PM S2 ESB

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

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MAR - 6 1989

MEMORANDUM

SUBJECT: PP# 9F3713
Guthion (Azinphos-Methyl) in or on Almond Nutmeats And Hulls. Method validation Request.

FROM: H. Fonouni, Ph.D., Chemist H. E. Fonouni
Dietary Exposure Branch
Health Effects Division (H7509C)

THRU: Richard D. Schmitt, Ph.D., Acting Chief
Dietary Exposure Branch
Health Effects Division (H7509C) Richard D Schmitt

TO: Donald A. Marlow, Chief
Analytical Chemistry Branch
Biological and Economic Analysis Division (H7503C)

This method validation request has been expedited as requested by A. Lindsay, Director, Registration Division.

The petitioner, Mobay Corporation, has submitted a non-confidential copy of an analytical methodology, Gas Chromatographic Method for Determination of Guthion^{R} Residues in Plant Material, for pesticide method validation per request of DEB (memorandum of 1/27/89 by H. Fonouni) to support a tolerance of 10 ppm on almond hulls. A tolerance of 0.30 ppm has been established for almond nutmeats (40 CFR 180.154). It should be noted that, the current colorimetric enforcement method, Method II, PAM II, is not specific for the residue of concern.

The method validation is requested for the pesticide Guthion, O,O-dimethyl-S-[(4-oxo-1,2,3-benzotriazin-3-(4H)-yl]methyl]phosphorodithioate, per se on the raw agricultural commodities, almond nutmeats and hulls.

Each sample should be run in duplicate at the requested fortification levels, refer to Table I (page 3). Three copies of the method including representative recoveries and

chromatograms are included. The standard is available from the EPA Repository (FTS 629-3951).

Please return the requested information on the attached form and include other supplementary information such as chromatograms, standard curves, and calculations. If problems arise during the method validation, a description of encountered difficulties should be included in the validation report. ACB/BEAD should not discuss the procedure/problems with Mobay Corporation, until DEB's evaluation of the methodology is completed, and the results are communicated to the petitioner.

ACB/BEAD should consult with RD on the projected return date of the requested method validation; RD has requested an expeditious review of the submitted information and a response from HED by March 24, 1989 on the subject matter, refer to the attached memorandum from A. Lindsay to W. Burnam.

Please forward the method validation report to J. H. Onley, Section Head, Tolerance Petition Section II.

Attachments:
I. Request for an Expedited Review, RD, 2/21/89.

II. 3 Copies each of "Gas Chromatographic Method for Determination of Guthion^{R} Residues in Plant Material" with Addendum I, Mobay Report No. 69523 and Recovery of Guthion^{R} from Almonds, Mobay Report No. 69912.

cc (with Attachments): D. Marlow (ACB/BEAD), P. Corneliussen (FDA).
cc (without Attachment II): RF, Circu., M. Bradley, H. Fonouni, pp# 9F3713, D. Edwards (PM 12), W. Bontoyan, MTO F., PMSD/ISB.
RDI: JHOnley: 3/1/89: RALoranger: 3/1/89.
H7-509C: DEB: HEFonouni: CM#2: Rm 803: 557-7561: Typist (hf):2/28/89.

METHOD

"Gas Chromatographic Method for Determination of Guthion^{R} Residues in Plant Material" with Addendum I. Mobay Report No. 69523, February 13, 1981 (revised date March 21, 1984) by G. L. Westberg and B. D. Becker.

"Recovery of Guthion^{R} from Almonds". Mobay Report No. 69912, September 15, 1981 by L. K. Schiller.

The limit of quantification for Guthion residues in almond nutmeats/hulls is 0.01 ppm.

Control values should not be used for recovery corrections, and values less than the detection limit should be reported as such instead of zero.

Table I. Recovery of Guthion from Almond Nutmeats and Hulls.

Commodity	Fortification (PPM)	Amount Found (PPM)	Recovery (%)
Nutmeats:			
Control			
Sample 1	0.3		
Sample 2	0.6		
Hulls:			
Control			
Sample 1	10		
sample 2	20		

Modification(s) to the method (major or minor):

Special precautions to be taken:

Source of analytical standard(s):

If derivatized standard(s) used, give source:

Instrumentation for quantification:

Instrumentation for confirmation:

If instrument parameters differ from those given, list parameters used:

Commercial source for any special chemicals/apparatus:

Chromatograms:

Comments:

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FEB 21 1989

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Attachment I

MEMORANDUM

SUBJECT: Request for Expedited Review of data entitled "Gas Chromatographic Method for Determination of Guthion® Residue in Plant Material"

FROM: Anne E. Lindsay, Director
Registration Division (TS-767C) Anne E. Lindsay

TO: William Burnam, Acting Director
Health Effects Division

Mobay Chemical Corporation submitted a pesticide petition (9F3713) proposing to increase the current tolerance for residues of Azinphos-methyl (Guthion) in/on almond hulls from 10.0 to 20.0 ppm to support a 24(c)) issued by California (CA-820045) in 1982. DEB in their review determined a higher tolerance may not be needed subject to a successful Tolerance Method Validation (TMV) for a revised method the company had developed for almonds. The requested non-confidential copy of the method has been submitted by the company and now needs a TMV.

Because of the interest shown in maintaining the California 24(c) I am requesting that the Dietary Exposure Branch expeditiously review the subject data. I would appreciate have your Division review by March 24, 1989.

Attachment II

Gas Chromatographic Method for Determination of Guthion^{R} Residues in Plant Material with Addendum I. Mobay Report No. 69523, February 13, 1981 (revised date March 21, 1984) by G. L. Westberg and B. D. Becker.

Recovery of Guthion^{R} from Almonds. Mobay Report No. 69912, September 15, 1981 by L. K. Schiller.