2-8-85

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

FEB 8 1985

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: EPA Reg. No. 3125-183; Disulfoton (Di-Syston)®
Caswell No.

TO: George LaRocca
Product Manager (15)
Registration Division (TS-767)

THRU: Christine F. Chaisson, Ph.D. C.F. Chaisson 1/31/85
Head, Review Section IV
Toxicology Branch
Hazard Evaluation Division (TS-769)

FROM: George Z. Ghali, Ph.D. G. Ghali 1/31/85
Toxicology Branch
Hazard Evaluation Division (TS-769)

2/8/85

Registrant: Mobay Chemical Corporation
Kansas City, MO 64120

Action Requested:

Evaluation of an interim report on chronic feeding/ oncogenicity of technical Disulfoton in rats.

Discussion:

In the brief interim report it was stated that the study was initiated on March 22, 1982 and completed on April 5, 1984 using Fisher 344 rats from Charles River Breeding Laboratories. Four dose levels were used 0, 1, 4, and 16 ppm, and fifty animal were used per sex per dose level.

The results were summarized in the interim report as follows:

Mortality:	No effect
Clinical Signs:	Age related signs occurred in controls and in the 1 and 4 ppm groups comparably, but the incidence increased in the 16 ppm groups.
Feed Consumption:	No effect in males of all levels and in females of 1 and 4 ppm groups. The feed consumption of 16 ppm females was significantly decreased.

Body Weight:	Body weights were significantly lower in males and females in the 16 ppm level; the 1 and 4 ppm groups were comparable to controls.
Hematology & Blood Chemistry:	Statistical analysis has not been done yet. All parameters appear comparable for males and females.
Cholinesterase:	No toxicological effect at 1 ppm, but a dose-related inhibition occurred in the 4 and 16 ppm groups.
Gross Necropsy:	The occurrence of masses and abnormalities was comparable for rats consuming disulfoton and control rats.
Histopathology:	Histopathology is being performed by Southern Research Institute, Birmingham, Alabama.

Conclusion and Recommendations:

No conclusion can be made until the final report is submitted for evaluation.