

Certificate of Analysis

Sulfate Standard, 1000 ppm SO₄²⁻

Lot Number: 2311E36

Product Number: 8112

Manufacture Date: NOV 06, 2023

Expiration Date: APR 2025

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Sulfate Anhydrous	7757-82-6	ACS

Test	Specification	Result
Appearance	Colorless liquid	Passed
Sulfate (SO ₄)	995-1005 ppm	1000 ppm

Specification	Reference
Sulfate Solution Stock (1.00 mL = 1.00 mg SO ₄)	ASTM (D 5542)
Sulfate Stock Solution, 1 mL = 1 mg SO ₄	EPA (SW-846) (9036)
Sulfate Stock Solution (1.00 mL = 1.00 mg SO ₄ ²⁻)	EPA (SW-846) (9056)
Sulfate solution (1000 ppm)	TAPPI (T 699 om-87)
Sulfate Stock Solution, 1 mL = 1 mg SO ₄ ²⁻	EPA (375.2)
Sulfate Solution, Stock (1.00 mL = 1.00 mg SO ₄)	ASTM (D 5996)
Sulfate Stock Solution (1.00 mL = 1.00 mg SO ₄ ²⁻)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
8112-16	500 mL natural poly	18 months
8112-32	1 L natural poly	18 months
8112-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Sharon Travers (11/06/2023)

Operations Manager

This document is designed to comply with ISO Guide 31 "Reference Materials --
Contents of Certificates and Labels."

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