



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

SEP 19 1985

M E M O R A N D U M

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJ: EPA Sequence No. 3125-341. Review of Unsolicited Data on Methamidophos. Acc. #256384, 256383, 256387; RCB# 1112.

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TO: Wm. Miller, PM Team #16
Registration Division (TS-767C)

Mobay Chemical Co. has submitted unsolicited data on its product Monitor[®] (methamidophos). Since the registrant has declared the current submission to be "miscellaneous data for file and not intended as a response to the Registration Standard", we have not reviewed the submitted reports at this time (telecon. of 2/5/85 from Mobay to PM Team #50).

Tolerances for residues of this insecticide (O,S-dimethyl phosphor-amidothioate; EPA Reg. #3125-341) have been established on a variety of crops (40 CFR§180.315).

According to the Standard and its aforementioned amendment, no data are needed on plant and animal metabolism or on analytical methodology. The following residue data are needed.

Brussels Sprouts, Cucumbers, Melons - aerial applications or label restriction. Also need data on trimmings and field refuse used for livestock feed.

Cabbage - Outer leaves (or whole plant); need several aerial and ground treatments with an EC at 1 lb a.i./A in CA, FL, NY, TX & WI at 1 day intervals with PHI ≤35 days.

Cauliflower - Application methods need to be specified to support existing tolerance; also data on cauliflower leaves and stems used for livestock feed.

Eggplant - Application methods (air or ground) for rac grown in Mexico need to be specified or repeat studies. Data at maximum rate (1 lb a.i./A) for rac grown in US must be submitted. Data needed to support Sec.24(c) uses in the state of FL.

Lettuce - Data needed for whole head (i.e., with all or most of outer or wrapper leaves intact).

Peppers - data gap withdrawn

Tomatoes - need data at maximum rate (1 lb a.i./A) or reduce tolerance to level tested (0.5 lb a.i./a); geographical representation in CA, FL, & OH; rac grown in these states are to be treated repeatedly (as per the SLN labels) with an EC product at 1 lb a.i./A using both aerial and ground equipment. Certain Sec. 24(c) uses may result in residues higher than the existing tolerances in CA, FL, IN, MI, NJ, OH, and SC. Harvestable fruit are to be collected at intervals including the 7- and 14-day PHI's associated with the SLN labels. Fruit and processed products (catsup, juice, wet and dry pomace, and puree) must be analyzed for methamidophos. If data are not submitted on the processed fruit products, then a general "fresh fruit use only" restriction is needed.

Cotton - Sec. 24(c) uses in AZ and CA.

Potatoes - need geographical representation for CO, ID, ME, ND & WA. Repeated 7-10 day EC ground and aerial applications at 1 lb a.i./A. Tubor harvest at interval including the 14 day PHI. Possibility of a need for processing studies on granules, chips and dried potatoes.

Crops Grown for Seed - (Representative Formulation): Alfalfa, Clover, Carrots, Table (garden) Beets - data needed for these racs grown for their seed and carrots and table beets grown from the seed of previously treated crops since roots and tops (of beets only) may be fed to livestock and alfalfa seeds are a human food use. In addition, residue data will be needed on carrot and table beets grown from the seed of previously treated crops.

Processed Commodities - data are needed on peppers and tomatoes that require dehydration of the rac.

Storage Stability Data - For representative crop storage locations, stability data are needed for weathered residues on the following racs stored at subfreezing temperatures: 1) brassica crops, 2) cottonseed, 3) potatoes, and 4) tomatoes.

In addition, the Registration Standard notes that some of the data requested for the acephate reregistration (e.g., storage stability) may satisfy data requirements for methamidophos.

Included in this submission are the following three sets of data relevant to RCB:

Accession No. 256384:

Residue Reports: 41140 and 41144 - lettuce
Accession No. 256386:

Metabolism Reports, Animal

- 35219 - ^{14}C or ^{32}P studies in rats administered by gastric lavage
- 43786 - ^{14}C residues in tissues, eggs & feces of poultry
- 84197 - ^{14}C tissue distribution and excretion in rats, intravenous administration

Metabolism Reports, Plant

- 43573 - Translocation studies in soybean using vector bioassay
- 43574 - Two reports: a) ^{14}C & ^{32}P translocation study in tomato plants; b) residue study on tomatoes
- 43577 - Uptake and degradation of ^{14}C and ^{32}P labelled methamidophos on tomato leaves
- 43889 - Translocation of ^{14}C -orthene in pine seedlings
- 47412 - ^{14}C Metabolism in pine seedlings
- 49717 - Translocation of methamidophos analogs
- 66209 - Translocation and degradation of ^{14}C Acephate in spruce trees

Residue Reports:

- Broccoli - 40771-4
40893-8
47191-2
- Brussels Sprouts - 35380-1, 39679-80, 40899, 40902, 41155, 41257
- Celery - 44280
- Cole Crops - 42020
- Lettuce - 69990
- Peppers - 44438, 51216, 53536, 53721
- Potatoes - 35404-5, 35451, 50735, 51283
- Animal Feed - 53459
- Tomatoes - 37168

Recovery Reports:

- Cantaloupe - 80019
- Celery - 51699
- Cotton - 68586
- Peppers - 51217, 66863
- Potatoes - 50823
- Radishes - 65910
- Animal Feed - 53411, 68505

Tomatoes - 43135

Turnips - 66862

Watermelon - 80020

Various Crops:

42607 - Brussels Sprouts, Lettuce, Tomatoes

42609 - Bay Hox 1901 in animals

53956 - Celery, Green peas, bell peppers, wheat

Accession No. 256387

Stability Reports:

46492 - sorghum forage

46494 - sorghum grain

46495 - rapeseed

46744 - sorghum forage

53826 - wheat straw and green peas

53940 - safflower

53941 - corn kernel

64525 - potatoes

67406 - green peas

67924 - grass seed

67925 - corn forage

68322 - corn cob

68506 - rodent feed

Processing Reports

37539 - cucumbers

37540 - eggplants

53030 - sugar beets

68567 - safflower

Physical Chemistry Reports

68527 - octanol/water partition coefficient

80814 - preliminary light stability

82231 - metabolism of thioether-containing organophosphate pesticides

Re-entry Report

69989 - foliar residues on head lettuce in relation to worker reentry

Method Reports - crops and ration

35936 - method for GC analysis of Tamaron residues in plants

39899 - method for Monitor in vegetables

69812 - mild method for acylation of methamidophos

80991 - dislodgable residues of methamidophos on cotton foliage

- 86307 - GC method for determination of acephate and methamidophos residues in asparagus ferns and spears and trout
- 68504 - GC method for determination of Monitor in Rodent Feed

Miscellaneous

- 82548 - CCPR meeting comments on residue and metabolism
- 86143 - Effect of esterification and side-chain alkylation on alteration of translocation characteristics

The following reports in Acc. Nos. 256386,7 are not relevant to RCB but should be reviewed in EAB:

Residue Reports: 44249-50, 66540, 67350, 69269, 69286-94
Recovery Reports: 44228-9, 53763, 68309, 80601
Mobility Reports: 34483, 68005, 68469
Stability Reports: 80608-10
Re-entry Report: 69989
Rotational Reports: 49656, 67272-67333, 68476, 69878
Method Report: 80594

cc: EAB
Circulation
R.F.
Methamidophos S.F.
Reiter
PMSD/ISB

RDI: E.Z.:9/18/85:R.D.S.:9/19/85
TS-769C:RCB:A. Reiter:AJR:Rm.708:CM#2:9/19/85