Reviewed by: Marcia van Gemert, Ph.D. MvanGemert 3/9/87
Head Section III, Tox. Branch (TS-769C)
Secondary Reviewer: Theodore M. Farber, Ph.D.
Chief, Toxicology Branch (TS-769C)
WMFarber 3/17/87

DATA EVALUATION REPORT

Study Type: Dermal absorption in rat Tox. Chem No. 323EE

Accession No.: 265795

Test Material: propiconazole

Synonyms: tilt, CGA 64 250

Study Number: ABR 86053

Sponsor: Ciba Geigy

Testing Facility: Biochemistry Dept. Agricultural Division
Ciba Geigy Corp. Greensboro, N.C.

Title of Report: Dermal Absorption of ^{14}C-propiconazole in rats after a 10-hour exposure period

Author: T. Murphy, K. Brown, D. Doornheim

Report Issued: 8/4/86

Conclusions: 4 male rats/time point and 12/treatment level were given 0.1, 1.0 or 10 mg/rat. Treated rats were sacrificed at 2, 4 and 10 hours after skin application. The rate of absorption from skin was inversely proportional to the dose administered. The percent absorbed after 10 hours exposure was 54, 36 and 29% of the administered dose for the low, medium and high dose groups respectively. Most of the remaining radioactivity remained either on or in the skin, with total skin residues of 45.9, 78.8 and 60.2% for low, medium and high dose groups respectively.

Core Classification: acceptable

A. Materials:

1. Test Compound: ^{14}C- propiconazole, labelled in triazine ring.

   Specific Activity: 28.2 uCi/mg with a purity of 95% for the low and mid dose groups and,
   Specific activity for high dose group was 2.01 uCi/mg purity wasn't specified.
   Dosing solution: Dermal application of ^{14}C propiconazole made at doses of 0.1, 1.0, and 10.0 mg/rat, equivalent to 0.01, 0.1 and 1.0 mg/c^2 for 10-hour exposure. 50 ul of solution was used for the low and mid dose groups and 100 ul was used for high dose animals.
   From a 3EC formulation, suspended in H_2O

2. Test Animals:

   Species: rat, male

   Strain: Harlan Sprague Dawley

   Age: not specified

   Weight: 200-250 gms

   Source: Madison Wisconsin

Study Design:

4 male rats/time point and 12/treatment level were used. Treated rats were sacrificed at 2, 4, and 10 hours after initiation of exposure. Dorsal hair was shaved 20-24 hours prior to dosing. Application area on the skin as air dried after dosage application and covered with a non-inclusive bandage. Animals were housed in metabolism cages post dosing and animals were sacrificed by ether anaesthesia at appropriate time periods. Radioassay procedures and calculations are on appended page 1A.

Results:

The results for the three dosage levels are on appended pages 1-3. Total recoveries ranged from 97.3 to 112.6% for low dose animals, 98.7 to 105.3% for mid dose and 86.6 to 103.0% for high dose animals. The rate of absorption was inversely related to dose. The total amount absorbed expressed as a percentage of the total dose administered was 53.7, 36.2 and 29.3% for low, mid and high dose animals respectively.
Less than 20% of the administered dose was excreted in the 10-hour period, and the major route of excretion was urine.
Ten hours post dosing, total skin residues (including skin 1 and skin 2, soap rinse and water rinse) were 45.9, 78.8 and 60.2% for the low, mid and high doses respectively. A large proportion of radioactivity could be removed from skin by soap and water rinses. These rinses represented 31.9, 53.8 and 35.7% of the administered dose for low, medium and high dose groups respectively. (see appended pages 4-6 for details.)

Discussion:

The rate of radioactive propiconazole absorption appears to be inversely proportional to the dose administered. The percent absorbed after 10 hours exposure was 54, 36, and 29% for the low mid and high doses respectively. Most of the remaining radioactivity remained either in or on the skin, with total skin residues of 45.9, 78.8, and 60.2% for the low, mid and high doses respectively.

TILT CGA-64250 Reviews

---

p. 4-10

The next 7 page(s) is/are not included in this copy of the TILT reviews.

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 commerical/financial information

___ A draft product label

___ The product confidential statement of formula

___ Information about a pending registration action

X Detailed methods and results of a registrant submission.

___ Duplicate pages.

The information not included generally is considered confidential by product registrants. If you wish to obtain the information deleted, please contact the individual who prepared this response to your request.
