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

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OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: **Triadimefon.** Meat, Milk Eggs Storage Stability Study. Reregistration Case No. 2700 Chemical No. 109901 MRID #43462401 DP Barcode D210160 CBRS #14826

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Miles Inc. has submitted a storage stability study for residues of triadimefon in animal tissues, milk, and eggs (MRID #43462401). These data are reviewed below. Tolerances for residues of triadimefon [1-(4-chlorophenoxy)-3,3-dimethyl-1-(1*H*-1,2,4-triazol-1-yl)-2-butanone] in/on raw agricultural commodities are expressed in terms the combined residues of triadimefon and its metabolites containing chlorophenoxy and triazole moieties, expressed as triadimefon [40 CFR §180.410 (a) and (b)].

Recommendations

The study is adequate and fulfills Guideline 171-4(e) requirements for meat/milk/eggs. Triadimefon and its regulated metabolites are stable in meat, milk, eggs, fat and liver stored frozen for 447, 432, 452, 783 and 873 days respectively.

The Triadimefon Phase 4 Review (S.Funk, 1/31/91) concluded that the cattle and poultry feeding studies (MRID #92188055 and 92188057, Summary 92188054, Summary 92188056) were acceptable for review pending submission of adequate storage stability data. These studies are now acceptable for review.

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Detailed Considerations

Samples - Goat fat, liver and milk and poultry eggs and muscle obtained from previous metabolism studies were used in this study. The animals had been dosed with uniformly phenyl ring labeled - ^{14}C-triadimefon.

Analytical Method

Eggs, Fat, Liver, and Muscle - MeOH was added to the homogenized sample, followed by mixing using a Tissuemizer. The sample was filtered and the filter cake was rinsed with MeOH. Three aliquots of the combined filtrate were removed for radioassay, and the remaining filtrate was evaporated to dryness. The residue was redissolved in MeOH/water (19:1), purified on XAD-4 resin, and analyzed by HPLC.

Milk - The extraction scheme was similar for the other tissues except the initial extraction was performed suing MeOH and acetone (1:1).

Results

Table 1 summarizes the dates on which samples were collected, initially analyzed and reanalyzed.

Table 1. Dates on which samples were collected, initially analyzed and reanalyzed.

Matrix	Sample Collection	Initial Extraction	Second Extraction	Days in Freezer
Eggs	7/30/93	8/11/93	10/25/94	452
Fat	6/11/92	6/25/92	8/3/94	783
Liver	6/11/92	7/17/92	11/1/94	873
Milk	6/10/92	7/1/92	8/16/93	432
Muscle	7/30/93	8/9/93	10/20/94	447

CBRS notes that all samples were stored for periods that approximate or exceed the amount of time samples were stored in the cattle and poultry feeding studies (MRIDs #92188055 and 92188057).

Table 2 presents a summary of the extraction results for radioactive residues following freezer storage.

Table 2. Extraction results for radioactive residues following freezer storage.

Matrix	Initial Extraction (ppm)	Second Extraction (ppm)	Days in Freezer
Eggs	0.057	0.062	452
Fat	0.257	0.302	783
Liver	1.510	1.436	873
Milk	0.025	0.026	432
Muscle	0.085	0.084	447

Representative HPLC chromatograms were presented for each tissue. For all tissues, there was excellent qualitative agreement between chromatograms from the initial and second extraction.

Quantitative results for each of the analytes of interest were also presented for each tissue. The results indicate that all residues of concern are stable over the time intervals examined in each of the tissues examined.

cc: S.F., circ., R.F., List B File, S.Knizner
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