



# CERTIFICATE

Cert. No: 9031 - OL - 502/11

Type: ER X

Prod. No: 230911-1329015

Radionuclide	Half life days	Spec. activity kBq /g	Combined standard uncertainty, %
Am-241	157800	0,9268	0,4
Cd-109	462,6	3,669	0,8
Ce-139	137,5	0,2053	0,4
Co-57	271,26	0,2009	0,4
Co-60	1925,4	0,5761	0,8
Cs-137	11019	0,5146	0,6
Sn-113	115,1	0,5672	1,6
Sr-85	64,78	0,7701	0,7
Y-88	106,6	0,8913	0,6
Hg-203	46,72	0,4479	1,5
Mn-54	312,22	0,5215	0,5
Zn-65	243,9	1,123	0,4

Mass: 5,3225 g

Volume: 4,998 ml

Radioactive impurities: gamma < 0,1 %

Reference date: 20.10.2011

Measuring method:

The ER 2 and ER 25 standards are directly prepared from a standard solution activity of which was determined by absolute method, specific activity of ER 3, ER 1 and ER X is calculated from dilution ratio and specific activity of ER 2 solution.

Chemical composition:

20 mg/l of each above mentioned elements in 4 M HCl.

Date of the certificate issue: 6.10.2011

Certificate validity: 3 years

(for Hg-203 6 months)

Customer: TNE s.r.l.

Via Leonardo da Vinci 11

20060 Cassina de Pecchi, MILANO

ITALY



*Handwritten signatures and dates*

Control: RNDr. R. Blud'ovský, CSc., Ing. Petr Kovář

Ing. Jiří Šuráň, MBA  
director