

2,4-D/TOX

000452

TOX 315
5572
295

315

41

MEMORANDUM

DATE: January 8, 1981

SUBJECT: New Improved Super Turf Builder Plus 2
EPA File Symbol: 538-RAT

FROM: Sherell A. Sterling
FHB/TSS

TO: Richard Mountfort
Product Manager (23)

Applicant: O. M. Scott & Sons
Attn: Michael P. Keltz
Marysville, OH 43041



Active Ingredients:

2,4-D.....	1.42%
MCPA.....	0.71%
3,6-Dichloro-0-anisic acid.....	0.04%

Inert Ingredients.....97.83%

Background:

Acute Oral, Acute Dermal, Eye and Skin Irritation studies were submitted with this application for conditional registration. Studies were conducted by Raltech Scientific Services, Inc. of Madison, Wisconsin. The test substance is referred to as "F-8791" which is the "New Improved Super Turf Building Plus 2" formulation. The "alternate" method of support was chosen.

Labeling Recommendations:

1. The "Environmental Hazards" section must be modified to the following:
Do not apply directly to
"~~Keep out of~~ lakes, ponds, or streams. Do not contaminate water used for irrigational or domestic purposes."

The remaining statements which are currently under this section deal with the general restrictions. All general restrictions are more appropriately placed under the Directions for Use.

2. No further labeling revisions are necessary at this time; however, additional data, when submitted, may require additional revisions.

The appropriate signal word is WARNING, as proposed by the applicant.

Recommendations:

1. The Acute Oral study is adequate and acceptable for conditional registration.
2. The Acute Dermal study is adequate and acceptable for conditional registration purposes.
3. An Acute Inhalation study was not submitted. If this study is not necessary according to criteria described in §163.81-3 of the "Proposed Guidelines for Human Hazard Evaluation," please submit a written statement to this effect. In the case of granular formulations, we are concerned with the existence of "fines" in the container and ~~if~~ ^{whether} these particles present a hazard.
4. The Eye Irritation study is considered adequate and acceptable for conditional registration purposes.
5. The Skin Irritation study is considered adequate and acceptable for conditional registration purposes.

Review:

1. Oral Defined LD50; Raltech Lab No. 759035; February 15, 1980; Acc. No. 243672.

Procedure: Groups of 5M, 5F Sprague-Dawley rats (205-299g) each received a dosage of 5 g/kg of "F-8791." Animals were observed for 14 days post-treatment. All animals were subjected to necropsies.

Results: No deaths were reported. Observations revealed only diarrhea in 1/10 animals. Necropsy showed 4/10 animals with pinworms in colon; no other remarkable abnormalities.

Study Classification: Core Guideline Data

Toxicity Category: IV - CAUTION

2. Defined Dermal LD50; Raltech Lab. No. 759035; February 15, 1980; Acc. No. 243672.

Procedure: A group of 5M and 5F New Zealand white rabbits (2306-2853g) all with abraded skin were exposed to 2 g/kg of "F-8791." The test substance was moistened with 0.9% sterile saline and applied under occlusive wrap for 24 hours. Animals were observed for 14 days. At end of study, animals were necropsied.

Results: No deaths reported. Observations included slight erythema and edema; very slight to slight desquamation. Necropsy revealed 1/10 with raised red areas on lungs; no other visible lesions. LD50 is greater in 2 g/kg.

Study Classification: Core Guideline Data

Toxicity Category: III - CAUTION

3. Eye Irritation; Raltech Lab. No. 759035; February 15, 1980; Acc. No. 243672.

Procedure: Nine New Zealand white rabbits each received 0.1 g of "F-8791" in one eye. Three of the treated eyes were irrigated for one minute with lukewarm water no sooner than 30 seconds after treatment. Animals were scored according to Draize's method at 24, 48, 72, 96 hours and 7 days.

Results: The unwashed eyes at 24 hours showed opacity in 2/6=5, 1/6=7.5, 1/6=11.25, 2/6=15; iris irritation in 5/6=1; redness in 1/6=1.5, 2/6=2.0, 3/6=2.5; discharge in 2/6=1, 4/6=2. Also, observed in unwashed were corneal epithelial peeling, injected iris, blanching of the conjunctivae, purulent and clear discharge. Vocalization upon instillation of test material in 2/6. All unwashed eyes were clear by day 7.

