HISTORIES OF GUIDELINE DEVELOPMENT FOR THE FOURTH EDITION

12. Chemical fact sheets

12.1 Chemical contaminants in drinking-water

Hexachlorobenzene

History of guideline development

The 1958 and 1963 WHO *International Standards for Drinking-water* did not refer to HCB, but the 1971 International Standards suggested that pesticide residues that may occur in community water supplies make only a minimal contribution to the total daily intake of pesticides for the population served. In the first edition of the *Guidelines for Drinking-water Quality*, published in 1984, a health-based guideline value of 0.000 01 mg/l was recommended for HCB, derived from the linear multistage extrapolation model for a cancer risk of less than 1 in 100 000 for a lifetime of exposure; it was noted that the mathematical model used involved considerable uncertainty. The 1993 Guidelines calculated a guideline value of 0.001 mg/l for HCB in drinking-water, corresponding to an upper-bound excess lifetime cancer risk of 10^{-5}. In the third edition of the Guidelines, published in 2004, it was concluded that because the calculated health-based values are considerably higher than the concentrations at which HCB is detected in drinking-water, when it is detected, it was not necessary to establish a guideline value for HCB in drinking-water. This assessment was brought forward to the fourth edition of the Guidelines, published in 2011.