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

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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: GX-071 New Chemical Screen

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THRU: Norman J. Cook, Head-Section 2 Norman J. Cook 5.31.88
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TO: Phillip Hutton, Project Manager 17
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Registration Division (TS-767C)

The EEB has completed a new chemical screen review for GX-071 proposed for use only for the formulation of child resistant bait station for indoor use in insect control. The bobwhite quail and mallard subacute dietary LC_{50} studies do meet the Guidelines requirement in support of registration for an avian dietary LC_{50} study. The bobwhite quail acute oral LD_{50} study does not meet the Guidelines requirement in support of registration.

A. Avian Acute Oral LD_{50}

This study did not meet the Guidelines requirement in support of registration for an avian acute oral LD_{50} study due to a sparodic dose response. The highest dose produced only 50% mortality. Doses above this, which produce greater than 50% mortality, are required in order to obtain the best statistically derived estimate of the LD_{50} value.

The two aquatic studies do not meet the Guidelines requirement in support of the proposed GX-071 registration for the following reasons:

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A. Rainbow Trout LC_{50}

This study was unacceptable and did not meet the Guidelines requirement because:

- The test material was not in solution;
- Temperature was 17.5- 24 °C instead of 10-15 °C;
- Test vessel material type and pH were unknown; and
- The test material was insoluble in water and the registrant was unable to produce a stable solution . Also the registrant did not mention the name of organic solvent used in this study

B. Daphnia pulex LC_{50}

This study was unacceptable and did not meet the Guidelines requirement because:

- Source of test organisms was unknown;
- Temperature was 24 °C instead of 17- 21 °C;
- Test vessel volume was 1 oz instead of 200-300 ml;
- Test vessel material type was plastic containers instead of glass or stainless steel; and
- An unknown organic solvent was used.

The registrant did not mention the name of the organic solvent used in trying to get the test material into solution. The following solvents are acceptable for use in aquatic studies:

- Dimethyl formamide
- Triethylene glycol
- Methanol
- Acetone
- Ethanol

Conclusions

This submission failed the new chemical screen due to improperly conducted fish and wildlife studies.