

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, 1000 µg/mL in Dichloromethane (ISO 17034)

Product Code
DRE-GS09000390DI

Lot Number
2-H371685DI

Format
Multicomponent Solution

Expiry Date
20 Mar 2021

Storage Temp
≤ -10 °C

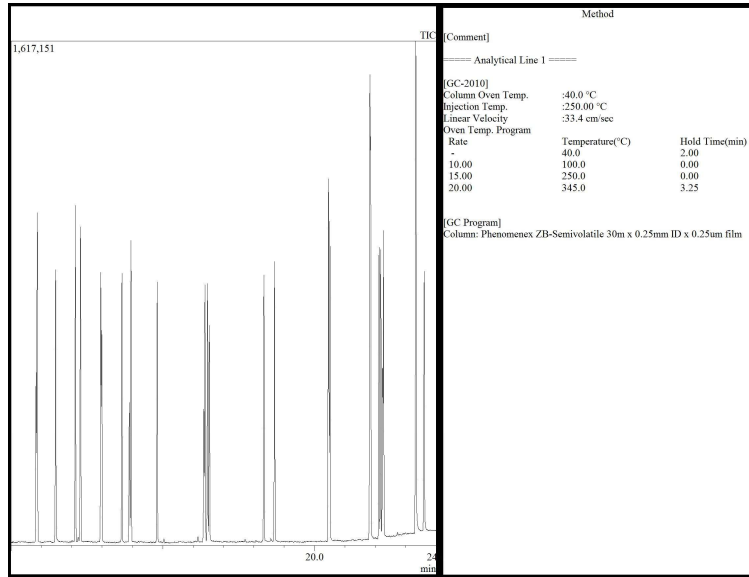
Compound Name	CERTIFIED		CAS	Lot Number	Combined Purity (%)	Amount (mg)	RT (min)
	Concentration (mg/L)	Expanded Uncertainty U (mg/L)					
Naphthalene	1001	51	91-20-3	26.29.1P	99.9	50.03	10.87
Quinoline	997.9	51	91-22-5	1268.9.1.1P	99	49.90	11.47
2-methylnaphthalene	1003	51	91-57-6	68.1.3P	96.9	50.17	12.12
1-methylnaphthalene	1002	51	90-12-0	249.8.1.1P	98.5	50.12	12.29
1-chloronaphthalene	996.8	50	90-13-1	971.7.1P	98.5	50.60	12.96
2-chloronaphthalene	1008	50	91-58-7	42.7.5.1P	99.8	50.50	12.99
Acenaphthylene	1012	51	208-96-8	14.290.1P	97.6	50.58	13.65
Acenaphthene	1012	51	83-32-9	13.1.4P	99	50.61	13.95
Fluorene	1003	51	86-73-7	24.1.4P	99.8	50.13	14.82
Phenanthrene	1002	51	85-01-8	27.1.3P	98.9	50.11	16.39
Anthracene	1006	51	120-12-7	15.29.2P	99.7	50.29	16.48
Acridine	1008	51	260-94-6	2537.29.1P	99.2	50.80	16.53
Fluoranthene	1005	50	206-44-0	23.7.2.1P	99.2	50.24	18.33
Pyrene	1006	50	129-00-0	28.29.3P	98.4	50.30	18.68
Benzo[a]anthracene	1001	50	56-55-3	16.7.2.3P	99	50.07	20.45
Chrysene	1003	51	218-01-9	21.286.1.2P	98	50.14	20.50
Benzo[b]fluoranthene	1003	50	205-99-2	17.1.13P	99.8	50.16	21.83
Benzo[k]fluoranthene	1009	52	207-08-9	18.421.2P	98	50.47	21.83
Benzo[j]fluoranthene	997	51	205-82-3	1766.421.2P	99.3	50.20	21.83
Benzo[e]pyrene	1015	51	192-97-2	619.282.4P	99.5	51.00	22.12
Benzo[a]pyrene	1004	50	50-32-8	20.282.3.3P	99.5	50.18	22.18
Perylene	993.7	51	198-55-0	939.286.1P	98	50.70	22.27
Indeno[1,2,3-cd]pyrene	1005	50	193-39-5	25.286.1P	99.82	50.23	23.33
Dibenz[a,h]anthracene	1007	51	53-70-3	22.286.1.1P	99.5	50.33	23.34
Benzo[ghi]perylene	999.9	51	191-24-2	19.286.1P	96	50.00	23.61

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.

CERTIFIED BY Adrienne Ormand	CERTIFIED ON 25 Mar 2019		RM Release



CHROMATOGRAM



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: Methylene Chloride, Lot no. 183741, 50 mL

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 Teflon lined silicon septum. If handled as recommended, use period after opening is a maximum of 306 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 for a series of Dr. Ehrenstorfer Tech Tip videos and frequently asked questions.

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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