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CASE GS0030 METHOPRENE PM 09/30/80

CHEM 105401 Methoprene (isopropyl (E,E)-11-methoxy)

BRANCH EEB DISC 35 TOPIC 05000043

FORMULATION 00 - ACTIVE INGREDIENT

FICHE/MASTER ID 00010390 CONTENT CAT 01

Staiger, L.; Quistad, G.B.; Schooley, D.A. (19??) Bluegill Fish Residues from Metabolism of Altosid(R). (Unpublished study received January 3, 1973 under 3G1343; submitted by Zoecon Corporation, Palo Alto, California; CDL:093592-BF).

SUBST. CLASS = S.

OTHER SUBJECT DESCRIPTORS
SEC: EEB-35-05100043 EEB-35-05200043 EEB-35-10200043
EEB-35-10990043

DIRECT RVW TIME = 2 (MH) START-DATE 9/15/81 END DATE 9/15/81

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SIGNATURE: DATE:

no standard data

1

Fiche/Master ID: 00010390

Conclusions: This study is scientifically sound, and fulfills the guideline requirement for a bioaccumulation study. The study consists of presentation of data and further analysis of the conclusions reached by an earlier study of Altosid bioaccumulation in bluegills. The conclusion reached herein is that when bluegills are exposed to Altosid under simulated natural conditions, the pesticide is rapidly degraded and incorporated into natural products in the fish.

Materials and Methods:

A. Test Type: Bioaccumulation.

B. Test Species: Bluegill sunfish (Lepomis macrochirus)

C. Test Procedures: Sunfish from an artificial aquatic ecosystem that had been treated with Altosid were examined for Altosid metabolites. Samples of fish were taken at 28 and 42 days.

Statistical Analysis: None.

Reported Results: Substantial quantities of ^{14}C-residues were found in the whole fish (3.14 and 2.74 ppm equivalents for 28 and 42-day fish, respectively), but only 2-3% of the total ^{14}C-residue was contributed by Altosid. Less than 4-5% of the total ^{14}C-residue could be attributed to known Altosid metabolites. Most of the residues were highly polar, unextractable, and appeared to have been incorporated into natural products.

Discussion:

A. Test Procedure: Appears sound. Fish were exposed in an artificial "ecosystem" containing sediment and plant life, and exposed to sunlight.

B. Statistical Analysis: None.

C. Discussion/Results: Altosid appears to be readily biodegraded, and the ^{14}C-label incorporated into natural products. However, the study offered no explanation as to why the ^{14}C was incorporated into tissue, rather than excreted. Most of the label was contained in the skeleton and other "non-edible" tissue.

D. Conclusion:

1. Category: Core.

2. Rationale: N/A.

3. Repairability: N/A.