



Specification

Certipur[®] Certified Reference Material

Manufacturer:	Merck KGaA, Frankfurter Str. 250, 64293 Darmstadt, Germany
Description of CRM:	ICP multi-element standard XXIII
Art. No.:	1.09410.0500
Traceability:	Element standard solutions are measured applying high precision ICP-OES and are directly traceable to the corresponding NIST SRM[®] . <i>NIST: National Institute of Standards and Technology, Gaithersburg, USA.</i>
Minimum shelf life:	3 years
Matrix:	HNO ₃ 5%
Nominal value:	See table below
Specification:	See table below

The effective element mass fractions are measured lot specifically.
The certified effective mass concentrations and the measurement uncertainties are calculated and shown in the table below.

Element	Specification ng/ml	Uncertainty** ng/ml	NIST Standard Reference Material
B	0.5 – 2.0	± 0.2	SRM 3107
Ba	0.5 – 2.0	± 0.2	SRM 3104a
Co	0.5 – 2.0	± 0.2	SRM 3113
Fe	0.5 – 2.0	± 0.2	SRM 3126a
Ga	0.5 – 2.0	± 0.2	SRM 3119a
In	0.5 – 2.0	± 0.2	SRM 3124a
K	0.5 – 2.0	± 0.2	SRM 3141a
Li	0.5 – 2.0	± 0.2	SRM 3129a
Lu	0.5 – 2.0	± 0.2	SRM 3130a
Na	0.5 – 2.0	± 0.2	SRM 3152a
Rh	0.5 – 2.0	± 0.2	SRM 3144
Sc	0.5 – 2.0	± 0.2	SRM 3148a
Tl	0.5 – 2.0	± 0.2	SRM 3158
U	0.5 – 2.0	± 0.2	SRM 3164
Y	0.5 – 2.0	± 0.2	SRM 3167a

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