

 Thermo Fisher Scientific

 Ward Hill, MA-Sites

 30 Bond Street
 220 Neck Road
 38 Shelley Road

 Ward Hill
 Ward Hill
 Ward Hill

 MA 01835
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## **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	011230			
Lot Number	R20L018			
Description	Samarium(III) oxide, REacton®, 99.99% (REO)			
CAS Number	12060-58-1			
Quality Test/Release Date	20/May/2025			
Suggested retest date	20/May/2035			
Country of Origin	Turkey			
Declaration of Origin	Synthetic			
Result Name	Units	Specifications	Test Value	
Total Rare Earth Oxide Impurities	%	0.01% max.	0.0036	

 $\begin{array}{l} \textbf{Additional Information} \ \mbox{Al 8, Bi < 0.2, Ca < 1, Ce 3, Cr 0.03, Cu 1, Dy < 0.1, Er < 0.1, Eu 1, Fe 0.8, Gd 4, Ho < 0.1, K 1, La 6, Lu 1, Mg 0.4, Mn < 0.01, Na 0.1, Nd 20, Ni < 0.02, Pb < 0.2, Pr < 1, Sc < 0.01, Si < 5, Tb 0.5, Th < 0.2, Ti 0.5, Tm < 0.1, U < 0.2, V < 0.1, Y 0.3, Yb 1, Zn 0.4, Values given in ppm unless otherwise stated. \end{array}$ 

John Astarita

John Astarita Director, Quality

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.

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.