LGC | DR EHRENSTORFER™

REFERENCE MATERIAL CERTIFICATE ISO 17034

Certified Reference Material

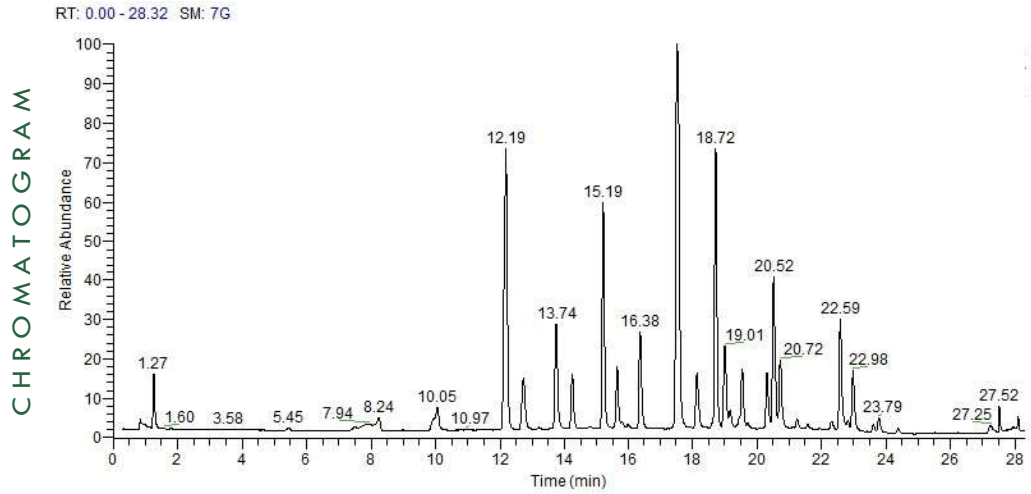
This certificate is designed in accordance with ISO 17034 and ISO Guide 31. This certified reference material (CRM) was designed, produced and verified in accordance with ISO/IEC 17025, ISO 17034 and a registered quality management system ISO 9001.

Product Name	Product Code	Lot Number	Format	Expiry Date	Storage Temp
Canada Pesticide Mixture 2 ver. 2 20-1000 µg/mL in Acetonitrile	DRE-A50000072AL	2-H393575AL	Multicomponent Solution	13 Nov 2021	≤ -10 ºC

Compound Name	CERTIFIED Concentration (mg/L)	Expanded Uncertainty U (mg/L)	CAS	Lot Number	Combined Purity (%)	Amount (mg)	RT (min)
Dichlorvos	102	5.6	62-73-7	572.3.5P	98.3	10.40	8.21
Methomyl	50.22	2.7	16752-77-5	1852.421.2P	99.9	5.03	8.24
Acephate	19.7	1.2	30560-19-1	970.421.1P	98.73	1.97	11.17
Propoxur	19.93	1.2	114-26-1	2042.421.1.2P	99.9	2.00	14.36
Ethoprophos (prophos)	19.79	1.2	13194-48-4	478.421.1P	98.24	1.98	14.88
Paclobutrazol (mixture Of Stereo Isomers)	19.72	1.2	76738-62-0	1918.421.1P	98.86	1.98	15.19
Spirotetramat	19.76	1.2	203313-25-1	4347.421.3P	99.06	1.98	15.67
Dimethoate	19.82	1.2	60-51-5	283.421.1P	99.37	1.99	16.59
Diazinon	20.21	1.2	333-41-5	578.3.13P	99.3	2.03	17.71
Clofentezine	19.85	1.2	74115-24-5	2066.3.5P	99.5	1.99	19.18
Metalaxyl	19.75	1.2	57837-19-1	1055.286.1.2P	98	1.98	19.28
Teflubenzuron	49.69	2.7	83121-18-0	2189.421.1P	96.53	4.98	19.47
Chlorpyrifos	39.86	2.2	2921-88-2	543.421.2P	99.89	4.00	20.01
Fenthion	19.84	1.2	55-38-9	1561.421.1P	98.48	1.99	20.09
Tetramethrin	99.74	5.7	7696-12-0	2050.286.1P	99	10.10	20.52
Allethrin	198.7	11	584-79-2	2049.3.2P	99.2	19.92	20.72
Fipronil	59.71	3.2	120068-37-3	2048.421.1P	96.55	5.99	20.81
Prallethrin	50.08	2.6	23031-36-9	2963.286.1.2P	95.82	5.02	21.27
Kresoxim Methyl	19.81	1.6	143390-89-0	1823.421.1P	97.36	1.99	22.10
Abamectin	100.1	5.3	71751-41-2	2299.29.1P	91.2	11.00	22.31
Fensulfothion	19.75	1.2	115-90-2	579.421.3.2P	99	1.98	22.58
Resmethrin	99.25	5.5	10453-86-8	629.421.1P	99.5	10.00	22.98
Propiconazol (mixture Of Isomers)	98.43	5.7	60207-90-1	1064.286.1.1P	97.7	10.10	23.31
Phenothrin	49.84	2.8	26002-80-2	677.421.1.2P	96.83	5.00	23.79
Bifenthrin	992.2	54	82657-04-3	1068.421.4P	98	101.50	24.37
Coumaphos	19.9	1.2	56-72-4	576.286.1P	98	2.00	25.66
Pyridaben	49.87	2.7	96489-71-3	1834.421.2P	99.99	5.00	25.70
Cypermethrin (mix Of Isomers)	296.1	15	52315-07-8	1624.286.1P	97.01	30.60	26.28
Pyraclostrobin	19.85	1.2	175013-18-0	1920.421.1P	99.5	1.99	27.01

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
HuiChen Stavros, Ph.D.	20 Nov 2019		



Instrument
LC/HRMS

Detection
HRMS - Positive Mode

Column
Vanquish C18+ 100mm x 2.1mm
ID 1.5um Particle

Method Details
Mobile Phase A: Water w/0.1% Formic Acid
Mobile Phase B: Acetonitrile w/ 0.1% Formic Acid

Time	%A	%B
0.0	95	5
1.0	95	5
22	5	95
22.25	5	95
28.5	95	5

Inj.-Vol
10 µl

Flow
0.2 ml/min

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. 191823, 100.25 mL

abamectin : A1a: 3.1%, A2a: 19.0% B1a/A1b: 74.8%, B1b: 3.1% cypermethrin (mix of isomers) : GC1: 30.5%, GC2: 30.5%, GC3&4: 38.9% Propiconazol (mixture of isomers) : isomers are not separated

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 81 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.

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02