2,4-D/TOX

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C 20460

#315

Releasable

DATE: October 6, 1980

SUBJECT: EPA Reg. No. 538-71
Turf Builder Plus 2 for Grass (W/S): Super Turf Builder Plus 2 for Iron Deficient Soils

FROM: Sherell A. Sterling
FHB/TSS

10-8-80
E 11/3/80

TO: Richard Mountfort
Product Manager (23)

Applicant: O. M. Scott and Sons
Marysville, OH
Attention: Gerald L. Born

Active Ingredient	
2,4D	0.6%
MCPA?	0.6%
Inert Ingredients	98.8%

Background: These data were submitted to substantiate a change in signal word from CAUTION to WARNING. The method of support is "alternate." Included in the data submitted were Acute Oral, Acute Dermal, and Eye and Skin Irritation studies conducted by Warf Institute of Madison, Wisconsin; another Eye Irritation study was conducted by Raltech Scientific Services of Madison, Wisconsin. These data are under Accession Number 243006.

Comments: A letter was submitted by Scotts (July 31, 1980) which attempts to justifies the signal word "WARNING" rather than "DANGER." This letter included the information that no accidents related to eye irritation had been reported. Also, due to method of application, possibility of eye contact is remote.

Recommendations:

1. The composition of "F-7645" and "F-8598" must be supplied before the data will be considered for registration. Since the "alternate" method of support is used, the formulations tested must be identical to the EPA-accepted formulations for this product.

2. Additional comments are withheld until the composition of the test substances is supplied.

3. Please submit a copy of the revised labeling for review. 11-3-80

Review:

1. Acute Oral Toxicity; Warf Inst. No. 6021914; Acc. No. 243006; Feb. 12, 1976.

   Procedure: Groups of six male Sprague-Dawley rats (150-250g) recieved an oral dosage of "F-7645." The dosage levels were 5 g/kg, 10 g/kg or 20 g/kg. Animals were observed for 14 days post-treatment.

   Results: No mortalities were reported. LD_{50} for males is greater than 20 g/kg.

   Study Classification: Core ~~Supplementary~~ Invalid RL Data. Only M animals were used; no necropsies were performed. Substance was not identified.

2. Acute Dermal Toxicity; Warf Inst. No. 6021914; Accession Number 243006; Feb. 12, 1976.

   Procedure: Four male rabbits received an 8 g/kg exposure to "F-7645" under occlusive wrap. Exposure was for 24 hours. Animals were observed for 2 weeks post exposure.

   Results: Apparently no animals died during study. All body weights increased.

   Study Classifiction: Core ~~Supplementary~~ Invalid RL Data. Only male animals were tested. No necropsies performed. Substance was not identified. Solid material must be moistened.

3. Eye Irritation; Warf Inst. No. 6021914: Acc. No. 243006; Feb. 12, 1976.

   Procedure: 6 New Zealand white rabbits received 0.1g of "F-7645" in one eye of each rabbit. Animals were observed for 72 hours post-exposure.

   Results: At 24 hours, no corneal opacity; no iris irritation; redness in 6/6 = 2; chemosis 6/6 = 2; discharge 6/6 = 2. By 72 hours only irritation noted was redness in 2/6 = 1.

   Study Classification: Core ~~Supplementary~~ Invalid RL Data. No "eyewash" group tested. Substance was not identified.

4. Primary Eye Irritation: Raltech Lab #772287; Acc. No. 243006; March 21, 1980.

   Procedure: Nine New Zealand white rabbits each received in one eye 0.1g of "F-8598." Thirty seconds post-treatment, three of the eyes were washed with lukewarm water for 1 minute; remaining six were unwashed. Scoring at 24, 48, 72, 96 hours; 7, 14, 21 days.

Results: All animals increased in body weight. At 24 hours the unwashed, corneal opacity observed in 3/6 = 5, 1/6 = 7.5, 1/6 = 10, 1/6 = 11.25', 6/6 had corneal epithelial peeling; iris irritated and injected in 6/6 = 1', redness in 3/6 = 2, 1/6 = 2.5, 2/6 = 3; chemosis in 4/6 = 2, 2/6 = 3', purulent discharge in 3/6 = 1, 1/6 = 1.5, 1/6 = 2.0, 1/6 = 2.5. Corneal opacity had cleared in all but 1/6 by 96 hours; 1/6 persisted through day 21. Only other effect at 7 days was redness in 1/6 = 1 which had cleared by 14 days. The rinsed group at 24 hours showed corneal opacity in 2/3 = 2.5, 1/3 = 7.5; corneal epithelial peeling in 2/3; iris irritated and injected in 1/3 = 1', redness in 1/3 = 1, 1/3 = 1.5 , 1/3 = 2', chemosis in 2/3 = 1.5; purulent discharge in 2/3 = 0.5. At 72 hours, rinsed eyes showed redness in 3/3 = 1; all scores were zero at 7 days.

Study Classification: Core ~~Supplementary~~ Invalid KL Data. Test substance was not identified sufficiently.

