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

Differences between WHO, ATSDR and Health Canada

In this guide

In this guide

- 1. Introduction and Background
- 2. Properties of antimony
- 3. Toxicokinetics and Toxicity
- 4. Summary of the Poon et al. (1998) study
- 5. Lynch et al. (1999) interpretation
- 6. Response from Valli et al. (2000)
- 7. HBGV's established by the WHO, ATSDR and Health Canada
- 8. Agency for Toxic Substances and Disease Registry (ATSDR)
- 9. Health Canada
- 10. Differences between WHO, ATSDR and Health Canada
- 11. Additional Toxicology Studies
- 12. Summary and Questions for the Committee
- 13. List of abbreviations and their full meanings
- 14. References- Deriving a health-based guidance value for antimony to support development of UK Drinking Water Standards

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).