

Reference Material

Product Name
PAH Mix 64 2000 µg/mL in
Benzene/Dichloromethane

Product Code
DRE-YA06100400BD

Lot Number
1039836BD


Format
Multicomponent Solution

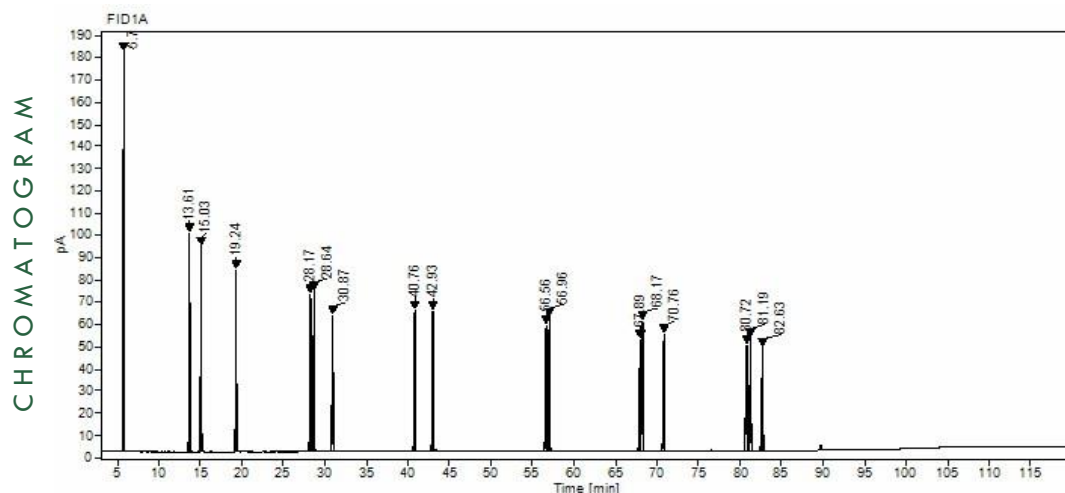
Expiry Date
21 Nov 2022

Storage Temp
20°C ± 4°C

This certificate is designed in accordance with ISO Guide 31. This reference material (RM) was designed, produced and verified in accordance with a registered quality management system ISO 9001. All measurements were performed according to ISO/IEC 17025 by a DAkkS accredited laboratory (D-PL-19883-01-00).

CERTIFIED							
Compound Name	Concentration (µg/mL)	Expanded Uncertainty U (µg/mL)	CAS	Lot Number	Purity (%)	Amount (mg)	RT (min)
Naphthalene	2000.0	60.0	91-20-3	R986921	99.4	100.604	5.70
Acenaphthylene	2000.0	60.0	208-96-8	977695	99.1	100.907	13.61
Acenaphthene	2000.1	60.0	83-32-9	G172168	99.6	100.404	15.03
Fluorene	2000.1	60.0	86-73-7	129961	99.0	101.014	19.24
Phenanthrene	2000.0	60.0	85-01-8	G156210	99.0	101.011	28.17
Anthracene	2000.0	60.0	120-12-7	129951	99.5	100.504	28.63
Carbazole	2000.0	60.0	86-74-8	1007617	99.0	101.012	30.86
Fluoranthene	2000.0	60.0	206-44-0	169969	98.6	101.422	40.75
Pyrene	2000.0	60.0	129-00-0	130640	98.5	101.522	42.93
Benz[a]anthracene	2000.0	60.0	56-55-3	G175139	98.2	101.833	56.57
Chrysene	2000.0	60.0	218-01-9	1020808	97.7	102.355	56.96
Benzo[b]fluoranthene	2000.1	60.0	205-99-2	159495	99.4	100.607	67.89
Benzo[k]fluoranthene	2000.0	60.0	207-08-9	1035322	98.5	101.523	68.16
Benzo[a]pyrene	2000.0	60.0	50-32-8	738373	99.0	101.009	70.76
Indeno[1,2,3-c,d]pyrene	2000.1	60.0	193-39-5	995277	99.3	100.709	80.73
Dibenz[a,h]anthracene	2000.0	60.0	53-70-3	987074	99.4	100.604	81.19
Benzo[g,h,i]perylene	2000.1	60.0	191-24-2	984427	94.2	106.161	82.64

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	CERTIFIED ON		RM Release
	N. Müller	21 Nov 2019		



Instrument
GC/FID

Detection
FID

Column
Optima-5MS, 0.25 µm,
0.25 mm

Method Details
Temp: 120°C / 4 min -> 320°C /
16 min, Gradient: 2°C/min

Inj.-Vol.
1.0 µL

Flow
1 mL/min

Method of Preparation

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

Batch Information

Solvent: Benzene, Lot No. SHBK6816 /
Dichloromethane Lot No. 1612280, 1:1, 50.00 mL.

Intended Use

This RM 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 EURACHEM/CITAC Guide for "Quantifying Uncertainty in Analytical Measurement, 3rd edition", with an 95% confidence level ($k=2$). Uncertainty is based on the Total

Combined Uncertainty, including uncertainties of characterisation and stability testing. Stability values are based on real evidence opposed to simulation.

Traceability

The balances used for gravimetric measurements are calibrated with weights traceable to the national standards (DKD). 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 measurement.

Storage

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

Instructions for Use

The RM should be used shortly after opening to avoid concentration changes due to evaporation. It is recommended to use 1 mL as the minimum sample size and if less material is used, to increase the certified uncertainty by a factor of two for half sample and four for a quarter of sample. If the RM was in a sealed ampoule and storage after opening is necessary, it should be transferred to an amber vial with minimum head space and a Teflon-lined silicon septum. Visit the support section of our website lgcstandards.com for a series of Dr. Ehrenstorfer Tech Tip videos and frequently asked questions.