UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

SUBJECT: Mertect 360 Fungicide and Mertect 340 F Fungicide (new use for old chemical), request for registration.

DATE: January 30, 1974

FROM:

TO: Mr. Lee TerBush
Acting Chief
Coordination Branch

001971

Registration Nos.: 618-69-AA and 618-75-AA.

Registrant: Merck & Co., Inc.
Rahway, N.J. 07065

Date of Application: September 21, 1973.

Formulations: 60% Thiabendazole*

Inert Ingredients

[redacted]

42.28% Thiabendazole*

Inert Ingredients

[redacted]

INERT INGREDIENT INFORMATION IS NOT INCLUDED

Use: Fungicide, to control black rot, scurf, and foot rot.

Application Site: Sweet potato "seed roots."

Application Rate: One lb Mertect 360/15 gallons water; 16 fluid ounces Mertect 340 F/15 gallons water (=4,700 ppm TBZ as initial dosage in each case).

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* 2-(4-Thiazolyl)-benzimidazole; TBZ.

[redacted]

PRODUCT INGREDIENT SOURCE INFORMATION IS NOT INCLUDED

TF

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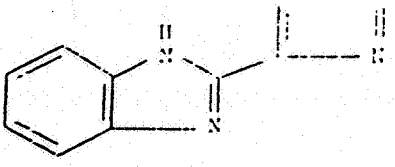
Structure:



Pertinent PP's: PP No. 3E1376 (establishes tolerance at 0.02 ppm TBZ in or on sweet potatoes).

Regulatory Status of Inerts:

[redacted]

Thus, the "inerts" of Mertect 340 F (618-75-AA) either are cleared or are probably cleared for use under Federal regulation.

Toxicity Data:

No new toxicity data accompany these applications. However, following information was found in old TOX FILE No. 254, courtesy of Mrs. Elsie Kelly:

[redacted]

INERT INGREDIENT INFORMATION IS NOT INCLUDED

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For Mertect 340 F (618-75-AA), TBZ flowable formulation No. 0100-F:

Primary skin irritation* test was negative but showed it to be mildly irritating to the skin.

Oral LD_{50} (mouse) = 3.05 (2.23-4.17**) g/kg body weight (BW). Symptoms that were shown include: Ptosis, ataxia, decreased activity, bradypnea, loss of righting reflex, and general depression preceding death.

Acute eye irritation*** test was negative, but showed it be slightly irritating to the eye.

For Mertect 360 (618-69-AA), 60% TBZ wettable powder (WP), which has same formulation as Mertect 160 WP (618-65), following studies were done by Merck (found in old TOX FILE No. 254):

Primary skin irritation**** test showed it to be a mild primary irritant.

Oral LD_{50} (rat, M) = 5.23 g/kg BW (4.36-6.27**)

Oral LD_{50} (rat, F) = 5.04 g/kg BW (4.25-5.97**)

Oral LD_{50} (mouse, F) = 7.40 g/kg BW (6.34-8.64**) Symptoms, as for Mertect 340 F.

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* Determined on three rabbits, with 0.1 ml test substance applied to each of two sites (one intact, one abraded) per rabbit. All sites showed slight edema at 24 hours; very slight edema and very slight erythema at 48 hours; and scaling of skin within 5 days but no irritation. At 14 days, all sites, "essentially normal."

** Ninety-five per cent fiducial limits.

*** Done on four rabbits. One-tenth ml test material put in conjunctival sac of one eye of each rabbit and lids held together for one minute. Eyes could not be read at 1 minute; since thickness and color of test material obscured the eye. Moderate injection of conjunctiva, seen in 4/4 rabbits at 1/4, 1, and 2 hours, and slight mucous discharge in 1/4 rabbits at 1/4 hour. No irritant effects, at 24 hours, and eyes, thereafter, normal for two-week observation period.

**** Done on six rabbits, using 0.5 g test material on each of two sites (one abraded, one intact) per rabbit. Slight edema and erythema, seen, at 24 hours, in intact and abraded skin sites in 3/6 rabbits. At 48 hours, one of these three still showed these effects, and, at 72 hours, it had slight erythema at abraded site only. All others, negative. No latent effects, seen during two-week observation period.

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