

## Control Material CS-OS-C-1

## Reference value for activity concentration of Cs-137 in Quartz Sand CS-C-1

Radionuclide	Reference value + expanded uncertainty (k=2)
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$$X_{\text{ref}} \pm U^*$$

[Bq kg<sup>-1</sup> dry mass]

Cs-137	1.17 ± 0.08
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\* on 1 November 2010 for <sup>137</sup>Cs

The traceability of this Control Material to the SI units is ensured by the use of certified standard solution by NPL (the UK's National Measurement Institute) for calibration of measurement equipments.

Long-time stability is monitored during storage. The shelf life of the quartz sand material has been established to be **31 December 2020**.

### References

1. ISO 13528:2005 Statistical methods for the use in proficiency testing by interlaboratory comparison, Geneva, 2005
  2. International Organization for Standardization (ISO), Guide to the Expression of Uncertainty in Measurement, ISO, Geneva, 1993 (corrected and reprinted 1995)
  3. M. Thompson, S.L.R. Ellison, R. Wood, The International Harmonized Protocol for the Proficiency Testing of Analytical Chemistry Laboratories (IUPAC Technical Report), Pure Appl. Chem., 78 (2006) 145
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