

PMSD/LSB



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

DEC 27 1989

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

Subject: Acephate/Methamidophos. Separation of Tolerances in
Acephate Registration Standard.
DEB# 5839.

From: Jane S. Smith, Chemist *[Signature]*
Dietary Exposure Branch
Health Effects Division (H-7509C)

Thru: Richard D. Schmitt, Ph.D, Chief *Edward Zuger, for*
Dietary Exposure Branch
Health Effects Division (H-7509C)

To: W. Miller, PM Team 16
Insecticide - Rodenticide Branch
Registration Division (H-7505C)

This memo is in response to a letter received from Valent dated 9/7/89 which is a follow-up to a meeting between the EPA and Valent held 7/20/89. Valent disagrees with the acephate Registration Standard requirement that acephate tolerances must be separate from methamidophos tolerances.

Valent has submitted with this letter information requested by the Agency in the July meeting concerning the toxicity and dietary intake of methamidophos and the impact of the combined residues of acephate and methamidophos relative to ADI. Review of this information is not within the purview of DEB.

Presently, tolerances exist for acephate (including its metabolite methamidophos) (40 CFR 180.108) and methamidophos (40 CFR 180.315) in/on various agricultural commodities. Maximum residue levels (MRLs) of the Codex Alimentarius Commission exist which differ from the U.S. tolerances. The established tolerances are as follows:

[Stamp: 1/8/90]

Summary of U.S and Codex Tolerances
for Acephate and Methamidophos

Commodity	Codex MRLs (mg/kg)		U.S. Tolerances (mg/kg)	
	Acephate	Methamidophos	Acephate ¹	Methamidophos ²
Alfalfa forage green	10(fresh wt)	2	--	--
Beans (dry and succulent)	--	--	3(1)	--[1]
Broccoli	5	1	--	1
Brussels sprouts	5	1	3(0.5)	1
Cabbage, head	5	1	--	1
Cattle, fat	0.1	0.01 ³	0.1	--[0.01]
Cattle, meat	0.1	0.01 ³	0.1	--[0.01]
Cattle, mby	--	--	0.1	--[0.01]
Cauliflower	5	1	2(0.5)	1
Celery	--	2	10(1)	1(R)
Citrus Fruit	5	0.5	--	--
Cottonseed	2	0.1	2	0.1(N) [0.5]
Cottonseed hulls	--	--	4	--[0.1]
Cottonseed meal	--	--	8	--[2.5]
Cranberries	--	--	0.5(0.1)	--[0.1]
Cucumber	--	0.5	--	1
Eggplant	--	1	--	1
Eggs (poultry)	0.1	--	0.1	--[0.01]
Goat, fat	--	0.01 ³	0.1	--[0.01]
Goat, meat	--	0.01 ³	0.1	--[0.01]
Goat, mby	--	--	0.1	--[0.01]
Grass (hay, range, pasture)	--	--	15	--[3.0]
Hogs/Pigs fat	0.1	--	0.1	--
Hogs/Pigs meat	0.1	--	0.1	--
Hogs/Pigs mby	--	--	0.1	--[0.01]
Hops (dry)	--	5	--	--
Horses (fat, meat, mby)	--	--	0.1	--[0.01]
Lettuce, head	10	1	10(1)	1
Macadamia nuts	--	--	0.05(R)	--
Melons	--	--	--	0.5
Milk	0.1	--	0.1	--[0.05]
Mint hay	--	--	15(1)	--[1.0]
Peach	--	1	--	--
Peanuts	--	--	0.2	--[0.1]
Peanut hulls	--	--	5	--[1.5]
Peppers	--	1	4(1)	1
Potato	0.5	0.1	--	0.1(N)
Poultry, fat	0.1	--	0.1	--[0.01]
Poultry, meat	0.1	--	0.1	--[0.01]
Poultry, mby	--	--	0.1	--[0.01]
Rape seed	--	0.1	--	--

(continued)

2

Commodity	Codex MRLs (mg/kg)		U.S. Tolerances (mg/kg)	
	Acephate	Methamidophos	Acephate ¹	Methamidophos ²
Sheep, fat	--	0.01 ³	0.1	--[0.01]
Sheep, meat	--	0.01 ³	0.1	--[0.01]
Sheep, mbyp	--	--	0.1	--[0.01]
Soya bean (dry)	0.5	0.05	1 (soybean)	--[0.2]
Soya bean meal	--	--	--	--[2.0]
Sugar beet	0.1	0.05	--	0.02
Sugar beet leaves or tops	10	1	--	0.5
Tomato	5	2	--	1
Tree tomato	0.5	0.01	--	--
Processed Foods	--	--	0.02	--

Footnotes:

1. U.S. acephate limits include residues of methamidophos. Maximum methamidophos residues allowed are in parentheses.
2. Numbers in brackets are the numbers recommended for methamidophos as the result of a U.S. redefinition (separation) of residue. Others (as well as acephate limits) remain the same.
3. The limit of detection for the method.

The summary provided is a reiteration of the information already outlined in the Registration Standard. The rationale for separating the tolerances for acephate and methamidophos provided in the acephate Registration Standard remains unchanged. Not only are the tolerances inconsistent within the U.S. for methamidophos and acephate metabolite (methamidophos), but the U.S. tolerances are inconsistent with Codex. The only way to achieve any consistency and compatibility is for the requirement for separation of the tolerances as stated in the Registration Standard to stand.

cc: R.F., S.F., circ., Reg. Std., J. Smith, PMSD/ISB.
 RDI: W.Hazel, 12/26/89; E.Zager, 12/26/89.
 H-7509C: DEB:JSS:jss:CM-2:Rm810F:557-7378:12/26/89.