



Certificate of Analysis

Secondary Reference Standard NIST traceable

Nitrite Standard Solution 1000 mg/L (in Water)

Molecular Formula:	NA	Lot No.:	N-002
Molecular Weight:	NA	Cat No.:	NIST-031
Packing :	100 mL	Dt. of Issue of Certificate:	05/05/2026
CAS No.:	NA	Dt. of Mfr:	May 2026
		Exp. Dt.:	April 2028

TABLE :1 Certified Value

Measurand / Constituent	Certified Value	Expanded Uncertainty (K=2)
Nitrite mass fraction (mg/kg)	1018	± 5
Nitrite Concentration (mg/L)	1000	± 5

- The Nitrite Standard Solution is prepared in grade I water. One unit of this Reference Material consists of 100ml Nitrite Standard Solution packed in tightly sealed white HDPE bottles. Certified value of Nitrite Standard Solution along with the associated uncertainty was calculated at 95% confidence level with coverage factor $k=2$, considering major sources of uncertainty including measurement replication, instrument background, buoyancy correction.

Metrological Traceability: Traceable to the Corresponding Primary Standard NIST SRM Di-Sodium oxalate 8040a.

Measurement Method: The certified mass concentration was determined by potentiometric titration with Cerium(IV) sulfate as titration solution. The certified value is based on a molecular mass for nitrite $M = 46.005\text{g/mol}$

Intended use: This reference material is intended to be used as a standard for Ion Chromatography(IC) quantitative determination of Nitrite and calibration of instruments.

Precautions:

- The sampling should be done using clean and dry pipette/micropipette.
- Excess sample must be rejected and must not be put back into the original bottle.
- Gloves, masks, goggles and other general precautionary measure should be used while handling the reference material.

Accreditation: Sabiha Research And Development Ltd. is accredited to ISO 17025:2017.

Expiry: The validity of the standard is 2 years from date of manufacturing, However once the bottle is opened the expiry shall be one year from date of opening but within overall shelf life of the standard.

Do not freeze, store the bottle tightly closed between 5 - 30°C at room temperature protected from light, keep container tightly closed. Do not put back unused solution into original bottle. For laboratory and industrial use only, not for Human/Animal consumption.

QC Supervisor

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