para-AMINOAZOBENZENE

Evidence for carcinogenicity to animals (*sufficient*)

para-Aminoazobenzene produced liver tumours in rats following its oral administration and produced epidermal tumours in rats after application to the skin[1]. In mice, hepatomas were found in 50-100% of males after one or four intraperitoneal injections of *para*-aminoazobenzene, compared to 3% in controls and in females. In two other strains of mice, 93% and 46% of males had hepatomas at 11 months of age after a single intraperitoneal injection of the compound[2]. When pregnant and newborn male and female mice were administered high doses of *para*-aminoazobenzene by subcutaneous injection, there was a borderline increase in the incidences of tumours of the liver and of the haematopoietic and lymphoid tissues in mice treated transplacentally and a statistically significant increase in the incidence of these tumours in neonates[3].

References

[1]*IARC Monographs*, *8*, 53-60, 1975

[2]Delclos, K.B., Tarpley, W.G., Miller, E.C. & Miller, J.A. (1984) 4-Aminoazobenzene and *N*,*N*-dimethyl-4-aminoazobenzene as equipotent hepatic carcinogens in male C57BL/6 × C3H/HeF$_1$ mice and characterization of *N*-(deoxyguanosin-8-yl)-4-aminoazobenzene as the major persistent hepatic DNA-bound dye in these mice. *Cancer Res.*, *44*, 2540-2550

[3]Fujii, K. (1983) Induction of tumors in transplacental or neonatal mice administered 3'-methyl-4-dimethylaminoazobenzene or 4-aminoazobenzene. *Cancer Lett.*, *17*, 321-325

CAPROLACTAM

A. Evidence for carcinogenicity to animals (*evidence suggesting lack of carcinogenicity*)

Caprolactam was tested adequately by oral administration in the diet of mice and rats. There was no increase in tumour incidence over that in controls[1].