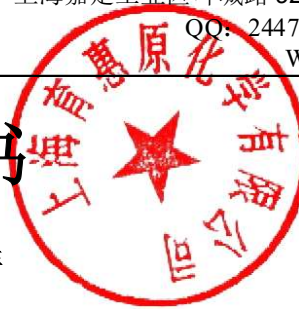


# 分析证明书

## 土壤 多环芳烃 质控样



产品编号: SQCI-016  
批号: S0221

保质期: 2024-02-28  
基质/溶剂: 土壤  
危害: 刺激

项目	能力验证 统计值 ug/Kg	确认值 ug/Kg	接受区间 ug/Kg
1-甲基萘	181	263 ± 2.44	89.8 - 289
2-甲基萘	433	630 ± 5.86	297 - 693
萘	579	753 ± 7.01	180 - 978
萘烯	187	242 ± 2.26	24.2 - 378
蒽	360	479 ± 4.46	151 - 567
苯并(a)蒽	135	170 ± 1.59	63.1 - 207
苯并(a)芘	147	189 ± 1.76	57.6 - 236
苯并(b)荧蒽	436	481 ± 4.48	248 - 625
苯并(g,h,i)芘	240	289 ± 2.69	102 - 376
苯并(k)荧蒽	142	152 ± 1.41	70.3 - 214
屈	173	193 ± 1.80	75.1 - 271
二苯并(a,h)蒽	61.4	69.9 ± 0.651	24.1 - 98.5
荧蒽	83.4	92.1 ± 0.858	33.2 - 134
芴	93.0	105 ± 0.982	25.8 - 160
茚并(1,2,3-cd)芘	160	201 ± 1.88	76.9 - 241
萘	340	480 ± 4.47	48.0 - 659
菲	644	815 ± 7.58	272 - 1020
芘	307	358 ± 3.33	133 - 481

该质控样品在 由美国NSI公司配制, 配制过程符合 ISO9001, ISO17025及 ISO17034 认证  
接受区间根据当前美国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

#### 2-8℃保存

- 取样品回温至室温
- 该样品为整体使用, 拆分称量取样不能保证样品均匀性
- 样品全部倒入提取容器中, 并用提取溶液冲洗瓶壁2次, 合并冲洗液
- 按照日常分析程序完成分析
- 基于30g样品量 以ug/Kg为单位 回报结果
- 不需要干燥校正

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-169C

产品编号: SQCI-016

批号: S0221

### 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



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## Certificate of Analysis

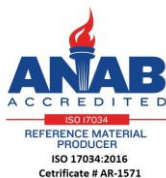
### SQCI-016 Low Level PAHs

<b>Catalog Number:</b>	SQCI-016	<b>Expiration Date:</b>	02/28/2024
<b>Lot Number:</b>	S0221	<b>Hazard:</b>	IRRITANT
<b>Manufactured Date:</b>	11/02/2020	<b>Solvent:</b>	SOIL

<u>Analyte</u>	<u>Study Mean</u> ug/kg	<u>Certified Concentration</u> ug/kg	<u>Acceptance Limits</u> ug/kg
1-Methylnaphthalene	181	263 +/- 2.44	89.8-289
2-Methylnaphthalene	433	630 +/- 5.86	297-693
Acenaphthene	579	753 +/- 7.01	180-978
Acenaphthylene	187	242 +/- 2.26	24.2-378
Anthracene	360	479 +/- 4.46	151-567
Benzo(a)anthracene	135	170 +/- 1.59	63.1-207
Benzo(a)pyrene	147	189 +/- 1.76	57.6-236
Benzo(b)fluoranthene	436	481 +/- 4.48	248-625
Benzo(g,h,i)perylene	240	289 +/- 2.69	102-376
Benzo(k)fluoranthene	142	152 +/- 1.41	70.3-214
Chrysene	173	193 +/- 1.80	75.1-271
Dibenz(a,h)anthracene	61.4	69.9 +/- 0.651	24.1-98.5
Fluoranthene	83.4	92.1 +/- 0.858	33.2-134
Fluorene	93.0	105 +/- 0.982	25.8-160
Indeno(1,2,3-c,d)pyrene	160	201 +/- 1.88	76.9-241
Naphthalene	340	480 +/- 4.47	48.0-659
Phenanthrene	644	815 +/- 7.58	272-1020
Pyrene	307	358 +/- 3.33	133-481

This 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 industry 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 for analyst proficiency testing. Certified concentration is the prepared concentration traceable to NIST.

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





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**Catalog Number:** SQCI-016

**Lot Number:** S0221

**Storage & Instructions For Use**

**Required storage is 2°C to 8°C.**

Retrieve a vial and allow to equilibrate to room temperature.

This sample has been designed to be totally used. Do not subsample since intra-sample homogeneity cannot be assured. Transfer the entire contents of the sample vial and rinse the vial with 2 small aliquots of extraction solvent adding rinses to the extraction vessel. Complete the analysis according to your normal procedures.

Determine the concentration of the analytes listed. Report in ug/kg assuming a 30 g sample size. No dry weight correction is required.

**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.

**Homogeneity/Stability/Expiration**

This CRM was thoroughly mixed in production. Batch homogeneity was established through analyses of samples chosen at random consistent with guide ISO-35:2017. The stability of this CRM is based on short-term and longterm 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.

**Kenneth Grzybowski**

**Kenneth Grzybowski, Technical Organic Manager**

**Erin Taylor**

**Erin Taylor, Quality Manager**

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

