



Certificate of Analysis

1.10165.2500 Hydrochloric acid 1 mol/L EMPROVE® EXPERT
Batch Z0958965 ✓

	Spec. Values		Batch Values	
Concentration (HCl)	0.95 - 1.05	mol/l	1.01	mol/l
Identity	passes test		passes test	
Color	≤ 10	Hazen	≤ 10	Hazen
Appearance	passes test		passes test	
Free Bromine or Free Chlorine	passes test		passes test	
Free chlorine (Cl)	≤ 1	ppm	< 0.5	ppm
Sulfate (SO ₄)	≤ 5	ppm	< 5	ppm
Sulfite (SO ₃)	≤ 10	ppm	≤ 10	ppm
As (Arsenic)	≤ 0.1	ppm	≤ 0.1	ppm
Hg (Mercury)	≤ 0.004	ppm	< 0.004	ppm
Residual solvents (ICH Q3C)	...excluded by production process		...excluded by production process	
Residue on ignition (as SO ₄)	≤ 80	ppm	< 40	ppm
Evaporation residue	≤ 100	ppm	< 50	ppm
Endotoxins	≤ 0.25	I.U./ml	< 0.25	I.U./ml
Lotnumber (raw material)			Z0961414	
Filtered with 0.2 µm				

Manufactured from Hydrochloric acid fuming 37% EMPROVE® ESSENTIAL PhEur, BP, JP, NF and purified water acc. PhEur, JP.

Elemental impurity specifications have been set considering ICH Q3D (Guideline for Elemental Impurities). Class 1-3 elements are not likely to be present above the ICH Q3D option 1 limit, unless specified and indicated (*).

Date of manufacture (DD.MM.YYYY) 14.11.2024

Date of examination (DD.MM.YYYY) 22.11.2024

Minimum shelf life (DD.MM.YYYY) 30.11.2027 ✓

Christian Herrmann

Responsible laboratory manager quality control

This document has been produced electronically and is valid without a signature.