Eckert & Ziegler
Analytics

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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* , % Type u_A	u_B	U	Reference Date (12:00 PM EST)
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 µg/g I carrier.

Source Prepared by: _____
Z. Dimitrova, Radiochemist

QC Approved: _____ Date: 21OCT15
J. S. Lahr, Spectroscopist

F-CR-32, Rev. 0, 01 Nov 14

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