



QC Check Sample

(WP - Water Supply)

Product: WS Mercury

Lot Number: 710519088B

Product Number: VHG-QWSHG-15

This product is intended for use as a quality control check for methods related to the parameters certified below. This concentrate is preserved with approximately 1% (v/v) nitric acid and 0.04% (w/v) potassium dichromate. This standard has been prepared as a concentrate and must be diluted prior to analysis.

Instructions for Use: Add 100-200mL of deionized water and approximately 2 to 5mL of nitric acid to a clean 500mL class A volumetric flask. Shake the Mercury vial well before opening. Using a clean, dry, class A pipet, volumetrically pipet 5.0mL of the concentrate into the 500mL volumetric flask. Dilute the flask to final volume with deionized water. Cap the flask and mix well. Immediately analyze the diluted sample by your normal procedures. Report your results as µg/L for the diluted sample. **Note:** Mercury is present as a mixture of both organic and inorganic forms and must, therefore, be analyzed as Total Mercury. If you are using a Cold Vapor AA method, an aliquot of the diluted standard must be digested prior to analysis.

Certification: The certified value is based upon the gravimetric preparation of the solution. The uncertainty associated with each certified value is based upon the preparation and analytical verification of the product, and is the total propagated uncertainty at the 95% confidence level. The uncertainty applies to the product as supplied and does not take into account any dilutions and/or preparations the end-user may perform.

The QC Acceptance Limits reflect any inherent biases in the method and approximate a 95% confidence interval of the performance that should be achieved by experienced laboratories that are using accepted environmental methods. The Performance Acceptance Limits are calculated based on the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Mean value, percent recovery, and number of data points (n) are based upon data generated from an inter-laboratory (round robin) study. Whenever available, these data are traceable to the specified NIST SRM.

Parameter	Units	Certified Value	Uncertainty (% relative)	QC Acceptance Limits	Performance Acceptance Limits	Mean	Round Robin Data Recovery	n	NIST SRM #	NIST Traceability Recovery
Total Mercury (Hg)	µg/L	4.90	5.12%	3.73 – 6.03	3.43 - 6.37	4.83	98.5%	29	3133	101%

Recommendations: VHG guarantees the accuracy of this solution for **12 Months** from the certification date shown below, provided it is kept tightly capped in its original container and stored under normal laboratory conditions. Do not freeze or expose to direct sunlight. Minimize exposure to moisture or high humidity.

VHG Labs, Inc.

Q. A. Manager

See Exp. Date On Container Certification Date

VHG Labs, Inc. waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.



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