CASWELL FILE



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

JUN 11 1990

MEMORANDUM

SUBJECT: DEF, 6(a)(2) Letter re Retinal Toxcity in Chringic Study

TO:

Lumine, PM-50

SRRD (H7505C)

FROM:

Robert P. Zerdzian Ph.D.

Senior Pharmacològist SACB, HED (H7509C)

THROUGH:

Albin Kocialski Ph.D.

Head

Registration Standards and Special Review Section

Reto Engler Ph.D.

Chief

Science Analysis and Coordination Branch

Compound; DEF

Tox Chem #864

7/30/50

Registration #74801-02

Registrant; Mobay

MRID #N/A

Tox Project #0-1313

Action Requested

Respond to a 6(a()2) letter from Mobay reporting the observation of retinal degeneration at the high dose/12 month sacrific in a chronic feeding study in rats.

Response

The Registrant has contacted me directly and coed me this letter re this observation. At the end of 12 months on a chronic feeding study (doses 0, 4, 40 & 320 ppm) 20 rats/sex/dose at control and high dose and 10 rats/sex/dose at low aon intermediate dose were sacrificed. In all animals at the high dose the visual layer of the retina no longer existed. Additional test and observations of the visual system were devised and put into place for the terminal sacrifice, which took place last week.

In the future it is strongly advised that 6(a)(2) letters be hand carried to the operating division <u>IMMEDIATELY</u> upon receipt. Under the processes used here it would have been impossible to respond to this type of situation.





Mobay Corporation A Bayer USA INC. COMPANY

Agricultural Chemicals Division

Mr. Robert Taylor Product Manager (25) Environmental Protection Agency Registration Division (H7505C) 401 M Street, Southwest Waterside Mall Washington, D.C. 20460

P O Box 4913 Hawthorn Road Kansas City, MO 64120-0013 Cable: Kemagro Kansas City Telephone: 816/242-2000

April 30, 1990

Subject: DEF Technical, EPA Reg. No. 3125-96 Interim Results from a Chronic Study Reportable under FIFRA 6(a)(2)

Dear Mr. Taylor:

Upon micropathologic examination of a 12-month interim satellite group of a chronic rat study on DEF (10 or 20/sex/dose level; dose levels: 0, 4, 40 and 320 ppm), an apparent treatment-related incidence of retinal degeneration was observed in all animals of both sexes in the high dose group only. There is no evidence of this effect occurring in the mid- or low-dosage group animals.

This effect is known to be produced by some organophosphate ester compounds, but this marks the first time such a finding has been associated with DEF. These interim results are being brought to your attention at this time in order to comply with the requirements of FIFRA 6(a)(2). However, please recognize that these data are considered preliminary at this time and will only be fully defined upon completion of the study.

Yours very truly,

MOBAY CORPORATION AGRICULTURAL CHEMICALS DIVISION

John S. Thornton, Manager

Registrations

Research and Development

JST:SBS:cd

Ms. Lois Rossi, Branch Chief" **Environmental Protection Agency**

> Dr. Robert Zendzian **Environmental Protection Agency**