Date: January 26, 1983
Subject: EM Schmidgaul 467-LED Estrogen and Estradiol

Applicant: Dow Chemical Company
P.O. Box 1706, 9668 Building
Midland, Michigan 48640

Active Ingredient:
- 2,4-Dichlorophenoxyacetic Acid, 34.7% w/w
- Ethylphenol, 34.5% w/v
- Ethylacetic acid, 14.5% w/w
- Sodium Sulfate, 44.1% w/w

Recommendation:
D-348/33 finds these data acceptable to support conditional registration of this product.

1. An acute sublethal study was not submitted and one must be submitted and/or cited.
(3) The appropriate signal word is WARNING.

Label:

(1) The precautionary statement must be similar to following:

"May be fatal if absorbed through skin.
Thermal of scalding. Causes eye irritation.
Do not get on skin, eyes, or on clothing.
Wear protective clothing and safety glasses when handling.
Wash thoroughly with soap and water after handling and before eating or smoking."

Review:

(2) Harold Hoyt, Ph.D., Dow Chemical Company, July 20, 1986.

Procedure: Four groups consisting of 6 M and 6 F rats each received one of the following doses: 630, 1300, 2500 or 5000 mg/kg. Observations made for two weeks post-treatment. Necropsy was performed on all surviving rats.

Rats: At 1300 mg/kg, 4 M and 4 F died; at 2500 mg/kg, 3 M and 5 F died; at 5000 mg/kg, 4 M and 4 F died.

Signs observed included: lethargy, weakness, eye, semiconsciousness, rapid, shallow breathing, ascariadiation, palmar closure.

No treatment-related lesions observed upon necropsy.
LD₅₀ for males was 2348 mg/kg (1645-3862 mg/kg, 95% confidence interval). LD₅₀ for females was 1708 mg/kg (1189-2692 mg/kg, 95% confidence interval).

Study Classification: Use Guideline Data.

Safey Category: III - CAUTION

(2) Acute Dermal Sensitivity Study: Dow Chemical Company; July 20, 1982.

Procedure: Two groups consisting of 2M and 2F rats with intact skin received one of the following doses: 630, 1300, 2500 or 5000 mg/kg. Strips of skin sites were placed under occlusion except for 24 hour exposure. Observations made frequently during exposure, and for the following 48 hours. Necropsy was performed on all surviving animals.

Results: At 1500 mg/kg, 3/4 died; at 2500, 3/4 died; at 5000 mg/kg, 3/4 died.

Sues signs observed included diarrhea, decrease in food consumption, incoordination, disorientation, labored respiration and unconsciousness. Slight to moderate edema was observed. Necropsy revealed small amount of scale adherent to skin surface; decreased abdominal adipose tissue. No other abnormality noted as treatment related.

LD₅₀ was 1794 mg/kg (1021-3143 mg/kg, 95% confidence interval).

Study Classification: Use Guideline Data.
Sewer Category: II - WARNING

(2) Eye Irritation Study: Dow Chemical Company; July 20, 1982.

Procedure: Three rabbits received 0.1 ml of the test material in one eye each. The selected eye area of the rabbit were rinsed for one minute. Eyeballs were postfixed. Observations made at 1, 2, 3, 4, and 7 days posttreatment.

Results: No corneal opacity or eye irritation present. At day 1, 16 animals of the unwashed group and 4/6 of the washed group had conjunctival redness (4/6 = 1, 4/6 = 2, 4/6 = 1) and 4/6 chemosis (4/6 = 1). All irritation had cleared by 72 hours except for slight redness in 4/6 animals (4/6 = 1). Redness had cleared by day 7.

Study Classification: Core Guideline Data.

Sewer Category: III - CAUTION

(3) Skin Irritation Study: Dow Chemical Company; July 20, 1982.

Procedure: Six rabbits received 0.5 ml of the test material at intact and abraded skin sites under occlusive wrap for 24 hour exposure observations made at 24 and 48 hours.

Results: At 24 hours, 4/6 erythema (4/6 = 1, 4/6 = 2) and edema (4/6 = 1, 4/6 = 2). At 48 hours, 4/6 erythema (4/6 = 1, 4/6 = 2, 4/6 = 1) and 4/6 edema (4/6 = 1, 4/6 = 2). Primary irritation index was 2.50.

Study Classification: Core Guideline Data.

Sewer Category: III - CAUTION