

# Certificate of Analysis

**Product Name:** HYDROFLUORIC ACID, 48%, REAGENT (ACS)  
**Item #:** 931  
**Lot #:** 22190048



## Certified Values:

Specifications (Max Limits or as Specified)	Pass/Fail	Numerical Results
Assay 48.0 - 51.0 %	Pass	49.1
Fluosilicic acid (H <sub>2</sub> SiF <sub>6</sub> ) 0.01 % Max	Pass	< 0.01
Residue after ignition 0.0005 % Max	Pass	< 0.0005
Chloride 0.0005 % Max	Pass	< 0.0005
Phosphate 0.0001 % Max	Pass	< 0.0001
Sulfate and Sulfite (as SO <sub>4</sub> ) 0.0005 % Max	Pass	< 0.0005
Arsenic 0.000005 % Max	Pass	< 0.000005
Copper 0.00001 % Max	Pass	< 0.00001
Heavy metals (Pb) 0.00005 % Max	Pass	< 0.00005
Iron 0.0001 % Max	Pass	< 0.0001

**Status** Pass

### Comments

**Certificate Create By:** Karen Hirsch  
**Best by:** April 20, 2027  
**Print Date:** Jun 15, 2022

**Signature on File**

### ISO 17025 Testing

All ISO 17025 testing is performed at GFS Chemicals, Inc. 800 Kaderly Dr, Columbus, OH 43228 USA  
UV/Vis Spectrophotometer testing is performed according to ASTM method E169-16.

Not for direct use in food, cosmetics, finished pharmaceuticals or drug products. Supplier is not responsible for compliance with FDA Current Good Manufacturing Practice(cGMP) requirements, including without limitation those for finished drug products in 21 C.F.R Parts 210 and 211. Consult warranty limitations at [www.gfschemicals.com/Terms-And-Conditions](http://www.gfschemicals.com/Terms-And-Conditions)

For resale by GFS authorized distributors only.

GFS Chemicals, Inc. P.O. Box 245 Powell, OH 43065 \* Signed Orig. Doc. On File  
1-800-858-9682 (U.S. and Canada) 1-740-881-5501 (International) 1-740-881-5989 (Fax)

Turbidity testing is performed according to ASTM methods D6855-17 and ASTM D7315-17.  
Conductivity testing is performed according to ASTM method D1125-14.  
pH testing is performed according to ASTM method D1293-18.  
Karl Fischer titration testing is performed according to ASTM methods E203-16 and E1064-16.

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