MEMORANDUM

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)

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

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/SACE/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 CONSIDERATIONS

BACKGROUND

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 0-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.

RDI:SectionHead:RSQuick:3/16/89:ActingBranchSeniorScientist: RALoranger:3/16/89.
### Compound(s) and Formulation(s):
- Methidathion, Code No. 53285-1, 99.2% purity
- GS-13007, Code No. 584-0589, 96% 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

### Soil Type:
- 

### Date Planted:
- 

### Growth Stages Sampled:
- 

### Cooperator Name and Address:
- CIBA-GEIGY Laboratories
  - Greensboro, NC

### Fortification Rates:
- 0.5 ppm

### Method of Fortification:
- Samples spiked in Laboratories
  - (Refer to Biochemistry Protocol 90-87)

### 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:

<table>
<thead>
<tr>
<th>Approx. Int. (Months)</th>
<th>Corn Grain Methid. GS-13007</th>
<th>Alfalfa Forage Methid. GS-13007</th>
<th>Alfalfa Hay Methid. GS-13007**</th>
<th>Cottonseed Methid. GS-13007</th>
<th>Cottonseed Refined Oil Methid. GS-13007</th>
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<tbody>
<tr>
<td>0</td>
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<td>111</td>
<td>107</td>
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<td>81</td>
<td>79</td>
<td>94</td>
<td>83</td>
<td>91</td>
</tr>
</tbody>
</table>

**Average of duplicate samples.

**There was an apparent residue decline. The nature of the decline: non-extractability 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:
- M.W. Cheung
- EN-CAS

### Date Approved:
- 9/22/88

### Method of Analysis:
- AG-477

### Analysis Approved By:
- M.W. Cheung