



## Specification – Certified Reference Material

### Element Standard Solution 1000 mg/L

#### Accreditation:



Merck KGaA, Darmstadt, Germany is accredited by the German accreditation authority as registered reference material producer (D-RM-15185-01-00) in accordance with **ISO Guide 34**.



Merck KGaA, Darmstadt, Germany is accredited by the German accreditation authority as registered Calibration Laboratory (D-K-15185-01-00) according to **DIN EN ISO/IEC 17025**.

#### Description of CRM:

Element Standard 1000 mg/L

#### Expiry date:

3 years

#### Storage:

+15°C to +25°C tightly closed in the original container

#### Specification:

990 – 1010 mg/L

Article	Analyte	Description of CRM	Associated uncertainty**, $U=k \cdot u$ ( $k=2$ ) as mass fraction
119770	Al	Aluminium standard solution	± 5 mg/kg
170204	Sb	Antimony standard solution	± 5 mg/kg
119773	As	Arsenic standard solution	± 5 mg/kg
119774	Ba	Barium standard solution	± 6 mg/kg
170207	Be	Beryllium standard solution	± 6 mg/kg
119804	Bi	Bismuth standard solution	± 5 mg/kg
119500	B	Boron standard solution	± 5 mg/kg
119777	Cd	Cadmium standard solution	± 5 mg/kg
119778	Ca	Calcium standard solution	± 5 mg/kg
170212	Cs	Cesium standard solution	± 5 mg/kg
119779	Cr	Chromium standard solution	± 5 mg/kg
119785	Co	Cobalt standard solution	± 5 mg/kg
119786	Cu	Copper standard solution	± 5 mg/kg
170216	Au	Gold standard solution	± 5 mg/kg
119504	In	Indium standard solution	± 5 mg/kg
119781	Fe	Iron standard solution	± 5 mg/kg
119776	Pb	Lead standard solution	± 5 mg/kg
170223	Li	Lithium standard solution	± 5 mg/kg
119788	Mg	Magnesium standard solution	± 5 mg/kg
119789	Mn	Manganese standard solution	± 5 mg/kg
170226	Hg	Mercury standard solution	± 8 mg/kg
170227	Mo	Molybdenum standard solution	± 5 mg/kg
119792	Ni	Nickel standard solution	± 5 mg/kg

114282	Pd	Palladium standard solution	± 5 mg/kg
170219	Pt	Platinum standard solution	± 5 mg/kg
170230	K	Potassium standard solution	± 5 mg/kg
119513	Sc	Scandium standard solution	± 5 mg/kg
119796	Se	Selenium standard solution	± 8 mg/kg
112310	Si	Silicon standard solution	± 5 mg/l (*)
170236	Si	Silicon standard solution	± 5 mg/kg
119797	Ag	Silver standard solution	± 5 mg/kg
170238	Na	Sodium standard solution	± 5 mg/kg
119799	Sr	Strontium standard solution	± 5 mg/kg
119514	Te	Tellurium standard solution	± 5 mg/kg
119801	Tl	Thallium standard solution	± 5 mg/kg
170242	Sn	Tin standard solution	± 5 mg/kg
170243	Ti	Titanium standard solution	± 5 mg/kg
170244	W	Tungsten standard solution	± 5 mg/kg
170245	V	Vanadium standard solution	± 5 mg/kg
119809	Y	Yttrium standard solution	± 5 mg/kg
119806	Zn	Zinc standard solution	± 5 mg/kg
170234	Zr	Zirconium standard solution	± 5 mg/kg

\* Method of Analysis: acidimetric titration; Standard is not within accreditation scope of ISO Guide 34 and DIN EN ISO/IEC 17025.

**\*\*The uncertainty can vary depending on the primary reference material.**

**Metrological traceability:**

Element standard solutions are measured applying high precision ICP-OES and are directly traceable to the corresponding **NIST SRM®**  
*NIST: National Institute of Standards and Technology, Gaithersburg, USA.*

**Measurement method:**

Method of analysis is ICP-OES, if not mentioned otherwise.

**Intended use:**

This reference material is intended for use as a calibration standard for atomic absorption spectrometry, spectrophotometry and other analytical techniques.

**For more detailed information please read the certification report on [www.merckmillipore.com](http://www.merckmillipore.com)**