



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

AUG 14 1991

MEMORANDUM:

OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

SUBJECT: Proposed Revocation of DDVP (Dichlorvos) Food Additive Tolerances.
[CB#: 8203; MRID: n/a; DP Barcode: D165988.]

FROM: Dennis McNeilly, Chemist *Dennis McNeilly*
Special Review Section II
Chemistry Branch II - Reregistration Support
Health Effects Division [H7509C]

THRU: Francis B. Suhre, Section Head *Lee Cherry for*
Special Review Section II
Chemistry Branch II - Reregistration Support
Health Effects Division [H7509C]

TO: Karis North, Acting Section Head
Risk/Benefits Section II
Special Review Branch
Special Review and Reregistration Division [H7508W]

The Special Review and Reregistration Division (SRRD) has requested CBRS to comment as to whether the appropriate commodities were included in the DDVP dietary exposure assessment. SRRD requested that the CB response be coordinated with Jim Kariya of DRES. In order to provide a prompt response to this request, CBRS has forwarded a copy of this memorandum to SACB and requested that they contact SRRD directly if they do not concur with the commodities selected.

CBRS has reviewed the commodities included in the DRES Risk Estimation (dated 10/29/89). CBRS has reviewed the risk estimate and agrees with all the commodities selected. However, CBRS believes that the inclusion of the following additional bagged or packaged nonperishable processed foods would be appropriate: chocolate, coffee, tea, coconut-dried, soybean flours, corn sugar, and all food forms for oats, rice, barley, wheat, rye, and corn (except sweet corn).

Inclusion of these additional commodities will increase the risk estimate. A more realistic dietary exposure assessment for DDVP will be possible when the following data gaps are filled (see D McNeilly Memorandum, 5/13/91):

1. The industry needs to be profiled, i.e., data need to be collected and submitted to EPA to resolve the following issues:

- What methods of insecticide application are used (e.g., foggers, compressed air sprayers, mobile vaporizers), and which method of application produces the highest residues?
- What type of packaging materials are used and which type of packaging material results in the highest residues? Preliminary data have included paper bags, burlap bags, woven-polypropylene bags, and open-top bulk storage. For example, preliminary data indicate that cotton bags may be the least effective vapor barrier, but there may be other packaging material that result in even higher residues.

2. The magnitude of the residue in or on the various processed commodities needs to be determined (particular attention should be paid to those commodities with a high surface area to weight ratio). The Reg Std. states that the available information is not adequate because residue trials were not conducted at the maximum use rate.

Dissipation data should be collected and plotted in ppm against time (semi-log paper) and the dissipation rate should be determined and therefore, if possible, the half-life of DDVP on the various commodities. Residue data collection should start 6 hrs. after application and continue until residues are nondetectable. Sufficient data should be collected to adequately define the decay/dissipation curve (CBRS suggests 6 hrs, 1 day, 3 days, 5 days, 7 days, and then every other day until nondetectable residues).

3. The residue trials should be conducted so that the effects of different variables can be determined, e.g., temperature, % relative humidity, different application methods, and the various types of packaging materials.

CC: D.McNeilly;SACB(F. Chow and J.Kariya);SF;
PMSD/PIB(C.Furlow);
Circulation.
RDI: LC,08/13/91;DE,08/13/91.
H7509C: DMM;dmm;CM-2;Rm 800D;X557-0934;08/13/91