12. Chemical fact sheets

12.1 Chemical contaminants in drinking-water

Bromate

History of guideline development
The 1958, 1963 and 1971 WHO International Standards for Drinking-water and the first edition of the Guidelines for Drinking-water Quality, published in 1984, did not refer to bromate. The 1993 Guidelines calculated the concentration of bromate in drinking-water associated with an upper-bound excess lifetime cancer risk of $10^{-5}$ to be 0.003 mg/l. However, because of limitations in available analytical and treatment methods, a provisional guideline value of 0.025 mg/l, associated with an upper-bound excess lifetime cancer risk of $7 \times 10^{-5}$, was recommended. In the third edition of the Guidelines, published in 2004, the guideline value was lowered to 0.01 mg/l and was designated as provisional because of limitations in available analytical and treatment methods and uncertainties in the toxicological data. In the first addendum to the third edition, published in 2006, uncertainties in the toxicological data were removed as part of the rationale for the provisional designation. This assessment was brought forward to the fourth edition of the Guidelines, published in 2011.