

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

Differences between WHO, ATSDR and Health Canada

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Differences between WHO, ATSDR and Health Canada

37. Though WHO, ATSDR and Health Canada have used the findings from Poon et al. (1998) study, they diverge significantly in their interpretation of the study results and the NOAEL selected:

- WHO chose a NOAEL of 6,000 µg Sb/kg bw/day, viewing liver effects at lower doses as adaptive changes with no toxicological significance (as suggested

by Lynch et al., 1999).

- Health Canada and ATSDR selected a NOAEL of 60 µg Sb/kg bw/day, based on liver anisokaryosis and serum biochemistry changes, viewing these effects as indicative of altered liver function (as suggested by Poon et al., 1998).

38. There are also some differences in the uncertainty factors applied in the derivation of the TDI/MRL values, this mainly relates to study duration, with WHO using a factor of 10 for study duration, Health Canada using a factor of 3 for study duration, and ATSDR do not include a factor for study duration, but the MRL is for intermediate term exposure (15-365 days).