



Specification

Certipur[®] Certified Reference Material

Manufacturer:	Merck KGaA, Frankfurter Str. 250, 64293 Darmstadt, Germany
Description of CRM:	ICP multi-element standard XI
Art. No.:	1.09491.0100
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 6%
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	<u>Specification</u> mg/l	<u>Uncertainty**</u> mg/l	NIST Standard Reference Material
Cd	9.8 - 10.2	± 0.2	SRM 3108
Cr	880 - 920	± 10	SRM 3112a
Cu	780 - 820	± 10	SRM 3114
Hg	7.0 - 9.0	± 0.5	SRM 3133
Ni	195 - 205	± 2	SRM 3136
Pb	880 - 920	± 10	SRM 3128
Zn	2450 - 2550	± 30	SRM 3168a

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