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International Agency for Research on Cancer

World Health Organization

Table S1.2 Exposure assessment review and critique for mechanistic studies in humans exposed to 2-bromopropane

Reference **Mechanistic end-point**	**What was the study design? (*n*)**	**What methods were used for the exposure assessment? (e.g. data source, environmental and biological measurements)**	**Was the exposure defined well, and what was the definition?**	**Was exposure assessment qualitative, semiquantitative or quantitative?**	**Were sampling and collection protocols for chemical measurements appropriate?**	**What routes of exposure were assessed?**	**How was the intensity of exposure assessed?**	**How was the duration of exposure assessed?**	**Was cumulative exposure assessed?**	**Was exposure assessed before outcome was ascertained?**	**What was the timing of the exposure relative to the outcome?**	**Was there known exposure to any other carcinogens?**	**Could the "unexposed" group have included exposed people?**
Kim et al. (1996b) Immunosuppression Modulation of receptor-mediated effects	Cross-sectional study among electronics workers in the Republic of Korea (*n* = 25 female workers and *n* = 8 male workers)	Stationary measurements of air concentrations under simulated conditions	Yes, occupational exposures to 2-bromopropane	Quantitative	Yes, air and bulk samples of the solvent mixture were analysed by GC-MS	Inhalation	Chemical analysis of stationary air samples	By interview of the 33 workers by industrial hygienists	No	No	Same time (but personal exposure was not measured)	Other components of the solvent were *n*-heptane (0.33%), 1,2-dibromopropane (0.2%), and 1,1,1-TCE (0.01%). In air samples also *n*-heptane was measured.	No unexposed group in the study
Ichihara et al. (1999) Immunosuppression Modulation of receptor-mediated effects	Cross-sectional study during 3 days in December 1996 among workers engaged in the production of 2-bromopropane at a plant in China (*n* = 14 female workers and *n* = 11 male workers)	Personal 8-h TWA measurements with passive samplers of air concentrations of all workers (no repeated sampling); short-term breathing zone samples of ambient air with detector tubes	Yes, occupational exposures to 2-bromopropane	Quantitative (personal passive samplers) and semiquantitative (detector tubes)	Yes, air samples were analysed by GC-EID [commonly referred to as GC-MS]	Inhalation	Chemical analysis of stationary air samples (personal samples)	By interview according to the check-up form used by medical doctors in China who were specialists in occupational health	Yes, but the estimate of cumulative exposure by multiplying the result of a single 8-h TWA measurement by the duration of employment will have resulted in non-differential misclassification	No, at the same time	Same time	Cigarette smoking. Other chemicals used in the production were 2-propanol, hydrogen bromide, and sulfuric acid.	The unexposed workers did not enter the production area and were located in separate facilities.

GC-EID, gas chromatography-electron ionization detection; GC-MS, gas chromatography-mass spectrometry; h, hour(s); ppm, parts per million; TCE, trichloroethane; TWA, time-weighted average.

References

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