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

NOV 18 1987

MEMORANDUM

OFFICE OF  
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: PP#5F3222 (RCB #2803). Fenvalerate (Pydrin) on Meat and Milk. Amendment dated September 21, 1987. (Accession No. 264112).

FROM: Nancy Dodd, Chemist *Nancy Dodd*  
Tolerance Petition Section II  
Residue Chemistry Branch  
Hazard Evaluation Division (TS-769C)

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

TO: George LaRocca, Product Manager #15  
Insecticide - Rodenticide Branch  
Registration Division (TS-767C)

and

Toxicology Branch  
Hazard Evaluation Division (TS-769C)

The petitioner, SDS Biotech Corporation, now resubmits dermal application residue studies for fenvalerate on cattle and swine in response to deficiencies listed in RCB's reviews of PP#5F3222 (N. Dodd, 9/5/85 and 5/16/85) and discussed in a conference with the petitioner on 5/28/86. In the conference on 5/28/86, RCB indicated that data at a 1-day preslaughter interval (PSI) were needed. The petitioner indicated that data had been collected at a 7-day PSI because maximum residues occur in fat at a 7-day PSI. The studies which are now resubmitted to support the petitioner's use of a 7-day PSI for both dermal and premise applications are the following:

Shell TIR-24-002-76

Determination of SD 43775 residue in milk, hair, and tissues of cows sprayed with an emulsifiable concentrate

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| Shell TIR-24-005-76   | Determination of SD 43775 residue in milk, cream, hair and tissues of cows sprayed with an emulsifiable concentrate or fed 10 ppm in their diet |
| Shell TIR-24-014-76   | Residues of SD 43775 in meat, hair, and milk fat of restrained cows treated dermally with an emulsifiable concentrate formulation               |
| Shell TIR-24-009-76   | Determination of the residues of SD 43775 in meat and milk of cattle treated dermally with a water dispersible liquid                           |
| Diamond Shamrock<br>437-3TR-80-0124                                       | Ectrin Insecticide Residue Trial in Beef Cattle   |
| SDS Biotech<br>637-3TR-83-0053<br>Analytical Bio-<br>Chemistry Labs, Inc. | Ectrin Insecticide Residue Plateau Trial in Beef Cattle from Dermal Application   |
| Shell TIR-24-015-76   | Determination of SD 43775 residues in tissue of swine sprayed with either an emulsifiable concentrate or a water dispersible liquid formulation |
| SDS Biotech<br>756-3TR-85-0046;<br>TIR-04-6400-020-85                     | Determination of residues of fenvalerate in samples of uncooked pork skin and subcutaneous fat  |

These studies have all been submitted to RCB previously.

The petitioner has indicated that maximum residues observed in all prior residue studies, including exposure by both dermal absorption and oral ingestion, occurred 7 days after application.

RCB has previously determined that available data indicate that tolerances of 5 ppm in fat, meat, and meat by-products of cattle, goats, hogs, horses, and sheep would be adequate to cover residues present 7 to 8 days after the last dermal treatment. These data did not include residue data from premise treatments.

Premise applications may increase dermal, oral, and inhalation exposure. [Refer to reviews of PP#5F3222, 9/5/85 and 5/16/85 (N. Dodd)].

#### Other Considerations

An International Residue Limits (IRL) Status sheet was attached to RCB's review dated 9/5/85. Codex tolerances for fenvalerate at Step 9 are 0.2 mg/kg in animal fats and 0.01 ppm in milk. A Canadian tolerance for fenvalerate is 0.1 ppm in cattle. No Mexican tolerances exist for fenvalerate in meat and milk. The proposed U.S. and Codex tolerances are not compatible.

#### Conclusion/Recommendation

RCB repeats its position that additional residue data reflecting both dermal and premise treatments are needed at a 1-day preslaughter interval for meat, fat, and meat by-products.

Refer to RCB's review of PP#5F3222 dated 9/5/85 for a discussion of this and other deficiencies. [RCB's deficiency #4d concerning hog skins has been resolved. Refer to RCB's review of EPA Reg #50534-109 on Ectrin on pig skins (F.B. Suhre, 3/5/86).]

cc: RF., Circu., Reviewer-N. Dodd, PP#5F3222, PMSD/ISB-Eldredge  
RDI:J.H. Onley:11/10/87:R.D. Schmitt:11/10/87  
TS-769:RCB:N. Dodd:mt:CM#2:Rm.800D:x1681:11/10/87