

US EPA ARCHIVE DOCUMENT

2,4-D/70x
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

(21)
Releasable

DATE: February 8, 1979

SUBJECT: EPA Registration No: 538-33, Scotts Proturf, Caswell No. 315 and 295.

FROM: John Doherty
Toxicology Branch
John Doherty 3/10/79

TO: W. Garner
Product Manager #23
Rogoff 4/11/79

Action Requested:

It is requested to amend this registration by increasing the fertilizer grade from 30 to 36% nitrogen and dropping the phosphorous and potassium.

The % active ingredients will also be changed from 1.10% to 1.37% for 2,4-D and from 0.35% to 0.45% for Dicamba.

Other minor changes in the label are also requested.

Product:

Proturf Fertilizer plus Dicot Weed Control

Active Ingredients

2,4-Dichlorophenoxyacetic Acid	1.37%
Dicamba (2-methoxy-3, 6-dichlorobenzoic acid (Tech)	0.45%
Inerts	98.18%
	<u>100.00%</u>

Remarks:

1. This product contains 2,4,-D, a chemical that has been accepted for pre RPAR review (see Rogoff memo, dated Jan. 10, 1978). As of March 13, 1979, the status of 2,4,-D is in question, referral has been challenged. Janet Lambert, OSPR, is currently the person to contact for questions. The formulation change is small (0.27%) and will not affect the hazard of this registered product.
2. Registration of products containing Dicamba were temporarily suspended (see Rogoff memo of 10/20/76) because of the possibility of their containing nitrosamines. This suspension has been cancelled for products containing technical Dicamba but not the dimethylamine salt (see Rogoff memo dated 3/15/77).

3. There are questions concerning the teratology properties of Dicamba that are currently being addressed by the Velsicol Company (see Budd review, 9/8/76 and Anderson review of 1/16/78 and Budd memo of 10/21/76). Since this product contains only 0.45% Dicamba and it is not for food use the human hazard of the fetotoxicity in question is minimal.
4. The acute toxicity is summarized below and reviewed on the following pages.

		<u>TOX. CAT.</u>	<u>Core Classification</u>
Acute Oral LD 50 rats	> 5.0 gm/kg	IV	Minimum
Acute Dermal LD 50 rabbits	> 21.0 gm/kg	IV	"
Eye Irritation- rabbits	No opacity	IV	"
Dermal Irritation- rabbits	Not irritating	IV	"

Sufficient data are obtained to support a CAUTION label.

Conclusion

1. Registration may be approved

Review of four acute studies with PROTURF; all studies by WARF Institute, Madison, Wisconsin; dated October 20, 1977; WARF study No. 7082557.

A. Acute Oral LD 50

10 male and 10 female young adult Sprague-Dawley rats were dosed with 5 gm/kg of sample F-8481 and observed for 14 days.

No rats died. Necropsy was not remarkable. no signs of toxicity were noted.

This test is CORE MINIMUM *. It is not stated if the rats were prefasted. The toxicity (LD 50) is greater than 5.0 gm/kg thus the product may be listed as category IV. (* page 3)

B. Acute Dermal LD 50

3 male and 3 female New Zealand white rabbits were prepared by having their backs clipped and further abraded and then dosed with scotts sample F-8481 and the sample was held in place for 24 hours.

One female and one male died (on days 7 and 8). No other notable signs developed. Necropsy revealed dark colored lungs. The LD 50 is greater than 21 gm/kg.

This test is CORE MINIMUM **. Toxicity Category IV. (** page 3)

C. Eye Irritation

3 young adult New Zealand white rabbits were dosed with 0.1 Gm. of Scotts sample F-8481 by instillation of the substance into one of the eyes. The eyes were washed 20 seconds after instillation. A second group of 6 rabbits were also run, but there was no special washing following instillation.

No corneal opacity is reported as developing. No other irritation develops. Toxicity Category IV.

This test is CORE MINIMUM. The product is not a serious eye irritant.

D. Primary Skin Irritation

6 Young adult New Zealand white rabbits were prepared for this test by having their hair clipped and one area was further abraded. 0.5 gm of test material, Scotts sample F 8481, was applied to each area (1 intact and 1 abraded) and held in place for 24 hours.

No irritation developed or is reported. This test is CORE MINIMUM. The product is not demonstrated to be a serious primary skin irritant. Toxicity Category IV.

- * Upgraded from Supplementary where it was originally placed due to only one dosage level and rats possibly not being prefasted. The relatively high dosage level, lack of mortalities, lack of signs of toxicity and unremarkable necropsies clearly define the potential oral toxicity of this formulation and justify the upgrading of this study.
- ** Upgraded from Supplementary where it was originally placed due to only one dosage level and insufficient number of animals/sex/dosage level. Although 2/6 animals died at the single relatively high dosage level of 21 Gm/kg. Toxicology Branch feels the potential dermal toxicity of this formulation to be adequately defined and upgrading of the study to Core Minimal to be justified.

