

## 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	033377
Lot Number	Z17L024
Description	Sodium carbonate, ACS primary standard, 99.95-100.05% (dried basis)
CAS Number	497-19-8
Quality Test/Release Date	17/Dec/2025
Suggested retest date	17/Dec/2030
Country of Origin	United States

Result Name	Units	Specifications	Test Value
Assay (unspecified)	%	99.95-100.05% Na <sub>2</sub> CO <sub>3</sub>	99.99
Heavy Metals	ppm	(ICP-OES) 5ppm	1
Impurity content	%	Sulfur compounds (as SO <sub>4</sub> ) 0.003%	0.001
Impurity content	%	SiO <sub>2</sub> 0.005%	0.001
Impurity content	%	PO <sub>4</sub> 0.001%	0.0005
Impurity content	%	Mg 0.004%	0.002
Impurity content	%	K 0.005%	0.003
Impurity content	ppm	Fe 5ppm	1
Impurity content	%	Cl 0.001%	0.0003
Impurity content	%	Ca 0.02%	0.001
Insoluble material	%	0.01%	0.0009
Loss on Drying	%	at 285° 1.0%	0.02



Derek Roy  
 Quality Manager, LCD

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.