5. Primary Skin Irritation: Warf Inst. No. 6021914; Acc. No. 243006; Feb. 12, 1976.

Procedure: Six albino rabbits received exposure of 0.5g of "F-7645" at each of 2 sites per animal. Exposure was for 24 hours under occlusive wrap. Scoring at 24, 72 hours.

Results: All scores were zero.

Study Classification: Core ~~Supplementary~~ Invalid KL Data. Solid material must be moistened.

Scotts
TURF BUILDER
plus 2
FOR GRASS
weed control plus lawn fertilizer
Treats 4,000 sq ft (372m²)

2226

Formulated for Western and Southern Lawns

Scotts
TURF BUILDER
plus 2
FOR GRASS
weed control plus lawn fertilizer
for use on bahia, bermuda, centipede, zoysia, fescue or bluegrass lawns

Clears out weeds-(see list on other side)

Gives complete feeding of Scotts long-lasting fertilizer for developing beautiful, green lawns.

DO NOT USE ON ST. AUGUSTINE, CARPETGRASS, CREEPING BENTGRASS, DICHONDRA, OR LIPPIA

NET WEIGHT 22½ LBS (10.32 kg) 22-3-3

CAUTION: KEEP OUT OF REACH OF CHILDREN [illegible]

Guaranteed Analysis

Total nitrogen (N) 22%

Available phosphoric acid (P_2O_5) 3%

Soluble potash (K_2O) 3%

Product of USA

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

Scotts
TURF BUILDER
plus 2
FOR GRASS
weed control plus lawn fertilizer

Treats 4,000 sq ft (372m²)

EASY OPEN BAG PULL WHITE STRING

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TURF BUILDER
plus 2
FOR GRASS
weed control plus lawn fertilizer
for use on bahia, bermuda, centipede, zoysia, fescue or bluegrass lawns

WEEDS CONTROLLED

aster, black medic, buckhorn, buttonweed, chickweed, chicory, cinquefoil, clover (white), cudweed, curly dock, daisy fleabane, dandelion, dichondra, dollarweed, English daisy, eveningprimrose, filaree, fog fruit, ground ivy, henbit, knotweed (seedling), lambsquarters, lippia (matchweed), moneywort (creepingcharlie), morningglory, mustard, pennywort, pepperweed, pigweed, plantain, prickly lettuce, puncturevine, purslane, parsley, Florida, ragweed, shepherdspurse, thymeleaf sandwort, vetch, yellow rocket [illegible]

How To Use

DO use when weeds are up and growing actively. On bahia and centipede lawns only, wait until after the second mowing of the year but not before mid March. In the fall do not treat centipede after the first of October; do not treat bahia after the first of November.

DO apply only when lawn is wet from dew, rain or thorough watering (very important so that the Turf Builder Plus 2 particles will stick to the weed leaves instead of falling to the soil).

DO withhold watering lawn for at least 24 hours after application (to avoid washing particles off the weed leaves).

DO sweep or hose material off walks, driveways, and shoes to avoid discoloration.

DO apply on a calm day.

DO apply at Scotts Spreader (Standard, Automatic or Precision Flow Control Model) setting .... 7½ (treats 4,000 sq ft)

DO slightly overlap spreader's wheel tracks or you may have "stripes" of untreated lawn.

DON'T use when rain is expected within 24 hours.

DON'T use in a period of extreme heat and humidity.

DON'T use when grass is so tall it touches bottom of spreader (mow lawn first in such situations).

DON'T use on a newly seeded, sodded or sprigged lawn until the new grass has been mowed at least four times. If seeding in late spring, delay weed control application until early fall. If seeding in the late fall, delay weed control application until spring.

DON'T plant right after using Turf Builder Plus 2. Wait at least one month.

DON'T use on St. Augustine, carpetgrass, lippia, dichondra, creeping bentgrass; nor on flowers, shrubs, fruit, vegetable plants.

DON'T apply with a rotary-type spreader.

What to expect

This product does not work overnight. It is designed to provide slow, steady controlled action. Stems and leaves of weeds may begin to twist and curl in a few days, but a month or more may be required for complete control, especially when weather is dry or cool.

It is not necessary to rake out dead weeds. They will eventually disintegrate and disappear.

Only weeds growing at time of application will be eliminated. This product does not prevent weed seeds from producing new plants, whether such seeds are on the surface or buried in the soil. Nor does it control existing seeds or crabgrass.

If particles become washed off weed foliage within 24 hours after application, control may be less effective. If there is no indication that it is working after 3 or 4 weeks of good growing weather another treatment may be needed.

A few weeds may be resistant to control. If this happens, please forward specimens so we can identify them and advise you further.

After weed control is achieved, you are urged to follow through on the basic needs of every lawn—fertilizer, water and regular mowing.

Free bulletin service

[illegible]

Scotts Policy
No-Quibble Guarantee

[illegible]

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TURF BUILDER
plus 2
FOR GRASS
weed control plus lawn fertilizer

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