Irrigated eyes at 24 hours exhibited corneal opacity in 1/3=7.5, 1/3=11.25, 1/3=18.75; iris irritation in 2/3=1; redness in 1/3=2, 2/3=2.5; chemosis in 3/3=2; discharge in 1/3=1, 1/3=2. Other observations were corneal peeling; iris injected; blanching of the conjunctivae and purulent discharge. All eyes were clear by day 7.

Study Classification: Core Guideline Data

Toxicity Category: II - WARNING

4. Primary Skin Irritation; Raltech Lab. No. 759035; February 15, 1980; Acc. No. 243672.

Procedure: A group of 6 New Zealand white rabbits each received 0.5 g of "F-8791" moistened with 0.9% saline at 4 sites (2 abraded, 2 intact). Exposure was for 24 hours under occlusive wrap. Draize scoring at 24, 72 hours.

Results: The intact sites at 24 hours exhibited very slight to well-defined erythema and very slight to slight edema. Abraded sites at 24 hours showed very slight to slight erythema and edema. By 72 hours, only very slight erythema and no edema at both intact and abraded sites. The Primary Irritation Index was 1.0.

Study Classification: Core Guideline Data

Toxicity Category: IV - CAUTION

FRONT:

000452

04

2 (Scotts(R)) NEW IMPROVED SUPER TURF BUILDER PLUS

Treats 5,000 sq. ft. (465 m²)

(Scotts (R))

XXXX

New Improved

Super

Turf

Builder

Plus 2 (R)

(PHOTO ILLUS)

TREATED

UNTREATED

Scotts most effective weed and feed

Controls dandelions and 44 other weeds listed on back

Gives your lawn a full feeding of Scotts (R) Super Turf Builder (R)

A SCOTTS (R) LAWN PRO (R) PRODUCT

Available only at authorized Lawn Pro (R) stores

NET WEIGHT 16 1/8 LBS (7.31 kg)

31-4-4

KEEP OUT OF REACH OF CHILDREN

WARNING

PRECAUTIONARY STATEMENTS

Hazard to Humans and Domestic Animals: Causes eye irritation. Do not get in eyes, on skin, or on clothing. In case of contact immediately wash eyes or skin with plenty of water. Get medical attention if irritation persists. Harmful if swallowed. Do not contaminate feed or foodstuffs.

Environmental Hazards: Do not contaminate water used for irrigational or domestic purposes. Do not use on creeping bentgrass or clover lawns. Avoid application on or near garden plants, flowers, and shrubs. Do not apply at greater than recommended rates under the branch spread of trees. For details see Directions for Use section.

Storage and Disposal: Do not reuse empty container. Wrap container and put in trash container.

ACTIVE INGREDIENTS:

2,4-Dichlorophenoxyacetic acid	1.42%
2-(2-Methyl-4-chlorophenoxy) propionic acid	0.71%
3,6-Dichloro-o- anisic acid	0.04%
INERT INGREDIENTS:	97.83%

EPA Reg No 538-	EPA Est. 538-OH-1	Total	100.00%
New Improved Super Turf Builder plus 2	31-4-4		

Guaranteed Analysis

Total nitrogen (N)	31%
0.9% ammoniacal nitrogen	
20.1% water soluble nitrogen	
10.0% water insoluble nitrogen	
Available phosphoric acid (P_2O_5)	4%
Soluble potash (K_2O)	4%
Derived from: Monoammonium phosphate, urea, methylene ureas, potassium sulfate.	

US Process Pat Nos 3,231,363;3,705,794;3,989,470

Product of USA

The O M Scott & Sons Company, Marysville, Ohio 43041

XXXX (Scotts (R)) New Improved Super Turf Builder plus 2 (R)

(Scotts)
(Lawn Pro)
TM)

(Scotts (R)) New Improved Super Turf Builder Plus 2 (R)

(Scotts (R)) New Improved Super Turf Builder Plus 2 (R)

A SCOTTS
LAWN PRO
(R)
PRODUCT

A SCOTTS
LAWN PRO
(R)
PRODUCT

XXXX

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BACK:

(Scotts (R)) New Improved Super Turf Builder Plus 2

Treats 5,000 sq. ft. (465 m²)

