

# NIST TRACEABLE CERTIFICATE

## BETA STANDARD SOURCE

Radionuclide: Cl-36  
Half-life:  $(3.01 \pm 0.02)E+05$  years  
Catalog No.: EAB-036  
Source No.: RR-659

Customer: EASTMAN KODAK  
P.O. No.: QX-401-86868  
Reference Date: 1-Feb-00 12:00 PST  
Contained Radioactivity: 0.01230  $\mu\text{Ci}$ , 0.4551 kBq  
Contained Radioactivity: 27,310 dpm

### Physical description:

A. Capsule type: EAB-PL (50.8 mm OD x 3.18 mm THK)  
B. Nature of active deposit: Distributed and evaporated metallic salt on polymeric membrane  
C. Active Diameter: 45 mm  
D. Backing: Stainless steel  
E. Cover: 0.9 mg/cm<sup>2</sup> aluminized mylar

### Radioimpurities:

None detected

### Method of Calibration:

This source was prepared from a weighed aliquot of solution whose activity in  $\mu\text{Ci/g}$  was determined using a liquid scintillation counter.

### Uncertainty of Measurement:

A. Type A (random) uncertainty:	$\pm 0.7 \%$
B. Type B (systematic) uncertainty:	$\pm 2.0 \%$
C. Uncertainty in aliquot weighing:	$\pm 0.6 \%$
D. Total uncertainty at the 99% confidence level:	$\pm 2.2 \%$

### Notes:

- See reverse side for leak tests performed on this source.
- IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).
- Nuclear data was taken from NCRP Report No. 58, 1985.
- This source had a surface emission rate of 16,430 betas/min in 2 pi on 13 Jan 00.

*Daniel James Van Dalsem*  
Quality Control

13-Jan-00

Date Signed



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