



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OPP OFFICIAL RECORD  
HEALTH EFFECTS DIVISION  
SCIENTIFIC DATA REVIEWS  
EPA SERIES 361

010779

FEB 10 1994

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

MEMORANDUM

Subject: Triforine. Two-Generation Reproductive Toxicity Data Review.  
Tox. Chem. No. 890AA  
Shaugnessy No. 107901  
Submission No. S422130  
MRID Nos. 423718-01  
Case No. 816127  
DP Barcode No. D180803  
Action No. 627

From: Alberto Protzel, Ph.D.  
Review Section III  
Toxicology Branch II  
Health Effects Division (7509C)

*Alberto Protzel* 2/8/94

To: Ron Kendall  
Accelerated Reregistration Branch  
Special Review and Registration Division (7508W)

Thru: James N. Rowe, Ph.D., Head  
Review Section III  
Toxicology Branch II  
Health Effects Division (7509C)

*James N. Rowe* 2/8/94

and

Marcia van Gemert, Ph.D., Chief  
Toxicology Branch II  
Health Effects Division (7509C)

*Marcia van Gemert* 2/10/94

ACTION:

Review of the following study on the chemical TRIFORINE submitted by Shell International Chemical Company, London, England:

Triforine Two Generation Study in Rats [MRID 423718-01]

CONCLUSIONS:

In a two-generation reproduction study, Sprague-Dawley rats from Charles River (UK) Ltd., Kent, England (F<sub>0</sub>: 28/sex/dose, F<sub>1</sub>: 24/sex/dose) were fed triforine in the diet at dosage levels of 0, 500, 3000, or 20,000 ppm (during pre-mating, for



Recycled/Recyclable  
Printed with Soy/Canola Ink on paper that  
contains at least 50% recycled fiber

the diet at dosage levels of 0, 500, 3000, or 20,000 ppm (during premating, for males 0, 38, 226, and 1525 mg/kg/day and for females 0, 48, 288, and 1924 mg/kg/day, respectively). The animals were mated on a one to one ratio with the F<sub>0</sub> parental animals and were given test diets for 10 weeks before they were mated. Selection of parents for the F<sub>1</sub> generation was made on day 21 of lactation and the animals were treated for ca 11 weeks after weaning prior to mating. Compound-related parental toxicity was observed at 3000 and 20,000 ppm, as evidenced by decreased body weight or body weight gain (10 to 22% below controls) during the premating period and increased adjusted organ weights (for liver, kidney, spleen, and/or thyroid) in both sexes and generations. The tentative LOEL for systemic toxicity is 3000 ppm and the tentative NOEL for systemic toxicity is 500 ppm, based on decreased body weight gain and organ weight changes.

Compound-related reproductive toxicity was suggested at 20,000 ppm by decreased pup body weight in both generations and possibly by decreased F<sub>1</sub> corrected testes weights (p<0.01) and reduced F<sub>1</sub> male fertility. Body weights were below controls in F<sub>1</sub> pups on day 14 by 14-15% and on day 21 by 17-18%; and in F<sub>2</sub> pups, on day 14 by 13-14% and on day 21 by 19-20%. Because no statistical analysis was done on pup weights and fertility indices, it is not possible to evaluate the quantitative significance of the observed effects. Therefore, the NOEL and the LOEL cannot be determined at this time. This study is classified as Core Supplementary pending submission of individual data and statistical analysis for various parameters.



13544

007886

**Chemical:** Triforine (ANSI)

**PC Code:** 107901

**HED File Code** 13000 Tox Reviews

**Memo Date:** 02/10/1994

**File ID:** TX010779

**Accession Number:** 412-01-0169

**HED Records Reference Center**

06/25/2001