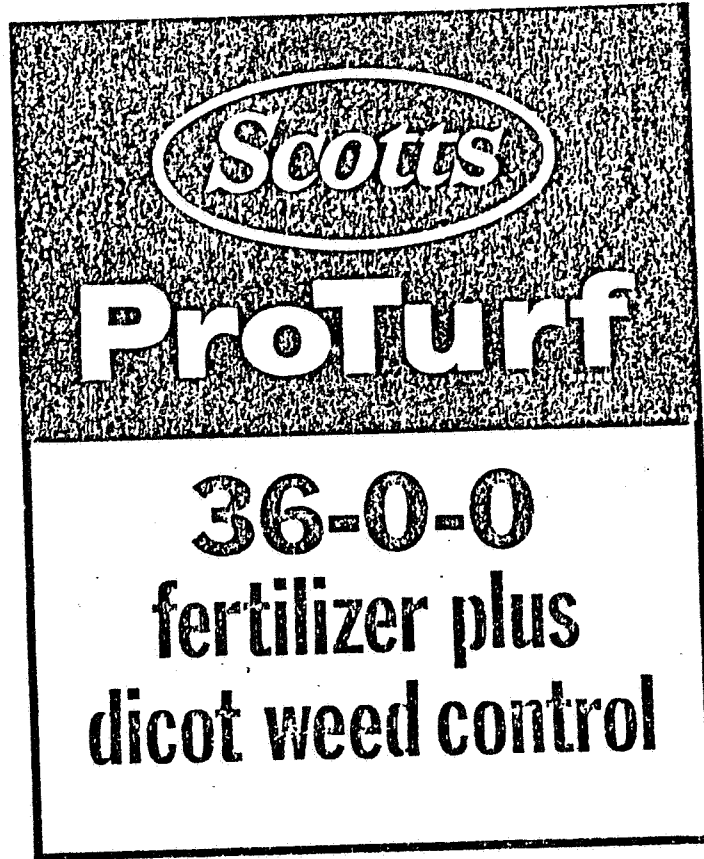
RD initial
EBUDD 2/5/79
TOX/HED/OPP:lf

WMS

NET WEIGHT 55 LBS (24.95 kg)



fertilizer plus dicot weed control



fertilizer plus dicot weed control

NOT FOR USE ON GOLF COURSE PUTTING GREENS

NET WEIGHT 55 LBS (24.95 kg)

CAUTION: KEEP OUT OF REACH OF CHILDREN

Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Avoid application on garden plants, flowers, trees and shrubs. Keep away from rootzone areas of shrubs and the branch spread of trees. Do not store near fertilizers, seeds, insecticides or fungicides. Do not contaminate water used for irrigation or domestic purposes.

Active ingredients: 2,4-Dichlorophenoxyacetic acid	1.37%
Dicamba (2-Methoxy-3,6-dichlorobenzoic acid)	0.45%
Inert ingredients	98.18%
Total	100.00%

EPA Reg No 538-33 EPA Est 538-011-1
Net Weight 55 lbs. ProTurf Fertilizer plus dicot weed control 36-0-0 guaranteed analysis 36%

Total nitrogen (N)


- 24.0% water soluble nitrogen from urea and methylene ureas
- 12.0% water insoluble nitrogen from methylene ureas

Potential acidity equivalent to 1200 lbs calcium carbonate per ton
US Process Pat Nos 3,231,16J 3,705,794 and 3,989,470
ProTurf Division, O M Scott & Sons


Product of USA
Marysville, Ohio 43040



fertilizer plus
dicot weed control



**fertilizer plus
dicot weed control**



36-0-0

fertilizer plus dicot weed control

- Fertilizes grass, controls these rosette and vining weeds
- | | | |
|---------------------|---------------|------------------|
| black medic | English daisy | pepper weed |
| buckhorn | flaren | pigweed |
| buttonweed | ground ivy | plantain |
| common chickweed | heal all | prickly lettuce |
| mouse ear chickweed | henbit | purslane |
| clover | horsetweed | ragweed |
| cudweed | knotweed | sheep sorrel |
| curly dock | lambquarters | shepherd's purse |
| dandelion | pennywort | yellow rocket |

SUGGESTED SPREADER SETTINGS
to provide proper distribution calibrate spreader before use

55 Lbs (24.95 Kg) treats 22,000 sq ft (1/2 Acre/2044 sq m) at 450 rpm

SPREADER	GROUND OR WIDTH OF PTO SPEED	COVERED AREA
Scotts (Drop Type)	3 mph	overlap wheels
Scotts Rotary	3 mph	10 feet
Lely-WTR & WFR Models	4.5 mph	20 feet
Lely-TR (PTO Model)	450 rpm	20 feet
	4.5 mph	

FOR USE ON TURFGRASS AREAS OTHER THAN PUTTING GREENS

Use when weeds are actively growing. Repeat in one month if needed.
Apply to foliage moist from dew, rain or sprinkling. Weeds should not be so tall as to touch bottom of spreader.
Rain, sprinkling, mowing or heavy traffic within 24 hours after application knocks granules off weeds, necessitates treating again, but wait at least one week.

PRECAUTIONS

On new plantings delay treatment until after the third or fourth mowing.
Avoid application over rootzone of trees and shrubs.
Delay planting grass seed until after a heavy rain or mowing and not sooner than 2 weeks after treating.
Soft, lush grass may become discolored during periods of high heat and humidity.
Not for use on dichondra, St. Augustine, bermuda grass or carpetgrass.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Do not use equipment. Open dumping is prohibited. Pesticides should not be disposed of in a landfill approved for pesticides or buried in a well away from water supplies.
Do not reuse empty container. Exposure to empty container should be avoided. Do not use for pests. Do not reuse containers or bury in a safe place. Contact local or state disposal authorities for approved alternative procedures such as incineration or burning.