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

MAR 27 1991

OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

MEMORANDUM

SUBJECT: Malathion Chronic Toxicity (Ocular Effects) Testing in the Dog

Tox. Chem. No.: 535
Project No.: 0-2040
Record No.: 268526

FROM: Brian Dementi, Ph.D., D.A.B.T. Brian Dementi 3/20/91
Review Section III
Toxicology Branch I-IRS
Health Effects Division (H7509C)

TO: Joanne Edwards, Review Manager
PM Team # 74
Special Review and
Reregistration Division (H7508C)

THRU: Karl Baetcke, Ph.D. 3/20/91
Chief, Toxicology Branch I-IRS
Health Effects Division (H7509C)

THRU: Penelope Fenner-Crisp, Ph.D. 3/23/91
Director, Health Effects Division (H7509C)

This memorandum serves to revise malathion testing requirements as set forth in previous Tox Branch memoranda, specifically "Malathion Chronic Toxicity/Oncogenicity Testing Protocols", February 8, 1991 and "American Cyanamid Company Response to Malathion Registration Standard", April 20, 1990.

In the April 20, 1990 memorandum, Tox Branch advised that although the malathion registration standard required another chronic study in the dog, a Peer Review Committee concluded on 3/23/90 that the additional dog study would not be necessary. The Committee felt that the primary reason for the additional dog study, the determination of cholinesterase NOELs, would be adequately addressed in the additional chronic/oncogenicity studies being required for malathion and malaoxon in the rat.

In the February 8, 1991 memorandum, Tox Branch advised of the need for a meeting with the Registrant to discuss revisions in the design of the malathion and malaoxon chronic/oncogenicity testing protocols in order to obtain definitive cholinesterase data and to provide for the assessment of the potential for the two agents to elicit ocular toxicity.

As the result of recent negotiations with the Office of Management and Budget (OMB) with respect to the terms of clearance for testing of organophosphates for ocular effects, which may provide only for such testing in the dog, we are proposing to revise the requirements for testing of malathion. Therefore, we wish to reinstate as a requirement chronic testing in the dog, with emphasis upon ocular effects. However, as an organophosphate, malathion is of concern regarding its potential to elicit adverse effects upon the visual system, which may not be fully characterized by the testing of malathion in one species. Therefore, we encourage more critical assessments of eye parameters in the conduct of the oncogenicity studies than would ordinarily be anticipated in following this Agency's test guidelines.

As before, Tox Branch recommends that the Registrant make arrangements to discuss with Tox Branch representatives the protocols for long term testing of malathion and malaoxon in the dog and rat for the purpose of obtaining definitive cholinesterase data in both species and ocular effects data.