

Certificate of Analysis

Product Name:

Hydrochloric acid - puriss. p.a., ACS reagent, reagent ISO, reagent Ph. Eur., fuming, $\geq 37\%$, APHA: ≤ 10

Product Number: 30721
Batch Number: STBJ2708
Brand: SIGALD
Formula: HCl
Formula Weight: 36,46 g/mol
Quality Release Date: 13 JUN 2019
Date Retested: 23 NOV 2022
Recommended Retest Date: NOV 2024

HCl

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
Color Test	≤ 10 APHA	< 10 APHA
Assay	$\geq 37\%$	37 %
Density (D20/4)	≥ 1.18	> 1.18
Residue on Ignition	$\leq 0.0005\%$	$< 0.0005\%$
Residue after evaporation	$\leq 0.005\%$	$< 0.001\%$
Free Chlorine	≤ 0.5 ppm	< 0.5 ppm
Aluminum (Al)	≤ 0.05 ppm	< 0.05 ppm
Arsenic (As)	≤ 0.01 ppm	< 0.01 ppm
Barium (Ba)	≤ 0.02 ppm	< 0.02 ppm
Beryllium (Be)	≤ 0.02 ppm	< 0.02 ppm
Bismuth (Bi)	≤ 0.1 ppm	< 0.1 ppm
Calcium (Ca)	≤ 0.5 ppm	< 0.5 ppm
Cadmium (Cd)	≤ 0.01 ppm	< 0.01 ppm
Cobalt (Co)	≤ 0.01 ppm	< 0.01 ppm
Chromium (Cr)	≤ 0.02 ppm	< 0.02 ppm
Copper (Cu)	≤ 0.02 ppm	< 0.02 ppm
Iron (Fe)	≤ 0.2 ppm	< 0.2 ppm
Germanium (Ge)	≤ 0.05 ppm	< 0.05 ppm
Potassium (K)	≤ 0.1 ppm	< 0.1 ppm
Lithium (Li)	≤ 0.01 ppm	< 0.01 ppm

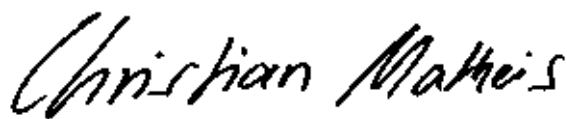
Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



Certificate of Analysis

Product Number: 30721
Batch Number: STBJ2708

Test	Specification	Result
Magnesium (Mg)	≤ 0.1 ppm	< 0.1 ppm
Manganese (Mn)	≤ 0.01 ppm	< 0.01 ppm
Molybdenum (Mo)	≤ 0.02 ppm	< 0.02 ppm
Sodium (Na)	≤ 0.5 ppm	< 0.5 ppm
Nickel (Ni)	≤ 0.02 ppm	< 0.02 ppm
Lead (Pb)	≤ 0.02 ppm	< 0.02 ppm
Strontium (Sr)	≤ 0.01 ppm	< 0.01 ppm
Titanium (Ti)	≤ 0.1 ppm	< 0.1 ppm
Thallium (Tl)	≤ 0.05 ppm	< 0.05 ppm
Vanadium (V)	≤ 0.01 ppm	< 0.01 ppm
Zinc (Zn)	≤ 0.05 ppm	< 0.05 ppm
Zirconium (Zr)	≤ 0.1 ppm	< 0.1 ppm
Heavy Metal (as Pb)	≤ 0.0001 %	< 0.0001 %
Ammonium	≤ 0.0001 %	< 0.0001 %
Bromide	≤ 0.005 %	< 0.005 %
Phosphate (PO ₄)	≤ 0.5 ppm	< 0.5 ppm
Sulfate	≤ 0.0001 %	< 0.0001 %
Sulfite (SO ₃)	≤ 0.0001 %	< 0.0001 %



Dr. Christian Matheis
Manager, Quality Control
Steinheim, Germany DE

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

