

Certificate for Sealed Sources

G2-00025Z

Serial Number of Afterloader: FT00719
Customer Name and Address: UNIVERSITAIR MEDISCH CENTRUM UTR
AFDELING RADIOTHERAPIE
ATTN: [REDACTED] B BLOK
HEIDELBERGLAAN 100
3584 CX UTRECHT NETHERLANDS

Issue Date 2025-07-04 ⁽¹⁾

Model Designation: REF 136.147
Serial Number: SN D85F6028
Production Code: LOT 83303/03 (DRN 7785)
Manufacturer Code: NLF 01 ⁽⁷⁾

Serial Number of Transport Container: 1700T1

Serial Number of Check Cable: 09864

Certificate Number: r@mB6 jseSS QeGmQ KcbXa g2

SOURCE SPECIFICATIONS

Reference Air Kerma Rate: 49.16 mGy h⁻¹ +/- 5% at 1 m ⁽²⁾
Measured at: 2025-06-27 09:36 CET ⁽¹⁾
Estimated Content Activity: 446.9 GBq (12.07 Ci) at date of measurement ^(3,4)
Source Type: FLEXISOURCE Ir-192
Capsule Dimensions: 0.86 mm diameter, 4.6 mm length
Source Pellet Dimensions: 0.6 mm diameter, 3.5 mm length
Source Pellet form: solid iridium
Radionuclide: Ir-192, gamma radiation source
Encapsulation: single
Capsule Material: stainless steel, AISI 316L
ISO 2919 Classification: ISO/12/C63311
Special Form Certificate Number: Not applicable
Recommended Working Life: 30 000 transits or 100 obstructions whichever comes first

QUALITY CONTROL

Cable Visual Inspection: passed
Source Visual Inspection: passed
Laser Weld Visual Check: passed
Leakage Test: passed ⁽⁵⁾
Surface Contamination Test: < 185 Bq [REDACTED] Measured at: 2025-06-27 ⁽¹⁾
[REDACTED] Measured at: 2025-06-27 ⁽¹⁾

The undersigned, authorized officer of Curium Netherlands B.V.,
certifies that this source complies with the requirements of ISO2919
and that all of the information given in this certificate is true and correct
at date of issue.

GMP Controller

2025-07-04

Approved by.....

(1) Date format yyyy-mm-dd.

(2) At confidence level of 99.7%. The reference air kerma rate is measured with a calibrated measurement setup, calibrated with a calibration source of the same source model, measured at the Physikalisch-Technische Bundesanstalt (PTB), Braunschweig, Germany, in accordance with the ICRU report 90 recommendations.

(3) The estimated content activity is determined by applying a conversion factor (0.110 mGy m²h⁻¹GBq⁻¹) to the measured gamma radiation output of the sealed source.

(4) The estimated content activity is the activity for the specified radionuclide, other radionuclides are not detectable.

(5) Leakage test method according to ISO9978 method Liquid nitrogen bubble test (6.2.4).

(6) Surface contamination test in accordance to ISO9978 method Wet Wipe Test (5.3.1).

(7) European manufacturer's code in accordance with European council directive 2013/59/Euratom.

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