

Number: SZFXSYS-2025-1027



CERTIFICATE OF PROFICIENCY TESTING

Institute/Organization: MSULAB Test Center

Lab code: 1027

This certificate is hereby issued to recognize that your data submitted for the “Inter-laboratory Comparison on Ammonia Nitrogen and Cadmium in Water (2025)”, in which Ammonia Nitrogen and Cadmium is evaluated as satisfied result (Approved as CNCA [2025] 20).

Water Quality Analysis Laboratory, RCEES, CAS

Issued Date: 20 April 2026



Notice on the study results for the
“Inter-laboratory Comparison on Ammonia
Nitrogen and Cadmium in Water (2025)”

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The testing results reported by Lab1027and your study results on the “Inter-laboratory Comparison on Ammonia Nitrogen and Cadmium Determination in Water (2025)” are shown as follows:

Item	Sample code	Testing Result (mg/L)	Assigned Value (x_{pt})	Standard Deviation for Proficiency Assessment (σ_{pt})	Z - scores	Critical difference ($CD_{0.95}$)		Testing method
						$ x_i - x_{pt} $	$CD_{0.95}$	
Ammonia Nitrogen	A1027a	0.307 mg/L	0.320 mg/L	0.021	-0.6	/	/	PND F 14.2:4.209-05 (2017 Edition)
	A1027b	0.341mg/L	0.323 mg/L	0.022	0.8	/	/	
Cadmium	C1027a	15.3μg/L	14.6μg/L	0.648	1.1	/	/	GOST R 57165-2016 (ISO 11885:2007)
	C1027b	15.2μg/L	14.7μg/L	0.575	0.9	/	/	

Notes:

① $|z| \leq 2.0$ means a satisfied result; $2.0 < |z| < 3.0$ means a problematic result, which is marked with * in the table; $|z| \geq 3.0$ means an unsatisfied result, which is marked with § in the table.

② $|x_i - x_{pt}| \leq CD_{0.95}$ means a satisfied result, and $|x_i - x_{pt}| > CD_{0.95}$ means an unsatisfied result.

③ when z-scores obtained a "problematic" or "unsatisfactory" evaluation result, $CD_{0.95}$ evaluation was adopted. After a supplementary evaluation with $CD_{0.95}$ as satisfied, the participant will be rated as "satisfied". Otherwise, the final evaluation result is determined by the original z-score evaluation, and the $CD_{0.95}$ results will be presented on this certificate.

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