



U.S. Department
of Transportation

Pipeline and
Hazardous Materials
Safety Administration

East Building, PHH-23
1200 New Jersey Ave, SE
Washington, D.C. 20590

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS

CERTIFICATE USA/0498/S, REVISION 6

This certifies that the source described has been demonstrated to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the International Atomic Energy Agency¹ and the United States of America² for the transport of radioactive material.

1. Source Identification - Eckert & Ziegler Isotope Products (EZIP) Model HEG-1.
2. Source Description - Cylindrical single encapsulation made of Type 304 or 304L stainless steel and fusion seal welded. Approximate outer dimensions are 4.7 mm (0.186 in.) in diameter and 5.7 mm (0.225 in.) in length. Construction shall be in accordance with attached IPL Drawing No. 3025, Sheet 3 of 3, Rev. A.
3. Radioactive Contents - The source described by this certificate is authorized to contain any one of the following radionuclides in the chemical form identified and limited to the activity shown:

Radionuclide	Form	Activity GBq (Ci)
Na-22	NaCl in gold or ceramic	3.7 (0.10)
Co-57	CoO, CoCl ₂ Co(NO ₃) ₂ in ceramic	11.1 (0.30)
Co-58	CoO, CoCl ₂ Co(NO ₃) ₂ in ceramic	11.1 (0.30)
Co-60	CoO, CoCl ₂ Co(NO ₃) ₂ in ceramic or Co pellets	11.1 (0.30)
Ge-68	GeCl ₄ in ceramic	1.85 (0.05)

¹ "Regulations for the Safe Transport of Radioactive Material, 2018 Edition, No. SSR-6 (Rev. 1)" published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

² Title 49, Code of Federal Regulations, Parts 100-199, United States of America.

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Ba-133	BaSO ₄ or BaCl ₂ in gold or ceramic	3.7 (0.10)
Cs-137	CsCl, Cs ₂ SO ₄ or CsNO ₃ in ceramic, AL or Au pellets	11.1 (0.30)
Ra-226	RaSO ₄ in gold or ceramic	1.85 (0.05)
Cf-252	Oxide in metal or ceramic	0.037 (0.001)
Actinides*	Oxides in gold or ceramic	1.85 (0.05)

* (Isotopes of Ac, Th, Pa, Np, U, Am, and Cm)

4. Management System Activities - Records of Management System activities required by Paragraph 306 of the IAEA regulations shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors in the United States exporting shipments under this certificate shall satisfy the requirements of Subpart H of 10 CFR 71.
5. Expiration Date - This certificate expires on November 30, 2029. Previous editions which have not reached their expiration date may continue to be used.

This certificate is issued in accordance with paragraph(s) 804 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the October 18, 2024 petition by Eckert & Ziegler Isotope Products, Valencia, CA, and in consideration of other information on file in this Office.

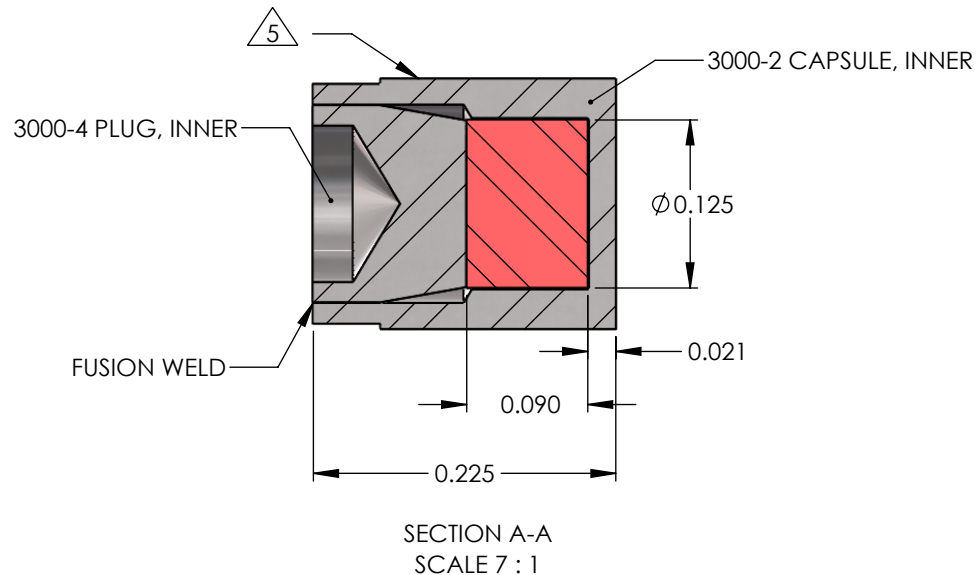
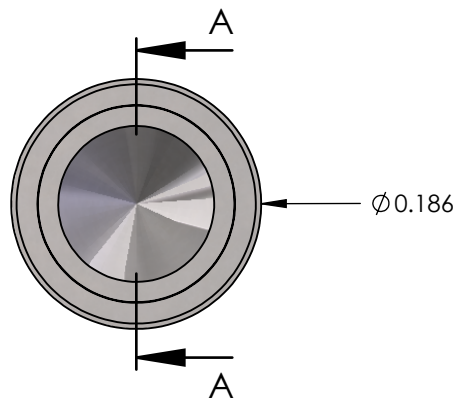
Certified By:



William Schoonover
Associate Administrator for Hazardous
Materials Safety

November 15, 2024
(DATE)

Revision 6 - Issued to update Drawing No. 3025 to Rev. A, to extend the expiration date and to issue the certificate to the 2018 edition of SSR-6.



5 ENGRAVE CHARACTERS 0.060 HIGH X 0.003 DEEP MAX:
 EZIP
 NUCLIDE
 ACTIVITY
 SERIAL NUMBER

4. PACKAGE AND IDENTIFY PART NUMBER THEREON
 3. SURFACE ROUGHNESS: 32 μ in RMS
 2. REMOVE BURRS AND BREAK EDGES 0.005 MAX
 1. MATERIAL: 304 OR 304L STAINLESS STEEL
- NOTES: UNLESS OTHERWISE SPECIFIED

P/N: A3025 ASSEMBLY, HEG-1 CAPSULE (UNIVERSAL INNER)



Eckert & Ziegler
 Isotope Products

VALENCIA, CALIFORNIA 91355

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CAGE CODE 32993

DRAWING SIZE LETTER

DRAWN KM

TITLE

HEG-1 CAPSULE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCH SIZES.
 METRIC UNITS [mm] ARE IN MILLIMETERS.

ME/CHECKER JR

SERIES TITLE

TOLERANCES (UNLESS OTHERWISE SPECIFIED)
 X.XXX $\pm$.002 INCH ANGULAR TOLERANCE OF 0° $\pm$ 30°
 X.XX $\pm$.005 INCH FRACTIONAL DIMENSIONS $\pm$ 1/32"
 X.X $\pm$.03 INCH REFERENCE DIMENSIONS (I) N/A
 X. $\pm$.1 INCH SURFACE ROUGHNESS μ INCH MAX

ENGINEER EZ

HIGH INTENSITY GAMMA AND NEUTRON SOURCES

SCALE 7:1

DRAWING NO. 3025

REV A

SHEET 3 OF 3



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1200 New Jersey Ave, SE
Washington, D.C. 20590

CERTIFICATE NUMBER: USA/0498/S

ORIGINAL REGISTRANT(S) :

Eckert & Ziegler Isotope Products
24937 Avenue Tibbitts
Valencia, CA, 91355
USA