

CERTIFICATE OF CALIBRATION
Standard Reference Source

101664

I-125 5 mL Liquid in Flame Sealed Vial

Customer: LLNS/LLNL for the U.S. DOE/NNSA
P.O. No.: B615697, Item 1 **Product Code:** 8125

This standard radionuclide source was prepared gravimetrically from a master solution, calibrated by Eckert & Ziegler Analytics. The master solution was calibrated by liquid scintillation counting. Radionuclide calibration and purity were checked by germanium gamma-ray spectrometry, liquid scintillation counting, and/or alpha spectrometry, as applicable. The nuclear decay rate and reference date for this source are given below. Eckert & Ziegler Analytics (EZA) maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Revision 2, July 2007, and compliance with ANSI N42.22-1995, "Traceability of Radioactive Sources to NIST."

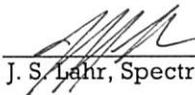
Isotope	Half-Life, Days	Activity (Bq)	Uncertainty* , %			Reference Date (12:00 PM EST)
			u_A	u_B	U	
I-125	5.941E+01	7.998E+05	0.2	1.0	2.0	10/27/2015

***Uncertainty:** U - Relative expanded uncertainty, $k = 2$. See NIST Technical Note 1297, "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results."

Comments:

Impurities: γ -impurities < 0.1%
5.01754 g 0.1M NaOH + 0.006M Na₂SO₃ solution with approximately 30 μ g/g I carrier.

Source Prepared by: 
Z. Dimitrova, Radiochemist

QC Approved: 
J. S. Lahr, Spectroscopist

Date: 21 OCT 15



