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

DATE: January 30, 1974

FROM: Mr. Lee TerBush
Acting Chief
Coordination Branch

TO: 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* 42.28% Thiabendazole*

Inert Ingredients

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).

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

PRODUCT INGREDIENT SOURCE INFORMATION IS NOT INCLUDED

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EPA Form 1325-6 (Rev. 6-72)
Pertinent PP's: PP No. 3R1376 (establishes tolerance at 0.02 ppm in or on sweet potatoes).

Regulatory Status of Inerts:

Thus, the "inerts" of Mectect 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:

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

Oral LD50 (mouse) = 3.05 (2.23-4.17**) g/kg, body weight (BW).
Symptoms that were shown include: Pnusis, 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 Mersect 360 (618-69-AA), 60% TBZ wettable powder (WP), which has same formulation as Mersect 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 LD50 (rat, M) = 5.23 g/kg BW (4.36-6.27**)  
Oral LD50 (rat, F) = 5.04 g/kg BW (4.25-5.97**)  
Oral LD50 (mouse, F) = 7.40 g/kg BW (6.34-8.64**)  
Symptoms, as for Mersect 340 F.

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 latat effects, seen during two-week observation period.