

Certificate of Analysis

SGT - HEM (TPH) QC CRM

Catalog Number: QCI-129

Lot Number: N1021

Manufacture Date: 09/21/21

Certified Date: 09/23/21

Expiration: 09/30/2023

Solvent: Acetone

Hazards: Flammable, Irritant

<u>Analyte</u>	<u>Study Mean</u> (mg/L)	<u>Certified Concentration</u> (mg/L)	<u>Acceptance Limits</u> (mg/L)
TPH	109	119 ± 1.11	56.5 - 172

This quality control CRM was manufactured by NSI Lab Solutions following quality procedures meeting the requirements of ISO 9001, ISO 17025, and ISO 17034. Acceptance limits are set at current NELAC standards. The study mean is set at the mean of an interlaboratory proficiency testing study with outlier rejection. This CRM is intended to be used to validate analytical methods, for detection limit studies, and analyst proficiency testing.

Storage & Instructions For Use

Store at room temperature (15-30°C).

Fill a 1000 mL Class A volumetric flask with 900 mL of reagent water.

Adjust pH with Hydrochloric Acid according to your method.

Mix the ampule gently by inversion prior to opening.

Pipet exactly 1.0 mL of the ampule concentrate into the flask.

Bring the flask to volume with reagent water.

Remember to rinse the flask with several small aliquots of extraction solvent to assure complete recovery.

This represents the sample for distillation and analysis.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM.

Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, where available.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our samples is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.



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Uncertainty

The \pm uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This quality control CRM was thoroughly mixed in production. Batch homogeneity was established through analyses of samples chosen at random.

Stability/Expiration

The stability of this quality control CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring. Guarantee is applicable to the unopened ampule.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President