UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 15 1992

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OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

MEMORANDUM

SUBJECT: Trifluralin: Evaluation of a data waiver request

Caswell No. 889 HED Project No. 2-0280
EPA ID No. 036101 Submission No. S405966

TO: T. Stowe / W. Waldrop, PM Team 71
Special Review and Re-registration Division (H7508W)

FROM: Whang Phang, Ph.D. 1/13/92
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THROUGH: James Rowe, Ph.D. 1/13/92
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and
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Introduction

In 1991, Tox. Branch II was requested to evaluate a dermal absorption study on trifluralin in rhesus monkeys. The study was reviewed by R. Zendzian, Ph.D. and found to have significant deficiencies. It was concluded that the study is unacceptable, and the data can not be used for risk assessment purposes. The registrant, DowElanco, responded to the review of the study and requested to meet with the Agency to discuss the study. In addition, SRRD also requested Tox. Branch II to "identify all applicable data requirements and to note those for which adequate data have not been submitted to the Agency".

Discussion

The Toxicology Branch II is looking forward to meeting with the representatives of DowElanco to listen to any reasons for waiving the data requirement for a dermal absorption study.

This reviewer has examined the available toxicology data file on trifluralin and found essentially all applicable data requirements stated on the Registrant Standard for Trifluralin are satisfied

except a dermal absorption study. The following is a summary of all the required toxicology studies and the Core classification:

Study Type	Core Class.	Comments
Acute Studies		
Acute oral tox.-rat	Guideline	LD_{50} >5000 mg/kg Tox. Cat.IV
Acute dermal tox.-rabbit	Guideline	LD_{50}>2 g/kg Tox. Cat.III
Acute Inhalation-rat	Guideline	LC_{50}>4660 mg/m^3 Tox. Cat.IV
Eye irritation-rabbit	Guideline	Conjunctivitis which was cleared by day 4 Tox. Cat. III
Primary dermal Irrit.-rabbit	Guideline	not a skin irritant Tox. Cat. IV
Dermal sensitization-guinea pig	Guideline	produced skin sensitization
Subacute Studies		
90-day feeding-rat	Minimum	NOEL = 50 ppm
6-month feeding-dog	Supplementary*	NOEL < 400 ppm (LDT)
90-day dermal-rat	Minimum	NOEL = 200 mg/kg
Long-term studies		
1-year feeding-dog	Guideline	NOEL = 30 ppm
Chronic feeding/Onco. -rat	Guideline	NOEL = 200 ppm Significant increase in tumor incidence was not reported. However, in a study conducted on Fischer 344 rats by Eli Lilly, an increase in tumor incidence of the renal pelvis and urinary bladder was seen. The Peer Review Committee on Carcinogenicity of HED has classified trifluralin as a Category C carcinogen.
Onco. study-mouse	Minimum	NOEL = 50 ppm no carcinogenic potential was found.

Developmental toxicity studies

Develop. tox.-rat	Minimum	NOEL for develop. tox.= 475 mg/kg
Develop. tox-rabbit	Minimum	NOEL for develop. tox.= 225 mg/kg

Reproduction studies

2-generation reprod.-rat	Minimum	NOEL for reproductive parameters 0.2% (2000 ppm)

Mutagenicity studies

Ames	Acceptable	Negative
Sister chromatid exchange (Chinese Hamster BM)	Acceptable	Negative
Dominant lethal-mouse	Acceptable	Negative
Dominant lethal-rat	Acceptable	Negative
Micronucleus assay-mouse	Acceptable	Negative

Metabolism studies

The available data on the metabolism of trifluralin are considered to be sufficient for understanding the metabolic fate of this chemical.

Dermal penetration study

An acceptable dermal penetration study conducted according to the Agency's guidelines is required.

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*: An acceptable chronic feeding study on dog is available, and the requirement on a 90-day dog study may be waived.