(Scotts (R)) New Improved
Super Turf
Builder Plus 2 (R)

Weeds Controlled

bindweed	clover (white)*	lambsquarters*	ragweed*
bittercress	curly dock*	lespedeza (seedling)	red sorrel (sheep sorrel)
black medic*	dandelion*	mallow	
buckhorn*	English daisy*	moneywort*	scarlet pimpernel
bull thistle	fleabane*	mustard*	sheepspurse
buttercup	ground ivy	pepperweed*	smartweed (seedling)
catsear (coast dandelion)*	hawkweed*	pigweed*	sowthistle*
chickweed*	healall*	plantain*	stitchwort
chicory*	henbit*	prickly lettuce*	threeseeded mercury
cinquefoil*	horseweed*	purslane	wild carrot
clover (hop)*	knotweed (seedling)	pussytoes*	yarrow*
clover (red)			yellow rocket*

*If these are the only weeds in your lawn, then application to dry foliage will give effective control. However, if you want superior control of all weeds listed, apply to moist foliage (see directions for use).

Directions for Use

It is a violation of federal law to use this product in a manner inconsistent with its labelling.

How to use

- DO Use when weeds are actively growing but not before dandelions develop yellow blossoms. Mow first if grass is tall enough to touch the bottom of the spreader.
- DO Apply when the grass is still wet from dew, rain or thorough watering. But do not water for 24 hours after application and don't apply if rain is expected within 24 hours.
- DO Apply at Scotts Spreader (standard, Automatic or Precision Flow Control Model) setting 5½. Follow straight lines and overlap wheel tracks slightly to avoid stripes of untreated lawn. Do not use a rotary (broadcast) spreader.

Why

Weeds must be in a growth cycle to absorb the ingredients for effective control. This product will not control dormant weeds or prevent weed seeds from growing.

Product particles must be in contact with weed leaves (about 24 hours) so control ingredients can be absorbed. Adequate contact occurs on a dry lawn for control of some weeds (see list), but particles stick even better to wet leaves for more absorption and better control.

A Scotts drop type spreader provides precise distribution over the lawn and weeds. Rotary spreaders may throw particles onto leaves of flowers, shrubs and other desirable plants and should not be used.

BACK CONTINUED:

DON'T use as a fertilizer on vegetables, flowers, shrubs, trees or ground covers. Don't apply on windy days to avoid drift onto desirable plants.

DON'T over apply, especially under the drip zone of desirable shrubs and trees. Don't double rate or apply in circles under trees. Close spreader when turning and stopping.

DON'T use on newly seeded or sodded lawns until after the fourth mowing, don't plant grass seed for one month after using this product and don't apply when daytime temperatures are consistently 90 degrees or above.

DON'T expect this product to work overnight. Weed stems and leaves may begin to twist and curl in a few days, but a month or more may be required for complete control. A few weeds may be resistant to control. If this happens, please forward specimens so we can identify them and advise you further.

This product is a weed control as well as a fertilizer and will affect many non-grass plants. To fertilize such plants, use Scotts GROW Fertilizers.

Some of the control ingredients are root absorbed. This product is safe when used as directed but over application is to be avoided.

Young grass needs a brief period to outgrow any initial sensitivity. Established grass is not affected by the weed controls in this product, except during periods of high heat and humidity.

This product is designed to provide steady controlled action so that all the weeds including the roots are eliminated while it feeds nearby grass plants to thicken and fill in as the weed disintegrates.

A SCOTTS (R) LAWN PRO (R) PRODUCT

Available only at authorized Lawn Pro stores

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Scotts Policy
No-Quibble Guarantee

If for any reason you are not satisfied with results after using this product, you are entitled to get your money back. Simply send us evidence of purchase and we will mail you a refund check promptly.

SCOTTS...the lawn people. Marysville, Ohio 43041

Free Bulletin Service

As a Scotts user, you are entitled to a free subscription to Lawn Care, which has been helping lawnowners for over 50 years.

Unless you already receive Lawn Care, send us this coupon and we'll mail you the seasonal issues especially for your region.

NAME (please print)

ADDRESS

CITY

STATE

ZIP

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(Scotts (R)) New Improved Super Turf Builder Plus 2 (R)

(SCOTTS)
(LAWN PRO)