

## **Pb solution in 1mol/L nitric acid certified for the Pb isotope amount ratios**

Art. ID	ERM-AE142
Unit	20 mL
Deliverydetails	ADR Excepted Quantity (EQ) / AIR Excepted Quantity (EQ) UN3264 II E2

### Description

The isotopic reference material ERM-AE142 is a solution of natural Pb in nitric acid (1 mol/L) with a Pb mass fraction of 100 mg/kg. Approximately 20 mL of this solution each is filled in PFA bottles. This material is designed for verification and validation of all procedures (e.g. TIMS, ICPMS) being used for the determination of Pb isotope amount ratios.

Text/Information	Analyte/Parameter	CAS number	Concentration/Value	Unit	Method	Source
Certified quantity	Isotope amount ratio n(206Pb)/n(204Pb)		21,114	mol/mol		
Certified quantity	Isotope amount ratio n(207Pb)/n(204Pb)		15,944	mol/mol		
Certified quantity	Isotope amount ratio n(208Pb)/n(204Pb)		39,85	mol/mol		
Certified quantity	Isotope amount ratio n(208Pb)/n(206Pb)		1,8874	mol/mol		
Certified quantity	Isotope amount fraction n(204Pb)/n(Pb)		0,0128357	mol/mol		
Certified quantity	Isotope amount fraction n(206Pb)/n(Pb)		0,27101	mol/mol		
Certified quantity	Isotope amount fraction n(207Pb)/n(Pb)		0,20465	mol/mol		
Certified quantity	Isotope amount fraction n(208Pb)/n(Pb)		0,5115	mol/mol		
Certified quantity	Molar mass of Pb in solution M(Pb)		207,17783	g/mol		
Indicative value, mass fraction	Lead (Pb)	[7439-92-1]	100	mg/kg		