1,3-DICHLOROPROPENE (TECHNICAL-GRADE) (Group 2B)

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

Two cases of malignant histiocytic lymphoma were reported among nine fireman accidentally exposed to 1,3-dichloropropene six years prior to diagnosis[1]. Because firemen are exposed to a large number of chemicals, the role of 1,3-dichloropropene cannot be evaluated.

B. Evidence for carcinogenicity to animals (*sufficient*)

Technical-grade 1,3-dichloropropene (containing 1.0% epichlorohydrin [see p. 202]), administered by gavage, produced tumours of the urinary bladder, lung and forestomach in mice and of the liver and forestomach in rats. After subcutaneous administration to mice, the purified *cis*-isomer produced malignant tumours at the site of injection[1].

C. Other relevant data

No data were available on the genetic and related effects of 1,3-dichloropropene in humans. It induced unscheduled DNA synthesis in human cells *in vitro* and sex-linked recessive lethal mutations but not reciprocal translocations in *Drosophila*. Both the individual *cis* and *trans* isomers and a mixture of the two were mutagenic to bacteria[2].

References

[1]*IARC Monographs*, *41*, 113-130, 1986

[2]*IARC Monographs*, *Suppl. 6*, 237-239, 1987