Agilent Technologies

Certificate of Analysis

ICP-MS Internal Std Mix

Agilent Part Number: 5188-6525 **Lot Number:** 22-204VYY2

Analyte	CAS#	Labeled Conc.	Measured Conc.	SRM	Start Mat'l Formula	Start Mat'l Purity	Analyte	CAS#	Labeled Conc.	Measured Conc.	SRM	Start Mat'l Formula	Start Mat'l Purity
Bi	7440-69-9	100 µg/mL	99.0 µg/mL	3106*	Bi	99.99+	Lu	7439-94-3	100 µg/mL	99.9 µg/mL	3130a*	Lu_2O_3	99.99+
Ge	7440-56-4	100 µg/mL	99.8 µg/mL	3120a	GeO_2	99.99+	Rh	7440-16-6	100 µg/mL	100 µg/mL	3144*	$Rh(NO_3)_3$-H_2O	99.99+
In	7440-74-6	100 µg/mL	99.4 µg/mL	3124a*	In	99.99+	Sc	7440-20-2	100 µg/mL	100 µg/mL	3148a*	$Sc(NO_3)_3$-$4H_2O$	99.99+
Li †	7439-93-2	100 µg/mL	100 µg/mL	3129a*	$^6Li_2CO_3$	99.99+	Tb	7440-27-9	100 µg/mL	99.5 µg/mL	3157a*	Tb_4O_7	99.99+

* - indicates NIST SRM † - indicates CRM (when NIST SRM is not available)

Purity grades:

Starting Materials: Shown above

Matrix:

10% HNO_3: HNO_3 (CAS No. 7697-37-2) high purity grade

Traceability:

This standard has been produced gravimetrically and volumetrically using ISO 9001 quality procedures. Agilent ICP / ICP-MS Spectrometer was used to determine the concentration of the main elements via NIST SRMs shown above, as well as the impurities. Other reference standards used: all 8,22-51VY,22-52VY.

Trace Metallic Impurities in the Actual Solution, in µg/L, via Agilent ICP-MS Analysis, results are accurate to ±10%:

Element	Conc.	Element	Conc.	Element	Conc.	Element	Conc.	Element	Conc.	Element	Conc.
Ag	<1	Co	<1	Hf	<0.1	Nb	<0.7	Ru	<2	Ti	<3
Al	6	Cr	2	Hg	<1	Nd	<0.2	Sb	<1	Tl	<0.2
As	<10	Cs	<0.6	Ho	0.09	Ni	<20	Se	<30	Tm	0.2
Au	<0.2	Cu	1	Ir	0.7	P	<100	Si	400	U	<0.05
B	<5	Dy	<0.1	K	<30	Pb	2	Sm	<0.1	V	<0.4
Ba	3	Er	0.4	La	0.3	Pd	<2	Sn	<0.8	W	<6
Be	<2	Eu	<0.06	Mg	<3	Pr	0.2	Sr	<3	Y	0.9
Ca	60	Fe	20	Mn	<3	Pt	<0.3	Ta	<0.5	Yb	<2
Cd	<0.5	Ga	<1	Mo	<3	Rb	<2	Te	<5	Zn	<2
Ce	0.2	Gd	<0.2	Na	200	Re	<0.04	Th	<0.3	Zr	<3

Balances are calibrated regularly with weight sets traceable to NIST.

Agilent reference standards are guaranteed stable and accurate to ±0.5% of measured analyte concentration. For these solutions we use the highest purity acids applicable, 18 megohm double deionized water and acid-leached, triple rinsed bottles. All glassware used is class A.

Date of release: November 15, 2015

Date of expiration: May 31, 2017

Brijender S Tonk

QC Coordinator

Visit Agilent on the world wide web: www.agilent.com/chem/supplies