



# Certificate of Analysis

800 Kaderly Dr  
Columbus, OH 43228  
USA  
[www.gfschemicals.com](http://www.gfschemicals.com)

Tel: 800.858.9682 · 740.881.5501  
Fax: 740.881.5989

**Product Name:** HYDROCHLORIC ACID, 32-38%,  
VERITAS REDISTILLED  
**Item #:** 2180  
**Lot #:** 21290204



**Cert. #: 3336.01**



**EAGLE Registrations Inc.**  
SERVICE • INTEGRITY • VALUE  
ISO 9001:2015  
Registered by EAGLE Registrations Inc.

### Certified Values:

Specifications	Status	Results
Assay 32.0 - 38.0 %	Pass	37.5
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 1.0 ppb Max	Pass	< 0.1
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 10.0 ppb Max	Pass	3.2
Cd 1.0 ppb Max	Pass	< 0.1
Ce 1.0 ppb Max	Pass	< 0.1
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

Not for direct use in food, cosmetics, finished pharmaceuticals or drug products. Supplier is not responsible for compliance with FDA Current Good Manufacturing Practices (cGMP), including without limitation for those finished drug products in 21 CFR Parts 210 and 211. Consult warranty limitations at [www.gfschemicals.com](http://www.gfschemicals.com)  
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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 5.0 ppb Max	Pass	< 0.5
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 5.0 ppb Max	Pass	0.1
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
Na 5.0 ppb Max	Pass	0.6
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

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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
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 2.0 ppb Max	Pass	< 0.1
Zr 1.0 ppb Max	Pass	< 0.1

## Comments

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<b>CoA #:</b>	COA-076967	<b>Best by:</b>	August 20, 2026
<b>Certificate Created By:</b>	Karen Hirsch	<b>Print Date:</b>	March 29, 2022
<b>CoA Creation Date:</b>	September 15, 2021		
<b>Certified by:</b>	Melissa Murphy - Corporate Quality Assurance and Regulatory Compliance Manager		

*Melissa Murphy*

## Traceability:

This material was processed under a quality management system that is registered to ISO 9001:2015. The equipment used in the testing of material is NIST traceable. In cases where NIST traceability is not possible, equipment manufacturer recommendations and/or industry best practices are followed.

The following tests are performed under an A2LA accredited ISO/IEC 17025 management system:

- UV/VIS Spectrophotometer testing is performed according to ASTM method E169-16
- Turbidity according to ASTM methods D6855-17 and ASTM D7315-17
- Conductivity according to ASTM method D1125-14
- pH according to ASTM method D1293-18
- Karl Fischer titration according to ASTM methods DE203-16 and E1064-16

Samples for testing are obtained using GFS procedure GFS-PROD-PPG-0022

Testing is performed in a laboratory temperature of 22 °C +/- 2 °C and/or a solution temperature of 25 °C +/- 0.2 °C.

Karl Fischer testing is performed at a laboratory temperature of 25 °C +/- 5 °C and a relative humidity ≤ 60%.

## Measurement Uncertainty:

The reported measurement uncertainty is an expanded measurement uncertainty according to the ASTM method E2554-18, calculated using 2 as the coverage factor (which gives a confidence level of approximately 95%).

- Example for a reported conductivity value of 2124 uS/cm:  
2124uS/cm ± 0.65%, k=2
- Example for a reported pH value of 8.32:  
8.32 ± 0.01, k=2
- Karl Fischer for values between 0.1 to 10 mg/g
  - o Example for a reported Karl Fischer value of 5.3 mg/g:  
5.3mg/g ± 3.76%, k=2

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