

REFERENCE MATERIAL CERTIFICATE

Reference Material

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 an A2LA accredited laboratory (3031.01)

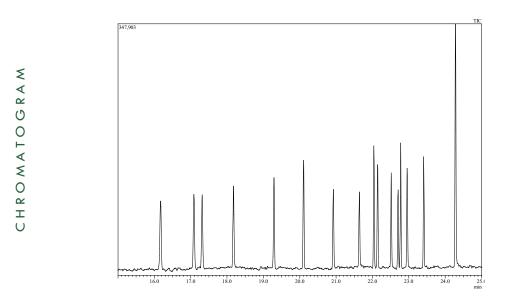
Product Name	Product Code	Lot Number	Format	Expiry Date	Storage Temp
Custom Pesticide Mixture 3662 2000 µg/mL in	DRE-Q60003662	2-G485936NA	Multicomponent Solution	31 Jul 2024	≤ -10 ºC
Toluene:Hexane					

Compound Name	CERTIF Concentration (ug/mL)	IED Uncertainty (ug/mL)	CAS	Lot Number	Combined Purity (%)	Amount (mg)	RT (min)
A-bhc	2038	21	319-84-6	237.421.3P	99.9	40.80	16.17
B-bhc	2000	40	319-85-7	259.421.3P	97.8	40.90	17.09
G-bhc	1975	20	58-89-9	238.286.1P	99	39.90	17.32
D-bhc	1998	20	319-86-8	260.421.6P	98.2	40.70	18.18
Heptachlor	2004	21	76-44-8	261.421.5P	99.2	40.40	19.29
Aldrin	2003	11	309-00-2	258.421.2P	98.2	40.80	20.11
Heptachlor Epoxide Isomer B	1996	11	1024-57-3	262.3.11P	97.6	40.90	20.93
Endosulfan I	2014	11	959-98-8	266.421.4.2P	98.97	40.70	21.64
P,p'-dde	2003	21	72-55-9	236.7.1.9P	99.9	40.10	22.04
Dieldrin	1991	20	60-57-1	240.421.4P	99.8	39.90	22.14
Endosulfan li	2003	11	33213-65-9	253.421.5P	98.9	40.50	22.52
Endrin	1984	6	72-20-8	255.286.1P	97	40.90	22.52
P,p'-ddd	2008	6	72-54-8	234.7.1P	99.4	40.40	22.78
Endrin Aldehyde	2011	21	7421-93-4	256.421.4P	96.9	41.50	22.96
P,p'-ddt	2011	40	50-29-3	233.421.2P	99.8	40.30	23.41
Methoxychlor	2017	6	72-43-5	241.7.1.1P	98.4	41.00	24.29

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	CERTIFIED BY	CERTIFIED ON	Mint Par A	RM
terms and conditions of purchase.	HuiChen Stavros, Ph.D.	19 Aug 2022	Murchen Maria	Release



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Instrument GC/MS

Inj.-Vol 1 µL

Detection MS

Column/Flow Phenomenex ZB-Semivolatile 30m x 0.25 mm, ID 0.25 um / 1 mL/min

 Method Details

 Rate Temp.(C) Hold time (min)

 40.0
 2.0

 10.0
 100.0
 0.0

 15.0
 250.0
 0.0

 20.0
 345.0
 3.25

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: Tol.:Hex. 1:1, Lot no. 210437:216610, 20 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 Measurements, 3rd Edition", with an 95% confidence level (k=2). Uncertainty is based on the Characterization Uncertainty, which includes uncertainties of preparation and purity of neat materials.

LGC Group

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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.

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 μ L 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. After opening, please consult your own quality management system for proper use and storage. Visit the support section of our website lgcstandards.com for a series of Dr. Ehrenstorfer Tech Tip videos and frequently asked questions.