



Certificate of Analysis

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Product name: FERROUS CHLORIDE, TETRAHYDRATE, REAGENT

Item #: 923

Lot #: 24011453

Certified Values:

| Specifications | Status | Results |
|---|--------|---------|
| Assay (as FeCl ₂) (%) 62.5 - 66.0 % | Pass | 64.5 |
| Insoluble 0.01 % Max | Pass | <0.01 |
| Phosphate 0.001 % Max | Pass | <0.001 |
| Sulfate 0.01 % Max | Pass | <0.01 |
| Arsenic 0.0001 % Max | Pass | <0.0001 |
| Substances not ppt'd by NH ₄ OH (%) 0.10 % Max | Pass | <0.10 |

Comments

CoA #: COA-109123

Best by: July 28, 2025

Certificate Created By: Troy Barker

Print Date: December 20, 2024

CoA Creation Date: July 29, 2024

Certified by: Aron Becza - Quality Assurance Manager

Aron Becza

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 GFSW-LAB-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 of less than or equal to 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

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 For resale by GFS authorized distributors only.

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