PP#4F04354

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

MAR 27 1995

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Mar 27 1995

MEMORANDUM

Subject: PP#4F04354. Abamectin (Avermectin B_1) for Use in/on Cucurbits. Initiation of Petition Method Validation Request.
(MRID#:432038-01 and 432286-01. No DP Barcode#. No CBTS#.)

From: G. Jeffrey Herndon, Chemist
Tolerance Petition Section II
Chemistry Branch I - Tolerance Support
Health Effects Division (7509C)

G. Jeffrey Herndon

Through: Edward Zager, Acting Chief
Chemistry Branch I - Tolerance Support
Health Effects Division (7509C)

To: Donald A. Marlow, Chief
Analytical Chemistry Branch
Biological and Economic Analysis Division (7503C)

The registrant, Merck and Company, Inc., is requesting that permanent tolerances be established for the residues of abamectin (avermectin B_1) insecticide/miticide and its delta-8,9-isomer in/on cucurbit vegetables at 0.005 ppm.

A petition method validation (PMV) is requested for recovering avermectin B_1a, B_1b, and the Δ-8,9-isomer of B_1a from cucumbers. All samples (including the controls) should be run in duplicate at the requested fortification levels (see attached table). A copy of the method is supplied as Attachment II (pages 1912 - 1947 of MRID# 432038-01 vol. 6 of 8) and of the independent lab validation as Attachment III (entire contents of MRID# 432286-01).

Please return the requested information on the attached forms and all other information concerning the PMV that is generated according to your SOP on PMVs, including fortified samples, standard curves, and examples of sample calculations. If any communication with the registrant is necessary to clairify minor points, a description of such communication should also be returned

ABAMECTI .024

to CBTS with your final report. The results of this PMV should be directed to E. Haeberer, Section Head, TPS-2.

Attachment I - Method Report Form (2 pages)

Attachment II - "HPLC-Fluorescence Determination For Avermectin B_1 and its Delta-8,9-Isomer in Cucumbers", J. Cobin, 10/25/89, Merck Sharp and Dohme Research Laboratories, Method# 8920, (pgs. 1912-1947 of MRID# 432038-01, vol. 6).

Attachment III - "High Performance Liquid Chromatography Fluorescence Determination For Avermectin B_1 and its Delta-8,9-Isomer in Cucumbers and Melons", T.J. Trainor, 8/26/91, Hazleton Labs, Inc., HLA 6012-320, (MRID# 432286-01).

cc (with Attachment I only): circu., PP#4F04354, G.J. Herndon, E. Haeberer (section head), RF, F.D. Griffith (PAM II Editor), George LaRocca/Linda Arrington (P.M. Team 13).

cc (with all attachments): D. Marlow (7503W).

RDI: Section Head: E. Haeberer: 3/27/95,
Acting Branch Chief: E. Zager: 3/27/95.

H7509C: CBTS: G.J. Herndon: 305-6362: CM#2, Rm. 804C: 3/27/95.

METHOD REPORT FORM

Method: "HPLC-Fluorescence Determination For Avermectin B_1 and its Delta-8,9-Isomer in Cucumbers", J. Cobin, 10/25/89, Merck Sharp and Dohme Research Laboratories, Method# 8920, (pgs. 1912-1947 of MRID# 432038-01, vol. 6).

Please do not use control values for recovery corrections. Please do not report control values as 0.0 ppm; accurately state your limit of detection and note any commodity coextratives that could change the recovery values reported. Please provide estimated limits of detection, especially for avermectin **B_1b** which, in the formulated product, is at most only 20% of the total avermectin concentration (B_1a + B_1b).

Commodity	Chemical Added	ppm Added	ppm Found	% Recovery
Cucumbers	Avermectin B_1a	0.0		
		0.005		
		0.010		
	Avermectin B_1b	0.0		
		0.005		
		0.010		
	Δ-8,9-isomer of B_1a	0.0		
		0.005		
		0.010		

Modifications to Method (major or minor):

Special Precautions to be Taken:

Sources of Analytical Standards:

Instruments Used:

Instrument Parameters (if different):

Commercial Source for any Special Reagents of Equipment:

Comments:

Chromatograms: