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

APR 28 1988

MEMORANDUM OF CONFERENCE

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: Avermectin PP#8F3592 and PP#7F3500 - RCB Conference with Merck, 4/13/88, Second Meeting Concerning Nature of Polar Degradates for Toxicological Testing.

FROM: V. F. Boyd, Ph.D., Chemist *V. F. Boyd*
Tolerance Petition Section
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

THRU: John H. Onley, Section Head *JHO*
Tolerance Petition Section 2
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

TO: Residue Chemistry Files

Attendees

L. S. Groseff	Merck, Sharp and Dohme
P. Wislocki	" " " "
R. Dybas	" " " "
R. Robertson	" " " "
A. Heyward	RD " " "
T. Farber	TOX
E. Budd	TOX
W. Dykstra	TOX
L. Kutney	EAB
R. Schmitt	RCB
C. Deyrup	RCB
J. Onley	RCB
M. Kovacs	RCB
F. Boyd	RCB

Background:

According to a letter from Merck, Sharp and Dohme (3/31/88) who requested the meeting, a summary of toxicology studies on the delta 8,9-isomer and thin-film derived polar degradates of AVM had been submitted to TOX. A protocol of the petitioner had been accepted (10/87) for producing polar degradates on oranges at a 30X rate of application and using both fruit generated degradates and photolytically generated material for Ames and teratogenicity testing of AVM polar products.

The stated purpose of the conference was to discuss a waiver from the requirement of using citrus fruit generated polar degradates.

Dr. Rick Robertson of Merck presented their toxicology view of why the use of polar degradates from citrus peel in Ames or teratology studies might be disastrous. So many unknown materials unrelated to abamectin could be a part of the isolate. Therefore the toxicology test results may not reflect an evaluation of AVM or its degradates as much as it might evaluate other pesticides and polar products native to the citrus.

Peter Wislocki, Merck, presented a chemistry view of the AVM polar degradates from a thin-film on glass plates, 1X and 10X applications on peel surface in CA oranges, and 1X and 30X applications on peel in FL oranges. A distinct difference between the polar degradates from 10X treated CA oranges and 30X treated FL oranges was demonstrated in the Normal Phase HPL chromatograms. Similarly, a distinct similarity between polar degradates from the 1X treated from FL and CA and from thin-film glass plates was noted. The HPLC profiles were similar or different in the content of more polar degradates as compared to moderately polar degradates.

The meeting was adjourned.

TS-769:RCB:F.Boyd:vg:CM#2:Rm810:X77484:4/25/88:
cc: Reading File, Circu., F.Boyd
RDI: J.Onley, 4/15/88; R.Schmitt, 4/19/88