

## LEATHER GOODS MANUFACTURE (Group 3)

### Evidence for carcinogenicity to humans (*inadequate*)

A few cases of leukaemia have been reported following exposure to benzene (a known human carcinogen<sup>1</sup>; see p. 120) during the manufacture of leather goods other than boots and shoes. The number of cases of nasal cancer reported is insufficient to make an association with employment in the manufacture of leather goods (other than boots and shoes)<sup>2</sup>. A positive association between bladder cancer and employment in the leather products industry is suggested by a number of studies. A case-control study in West Yorkshire, UK, showed a statistically nonsignificant risk of bladder cancer associated with employment in leather goods production (as well as tanning, and boot and shoe repairing)<sup>3</sup>. Indications of an association with dusty leather occupations (not only shoemaking) came from a similar study in London<sup>4</sup>. In two of three areas in which a collaborative study of environmental risk factors for bladder cancer was conducted, a significant association with employment in 'leather' was found; the term 'leather' comprised the manufacture of leather goods, the leather and tanning industries and shoemaking<sup>5</sup>. Leather goods manufacture was most probably included in the leather exposure found to be statistically significantly associated with bladder cancer in another study in the USA<sup>6</sup>. None of the studies provides sufficient grounds to evaluate the specific role of the production of leather goods in the established association of leather work and cancer risk to humans.

### References

<sup>1</sup>IARC *Monographs*, 29, 93-148, 391-397, 1982

<sup>2</sup>IARC *Monographs*, 25, 279-292, 1981

<sup>3</sup>Cartwright, R.A. & Boyko, R.W. (1984) Kidney cancer among leather workers. *Lancet*, *i*, 850-851

- <sup>4</sup>Baxter, P.J. & McDowall, M.E. (1986) Occupation and cancer in London: an investigation into nasal and bladder cancer using the Cancer Atlas. *Br. J. ind. Med.*, 43, 44-49
- <sup>5</sup>Morrison, A.S., Ahlbom, A., Verhoek, W.G., Aoki, K., Leck, I., Ohno, Y. & Obata, K. (1985) Occupation and bladder cancer in Boston, USA, Manchester, UK, and Nagoya, Japan. *J. Epidemiol. Commun. Health*, 39, 294-300
- <sup>6</sup>Marrett, L.D., Hartge, P. & Meigs, J.W. (1986) Bladder cancer and occupational exposure to leather. *Br. J. ind. Med.*, 43, 96-100