BD-1609
TR-2786

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: March 30, 1982

002786

SUBJECT: EPA Registration No.: 5383-8
PMA 60 Phenylmercuric Acetate

FROM: Deloris F. Graham DFG 7/1/82
FHB/TSS

TO: Henry Jacoby
Product Manager (21)

Applicant: Tenneco Chemicals, Inc.
Turner Place
P.O. Box 365
Piscataway, NJ 08834

Active Ingredient:
Phenylmercuric Acetate 100%

Background: Submitted Acute Oral, Acute Dermal, and Acute Inhalation Studies. Studies conducted by Midwest Research Institutue. Data under accession number 246926. Method of support indicated as not applicable. Miscellaneous data not requested, but does not include adverse data.

Recommendation:

1. FHB/TSS finds these data acceptable to support conditional registration of this product.

2. The appropriate signal word based on the Oral Toxicity Study is DANGER, therefore the word poison in red with the skull and crossbones motif must appear in close proximity to the signal words.

Label:

1. The word poison and the skull and crossbones motif must precede the precautionary statements.

2. See the enclosed table for appropriate storage and disposal statements which must appear under the heading "Storage and Disposal" in the directions for use.

Review:

1. Acute Oral Toxicity Study: Midwest Research Institute; Project #7180-B(2); December 14, 1981.

Procedure: 5M and 5F rats per group (5 groups) received one of the following doses: 5, 15, 45, 135, 405 mg/kg. Observations made for 21 days. Necropsy performed on all animals.

Results: At 45 mg/kg, 2/5M and 2/5F died; at 135 and 405 mg/kg, 5/5M and 5/5F died.

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EPA FORM 1320-6 (REV 3-76)

Toxic signs included closed eyes, diarrhea; lethargy, eyes partially closed, decreased activity, little or no defecation, by day 12 all animals were normal.

Necropsy revealed reddened patches on stomach and intestines; darkened to black intestines; bright yellow intestines; dark liver and spleen; pale or dark patches on kidneys.

LD_{50} was 49 mg/kg with confidence limits between 36.2 and 65.8 mg/kg.

Study Classification: Core Guideline Data.

Toxicity Category: I-DANGER

(2) Acute Dermal Toxicity Study: Midwest Research Institute; Project #7180-B(2); December 14, 1981.

Procedure: Two M and 2F rabbits per group (4 groups) received one of the following doses under occlusive wrap for 24 hour exposure: 90, 180, 360 and 720 mg/kg. The animals at 90 and 180 mg/kg had abraded skin and one half of the animals at 360 and 720 mg/kg were abraded. Observations were made for 21 days. Necropsy performed on all animals.

Results: At 90 mg/kg, 1/2 M died; at 180 mg/kg, 1/2 F died; at 360 mg/kg, 1/2 M and 2/2 F died; at 720 mg/kg, 2/2 M and 2/2 F died.

Toxic signs included diarrhea then no defecation; discolored skin at test site, decreased activity, and skin at test site black.

Necropsy revealed extramedullary hematopoeisis, centrilobular vaculation, diffuse vacuolation of the liver; multifocal chronic nephritis; nephrosis and mineralization of the kidney; multifocal fibrosis of the heart; cyst in ovary.

LD_{50} was 204 mg/kg with confidence limits between 77 and 328 mg/kg.

Study Classfication: Core Guideline Data.

Toxicity Category: II-WARNING

(3) Acute Inhalation Toxicity Study: Midwest Research Institute; Project #7180-B(2); November 23, 1981.

Procedure: Five M and 5F Westar rats per group (6 groups) weighing between 160 and 237g were exposed for four hours under adequate chamber conditions to one of the following actual concentrations: 27, 39, 69, 125, 254, and 470 mg/m^3 with nominal concentrations at 155; 206; 302; 1,005; 1,583; 2,908 mg/m^3 respectively. Mass median aerodynamic diameter was 2.9 u with geometric standard deviation of 2.3 u. Chamber temperature was 70 $\pm$ 1° F with relative humidity at 47 $\pm$ 4%. Observations were made for 21 days. Necropsy performed on all animals.

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Results: At 254 mg/m^3, 1/5M and 1/5F died; at 470 mg/m^3, 5/5M and 5/5F died.

Toxic signs included lethargy, moribund, conjuntivitis, lacrimation, eyes matted closed, labored breathing, rhinorrhea, rales, epitaxis, polypnea, coughing, breathing through mouth, discharge from nose and mouth and irritation of scrotum.

Necropsy revealed moderate and grass hemorrhaging and slight edema in lungs; stomach and intestines full of gas; one male animal had small testes and one male animal had only one testis. Histopathology revealed nephrosis and inforit of kidneys, testes monarchic and degenerating; diffuse pneumonia in lungs.

0.284

LC_{50} was 284 mg/m^3 (~~284~~ mg/l) with confidence limits between 233.3 and 345.7 mg/m^3 (~~233.3~~ .233 and ~~345.7~~ .345 mg/l).

Study Classification: Core Guideline Data.

Toxicity Category: IV-CAUTION

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Phenylmercuric acetate toxicology review

Page 4 is not included in this copy.

Pages _____ through _____ are not included in this copy.

The material not included contains the following type of information:

___ Identity of product inert ingredients

___ Identity of product impurities

___ Description of the product manufacturing process

___ Description of product quality control procedures

___ Identity of the source of product ingredients

___ Sales or other commercial/financial information

_X_ A draft product label

___ The product confidential statement of formula

___ Information about a pending registration action

___ FIFRA registration data

___ The document is a duplicate of page(s) _____

___ The document is not responsive to the request

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.
