

## 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	033257
Lot Number	S02M034
Description	Hydrochloric acid, ACS, HCl 36.5-38.0%
CAS Number	7647-01-0
Quality Test/Release Date	03/Jun/2026
Suggested retest date	03/Jun/2028
Country of Origin	United States
Declaration of Origin	Other
BSE/TSE	Inorganic

Result Name	Units	Specifications	Test Value
Color (APHA)	APHA	10	5
Assay (unspecified)	%	36.5-38.0% HCl	37.33
Heavy Metals	ppm	(ICP-OES) 1ppm	0.2
Residue on ignition	ppm	5ppm	1
Impurity content	ppm	As 0.01ppm	0.0001
Impurity content	%	Br 0.005%	<0.005
Impurity content	ppm	Fe 0.2ppm	0.05
Impurity content	ppm	Free chlorine (Cl) 1ppm	<1
Impurity content	ppm	NH <sub>4</sub> 3ppm	1
Impurity content	ppm	SO <sub>3</sub> 1ppm	0.2
Impurity content	ppm	SO <sub>4</sub> 1ppm	0.2



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.