

***ortho*-DICHLOROBENZENE (Group 3) and  
*para*-DICHLOROBENZENE (Group 2B)**

**A. Evidence for carcinogenicity to humans (*inadequate*)**

One report of a series of five cases has suggested an association between leukaemia and exposure to dichlorobenzenes<sup>1</sup>.

**B. Evidence for carcinogenicity to animals** (*inadequate* for *ortho*-dichlorobenzene; *sufficient* for *para*-dichlorobenzene)

*ortho*-Dichlorobenzene was tested in mice and rats by gastric intubation; no evidence of carcinogenicity was observed<sup>2</sup>. A study by inhalation in several species was considered inadequate<sup>1</sup>.

*para*-Dichlorobenzene was tested in mice and rats by gastric intubation; it caused renal tubular-cell adenocarcinomas in male rats and hepatocellular carcinomas in male and female mice<sup>3</sup>. It was also tested in mice and rats by inhalation; no increase in the incidence of tumours was noted, but the duration of exposure was limited<sup>4</sup>.

**C. Other relevant data**

No data were available on the genetic and related effects of *ortho*- or *para*-dichlorobenzene in humans. *ortho*-Dichlorobenzene was not mutagenic to fungi or bacteria. *para*-Dichlorobenzene was mutagenic to fungi but not to bacteria<sup>5</sup>.

**References**

<sup>1</sup>IARC Monographs, 29, 213-238, 1982

<sup>2</sup>National Toxicology Programme (1985) *Toxicology and Carcinogenesis Studies of 1,2-Dichlorobenzene (o-Dichlorobenzene) (CAS No. 95-50-1) in F344/N Rats and B6C3F<sub>1</sub> Mice (Gavage Studies) (NTP TR 255; NIH Publ. No. 86-2511)*, Research Triangle Park, NC

<sup>3</sup>National Toxicology Program (1987) *Toxicology and Carcinogenesis Studies of 1,4-Dichlorobenzene (CAS No. 106-46-7) in F344/N Rats and B6C3F<sub>1</sub> Mice (Gavage Studies) (NTP TR No. 319; NIH Publ. No. 87-2575)*, Research Triangle Park, NC

<sup>4</sup>Loeser, E. & Litchfield, M.H. (1983) Review of recent toxicology studies on *p*-dichlorobenzene. *Food chem. Toxicol.*, 21, 825-832

<sup>5</sup>IARC Monographs, Suppl. 6, 222-225, 1987