



Certificate of Analysis

Dissolved Oxygen QC CRM

Catalog Number: QCI-192

Lot Number: N0721

Manufacture Date: 06/14/21

Certified Date: 06/14/21

Expiration: 06/30/2023

Solvent: Water

Hazards: Irritant

<u>Analyte</u>	<u>Study Mean</u> (mg/L)	<u>Certified Concentration</u> (mg/L)	<u>Acceptance Limits</u> (mg/L)
Dissolved Oxygen (at 7°C)	7.85	7.85 ± 0.073	4.04 - 11.7

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 refrigerated temperature (2-8°C).

Analyze the sample once removed from refrigeration without allowing it to equilibrate to room temperature.

This CRM is provided in whole volume format and is ready for analysis as received.

Gently pour appropriate aliquot into clean plastic or glass vessel minimizing air entrainment. After opening, analyze immediately. Remaining sample in the bottle cannot be saved for later use.

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 CRMs 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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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.

Ewart Morris

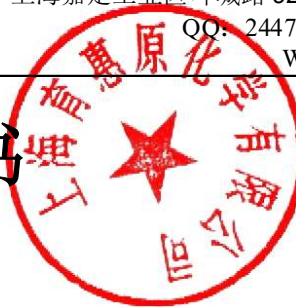
Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

分析证明书

溶解氧 质控样



产品编号: QCI-192
批号: N0721
生产日期: 2021-06-14
分析日期: 2021-06-14

保质期: 2023-06-30
基质/溶剂: 水
危害: 刺激

项目	能力验证 统计值 mg/L	确认值 mg/L	接受区间 mg/L
溶解氧 (7° C)	7.85	7.85 ± 0.073	4.04 - 11.7

该质控样品配制过程符合 ISO9001, ISO17025及 ISO17034 认证
接受区间根据当前国际能力验证行业标准设置
能力验证统计值 为 剔除不合格回报值后的实验室间能力验证结果统计值
该样品可用于: 方法验证、检测极限研究、能力验证等

储存及使用说明

需2-8° C保存

- 切勿回温, 冷藏室取出后直接使用
- 该样品为即用型, 无需稀释
- 取适量使用
- 请立即使用

剩余样品不可再用, 请丢弃

溯源

原料: 分析项目原料选用可用的最高纯度原料用于配制该样品。如有相应的 NIST标准物质可用, 原料纯度及不确定度会与其对照分析校验

天平: 所有天平按ISO17025校准实验室认证要求每季度校准一次, 溯源至NIST。所有天平每天按照内部标准操作程序查验, 查验所用砝码按17025认证要求每年校准一次。

温度计: 所有温度计溯源至 NIST, 每年校准一次

玻璃器皿: 此样品配制过程中涉及的所有玻璃器皿为 A 级。所有玻璃器皿启用前经过内部标准操作程序校验。移液器按17025认证要求每月校准一次。

均匀性/稳定性/保质期

该标物生产过程中已充分混匀, 批次均匀性按要求随机取样分析建立。该标物稳定性基于短期及长期对确认浓度的监测结果。保质期基于长期监测结果确保保质期内有效

不确定度

不确定度为 95%置信区间扩展系数 K=2.

ISO 9001:2015 UL Registered Firm – Certificate # 10002343 QM15



ISO 17034:2016 - Certificate AR-1571



ISO/IEC 17043:2010 - Certificate AP-1693



ISO/IEC 17025:2017 - Certificate AT-1690