

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

# Certificate of Analysis

Product Name:

Hydrofluoric acid - puriss. p.a., ACS reagent, reagent, ISO, reagent, Ph. Eur., ≥48%

**Product Number:** 30107  
**Batch Number:** MKCL5643  
**Brand:** SIGALD  
**CAS Number:** 7664-39-3  
**Formula:** HF  
**Formula Weight:** 20.01 g/mol  
**Quality Release Date:** 31 JAN 2020  
**Recommended Retest Date:** SEP 2021

# HF

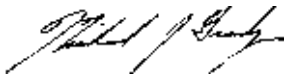
Test	Specification	Result
Assay	≥ 48.0 %	49.1 %
Residue on Ignition (SO <sub>4</sub> )	≤ 0.0005 %	< 0.0001 %
Chloride (Cl)	≤ 0.0001 %	< 0.0001 %
Assay	≤ 0.005 %	0.002 %
Hexafluorosilic acid (H <sub>2</sub> SiF <sub>6</sub> )		
Phosphate (PO <sub>4</sub> )	≤ 0.00005 %	< 0.00005 %
Sulfate (SO <sub>4</sub> )	≤ 0.0002 %	0.0001 %
Sulfite (SO <sub>3</sub> )	≤ 0.0002 %	< 0.0002 %
Silver (Ag)	≤ 0.000002 %	< 0.000001 %
Aluminum (Al)	≤ 0.000005 %	< 0.000001 %
Arsenic (As)	≤ 0.000005 %	< 0.000001 %
Barium (Ba)	≤ 0.00001 %	< 0.00001 %
Beryllium (Be)	≤ 0.000002 %	< 0.000001 %
Bismuth (Bi)	≤ 0.00001 %	< 0.00001 %
Calcium (Ca)	≤ 0.00005 %	< 0.00001 %
Cadmium (Cd)	≤ 0.000001 %	< 0.000001 %
Cobalt (Co)	≤ 0.000002 %	< 0.000001 %
Chromium (Cr)	≤ 0.000002 %	< 0.000001 %
Copper (Cu)	≤ 0.000002 %	< 0.000001 %
Iron (Fe)	≤ 0.00002 %	< 0.00001 %
Germanium (Ge)	≤ 0.000005 %	< 0.000001 %
Potassium (K)	≤ 0.00001 %	< 0.00001 %

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:** 30107  
**Batch Number:** MKCL5643

Test	Specification	Result
Lithium (Li)	≤ 0.000002 %	< 0.000001 %
Magnesium (Mg)	≤ 0.00002 %	< 0.00001 %
Manganese (Mn)	≤ 0.000005 %	< 0.000001 %
Molybdenum (Mo)	≤ 0.000005 %	< 0.000001 %
Sodium (Na)	≤ 0.00002 %	< 0.00001 %
Nickel (Ni)	≤ 0.000002 %	< 0.000001 %
Lead (Pb)	≤ 0.000005 %	< 0.000001 %
Strontium (Sr)	≤ 0.000002 %	< 0.000001 %
Titanium (Ti)	≤ 0.00001 %	< 0.00001 %
Thallium (Tl)	≤ 0.000005 %	< 0.000001 %
Vanadium (V)	≤ 0.000005 %	< 0.000001 %
Zinc (Zn)	≤ 0.000005 %	< 0.000001 %
Zirconium (Zr)	≤ 0.00001 %	< 0.00001 %
Heavy Metals	≤ 0.00005 %	< 0.00001 %
Appearance (Color)	Complying	Complies
Appearance (Form)	Complying	Complies
Recommended Retest Period	-----	-----
20 months		
Note	Note	
Identity, assay and impurities are complying to the monographs of the above mentioned pharmacopeias/codices.		



Michael Grady, Manager  
 Quality Control  
 Milwaukee, WI US

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.