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CASWELL FILE

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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

DATE: June 16, 1981

SUBJECT: EPA Reg #279-2712; 279-2876; Carbofuran; Rabbit Teratology
CASWELL #160A Accession#245268

FROM: William Dykstra, Toxicologist
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WSD for LOC 6/16/81

TO: Jay Ellenberger (12)
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Ref WJ

Recommendations:

1. Carbofuran was not teratogenic or fetotoxic in rabbits at gavage dosages up to 2.00 mg/kg/day during gestation days 6-18. The study is acceptable as Core-Minimum Data.

Review:

1. Teratology Study in the Rabbit with Technical Carbofuran (IRDC#167-156; April 20, 1981)

Groups of 20 pregnant New Zealand White rabbits were used to determine the teratogenic potential of Carbofuran. Dosage levels of 0.12, 0.50 and 2.00 mg/kg/day were administered orally by gavage as a single daily dose on gestation days 6 through 18 at a constant volume of 1 ml/kg. The control group received the vehicle only, 0.5% aqueous Methocel on a comparable regimen at a volume of 1 mg/kg.

Cesarean sections were performed on all surviving females on gestation day 29.

Results:

Survival was 100% in the control group and in the 0.12 and 0.50 mg/kg/day dosage groups. Three dams aborted near the end of the gestation period; one each in the Carbofuran treated groups. One dam in the 2.00 mg/kg/day dosage group died on gestation day 11; a cause of death could not be determined at necropsy. During gestation, matting and/or staining of the anogenital haircoat was noted in all groups, with an increase in duration observed in 2.00 mg/kg/day dosage group.

Mean maternal body weight gain in the 0.12 and 0.50 mg/kg/day dosage groups was comparable to the control group throughout gestation. A 20% reduction in mean maternal body weight gain was noted in the 2.00 mg/kg/day dosage group during the treatment period when compared to the control group; mean gain thereafter was comparable to the control group.

There were no biologically meaningful differences or statistically significant differences in mean Cesarean section values or in the number of litters with malformations (or developmental and genetic variations) in any of the Carbofuran treated groups when compared to the control group.

Conclusion:

Carbofuran was not teratogenic or fetotoxic in rabbits at gavage dosages up to 2.00 mg/kg/day during gestation days 6-18.

Classification: Core-Minimum Data

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