

Background and scope of discussion

In this guide

[In this guide](#)

1. [TOX/2025/46 Annex 1 - Executive Summary](#)
2. [TOX/2025/46 Annex 1 - Background and scope of discussion](#)
3. [TOX/2025/46 Annex 1 - Properties of boron and sources in drinking water](#)
4. [TOX/2025/46 Annex 1 - Toxicity data for boron](#)
5. [TOX/2025/46 Annex 1 - Previous COT evaluation](#)
6. [TOX/2025/46 Annex 1 - Previous COT evaluation - Evaluations by other authoritative bodies](#)
7. [TOX/2025/46 Annex 1 - Discussion](#)
8. [TOX/2025/46 Annex 1 - Overall Conclusion](#)
9. [TOX/2025/46 Annex 1 - List of abbreviations](#)
10. [TOX/2025/46 Annex 1 - References](#)

This is a paper for discussion. This does not represent the views of the Committee and should not be cited.

4. The UKHSA advises the DWI on potential health risks from chemicals in drinking water. Following the UK's exit from the EU, the DWI is reviewing the regulatory standards for some chemicals in drinking water, including boron. The COT was asked to consider the available studies, the interpretations by the various authoritative bodies and determine an appropriate Tolerable Daily Intake (TDI) to support an update to the boron drinking water standard in the UK.

5. The COT previously reviewed the available toxicity data on boron and boric acid in 1994 and 1995. It determined a No Observed Adverse Effect Level (NOAEL) of 9.6 milligrams per kilogram body weight per day (mg/kg bw/day) (rounded up to 10 mg/kg bw/day) for critical adverse effects in developmental studies in rats (reduced fetal weight and skeletal effects). Applying a default safety factor of 100, the Tolerable Daily Intake (TDI) was calculated as 0.1 mg/kg bw/day ([COT,1995](#)).

