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

MAR 16 1989

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: PP#7E3566. Methidathion in or on Kiwifruit.
Amendment of December 2, 1988.
DEB#: 4769 HED#: 9-0585 MRID#: 409313-00, -01

FROM: Maxie Jo Nelson, Ph.D., Chemist
Tolerance Petition Section I
Dietary Exposure Branch
Hazard Evaluation Division (H7509C) *mjn*

THRU: Robert S. Quick, Section Head
Tolerance Petition Section I
Dietary Exposure Branch
Hazard Evaluation Division (H7509C) *RSQ*

TO: Hoyt Jamerson, PM Team 43
Registration Support Branch
Registration Division (H7505C)

SUMMARY OF DEFICIENCIES REMAINING TO BE RESOLVED FOR DEB

None.

CONCLUSIONS

1. Additional frozen storage stability data have been submitted. This deficiency is now resolved for this petition.
2. We can now conclude the proposed tolerance of 0.1 ppm for residues of methidathion in/on kiwifruit is appropriate.
3. No other deficiencies remain outstanding from DEB for this petition.
4. A copy of this review is being routed to SAOS/SACB/HED for TAS purposes.

RECOMMENDATION

Toxicological considerations permitting, DEB recommends in favor of the establishment of the proposed tolerance (with regional registration limited to CA) of 0.1 ppm for residues of methidathion in or on kiwifruit.

DETAILED CONSIDERATIONSBACKGROUND

By transmittal letter dated 12/2/88, the petitioner (IR-4) has submitted a report on a one-year frozen storage stability study with methidathion on three crops (and a 23-month frozen storage stability study in soil).

The need for additional frozen storage stability data was raised by DEB as a deficiency in its earlier review (11/30/87) of this petition.

DISCUSSION

Data are now provided on the freezer stability of alfalfa forage and hay, corn grain, cottonseed and cottonseed oil for up to one year following fortification with 0.5 ppm of methidathion and its O-analog (GS-13007).

Results are summarized in the Attachment appended hereto.

These additional data are adequate to resolve the deficiency raised in our earlier review (M. Nelson, 11/30/87).

We can now conclude that the proposed tolerance (with regional registration limited to CA) of 0.1 ppm for residues of methidathion in or on kiwifruit will be appropriate.

No other deficiencies remain outstanding from DEB for this petition.

A copy of this review is being routed to SAOS/SACB/HED for TAS purposes.

ATTACHMENT (page 5 from MRID# 409313-01)

cc: Reviewer (M. Nelson), Reading File, Circulation (7), PP# 7E3566, TOX-IR, SAOS/SACB/HED, ISB/PMSD (E. Eldredge), FDA, R. Schmitt.

H7509C:DEB:Reviewer(MJN):CM#2:Rm804:557-7423:typist(mjn):
3/15/89.

RDI:SectionHead:RSQuick:3/16/89:ActingBranchSeniorScientist:
RALoranger:3/16/89.

Compound(s) and Formulations(s): Methidathion, Code No. 53288-1, 99.2% purity GS-13007, Code No. S84-0589, 98% purity and Code No. S87-1222, 100% purity				Commodity: Storage Stability		Substrate: Corn Grain, Alfalfa Forage, Alfalfa Hay, Cottonseed, Cottonseed Refined Oil				
C-G Rep.: B. Gold		Plot Location: --		Growth Stages Sampled:		Cooperator Name and Address: CIBA-GEIGY Laboratories Greensboro, NC				
Soil Type: --		Date Planted: --								
Fortification Rates: 0.5 ppm			Method of Fortification: Samples spiked in Laboratories (Refer to Biochemistry Protocol 90-87)			Equipment:		Vol. per Acre:		
Dates of Fortification: 6/11/87, 7/28/87, 9/16/87, 9/23/87				Sampling Date(s): See pages 12-16 (Extraction Dates)						
Other Materials Applied: --				Sample Care Before Storage: Sample substrates were prepared at CIBA-GEIGY Laboratories and shipped frozen to EN-CAS Labs. Sample fortification and storage stability were conducted at EN-CAS Labs, Winston-Salem, NC.						
Storage Information: Frozen		No. of Analyses: 248		Plot Maintenance, i.e., Cultivation, Irrigation, etc.: --						
Summary of Results: Various crop substrates were spiked with 0.5 ppm of Methidathion and GS-13007. They were stored under freezer storage conditions until time for analysis. Results are shown below:										
Percent Recovered*										
Approx. Int. (Months)	Corn Grain		Alfalfa Forage		Alfalfa Hay		Cottonseed		Cottonseed Refined Oil	
	Methid.	GS-13007	Methid.	GS-13007	Methid.	GS-13007**	Methid.	GS-13007	Methid.	GS-13007
0	99	111	107	115	97	93	109	120	93	160
1	89	71	114	85	86	85	106	77	119	124
3	81	90	102	120	79	64	76	82	108	118
6	71	75	95	89	85	71	102	69	109	121
12	81	79	94	83	91	52	100	72	108	104
Distribution M. W. Cheung R. A. Kahrs W. B. Nixon Main File										
*Average of duplicate samples.										
**There was an apparent residue decline. The nature of the decline, nonextractability or residue degradation will be investigated as the stability study continues.										
Date Received: --		Date Extracted: 7/87 - 7/88		Date Analyzed: 7/87 - 7/88			Analyst: mwc for SG EN-CAS 9/26/88			
Method of Analysis: AG-477										
Analysis Approved By: M.W. Cheung						Date Approved: 9/28/88				