

Environment – Water : Primary Standards



Kit of 4 optical density solutions

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.



A kit contains one-use vials with optical density solutions

These reference materials are dedicated to the calibration of UV-Visible spectrophotometer.

These standards are made from high purity salts containing Nickel, Copper and Cobalt in a nitro-perchloric matrix at three different concentrations. Standards are characterized by their absorbance at specific wavelength.

Main users are laboratories for environmental analysis

Concentration range : absorbance range is between 0,3 to 1,2 and wavelength range is between 301 to 753 nm

Conditioning : 4 vials of 17 ml

Availability : Now available

Price : 150 - 200 € HT per kit

Contact person : Rachel Champion (rachel.champion@lne.fr) or metrology@lne.fr