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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

17 August 2001

**MEMORANDUM**

**Subject:** Transmission of Background Materials for the Session of the September 2001 FIFRA Scientific Advisory Panel Entitled "Common Mechanism of Action of Thiocarbamates and Dithiocarbamates"

**To:** Paul Lewis, Designated Federal Official  
FIFRA SAP  
Office of Science Coordination and Policy (7101C)

**From:** Karl P. Baetcke, Ph.D.  
Office of Pesticide Programs,  
Health Effects Division (7509C)

**Through:** Margaret Stasikowski, Director  
Office of Pesticide Programs,  
Health Effects Division (7509C)

Attached are the documents "*The Grouping of a Series of Dithiocarbamate Pesticides Based on a Common Mechanism of Toxicity*", "*Thiocarbamates: A Screening Level Cumulative Dietary (Food) Risk Assessment*", and "*Common Mechanism of Action of Thiocarbamates and Dithiocarbamates: Questions to the Panel*".

The purpose of the document "*The Grouping of a Series of Dithiocarbamate Pesticides Based on a Common Mechanism of Toxicity*" is to evaluate whether the dithiocarbamate pesticides share a common mechanism of toxicity. The Office of Pesticide Programs (OPP) used a weight-of-evidence (WOE) approach that considered all pertinent information to determine whether the dithiocarbamate pesticides act via a common mechanism of toxicity. The weight-of-evidence analyses followed the approach and principles described in the document "*Guidance for Identifying Pesticide Chemicals and Other Substances That Have a Common Mechanism of Toxicity*" [<http://www.epa.gov/fedrgstr/EPA-PEST/1999/February/Day-05/6055.pdf>].

The document, "*Thiocarbamates: A Screening Level Cumulative Dietary (Food) Risk Assessment*", is intended to describe the evidence evaluated and the findings regarding the potential for two or more thiocarbamates to induce toxicity via a common mechanism. The information contained in this document also shows the results of EPA's preliminary screening level dietary (food) cumulative risk assessment of registered thiocarbamate pesticides using neuropathology as an endpoint. The preliminary screening level cumulative risk assessment is intended to illustrate the **process** that may be followed as a first step in evaluating the need for a more refined cumulative risk assessment of a group of chemicals that share a common mechanism of toxicity. The cumulative risk assessment presented in the document is not intended to identify a level of concern or risk for any one chemical or group of chemicals included in the assessment.

The information discussed in the above two documents will be summarized and presented to the SAP members during the upcoming September 2001 meeting of the panel on the subject

Common Mechanism of Action of Thiocarbamates and Dithiocarbamates.

The objective of the presentation is to inform the SAP of the Office of Pesticide Programs progress and approaches in addressing requirements of the Food Quality Protection Act to consider cumulative exposures when risk assessments are prepared on chemicals that operate by a common mechanism of action.

The Panel members should review these materials for the above session.

The document, "*Guidance for Identifying Pesticide Chemicals and Other Substances That Have a Common Mechanism of Toxicity*" [<http://www.epa.gov/fedrgstr/EPA-PEST/1999/February/Day-05/6055.pdf>] and the report of a 1999 session of the Scientific Advisory Panel on "*Identifying Carbamate Pesticides That Have a Common Mechanism of Toxicity*" are also attached as background materials that the SAP may also wish to review.

