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

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OFFICE OF  
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Review of Correspondence Concerning Possible  
Extension of Harvest Interval on Label and Whether  
NAA Tolerance will be Exceeded. RCB No. 1567.  
Letter Dated October 13, 1986.

FROM: R.W. Cook, Chemist *RWCook*  
Residue Chemistry Branch  
Hazard Evaluation Division (TS-769C)

TO: Robert J. Taylor, PM 25  
Fungicide-Herbicide Branch  
Registration Division (TS-767C)

THRU: Charles L. Trichilo, Chief  
Residue Chemistry Branch  
Hazard Evaluation Division (TS-769C) *[Signature]*

Union Carbide Agricultural Products Company, Inc. submits additional residue data, as directed by the Registration Standard, for naphthaleneacetic acid on apples and pears. Residues of naphthaleneacetic acid, per se, are regulated under 40 CFR 180.155(a) wherein tolerances are established at 1 ppm on apples and pears. Residues of the ethyl ester of naphthaleneacetic acid are regulated under 40 CFR 180.155(b) wherein tolerances are established at 1 ppm on apples and pears. Combined negligible residues of alpha-naphthaleneacetamide and its metabolite alpha-naphthaleneacetic acid are regulated under 40 CFR 180.309 wherein tolerances are established at 0.1 ppm (calculated as alpha-naphthaleneacetic acid) in apples and pears. Finally, 40 CFR 180.3(d)(7) reads:

Where tolerances are established or residues of alpha-naphthaleneacetamide and/or alpha-naphthaleneacetic acid in or on the same raw agricultural commodity, the total amount of such pesticides shall not yield more residue than that permitted by the higher of the two tolerances, calculated as alpha-naphthaleneacetic acid.

The Registration Standard includes alpha-naphthaleneacetic acid, its ammonium, potassium, and sodium salts, the ethyl ester of alpha-naphthaleneacetic acid, and alpha-naphthaleneacetamide.

The respondent submits residue data for alpha-naphthaleneacetic acid on pears and apples. The experimental plots were treated with Tre-Hold All2®, Amid-Thin W®, and NAA-800®. Application rate for NAA-800® was 1/3 pint at 8 days and 2 days prior to harvest of apples, and 1/4 pint 2 days prior to harvest of pears. Application of Amid-Thin W® occurred "4 to 5 months prior to harvest," at unspecified rate. No information on application date or rate is provided for the Tre-Hold All2® formulation. The respondent presumes that the residues occur from the NAA-800® application rather than the Amid-Thin W® application.

The respondent reports 1 of 12 pear samples (from Sodus, NY) at 0.11 ppm. In apples 5 of 12 samples (2 of 3 from Sodus, NY; 3 of 3 from Haslett, MI) at 0.11 ppm to 0.21 ppm.

The respondent concludes that residues in apples and pears have exceeded the "0.1 ppm tolerance." To avoid other samples exceeding 0.1 ppm, the respondent wishes to amend the use directions to specify a 5-day preharvest interval (PHI) (between last application and harvest) rather than a 2-day PHI. No residue data are presented which reflect the proposed 5-day PHI.

We have examined the submitted residue data at face value. We note that residue values over 0.1 ppm occur in two locations (MI and NY). We are unable to draw any conclusions regarding the validity of the submitted residue data in the absence of 1) full information on treatments; 2) information on the validity of the method; and 3) a copy of the method. Further, we are unable to draw the conclusion that "doubling" the PHI will prevent residue levels > 0.1 ppm. We do not object to extension of the PHI to 5 days.

Finally, we wish to point out the established tolerances for naphthaleneacetic acid [40 CFR 180.155(a)] at 1 ppm for apples and pears are established for residues of naphthaleneacetic acid per se, while 40 CFR 180.155(b) establishes tolerances at 1 ppm in apples and pears for residues of the ethyl ester of naphthaleneacetic acid from the application of the ethyl ester of naphthaleneacetic acid. Thus, residues of naphthaleneacetic acid resulting from the application of the potassium salt of naphthaleneacetic acid are not currently tolerated under 40 CFR 180.155. Where tolerances for residues of a

compound are established for residues resulting from the application of a salt or ester (or other reacting material) of the tolerated compound, the regulations prescribe such circumstances in particular. Thus, a petition to amend 40 CFR 180.155 to include NAA residues resulting from the application of the potassium salt of naphthaleneacetic acid is needed.

Conclusions:

1. Residues of naphthaleneacetic acid on apples and pears resulting from the application of the potassium salt of naphthaleneacetic acid are not currently regulated under 40 CFR 180.155. The respondent should take appropriate steps to establish tolerances for residues resulting from application of the potassium salt of naphthaleneacetic acid.
2. In the absence of information on the analytical method, including validation data, and of information on the treatments, formulations used, and application rates, we are unable to draw any conclusions regarding the submitted residue data.
3. In the absence of any residue data reflecting the proposed 5-day PHI, we are unable to draw any conclusion regarding residue levels at the proposed time interval. We do not, however, object to an extension of the PHI to 5 days.
4. Tolerances for residues of naphthaleneacetic acid on apples and pears are currently established at 1 ppm, not 0.1 ppm (40 CFR 180.155). If the residues are derived from the application of naphthaleneacetamide only (not in sequence with naphthaleneacetic acid or ethyl ester of naphthaleneacetic acid), then tolerances are established at 0.1 ppm for combined negligible residues of naphthaleneacetamide and its metabolite naphthaleneacetic acid on apples and pears (40 CFR 180.309). However, residues from sequential application of naphthaleneacetamide and naphthaleneacetic acid or ethyl ester of naphthaleneacetic acid are jointly regulated in 40 CFR 180.3(d)(7).

5. No data gaps identified in the Registration Standard have been resolved in the current consideration.

Recommendations:

1. The respondent should initiate action to amend 40 CFR 180.155 to include residues of naphthaleneacetic acid resulting from the application of the potassium salt of naphthaleneacetic acid.
  2. The submitted information will be included in our files for future reference. All future submissions should include full information on pesticide applications or treatments and the analytical methodology (and validation thereof).
  3. We have no objection to extending the PHI to 5 days.
- cc: Naphthaleneacetic Acid S.F., R.F., Circu., Reg. Std. F. (NAA),  
R.W. Cook, PMSD-ISB

RDI: R.S. Quick:3/23/87:R.D. Schmitt:3/23/87

RCB: R.W. Cook:Rm810H:CM2:557-7324:3/2/87

92240:Cook:C.Disk:KENCO:3/25/87:de:vo:ek:tar