



REFERENCE MATERIAL CERTIFICATE

ISO 17034

Certified Reference Material

This certificate is designed in accordance with ISO 17034 and ISO Guide 31. This certified reference material (CRM) was designed, produced and verified in accordance with ISO/IEC 17025, ISO 17034 and a registered quality management system ISO 9001.

Product Name
PAH-MIX 16 0.8-8.5 µg/mL IN ACETONITRILE

Product Code
Lot Number
DRE-GA09000919AL 371578

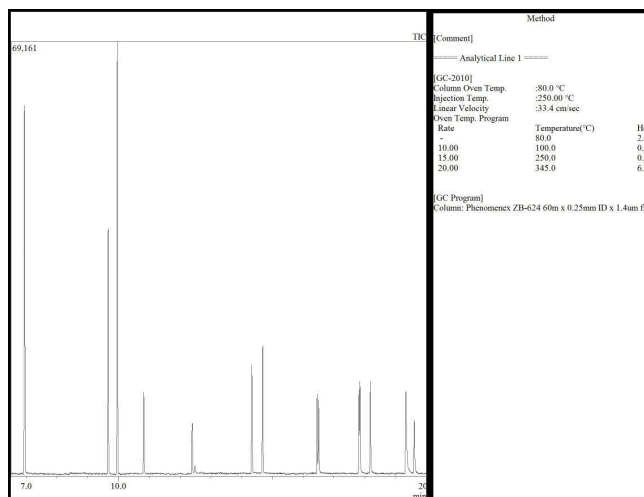
Format
Expiry
Multicomponent Solution 15 Jan 2021

Storage
≤ 6 °C

Table with 8 columns: Compound Name, Concentration (µg/mL), Expanded Uncertainty U (µg/mL), CAS, Lot Number, Combined Purity (%), Amount (mg), RT (min). Lists various PAH compounds and their certified values.

The producer certifies that this reference material meets the specification stated in this certificate until the expiry date, provided it is stored unopened at the recommended temperature herein. Product warranties for this reference material are set out in the terms and conditions of purchase.

Table with 4 cells: CERTIFIED BY (HuiChen Stavros, Ph.D.), CERTIFIED ON (15 Mar 2019), Signature (HuiChen Stavros), and RM Release.



Method  
 [Comment]  
 ===== Analytical Line 1 =====  
 GC-2010  
 Column Oven Temp. 80.0 °C  
 Injection Temp. 250.00 °C  
 Linear Velocity 33.4 cm/sec  
 Oven Temp. Program  
 Rate Temperature(°C) Hs  
 - 80.0 2.0  
 10.00 100.0 0.4  
 15.00 250.0 0.0  
 20.00 345.0 6.0  
 GC Program  
 Column: Phenomenex ZB-624 60m x 0.25mm ID x 1.4um ff

### Method of Preparation

The certified value is based on gravimetric and volumetric preparation of this CRM. This CRM has been confirmed by the appropriate analytical techniques.

### Batch Information

Solvent: Acetonitrile, Lot no. 184860, 30 mL

Some compounds in this CRM were made from a dilution of a higher concentrate CRM. If a 0 is reported in the amount column or no data is reported in the RT column it is because data is not available.

### Intended Use

This CRM is intended for use in a laboratory as a calibration and quality control standard or in method development for analytical techniques.

### Safety

Proper precautions should be observed while handling. See Safety Data Sheet.

### Uncertainty

The certified value(s) and uncertainty(ies) are determined in accordance with ISO 17034 with an 95% confidence level (k=2). Uncertainty is based on the Total Combined Uncertainty, including uncertainties of preparation, purity of neat materials, homogeneity, long-term stability testing, and transportation stability.

### Traceability

The balances used for gravimetric measurements are calibrated with weights traceable to the national standards (NIST). The calibration of the balances is verified daily internally and annually by an external accredited calibration service. Only Class A glassware is used for volumetric measurements.

### Homogeneity

Random replicate samples of the final packaged CRM have been analysed to prove homogeneity consistent with ISO 17034.

### Storage

The CRM should be stored in the original sealed bottle at the indicated temperature.

### Instructions for Use

The CRM should be used shortly after opening to avoid concentration changes due to evaporation. It is recommended to use 1 µL as the minimum sample size. If storage after opening is necessary, it should be transferred to an amber vial with minimum head space and a Teflonlined silicon septum. If handled as recommended, use period after opening is a maximum of 5 days for an estimated 5% drift in concentration as a result of analyte and/or solvent transpiration. Visit the support section of our website [lgcstandards.com](http://lgcstandards.com) for a series of Dr. Ehrenstorfer Tech Tip videos and frequently asked questions.

### LGC Group

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The producer of this reference material is registered to ISO 9001:2015 under IZ391-IS4 by NSF-ISR and accredited to ISO 17025:2005 and ISO 17034:2016 by A2LA with the accreditation numbers 3031.01 and 3031.02.



ISO 17034 Accredited  
 Reference Material Producer  
 Cert. No. 3031.02