

US EPA ARCHIVE DOCUMENT

4/13/1999

Pebulate

Supplement to DER, MRID 00067869/ (Reformat MRID 92138016)
Acute delayed neurotoxicity study in hens
This supplement provides an executive summary to upgrade the original DER

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AMENDED DATA EVALUATION RECORD

STUDY TYPE: Acute delayed neurotoxicity

DP BARCODE: N/A

PC CODE: 041403

CAS No: 1114-71-2

CASWELL No.: 710

TEST MATERIAL (PURITY): Pebulate (95%); Tillam

SPONSOR: Stauffer Chemical Company, Richmond, CA

CITATION: Sprague, G.L. and Bickford, A.A. (1980) Acute Delayed Neurotoxicity Study with Technical Tillam in Adult Hens. Bickford of Richmond Toxicology Laboratory, Study No. T-6456. October 16, 1980. MRID 00067869. [The study report was then reformatted and submitted as MRID 92138016 by McCall, J.C. on May 16, 1990.] Unpublished.

EXECUTIVE SUMMARY: In a delayed neurotoxicity study (MRID 00067869; reformatted MRID 92138016), pebulate technical (95%) in corn oil was administered twice (22 days apart) to 21 adult white Leghorn hens at a dose of 8873 mg/kg. The oral LD₅₀ for Pebulate was 7630 mg/kg in hens. TOCP was the positive control and was given also twice to 10 hens at a dose of 500 mg/kg. Corn oil was the negative control. All groups were given 20 mg/kg Atropine sulfate approximately 20 minutes prior to the test material.

Twelve of twenty-one pebulate treated hens died 1-6 days after either the first or second treatment. Pebulate-treated hens showed several toxic signs which were similar to those noted in the corn oil group, namely diarrhea, feather loss and moulting. Adverse signs attributed to pebulate treatment included distinctly pale combs on days 5-15 and 24-43 and transient motor incoordination and leg weakness on days 2-5 and 23-25. The mean walking behavior scores for hens of this group were elevated on days 1, 14, and 21. These effects were considered as cholinergic signs that could have been the results of cholinesterase inhibition after each treatment. Neurohistological changes in the CNS of pebulate-treated hens were similar to those changes observed in the corn oil group. Pebulate-treated hens did not show delayed motor incoordination or muscle weakness similar to that note in the TOCP group. Under the conditions of this study, **pebulate was negative in a delayed neurotoxicity study.** This study is classified **Acceptable/Guideline** and satisfies guideline requirements for an acute delayed neurotoxicity study in hens (81-7).

Pebulate

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2