

US EPA ARCHIVE DOCUMENT



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

OFFICE OF
PREVENTION, PESTICIDES
TOXIC SUBSTANCES

AND

November 30, 2000

MEMORANDUM

Subject: Results of 10/31/00 MARC Committee Meeting on Molinate Degradates in Water; Chemical No. 41402; MRID Nos.: none; DP Barcode: D270853

From: Christine L. Olinger, Chemist
Linda Taylor, Ph.D.
Reregistration Branch I
Health Effects Division (7509C)

and

James Breithaupt
Environmental Fate and Effects Division

Through: Whang Phang Ph.D., Branch Senior Scientist
Reregistration Branch I
Health Effects Division (7509C)

To: George Kramer, Ph.D., Executive Secretary
Metabolism Assessment Review Committee
Health Effects Division (7509C)

Attendance

Committee Members

Christine Olinger, George Kramer, William Wassell, Leung Cheng, Nancy Dodd, Kit Farwell, and Sanju Diwan

Presenting Scientists

James Breithaupt and Linda Taylor

Other Attendees

Wilhelmena Livingston and Michele Mahoney

Summary of Deliberations

The Metabolism Assessment Review Committee (MARC) met on October 31, 2000 to consider the degradation of molinate in water. Specifically EFED has asked HED to determine which degradates are of toxicological concern in drinking water. EFED supplied a memorandum dated 10/17/00 (J. Breithaupt to W. Livingston) describing the degradates that have been found or have the potential to be found in various soil and water metabolism studies. Parent molinate has been extensively monitored in various surveys, but the only degradate that was an analyte of interest in some of the monitoring studies was 4-keto molinate.

MARC Decision

All degradates with an intact thiocarbamate moiety should be included in the drinking water risk assessments. Degradates that have been found at various levels in the soil and water metabolism studies include molinate sulfoxide, molinate sulfone, 3-keto- and 4-keto- molinate, hydroxy molinate (2, 3, and 4), molinate acid (carboxymethyl molinate), and ring- opened molinate (S-ethyl-5-carboxypentyl thiocarbamate). Hexamethyleneimine (HMI) has been found, but is not of concern for the endpoints currently regulated since it does not contain the thiocarbamate moiety.

cc: COlinger, Reg. Std. File, RF, Wilhelmena Livingston (SRRD), J. Breithaupt, G. Kramer, V. Dobozy
7509C:RRB1:CLOlinger:elo:CM#2:Rm 722J:305-5406: 11/29/00
RDI: WPhang: 11/30/00