

# Certificate of Analysis

## Dual Mode 2 Solution

**Agilent Part Number: G1820-60410**
**Lot Number: 22-48GSY2**

Analyte	CAS#	Labeled Conc.	Measured Conc.	SRM	Start Mat'l Formula	Start Mat'l Purity
Er	7440-52-0	50.0 µg/L	49.9 µg/L	3118a*	Er <sub>2</sub> O <sub>3</sub>	99.99+

\* - indicates NIST SRM

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

**Purity grades:**

Starting Materials: Shown above

Matrix:

 0.2wt% HNO<sub>3</sub>: HNO<sub>3</sub> (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.

**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	<0.01	Cr	<0.01	Ho	<0.01	Nb	<0.01	Ru	<0.01	Th	<0.01
Al	<0.03	Cs	<0.01	In	<0.01	Nd	<0.01	Sb	<0.01	Tl	<0.01
As	<0.01	Cu	<0.01	Ir	<0.01	Ni	<0.01	Sc	<0.01	Tl	<0.01
Au	<0.01	Dy	<0.01	K	<0.1	P	<10	Se	<0.01	Tm	<0.01
B	<0.01	Eu	<0.01	La	<0.01	Pb	<0.01	Si	<5	U	<0.01
Ba	<0.01	Fe	<0.1	Li	<0.01	Pd	<0.01	Sm	<0.01	V	<0.01
Be	<0.01	Ga	<0.01	Lu	<0.01	Pr	<0.01	Sr	<0.01	W	<0.05
Bi	<0.01	Gd	<0.01	Mg	<0.01	Pt	<0.01	Sr	<0.01	Y	<0.01
Ca	<0.1	Ge	<0.01	Mn	<0.01	Rb	<0.03	Ta	<0.01	Yb	<0.01
Cd	<0.01	Hf	<0.01	Mo	<0.01	Re	<0.01	Tb	<0.01	Zn	<0.03
Ce	<0.01	Hg	<0.01	Na	<0.03	Rh	<0.01	Te	<0.01	Zr	<0.01
Co	<0.01										

Balances are calibrated regularly with weight sets traceable to NIST.

Agilent reference standards are guaranteed stable and accurate to ±1% 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. This standard was manufactured following the guidelines set forth under ISO 17025 and ISO Guide 34 regulations.

 Date of release: July 15, 2016  
 Date of expiration: October 31, 2017

  
 QC Coordinator