

Deriving a health-based guidance value for antimony to support development of UK Drinking Water Standards

Health Canada

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35. In 2024, Health Canada selected a NOAEL of 60 µg Sb /kg bw/day from the study by Poon et al., (1998), based on observed histopathological changes in the liver (anisokaryosis) and alterations in serum biochemistry indicative of liver effects. Using this NOAEL, a tolerable daily intake (TDI) was derived by applying an uncertainty factor (UF) of 300 to account for interspecies variation (×10), intraspecies variation (×10) and the use of a subchronic study (×3), resulting in a TDI of 0.2 µg/kg body weight per day (Health Canada,2024).

36. The Health Canada health-based drinking water value of 3 µg/L for total antimony in drinking water was then derived from this TDI using an average adult

body weight of 74 kg, a drinking water allocation factor of 0.3 (based on the upper bound of estimated intake for drinking water) and a drinking water intake rate of 1.53 L/day (Health Canada,2024).