

## CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by ICG. Certificate Number. 110212Q

Catalogue Number	042864
Lot Number	62600299
Description	Yttrium(III) oxide, REacton®, 99.9999% (REO)
CAS Number	1314-36-9
Quality Test/Release Date	19/May/2026
Suggested retest date	19/May/2031
Country of Origin	TÜRKIYE
Declaration of Origin	Synthetic
BSE/TSE	Not directly derived from or manufactured with any animal byproducts in any way (including but not limited to fermentation or nutrient broth, catalysts, enzymes).

Result Name	Units	Specifications	Test Value
Rhenium (Re)	PPM	<0.001	<0.001
Osmium (Os)	PPM	<0.001	<0.001
Gold (Au)	PPM	<0.001	<0.001
Ruthenium (Ru)	PPM	<0.002	<0.002
Palladium (Pd)	PPM	<0.002	<0.002
Cadmium (Cd)	PPM	<0.003	<0.003
Cobalt (Co)	PPM	<0.003	<0.003
Germanium (Ge)	PPM	<0.005	<0.005
Thallium (Tl)	PPM	<0.006	<0.006
Rhodium (Rh)	PPM	<0.008	<0.008
Indium (In)	PPM	<0.008	<0.008
Silver (Ag)	PPM	<0.01	<0.01
Cerium (Ce)	PPM	<0.01	<0.01
Cesium (Cs)	PPM	<0.01	<0.01
Barium (Ba)	PPM	<0.01	<0.01
Platinum (Pt)	PPM	<0.01	<0.01
Tantalum (Ta)	PPM	<0.01	<0.01
Thorium (Th)	PPM	<0.02	<0.02
Mercury (Hg)	PPM	<0.02	<0.02
Rubidium (Rb)	PPM	<0.02	<0.02
Zirconium (Zr)	PPM	<0.02	<0.02
Tellurium (Te)	PPM	<0.03	<0.03
Titanium (Ti)	PPM	<0.03	<0.03
Tungsten (W)	PPM	<0.04	<0.04
Antimony (Sb)	PPM	<0.06	<0.06
Lanthanum (La)	PPM	<0.1	<0.1
Boron (B)	PPM	<0.1	<0.1
Beryllium (Be)	PPM	<0.1	<0.1
Bismuth (Bi)	PPM	<0.1	<0.1
Selenium (Se)	PPM	<0.2	<0.2
Iridium (Ir)	PPM	<0.2	<0.2

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.

Strontium (Sr)	PPM	<0.5	<0.5
Hafnium (Hf)	PPM	0.001	0.001
Europium (Eu)	PPM	0.001	0.001
Niobium (Nb)	PPM	0.002	0.002
Samarium (Sm)	PPM	0.007	0.007
Terbium (Tb)	PPM	0.009	0.009
Gadolinium (Gd)	PPM	0.01	0.01
Lutetium (Lu)	PPM	0.01	0.01
Tin (Sn)	PPM	0.02	0.02
Ytterbium (Yb)	PPM	0.02	0.02
Uranium (U)	PPM	0.03	0.03
Praseodymium (Pr)	PPM	0.03	0.03
Lithium (Li)	PPM	0.04	0.04
Lead (Pb)	PPM	0.04	0.04
Thulium (Tm)	PPM	0.04	0.04
Arsenic (As)	PPM	0.05	0.05
Neodymium (Nd)	PPM	0.05	0.05
Molybdenum (Mo)	PPM	0.06	0.06
Nickel (Ni)	PPM	0.06	0.06
Manganese (Mn)	PPM	0.08	0.08
Chromium (Cr)	PPM	0.1	0.1
Dysprosium (Dy)	PPM	0.1	0.1
Aluminium (Al)	PPM	0.2	0.2
Magnesium (Mg)	PPM	0.2	0.2
Scandium (Sc)	PPM	0.2	0.2
Copper (Cu)	PPM	0.2	0.2
Erbium (Er)	PPM	0.2	0.2
Vanadium (V)	PPM	0.3	0.3
Holmium (Ho)	PPM	0.3	0.3
Gallium (Ga)	PPM	0.6	0.6
Sodium (Na)	PPM	0.7	0.7
Calcium (Ca)	PPM	1	1
Iron (Fe)	PPM	1	1
Potassium (K)	PPM	1	1
Zinc (Zn)	PPM	2	2
Silicon (Si)	PPM	4	4
Total Rare Earth Oxide Impurities	%	0.0001% max.	<0.0001



Ronald Becht  
Technical Support Manager

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third-party data or information associated with the product. Products are for research and development use only. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

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