

Approved by General Administration of Quality Supervision,



Inspection and Quarantine of the People's Republic of China



国家标准物质资源共享平台
www.ncrm.org.cn

GBW(E) 080220

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Certificate of Reference Material

Amino Nitrogen in Water



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Sample Number:



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Date of Certification:

National Institute of Metrology (NIM)

No.18, Bei San Huan Dong Lu, Chaoyang Dist, Beijing, 100013, P.R.China

Tel: +86(10) 64271639, 64278838, 64204432

Fax: +86(10) 64271639, 64213149

Website: www.nim.ac.cn; www.ncrm.org.cn



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1. Description of Material & Intended Use

This certified reference stock solution can be formulated into working solution by stepwise dilution for calibration of instruments, verification and assessment of measurement methods, quality control of analysis process as well as technical arbitration and evaluation, and the like.

2. Sample Preparation

This CRM is accurately formulated with purity reference material ammonium sulfate (purity has been accurately verified) and ultra pure water (purified through reverse-osmotic method, ion exchange and Quartz distillation) as the starting materials based on gravimetric method in clean room with room temperature at $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$.

3. Traceability and Certification

The formulated value according to gravimetric method is taken as certified value of the concentration of this solution CRM, and checked by ion chromatography. The purity of ammonium sulfate is determined and verified by Kjeldahl nitrogen determination method. The traceability linkage is established using measuring protocols and instruments which meet the needs of the metrological community to be served.

4. Property Value and Uncertainty

Number	name	Certified value ($\mu\text{g/mL}$)	Relative expanded uncertainty ($k=2$) (%)	matrix
GBW (E) 080220	Amino Nitrogen in Water	100 (indicated by nitrogen)	2	H ₂ O

Uncertainty of certified value is a sum of those arising from the purity of primary RM, primary RM, weighing and temperature changes.

5. Consistency Check and Stability Test

According to the requirement of national technique criterion on primary CRM, the CRM aliquots are randomly sampled, and consistency check and stability test in terms of the concentration are performed by ion chromatography. The results demonstrated good consistency and good stability.

The period of validity of this CRM is set for 2 years from the Date of Certification. The stability of this CRM will be monitored by NIM in the future. The user will be promptly informed, if the value is found to vary during the period of validity.

6. Instructions for Package, Storage and Usage

The CRM aliquots are packaged in glass ampoule, and each contains 20 mL. The CRM

should be kept in dark and cool place. Prior to use, the RM should be equilibrated to 20 ± 5 °C, and mixed well by shaking. The CRM should be consumed once the ampoule is opened, contamination is prohibited during handling the RM.

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STATEMENT

1. This CRM has a limited use in scientific research and analytical measurement. NIM is not responsible for any loss caused by improper use and storage of this CRM by the customer.
2. Please check the status of reference materials as soon as the sample arrives. The incurred maximum compensation will be exclusively restricted to the CRM itself, and no others should be claimed.
3. The certificate is only valid with the complete file stamped by NIM RM. Please keep the integrity of the certificate.
4. If more information about the CRM is required, please contact the technical service section.


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Tel: +86-10-64278838、84254143、64204432
Fax: +86-10-64221811、64213149
website: www.nim.ac.cn; www.ncrm.org.cn
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