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DATA EVALUATION REPORT

8/2/2000

ZIRAM

STUDY TYPE: ACUTE DERMAL TOXICITY - RABBIT (81-2)

Prepared for

Health Effects Division
Office of Pesticide Programs
U.S. Environmental Protection Agency
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Arlington, VA 22202

Prepared by

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Task Order No. 97-22H

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Reregistration Branch 1 (7509C)

DATA EVALUATION RECORD

STUDY TYPE: Acute Dermal Toxicity - Rabbit
OPPTS 870.1200 [§81-2]

DP BARCODE: D235025 SUBMISSION CODE: S521512
P.C. CODE: 034805 TOX. CHEM. NO.: 931

TEST MATERIAL (PURITY): Ziram (Technical, 98.5%)

SYNONYMS: Zinc dimethyldithiocarbamate

CITATION: Liggett, M. and S. Allan (1989) Acute dermal toxicity to rabbits with Ziram. Huntingdon Research Centre Ltd., P.O. Box 2, Huntingdon, Cambridgeshire, PE18 6ES, England. HRC Study Report No. 89338D/UCB 316/AC, November 30, 1989. MRID 41340402. Unpublished.

SPONSOR: UCB Chemicals Corporation, 5365 Robin Hood Road, Norfolk, VA 23513

EXECUTIVE SUMMARY: In an acute dermal toxicity study (MRID 41340402), approximately 10% of the body surface area of five male and five female young adult New Zealand White rabbits was dermally exposed to 2000 mg/kg (Limit Test) Ziram (Technical, 98.5% a.i. Batch no. 8331AA) for 24 hours. The animals were observed for 14 days. None of the animals died during the study.

Dermal LD_{50} for male and female New Zealand White rabbits is > 2000 mg/kg (Limit Test).

Ziram (Technical) is in TOXICITY CATEGORY III.

Slight erythema was observed at the site of application in two males and two females. The reactions had completely resolved by day 4. No treatment-related clinical or body weight effects were found over the course of the study. Other than pale renal cortices observed in the kidneys of one male, no effects were noted at necropsy.

This acute dermal study is classified as acceptable (guideline). It does satisfy the guideline requirement for an acute dermal study (81-2) in the rabbit.

COMPLIANCE: Signed and dated GLP, Quality Assurance, and Data Confidentiality statements were provided.

I. MATERIALS AND METHODS

A. MATERIALS

1. Test material: Ziram (Technical)

Description: creamy white powder
Lot/Batch #: 8331AA
Purity: 98.5% a.i.
CAS #: 137-30-4

2. Vehicle and/or positive control

Distilled water

3. Test animals

Species: rabbit
Strain: New Zealand White
Age and/or weight at dosing: ~9-13 weeks; males: 2230-2830 g, females: 2340-2580 g
Source: A. Smith, Warlingham, Surrey, England and Froxfield Rabbits, Petersfield, Hampshire, England
Acclimation period: 7 days
Diet: Stanrab P, *ad libitum*
Water: drinking water, *ad libitum*
Housing: individually in metal cage with a perforated floor
Environmental conditions:
Temperature: 17-22°C
Humidity: 49%
Air changes: 19/hour
Photoperiod: 12 hour light/dark

B. STUDY DESIGN and METHODS

1. In life dates

Start: February 8, 1989; end: February 22, 1989

2. Animal assignment and treatment

The study was conducted as a limit test using five male and five female rabbits. One day prior to treatment hair was removed from the dorso-lumbar region of each rabbit exposing ~10% of the total body surface. A single 2000 mg/kg dose of Ziram (Technical) moistened with distilled water was applied to the prepared skin. The application site was covered with gauze and secured with an impermeable dressing encircled around the trunk. The covering was removed 24 hours later and the site washed with water. The animals were observed for clinical signs of toxicity soon after treatment, then at frequent intervals for remainder of day 1 and twice daily thereafter for the remainder of the 14-day study. The treated areas were examined daily for signs of dermal irritation and scored for erythema/eschar formation and

edema. The animals were weighed on study days 1, 8, and 15. Survivors were sacrificed by i.v. pentobarbitone sodium and necropsied.

TABLE 1. Doses, mortality/animals treated

Dose (mg/kg)	Males	Females	Combined
2000	0/5	0/5	0/10

Data taken from pp. 8 and 13, MRID 41340402.

3. Statistics

Calculation of the dermal LD_{50} was not required.

II. RESULTS AND DISCUSSION

A. MORTALITY

None of the rabbits died of Ziram (Technical) toxicity.

The dermal LD_{50} for male and female New Zealand White rabbits is > 2000 mg/kg.

B. CLINICAL OBSERVATIONS

Slight erythema was observed at the site of application in two males and two females and the reactions had completely resolved by day 4. No signs of systemic toxicity in response to treatment were reported.

C. BODY WEIGHT

Two females lost weight on day 8 but regained the weight by day 15. All other animals had weight gains as anticipated.

D. NECROPSY

Besides pale renal cortices that were observed in the kidneys of one male, no other macroscopic abnormalities were found at necropsy.

E. DEFICIENCIES

No study deficiencies were identified.

SignOff Date:	8/2/00
DP Barcode:	D172447
HED DOC Number:	014277
Toxicology Branch:	RAB2