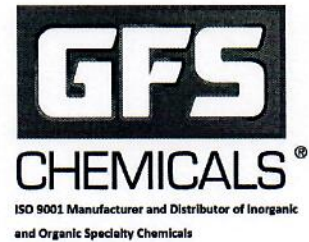


# Certificate of Analysis

**Product Name:** HYDROCHLORIC ACID, 32-38%,  
VERITAS REDISTILLED  
**Item #:** 2180  
**Lot #:** 21150204



## Certified Values:

Specifications (Max Limits or as Specified)	Status	Results
Assay 32 - 38 %	Pass	38
Residue after ignition 0.0001 % Max	Pass	< 0.0001
Sulfate 0.00001 % Max	Pass	< 0.00001
Sulfite 0.00001 % Max	Pass	< 0.00001
Ammonium 0.00002 % Max	Pass	< 0.00002
Arsenic 0.0000001 % Max	Pass	< 0.0000001
Boron 0.0000002 % Max	Pass	< 0.0000002
Silicon 0.000001 % Max	Pass	< 0.000001
Ag 5.0 ppb Max	Pass	< 0.1
Al 1.00 ppb Max	Pass	0.14
Au 1.0 ppb Max	Pass	< 0.1
Ba 1.0 ppb Max	Pass	< 0.1
Be 1.0 ppb Max	Pass	< 0.1
Bi 1.0 ppb Max	Pass	< 0.1
Ca 10.00 ppb Max	Pass	0.75
Cd 1.0 ppb Max	Pass	< 0.1
Ce 1.0 ppb Max	Pass	< 0.1

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

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Co 1.0 ppb Max	Pass	< 0.1
Cr 1.0 ppb Max	Pass	< 0.1
Cs 1.0 ppb Max	Pass	< 0.1
Cu 1.0 ppb Max	Pass	< 0.1
Dy 1.0 ppb Max	Pass	< 0.1
Er 1.0 ppb Max	Pass	< 0.1
Eu 1.0 ppb Max	Pass	< 0.1
Fe 5.00 ppb Max	Pass	0.54
Ga 1.0 ppb Max	Pass	< 0.1
Gd 1.0 ppb Max	Pass	< 0.1
Ge 1.0 ppb Max	Pass	< 1.0
Hf 1.0 ppb Max	Pass	< 0.1
Hg 1.0 ppb Max	Pass	< 0.1
Ho 1.0 ppb Max	Pass	< 0.1
In 1.0 ppb Max	Pass	< 0.1
Ir 1.0 ppb Max	Pass	< 0.1
K 5.00 ppb Max	Pass	0.11
La 1.0 ppb Max	Pass	< 0.1
Li 2.0 ppb Max	Pass	< 0.1
Lu 1.0 ppb Max	Pass	< 0.1
Mg 2.0 ppb Max	Pass	< 0.1
Mn 1.0 ppb Max	Pass	< 0.1
Mo 1.0 ppb Max	Pass	< 0.1

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Na 5.00 ppb Max	Pass	0.42
Nb 1.0 ppb Max	Pass	< 0.1
Ni 1.0 ppb Max	Pass	< 0.1
Os 1.0 ppb Max	Pass	< 0.1
Pb 3.0 ppb Max	Pass	< 0.1
Pd 1.0 ppb Max	Pass	< 0.1
Pr 1.0 ppb Max	Pass	< 0.1
Pt 1.0 ppb Max	Pass	< 0.1
Rb 1.0 ppb Max	Pass	< 0.1
Rh 1.0 ppb Max	Pass	< 0.1
Ru 1.0 ppb Max	Pass	< 0.1
Sb 1.0 ppb Max	Pass	< 0.1
Sc 1.0 ppb Max	Pass	< 0.1
Se 1.0 ppb Max	Pass	< 0.1
Sm 1.0 ppb Max	Pass	< 0.1
Sn 1.0 ppb Max	Pass	< 0.1
Sr 1.0 ppb Max	Pass	< 0.1
Tb 1.0 ppb Max	Pass	< 0.1
Te 1.0 ppb Max	Pass	< 0.1
Th 1.0 ppb Max	Pass	< 0.1
Ti 1.0 ppb Max	Pass	< 0.1
U 1.0 ppb Max	Pass	< 0.1
V 1.0 ppb Max	Pass	< 0.1

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W 1.0 ppb Max	Pass	< 0.1
Y 1.0 ppb Max	Pass	< 0.1
Yb 1.0 ppb Max	Pass	< 0.1
Zn 2.00 ppb Max	Pass	0.15
Zr 1.0 ppb Max	Pass	< 0.1

**Comments**

**CoA #:** COA-072256  
**Certificate Created By:** Karen Hirsch  
**CoA Creation Date:** May 19, 2021  
**Best by:** April 22, 2026  
**Print Date:** June 16, 2021

**Signature on File**

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**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.

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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