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DICLORAN TECHNICAL **21-Day Inhalation Study (Non-Guideline)**

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Registration Action Branch 1/HED (7509C)

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DATA EVALUATION RECORD- SUPPLEMENTAL
See TXR N0. 002624 for Original DER

NOTE:
This study was previously reviewed and classified as Supplementary data. However, the format for the executive summary and the first page of the **DER** were different from the current format. This is to update the format and, at the same time, to add needed data to the **DER** for the ease of evaluating this study.

STUDY TYPE: Subchronic (21-day) inhalation toxicity - rats, rabbits and dogs (non-guideline)

DP BARCODE: D241078
PC CODE 031301
MRID NO: 00086896

SUBMISSION NO.: S541375
TOX. CHEM. NO.: 311

TEST MATERIAL (PURITY): Dicloran Technical (purity not stated)

COMPOSITION/SYNONYM(S): 2,6-dichloro-4-nitroaniline; DCNA; Botran™

CITATION: Seaman, W. J.; Weddon, T. E.; and Kauk, T. J. (1980): Three-Week Inhalation Study in Rats, Rabbits and Dogs with Botran™. Agricultural Research and Development Laboratories, The Upjohn Company, Kalamazoo, MI. Trial or Study Number 212-96-MWG-15, Technical Report Number 218-9610-80-004, November 17, 1981. MRID Number 00086896. Unpublished.

SPONSOR: The Upjohn Company, Kalamazoo, MI.

EXECUTIVE SUMMARY: In a 21-day toxicity study, MRID No. 00086896, dicloran technical grade (purity not stated; Lot no. 1001-7N) was administered by inhalation to 10 TUC/SPD (P. F.) rats/sex; 2 mature beagle dogs (males) and 1 male and 1 female mature New Zealand white rabbits at aerosol concentrations of 2 mg/L of air. Similar groups of control animals were handled in like manner without aerosol exposure. Exposures were 6 hours/day, 5 days/week, for a total of 3 weeks. Individual body weight, food consumption, hematology, gross necropsy and histolopathology was performed on all animals. Clinical chemistry was performed in dogs and rabbits.

Signs of toxicity were not reported. Two rats died after three days of exposure and one rabbit

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died on the 13th day. Food consumption and body weight gains were depressed in all animals. Percent change in body weights were 21.3 and 6.2 for treated male and female rats, respectively compared to 55 and 10 for the control male and female rats, respectively. Only one rabbit survived at termination. Percent body weight change in treated dogs were 17 and 12 compared to controls (3.8 and -0.6). No consistent derivations attributable to treatment were observed in hematological parameters measured. Evidence of hemoconcentration was noted in treated rabbits. Blood cholesterol was significantly elevated in exposed dogs (262 mgs treated vs 126 mgs controls) and rabbits (242 mgs treated vs 81 mgs controls). Liver weights were increased in treated animals. In dogs, increased in liver weight was 445 grms for treated compared to 317 grams for controls.

The only microscopic findings indicative of a treatment related effect was a greater accumulation of hyaline protein droplets in the cytoplasm of the proximal convoluted tubular epithelium of exposed male rats compared to the matched controls. The significance of this renal histologic change could not be determined Based on histopathologic evaluation, there was no evidence of any hepatocellular effects in rats.

The results of this study gives an indication of the toxicity of the material. It is also indicative that the LC_{50} of dicloran technical is greater than 2 mg/L to rats after 15 repeated exposures in 21 days.

Under the conditions of this 21 day study, a NOAEL was not established.

This 21-day study was conducted appropriately and is **Acceptable/Non-Guideline.**

COMPLIANCE: Signed and dated data were presented in the study report.

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