Agilent Technologies

Certificate of Analysis

ICP-MS Internal Std Mix

Agilent Part Number: 5188-6525 **Lot Number:** 3-189MKBY2

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	101 µg/mL	3108*	Bi	99.99+	Lu	7439-94-3	100 µg/mL	101 µg/mL	3130a*	Lu_2O_3	99.99+
Ge	7440-56-4	100 µg/mL	100 µg/mL	3120a*	GeO2	99.99+	Rh	7440-16-6	100 µg/mL	101 µg/mL	3144*	Rh(NO3)3-H2O	99.99+
In	7440-74-6	100 µg/mL	101 µg/mL	3124a*	In	99.99+	Sc	7440-20-2	100 µg/mL	101 µg/mL	3148a*	Sc_2O_3	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	100 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: 3-62MKB, 3-63MKB, 23-79VY, 23-78VY.

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	<2	Co	2	Hf	<0.06	Nb	<3	Ru	20	Tl	<5
Al	30	Cr	3	Hg	<1	Nd	<0.5	Sb	<1	Tl	<3
As	8	Cs	<0.3	Ho	0.02	Ni	<4	Se	<50	Tm	0.04
Au	<2	Cu	3	Ir	30	P	<500	Si	<300	U	<0.01
B	<4	Dy	3	K	200	Pb	2	Sm	<0.02	V	<2
Ba	1	Er	0.1	La	<0.4	Pd	2	Sn	<3	W	<8
Be	<1	Eu	<0.07	Mg	8	Pr	<0.1	Sr	<8	Y	<0.8
Ca	100	Fe	20	Mn	<5	Pt	<0.8	Ta	<0.04	Yb	0.4
Cd	0.2	Ga	<1	Mo	<3	Rb	<0.3	Te	<4	Zn	<5
Ce	0.3	Gd	<0.01	Na	10	Re	<0.2	Th	2	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. This uncertainty is at 95% confidence interval, a coverage factor of 2. 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. This standard was manufactured following the guidelines set forth under ISO 17025 and ISO Guide 34 regulations.

Brijender S Tank
QC Coordinator

Date of release: May 15, 2017

Date of expiration: November 30, 2018

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