

CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by TUV SUD America Inc.
 Certificate Number. 951001163

Catalogue Number	011181
Lot Number	T01L019
Description	Yttrium(III) oxide, REacton®, 99.99% (REO)
CAS Number	1314-36-9
Quality Test/Release Date	01/Jul/2025
Suggested retest date	01/Jul/2030
Country of Origin	China

Result Name	Units	Specifications	Test Value
Assay (special)	%	≥99.99% of total rare earth oxides	>99.999
Chloride content	ppm	≤500ppm	0
Impurity content	ppm	Calcium oxide, CaO: ≤100ppm	1.3
Impurity content	ppm	Cerium oxide, CeO2: ≤10ppm	0
Impurity content	ppm	Dysprosium oxide, Dy2O3: ≤50ppm	0
Impurity content	ppm	Erbium oxide, Er2O3: ≤100ppm	1
Impurity content	ppm	Europium oxide, Eu2O3: ≤10ppm	0
Impurity content	ppm	Gadolinium oxide, Gd2O3: ≤10ppm	0
Impurity content	ppm	Holmium oxide, Ho2O3: ≤500ppm	1
Impurity content	ppm	Iron oxide, Fe2O3: ≤10ppm	0
Impurity content	ppm	Lanthanum oxide, La2O3: ≤10ppm	0
Impurity content	ppm	Lutetium oxide, Lu2O3: ≤10ppm	0
Impurity content	ppm	Neodymium oxide, Nd2O3: ≤10ppm	0
Impurity content	ppm	Potassium oxide, K2O: ≤100ppm	0
Impurity content	ppm	Praseodymium oxide, Pr6O11: ≤10ppm	0
Impurity content	ppm	Samarium oxide, Sm2O3: ≤10ppm	0
Impurity content	ppm	Silicon oxide, SiO2: ≤100ppm	16
Impurity content	ppm	Sodium oxide, Na2O: ≤100ppm	0
Impurity content	ppm	Terbium oxide, Tb4O7: ≤10ppm	1
Impurity content	ppm	Thulium oxide, Tm2O3: ≤10ppm	0
Impurity content	ppm	Total alkaline earths (Be, Mg, Ca, Sr, Ba, Ra): ≤75ppm	0
Impurity content	ppm	Ytterbium oxide, Yb2O3: ≤10ppm	0
Loss on ignition	%	≥1.0%	0.97
Total rare earth oxides	%	≥99.0%	99.44

John Astarita

John Astarita
 Director, Quality

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of the catalogue number listed above.



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