

## CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by INTERTEK SAI Global  
Certificate Number. QMS42099

Catalogue Number H/0950  
Lot Number 2528183  
Description Hydrobromic acid 48% AR For analysis  
Quality Test/Release Date 27/Feb/2025  
Expiry Phrase Use within 5 years of opening  
Country of Origin Netherlands

Result Name	Units	Specifications	Test Value
Assay	%	$\geq 47$ and $\leq 49$	48.54
Calcium (Ca)	ppm	$\leq 2$	<2
Chemical form		Mobile liquid	Mobile liquid
Chromium (Cr)	ppm	$\leq 0.5$	<0.01
Copper (Cu)	ppm	$\leq 0.1$	<0.02
Iodide (I) (%)	%	$\leq 0.0002$	<0.0002
Iron (Fe)	ppm	$\leq 0.5$	<0.2
Lead (Pb)	ppm	$\leq 0.1$	<0.01
Magnesium (Mg)	ppm	$\leq 0.5$	<0.2
Nickel (Ni)	ppm	$\leq 0.5$	<0.01
Potassium (K)	ppm	$\leq 0.5$	<0.5
Sodium (Na)	ppm	$\leq 10$	<2
Total chloride (Cl)	%	$\leq 0.05$	<0.05
Total phosphorus (P)	ppm	$\leq 2$	<0.5
Total silicon (Si)	ppm	$\leq 5$	<0.5
Total sulfur (S)	ppm	$\leq 20$	<5
Visual colour		Clear pale yellow	Clear pale yellow
Zinc (Zn)	ppm	$\leq 0.5$	<0.05



Ashok Ganatra  
Supervisor, QC

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 use or further manufacturing. 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.