

## Environment – Water : Primary Standards



### Mono elementary solutions at 1 g/L



Mono elementary solutions are stored in 125 ml polyethylene flask

One of the key missions of the [Chemical and Biological Metrology Laboratory](#) of LNE is to establish the metrological traceability and to assess the uncertainty of analytical measurements. To this end, LNE implements primary reference methods and produces Certified Reference Materials (CRMs), for various applications in the field of industrial, environmental and health analysis.

CRMs are metrological tools to achieving the traceability of measurement results and therefore ensuring reliability and comparability of results of chemical analyses everywhere in the world. Ensuring traceability is moreover a requirement of ISO/CEI-17025 standard.

CRMs are mainly used to carry out analytical instruments calibration and analytical procedures validation.

All reference materials produced by the [Chemical and Biological Metrology Laboratory](#) of LNE are **Certified** Reference Materials, meaning that the traceability to SI (International System of Units) is fully ensured through primary methods of measurement. The quality of each CRM is fully documented in the certificate describing the way the traceability is established and providing the uncertainty of the certified value.

Most of the CRMs produced are covered by CMCs (Calibration and Measurement Capabilities) published in the BIPM (Bureau International des Poids et Mesures) database ensuring the equivalence of LNE capabilities with the other National Metrology Institutes worldwide. Accreditation against ISO Guide 34 for CRMs production is currently in progress.

These standards are dedicated to the calibration of mass spectrometer, atomic absorption spectrophotometer, inductively coupled plasma emission spectrophotometer etc. Main end users are laboratories for environmental analysis.

The mono elementary solutions are made from pure salt containing the element of interest, in a nitric acid matrix at 2%. The concentration of the element is 1 g/L.

Available soon : Cd, Fe and Pb.

On request : Al, Ca, Cu, Co, Mg, Ni, Zn.

On going developments : Ag.

These standards are the only accredited ones commercially available (Cofrac, according to ISO 17025).

**Concentration range** : 1 g/L of the element

**Availability** : Now available

**Conditioning** : 125 ml Nalgene polypropylene flask

**Price** : 120 - 150 € HT

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