kg. LD_{50} for males and females combined reported to be 2.4 g/kg with 95% confidence limits between 1.71 and 3.51 g/kg.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: III - CAUTION.

(2) Acute Dermal Toxicity Study: Hazleton Laboratories; Study No. 60403812; May 30, 1986.

PROCEDURE:

Five male and five female rabbits with intact skin sites each received a single 2.0 g/kg dose. Treated sites placed under

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occlusive wrap for 24-hour exposure period. Observations made for 14 days posttreatment. Necropsy performed on all animals.

RESULTS:

No mortalities or abnormalities at necropsy reported. Slight to moderate erythema, slight to severe edema, slight to moderate desquamation, slight fissuring and blanching reported. LD_{50} for males and females reported to be greater than 2.0 g/kg.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: III - CAUTION.

(3) Eye Irritation Study: Hazleton Laboratories; Study No. 60403810; May 30, 1986.

PROCEDURE:

Six rabbits each received 0.1 ml of the test material in one eye each. Observations made for 7 days posttreatment.

RESULTS:

At 24 hours posttreatment, 5/6 rabbits had corneal opacity (3/6 = 5, 2/6 = 10); 3/6 iris irritation (3/6 = 5); 6/6 conjunctive redness (6/6 = 2); chemosis (1/6 = 1, 2/6 = 2, 3/6 = 3) and clear discharge (1/6 = 1, 4/6 = 2, 1/6 = 3); petite hemorrhage and blanching reported. Corneal opacity and other irritation had cleared by day 7.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: III - CAUTION.

(4) Primary Dermal Irritation Study: Hazleton Laboratories; Study No. 60403813; May 30, 1986.

PROCEDURE:

Six rabbits with intact skin sites each received a single 0.5 ml dose of the test material. The treated sites were placed under occlusive wrap for 4-hour exposure period. Observations made for 72 hours after treatment.

RESULTS:

At 24 hours posttreatment, 6/6 had slight to well-defined erythema (5/6 = 1, 1/6 = 2); 2/6 slight edema (2/6 = 1). At 72 hours, 2/6 had erythema (1/6 = 1, 1/6 = 2).

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: IV - CAUTION.

(5) Dermal Sensitization Study: Hazleton Laboratories; Study No. 60403814; July 15, 1986.

PROCEDURE:

A group of 10 guinea pigs were treated with 25, 50, and 75 percent w/v of the test material in deionized water; another group of 10 guinea pigs served as naive control and a group of four guinea pigs were treated with a 0.3% w/v of 2,4-dinitrochlorobenzene (positive control) in 80 percent ethanol/deionized water during induction phase. During induction phase each group received 0.4 ml applications of the appropriate material once a week for 3 weeks. Naive control group was treated at challenge dose only. Test group received two of the three concentrations of the test material. Two weeks after third induction phase application a challenge dose was applied to all three groups using appropriate material. A 0.1% dinitrochlorobenzene concentration was used at challenge. Observations made at 24 and 48 hours after each application.

RESULTS:

Very faint irritation reported in all animals of test group during induction phase and in 2/10 animals at challenge. One out of ten animals in naive control group reported to have very faint irritation. Positive control group reported to have moderate irritation during induction phase and moderate to severe irritation at challenge with a lesser concentration, thereby confirming sensitization response. Based on data submitted, this product did not produce a sensitizing response.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: Nonsensitizing.

RIN 5711-93

TRIADIMEFON TOX REVIEWS

Page_____ is not included in this copy.

Pages 5 through 8 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.
