

HISTORY OF GUIDELINE DEVELOPMENT

Tetrachloroethene

The 1958, 1963 and 1971 WHO *International Standards for Drinking-water* did not refer to tetrachloroethene. In the first edition of the *Guidelines for Drinking-water Quality*, published in 1984, a tentative guideline value of 0.01 mg/L was recommended; the guideline was designated as tentative because, although the carcinogenicity data did not justify a full guideline value, the compound was considered to have important health implications when present in drinking-water. The 1993 Guidelines established a health-based guideline value of 0.04 mg/L for tetrachloroethene. This guideline value was brought forward to the third edition of the Guidelines, published in 2004, and the fourth edition of the Guidelines, published in 2011. The fourth edition of the Guidelines incorporating the first and second addenda, published in March 2022 (based on the 2020 assessment as a background document to the Guidelines), noted that a revision to the health-based guideline value was warranted based on the availability of studies in humans, supported by animal data, and the more recent availability of physiologically-based pharmacokinetic modelling to extrapolate from the inhalation route of exposure to the oral route. The guideline value was therefore amended to 0.1 mg/L based on a decrease in colour vision in humans exposed in occupational settings. It was also noted that the guideline value is considered to be protective of both cancer and non-cancer effects.