PMSD 0597

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

APR 9 1986

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: PP#5F3267, Fosetyl-Al On Citrus. Evaluation of Method Trial.

From : Sami Malak, Ph.D., Chemist
Tolerance Petition Section III
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

TO : Henry M. Jacoby, PM #21
Fungicide-Herbicide Branch
Registration Division (TS-767)

and

Toxicology Branch
Hazard Evaluation Division (TS-769)

THRU : Charles L. Trichilo, Ph.D., Chief
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

The Analytical Chemistry Laboratory of the EPA in Beltsville, Maryland reported to RCB on the method trial for fosetyl-Al (Aliette™) on oranges. The analytical procedure, "Determination of Fosetyl-Al (aluminum tris (O-ethyl phosphonate)) in/on Citrus Fruit and Fractions by Phosphorous Specific Flame Photometric Gas Chromatography" (Rhone-Poulenc, Inc. Method No. 163) was followed for whole oranges fortified at the 0.1 ppm and 0.2 ppm levels.

The method calls for using "Gas Chrome-Q" (CGQ) as a support material for the gas chromatography column. However, because CGQ is no longer available, and at the advise of the petitioner, "Supelcoport" support materail was substituted without any adverse effects on the analytical methodology. The petitioner was informed of this who in turn provided a clean copy of the analytical methodology in which "Supelcoport" substituted "Gas Chrome-Q" appearing on page 13 of the method.

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In the method try-out report (memo of E. Greer to C. L. Trichilo (3/31/86), it was apparent that a set of three samples can be completed in two days. This was meant to include all the necessary preparation for analyses. However, provided that the clean-up columns, the GC column, and the needed solutions are prepared in advance, the analyses of three samples can be completed within one work day of 8 hours (Telecommunication with E. Greer, 4/8/86).

The methodology gave recoveries ranging from 67 to 82%. Control values were reported at less than sensitivity of the method, estimated at 0.02 ppm.

We conclude that adequate methodology for fosetyl-Al in citrus fruits is available for regulatory puroposes. The method may be incorporated in PAM II as Method II.

The correct and final method write-up will be forwarded to FDA for editing and publishing in PAM II and also to Mr. William Grosse, PMSD/ISB. In the interim, a copy of the method, as written for the Method Try-Out, including the Analytical Chemistry Laboratory/Chemical Operations Branch recommendations will be forwarded with this review to Mr. William Grosse. Therefore, a copy of the Analytical Method for fosetyl-Al (Aliette™) in citrus fruits will be immediately available to State Laboratories, upon request, as cited in the Federal Register publication of the tolerances.

Recommendations

TOX considerations permitting, we now recommend for establishment of the proposed 0.1 ppm tolerance for residues of fosetyl-Al (Aliette™) in/on citrus fruits.

cc: RF, Circu, SF (fosetyl-Al or Aliette™), S.Malak, TOX, EAB, EEB, PP#5F3267, FDA, Robert Thompson (RTP), and PMS/ISB.

RDI: P.V.Errico:4/8/86:RDSchmitt:4/ /86

TS-769:RCB:CM#2:RM810:S.Malak:X557-7330:4/8/86