MEMORANDUM

DATE: February 25, 1982

SUBJECT: EPA File Symbol 538-RTA
Turf Builder with Plus 2

FROM: Deloris F. Graham 3/1882
FHB/TSS

TO: Richard Mountfort
Product Manager (23)

Applicant: O. M. Scott & Sons
Marysville, OH 43041
Attention: Michael P. Kelty

Active Ingredients:
2,4-Dichlorophenoxyacetic acid ............... 1.15%
2-(2-Methyl-4-chlorophenoxy)propionic acid .... 1.15%
Inert Ingredients ....................................... 97.70%

Background

Submitted an Acute Oral, Acute Dermal, Eye Irritation and Primary Dermal Irritation Study. All studies except Primary Dermal were conducted by Raltech Scientific Services. The Primary Dermal Study was conducted by WARP Institute. Data under accession number 246696. Alternate method of support is used.

Recommendations

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

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

(3) The appropriate signal word is CAUTION.

Label

(1) The statement "Avoid contamination of feed or foodstuffs. Do not contaminate water used for irrigational or domestic purposes." must be deleted from the precautionary statements and placed under "Directions for Use."

(2) The storage and disposal statements must appear under the heading "Directions for Use," subheading "Storage and Disposal."
(3) The statement "Keep out of lakes, streams or ponds must be revised to read "Do not apply directly to lakes, streams or ponds."

Review

(1) Acute Oral Toxicity Study: Raltech Scientific Services; RT #852294; June 3, 1981.

Procedure: 5M and 5F Sprague-Dawley rats weighing between 208 and 275 g received 5 g/kg of the test material orally. Observations were made at 1, 2.5, 4 hours and daily thereafter for 14 days. Necropsy performed on all animals.

Results: No mortalities. No toxic signs. However, necropsy revealed scattered red foci on thymus and scattered, raised, white areas on lungs. LD50 greater than 5 g/kg.

Study Classification: Core Guideline Data.

Toxicity Category: IV - CAUTION.

(2) Acute Dermal Toxicity Study: Raltech Scientific Services; RT #852294; June 3, 1981.

Procedure: 5M and 5F rabbits weighing between 2337 and 2615 g received 2 g/kg of the test material at abraded skin sites under occlusive wrap for 24 hour exposure. Observation made daily for 14 days. Necropsy performed on all animals.

Results: No mortalities. Slight erythema and edema, desquamation and fissuring present. Possible respiratory congestion noted. Necropsy revealed diffused, raised white areas on liver. LD50 greater than 2 g/kg.

Study Classification: Core Guideline Data.

Toxicity Category: III - CAUTION.

(3) Eye Irritation Study: Raltech Scientific Services; RT #852294; June 3, 1981.

Procedure: Nine New Zealand rabbits received 0.1 g of the test material in one eye each. The eyes of three of the rabbits were washed for one minute with lukewarm water, 30 seconds posttreatment. Observations were made at 24, 48, 72, and 96 hours and at 7 days. If injury was present at 7 days, observations were made at 14 and 21 days.

Results: At 24 hours, 5/6 animals of the unwashed group and 3/3 animals of the washed group had corneal opacity (1/6=7.5, 2/6=10, 1/6=12.5, 1/6=15) (1/3=3.75, 1/3=7.5, 1/3=10); 6/6 and 3/3 had redness (1/6=1.5, 5/6=2) (3/3=2); chemosis (2/6=1, 2/6=1.5, 1/6=2, 1/6=3.5) (3/3=1); 5/6
and 1/3 discharge (3/6=1, 2/6=2, 1/6=2.5) (1/3=1). At 96 hours, 2/5 corneal opacity (1/6=10, 1/5=15); 6/6 and 3/3 redness (3/6=1, 3/6=2) (1/3=1, 2/3=1.5); 3/6 and 2/3 chemosis (3/6=1.5) (2/3=1).

At 7 days, 4/6 and 2/3 redness (3/6=1, 1/6=1.5) (2/3=1); 3/6 chemosis (3/6=1).

At day 14, 1/6 corneal opacity (1/6=2.5). No other irritation present.

At day 21, 1/6 corneal opacity (1/6=2.5).

Blanching of the conjunctivae, petite hemorrhage of the conjunctivae, pannus, and corneal neovascularization observed in one or two animals but had cleared by day 7.

Study Classification: Core Guideline Data.

Toxicity Category: III - CAUTION. I Danger

(4) Primary Dermal Irritation Study: WARF Institute; Warf #3043133; Accession #242865; May 21, 1973.

Procedure: Six rabbits with one abraded and one intact skin site each received 0.5 ml of the test material under occlusive wrap for 24-hour exposure. Observations were made at 24 and 72 hours.

Results: No irritation. All readings were negative.

Study Classification: Core Minimum Data. Four skin sites (2 abraded and 2 intact) per animal must be used.

Toxicity Category: IV - CAUTION.
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Pages 4 through 7 are not included in this copy.

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