References

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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

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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].

B. Other relevant data

Caprolactam gave negative results in a wide range of in-vitro short-term tests: it did not induce DNA damage, DNA repair, point mutation, sister chromatid exchange, micronuclei, aneuploidy or polyploidy in cultured mammalian cells, recombination or aneuploidy in fungi or mutation in *Salmonella typhimurium* in the presence or absence of an exogenous metabolic system. Results of borderline positivity were obtained in tests for morphological transformation in cultured mammalian cells and for gene conversion in yeast. Caprolactam induced somatic-cell mutations in *Drosophila melanogaster*. There is some evidence that it induces chromosomal aberrations in cultured human cells and point mutations in yeast[1].

Reference

[1]*IARC Monographs*, *39*, 247-276, 1986