

分析证明书

氯酸盐 离子色谱 标准物质



产品编号: IC-010
批号: 210727
生产日期: 2021-07-27
分析日期: 2021-07-28

保质期: 2025-07-31
基质/溶剂: 水
危害: 刺激

原料批号	中文名	CAS	纯度	确认值 ± 不确定度 mg/L(以ClO ₄ 计)
W-1751-01	氯酸钾	3811-04-9	100%	1000 ± 4.60

该标物配制过程符合 ISO9001, ISO17025及 ISO17034 认证
可用于: 仪器校准、方法验证、配制工作曲线、检测极限研究

储存及使用说明

启封前15-30℃保存, 启封后需2-8℃保存

启封前室温(15-30℃)保存, 启封后需旋紧瓶盖2-8℃保存

该标准参考物质以高密度聚乙烯瓶包装。

需回温至室温使用。

少量取样需瓶外取样, 以免污染瓶内样品。

最小取样量 1 mL

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



Certificate of Analysis

Chlorate IC CRM - 1000 mg/L

Catalog Number: IC-010, IC-010-5

Lot Number: 210727

Manufacture Date: 07/27/21

Certified Date: 07/28/21

Expiration: 07/31/2025

Matrix: Water

Hazards: Irritant

<u>Bulk Number</u>	<u>Analyte</u>	<u>CAS #</u>	<u>Purity</u>	<u>Certified Concentration</u> (mg/L ClO ₃)
W-1751-01	Potassium chlorate	3811-04-9	100%	1000 ± 4.60

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C). After opening, this solution should be stored tightly capped at 2-8°C.

This certified reference material (CRM) is packaged in low density polyethylene. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty. This CRM was manufactured by NSI Lab Solutions following quality procedures meeting the requirements of ISO 9001, ISO 17025, and ISO 17034.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by IC analysis against an independent reference standard with n=5.

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.





Catalog Number: IC-010, IC-010-5

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Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

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 CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this 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

