

Table 11. (continued)

Fibre	Mesothelioma	Lung cancer
Risk summaries for cumulative exposures of 0.005 f/ml.yr and lower		
At these levels only mesothelioma need be considered. The absolute risk is low—, but quantitative uncertainties are very considerable.		
Crocidolite	Best estimate about 10 deaths per 100 000 exposed. Highest arguable estimate 55, lowest, Best estimate falls to insignificant level at 0.0002 f/ml.yr, and highest arguable risk becomes insignificant at 6×10^{-4} f/ml.yr	Insignificant, possibly zero
Amosite	Best estimate about 2 deaths per 100 000 exposed highest arguable lifetime risk 15, falling to <1 (ie. insignificant) at 7×10^{-5} f/ml.yr	
Chrysotile	Insignificant	Insignificant, very possibly zero

*Exposure assumed to be accumulated over short—up to 5 yr periods starting at age 30. For exposure at other ages adjust the predicted mesothelioma figures using the factors in Table 9. Estimates for longer periods of exposure can be approximated by making separate estimates for successive 5-year periods and adding the resulting risks (this will slightly overestimate risk). Estimates have been rounded to nearest 5 in second significant digit (or to one significant digit when less than 10).

*The lung cancer risk is based on British male mortality in 1997 when 9.5% of male deaths at ages 40–79 were due to lung cancer. This represents an average for a population with a past pattern of smoking similar to that of older British men. In 1996 23% of men aged 60+ had never (or only occasionally) smoked, and 25% were current smokers. For lifetime smokers the lung cancer risk will be about double the stated levels, for non-smokers about a sixth (if the interaction with asbestos is multiplicative) or about a third if the relative risk is higher than in non-smokers as suggested by Berry *et al.* (1985).

*The lung cancer risk arguable in 'exceptional circumstances' is derived from the Carolina cohort using a value of R_L of 2.19 taken from the analysis of Stayner *et al.* It should only be considered where there is simultaneous exposure to textile grade (i.e. long fibre) chrysotile and mineral oil or some analogous co-exposure.

*The simple pro rata formulae proposed in this table do not take account of the impact of competing causes of mortality. The impact will be trivial so long as the predicted asbestos related mortality is low, and limited for predicted (individual cause) mortality below about 30 percent. Above this level the individual asbestos related diseases (including asbestosis, which is not covered by this analysis) will reduce each other's observed impact. In this situation all that can usefully be predicted is that total asbestos related mortality will be very high indeed.