



# Specification

1.00312.0000 Hydrochloric acid 25% EMPROVE® ESSENTIAL Ph Helv

	Specification	
Assay (alkalimetric)	24.5 - 25.5	%
Identity	conforms	
Appearance of solution	passes test	
Density (d 20/20)	1.121 - 1.131	
Bromide, Iodide (Br,I)	passes test	
Free chlorine (Ph. Helv.)	passes test	
Free chlorine (Cl)	≤ 0.0001	%
Sulfate (SO <sub>4</sub> )	≤ 0.0005	%
Sulfite (SO <sub>3</sub> )	≤ 0.0010	%
As (Arsenic)	≤ 0.00010	%
Ca (Calcium)	≤ 0.0010	%
Fe (Iron)	≤ 0.0001	%
Hg (Mercury)	≤ 0.0000040	%
Mg (Magnesium)	≤ 0.0010	%
Zn (Zinc)	≤ 0.0010	%
Residual solvents (ICH Q3C)	...excluded by production process	
Residue on ignition (as SO <sub>4</sub> )	≤ 0.002	%
Evaporation residue	≤ 0.005	%
Corresponds to Ph Helv		

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 (\*).

Minimum shelf life: see product label

Christian Herrmann

Responsible laboratory manager quality control

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