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

SEP 19 1985

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

M E M O R A N D U M

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® (methamidaphos). 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).

Tolerences for residues of this insecticide (O,S-dimethyl phosporamidothioate; EPA Reg. #3125-341) have been established on a variety of rac's (40 CFR§180.315).

According to the Standard and its aforecited 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 - Outter 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 outter 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Peppers - data gap withdrawn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 that 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 ssed 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 methamidaphos on tomato leaves
43889 - Translocation of ^{14}C-orthene in pine seedlings
47412 - ^{14}C Metabolism in pine seedlings
49717 - Translocation of methamidaphos 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 organophophate 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