

US EPA ARCHIVE DOCUMENT

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(UNDATED)

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DATA EVALUATION REPORT RECORD

Reviewed By: John Chen, DVM
Section # I, TOX Branch (TS-769C)
Secondary Reviewer: R. Bruce Jaeger

STUDY TYPE: Mutagenicity

MRID: 00147961

TEST MATERIAL: Pentachlorobenzonitrile

SYNONYMS: SDS-3297

STUDY #: 694-5TX-84-0095-002.

SPONSOR: SDS Biotech. Painesville, OH.

TESTING FACILITY: Microbiological Associates

TITLE OF REPORT: Salmonella/Mammalian-Microsome Plate Incorporation Assay (Ames Test) with and without Renal Activation with Pentachlorobenzonitrile.

AUTHOR(S):

REPORT ISSUED: 12/28/84

CORE CLASSIFICATION: Acceptable.

CONCLUSIONS:

Dr. Chen's review is generally acceptable and accurately reflects the experimental design and results of the study.

David L. Ritter, Toxicologist
Toxicology Branch, HED

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Document No. 694-5TX-84-0095-UU2
Salmonella Mammalian Microsome Plate Incorporation Assay
(Ames Test) with and without Renal Activation with
Pentachlorobenzonitrile Microbiological Associates Study
No. T2581.501., December 28, 1984.

The test compound, Pentachlorobenzonitrile (SDS-3297) was tested for mutagenic activity in Salmonella typhimurium strains TA98, TA100, TA1535, TA1537, and TA1538 according to the plate incorporation assay described by Ames et al (Mutation Res. 31:347-364, 1975). The following 5 concentrations were selected for the mutation assay with and without activation: 10, 50, 250, 500, and 1000 ug/plate. Under the test conditions reported, the test compound (SDS-3297) failed to induce any significant increase in the number of revertant colonies over the negative control in the five strains of Salmonella typhimurium with and without renal metabolic activation at the dose levels tested. Therefore, the test compound was not mutagenic in the Ames test either with or without metabolic activation by the Aroclor induced rat kidney microsomes.

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Physical examination weekly and at termination.

Body weights initially and on days 7, 14 and at termination.

Food consumption was measured daily.

Clinical Studies: Initially and at termination; see Appendix I.

Pathology: See Appendix II.

Results: The only symptoms that appeared were a slight erythema.

Conclusions: CTN administered dermally daily for 21 days did not produced only mild irritation.

We tentatively classify this study as CORE Guideline.

The study satisfies the Guideline requirement for a 21 day dermal toxicity study.

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DATA EVALUATION REPORT

STUDY: Rabbit Teratology Study

LABORATORY: Institute of Environmental Toxicology (Japanese)

STUDY NUMBER & DATE: 000-5TX-75-2077-001 5-30-75

ACCESSION NUMBER: 071539 MRID 00127855

MRID:

MATERIAL TESTED: Chlorothalonil 99.3% pure

ANIMALS: Japanese White (Funabashi) rabbits: 8 control, 9 low dose, 9 high dose.

METHODS:

3 month old mated does (day of vaginal sperm or plug = day 0 of gestation) were gavaged once daily with 0, 5 or 50 mg/kg of test material in 5% gum arabic suspending medium on days 6 through 18 of gestation.

Test animals were offered basal Rabbit and Guinea Pig diet and tap water ad libitum.

ENVIRONMENTAL PARAMETERS: Not given.

HUSBANDRY: Not given.

OBSERVATIONS:

Body weight, and mortality were recorded initially, daily from days 6 through 18 and on days 24 and 29 of gestation.

Food consumption was recorded initially and on alternate days thereafter.

On day 29 of gestation the uteruses were emptied and the number of viable pups counted. The number of implantation sites and resorption sites were determined.

Pups were weighed and examined grossly for external and visceral anomalies.

Skeleton staining with alizarin was said to have been done; however, no methodology was described for this.

Pups were examined for the occurrence of "lumbar ribs" and ossified caudal vertebrae.

No detailed reports for the individual pups were submitted.

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RESULTS:

Body weight gain and food consumption did not appear to be affected by treatment with chlorothalonil although the overall rate-of-weight gain was less for the 50 mg/kg does than for the control does.

Four does in the 50 mg/kg group experienced spontaneous abortion in the final five days of the experiment. Examination for malformation or signs of fetal toxicity was not reported on the aborted embryos.

One 5 mg/kg pup had hydrocephalus and one 50 mg/kg pup had cleft palate.

There was no reported effect on the incidence of lumbar ribs or caudal vertebrae.

CONCLUSIONS:

No obvious teratogenic response was reported at oral levels up to 50 mg/kg/day on days 6 - 18 of gestation.

It is not possible to assess the overall fetotoxic effects in this study since detailed analytical data on the offspring was not provided. This should have included individual pup data, such as body weight and individual observations as to their condition, etc.

CORE Rating: Supplementary.

Repairability: Supply individual data on all pups; examination details of aborted embryos in the 50 mg/kg group.

Note: Data Supplied under MR ID 00146937 -
Core Rating = Minimum Data
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