

005042

Date: January 26, 1983

Subject: EPA File Symbol: 464-LID
Esteron BK Weed and Brush Killer

From: Richard J. Graham
JHB/JS E 1/26/83

To: Robert Taylor
Product Manager (25)

Applicant: New Chemical Company
P.O. Box 1706, 9608 Building
Medford, Oregon 97504

Active Ingredient:

2,4-Dichlorophenoxyacetic Acid, Butoxyethyl Ester	34.4%
Inclopyr (3,5,6-trichloro-2-pyridinyloxyacetic acid), Butoxyethyl Ester	16.5%
inert Ingredients	49.1%

Background: Submitted Acute Oral, Acute Dermal, Eye Irritation and Skin Irritation Studies. Data under accession number 249242. Cite all method of support. Studies conducted by New Chemical Company.

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Recommendation:

(1) JHB/JS finds these data acceptable to support conditional registration of this product.

(2) An Acute Inhalation Study was not submitted and one must be submitted and/or cited.

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(3) The appropriate signal word is WARNING.

Label:

(1) The precautionary statements must be revised similar to following:

"May be fatal if absorbed through skin.
Irritant if swallowed. Causes eye irritation.
Don't get on skin, in eyes, or on clothing.
Wear protective clothing and rubber gloves
when handling. Wash thoroughly with
soap and water after handling and before
eating or smoking."

Received:

Acute Oral Toxicity Study: Dow Chemical Company; July
20, 1980.

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

Results: At 1300 mg/kg, 1/6 M and 1/6 F died; at 2500 mg/kg,
2/6 M and 5/6 F died; at 5000 mg/kg, 4/6 M and 4/6 F died.

Signs observed included lethargy, watery
eyes, semiconsciousness, rapid shallow breathing,
incoordination, palpebral closure.

No treatment-related lesions observed upon
necropsy.

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LD50 for males was 2348 mg/kg (1645-3862 mg/kg, 95% confidence intervals). LD50 for females was 1792 mg/kg (1189-2692 mg/kg, 95% confidence intervals).

Study Classification: Core Guideline Data.

Toxicity Category: III - CAUTION

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

Procedure: Four groups consisting of 2M and 2F rabbits with intact skin received one of the following doses: 630, 1300, 2500 or 5000 mg/kg. Treated skin sites were placed under occlusive wrap for 24 hour exposure. Observations made frequently during exposure, and for the following two weeks. Necropsy was performed on all surviving animals.

Results: At 1300 mg/kg, 7/4 died; at 2500, 7/4 died; at 5000 mg/kg, 7/4 died.

Toxic signs observed included lethargy, decrease in food consumption, incoordination, diarrhea, labored respiration and semiconsciousness. Slight to marked redness, slight to moderate swelling and slight necrosis also observed.

Necropsy revealed small amount of scales or flakes adherent to regrowing fur; decreased abdominal adipose tissue. No other abnormalities noted as treatment related.

LD50 was 1896 mg/kg (1021-3143 mg/kg, 95% confidence interval).

Study Classification: Core Guideline Data

Toxicity Category: II - WARNING

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

Procedure: Nine rabbits received 0.1 ml of the test material in one eye each. The treated eyes of three of the rabbits were rinsed for one minute, thirty seconds posttreatment. Observations made at 1, 2, 3, 4 and 7 days posttreatment.

Results: No corneal opacity or iris irritation present. At day 1, $\frac{3}{6}$ animals of the unwashed group and $\frac{1}{3}$ of the washed group had conjunctival redness ($\frac{3}{6}=1$, $\frac{1}{6}=2$) ($\frac{1}{3}=1$) and $\frac{1}{6}$ chemosis ($\frac{1}{6}=1$). All irritation had cleared by 72 hours except for slight redness in $\frac{1}{6}$ animals ($\frac{1}{6}=1$). Redness had cleared by day 7.

Study classification: Core Guideline Data.

Toxicity Category: III - CAUTION

(4) 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 72 hours.

Results at 24 hours $\frac{4}{6}$ erythema ($\frac{4}{6}=1$, $\frac{1}{6}=2$) and edema ($\frac{4}{6}=1$, $\frac{1}{6}=2$, $\frac{1}{6}=3$). At 72 hours, $\frac{4}{6}$ erythema ($\frac{4}{6}=1$, $\frac{2}{6}=2$, $\frac{3}{6}=4$) and $\frac{4}{6}$ edema ($\frac{3}{6}=1$, $\frac{1}{6}=2$). Primary Irritation Score was 2.50.

Study Classification: Core Guideline Data.

Toxicity Category: III - CAUTION