

Certificate of Analysis

ISO 17034 Reference Material



Product Identification

Article Code: DRE-C11290000
Article Name: Chlorfenvinphos
Formula: C12H14Cl3O4P
Mol. Weight: 359.57
CAS No.: 470-90-6

Lot Number: G999716
Expiry Date: 24.01.2025
Storage Temperature: 4°C ± 4°C

Storage and handling: The RM should be stored in the original sealed bottle at the temperature given above. After use the bottle should be tightly closed and protected from moisture.

Purity: 99.26% (g/g)
Expanded Uncertainty U= 0.30% (g/g)

The uncertainty of this standard is calculated in accordance with the ISO 17034 and EURACHEM/CITAC Guide - Quantifying Uncertainty in Analytical Measurement, Second Edition. The expanded uncertainty is $U(\text{exp}) = u(\text{RM}) \times k$, where k is the coverage factor at the 95% confidence level ($k=2$). Uncertainty $u(\text{RM})$ is based on the combination of the uncertainties associated with each individual operation involved in the analysis of the product: $u(\text{RM}) = \sqrt{u(\text{char})^2 + u(\text{bb})^2 + u(\text{Its})^2 + u(\text{sts})^2}$; $u(\text{char})$ is the uncertainty of characterisation; $u(\text{bb})$ uncertainty of homogeneity test; $u(\text{Its})$ uncertainty of stability test long-term; $u(\text{sts})$ uncertainty of stability test short-term. $u(\text{Its})$ and $u(\text{sts})$ are not included in the calculation as the stability statement is based on real evidence opposed to simulation.
Minimum sample: 1 mg is recommended as the minimal sample amount. If less material is used, it is recommended to increase the certified uncertainty by a factor of two for half sample and a factor of four for a quarter of sample.
Intended use: Use this RM as calibrant for chromatography or any other analytical technique.

Analytical Data

Traceability of chromatography: To the International System of Units (SI).

Instrument:	HPLC/DAD	Method Details
Detection:	DAD	Acetonitrile:Water 4:1
Column:	ReproSil 100 C18 5 µm 250 x 3 mm	
Inj.-Vol.:	3 µl	
Flow:	1.0 ml/min	
Ret.Time:		

Comment

Traceability: The balances used are calibrated with weights traceable to the national standards (DKD).
Calibrated class A glassware is used for volumetric measurements.
Water Content: <0.10% (g/g) by Karl-Fischer-Titration ($U(\text{exp}) = 0.04\%$ (g/g)).
Purity was determined by chromatographic assay, corrected by water content and/or residue solvents.
Identity: EA, NMR, RT, IR, UV
Attachment: Exemplary chromatogram of given method
Mixture of Isomers.
Certificate Revision 1 - 24.01.2019 - M. Beck

Certified on: 24.01.2019
Certified by: M. Beck
RM Release

The LGC Labor GmbH, accredited by DAkkS as indicated by the accreditation number D-RM-19883-01 & D-PL-19883-01, has shown competence based on ISO 17034:2017 with relevant parts of DIN EN ISO/IEC 17025:2018 for production of certified reference materials in form of organic pure substances and in form of single and multi-component solutions of organic pure substances.

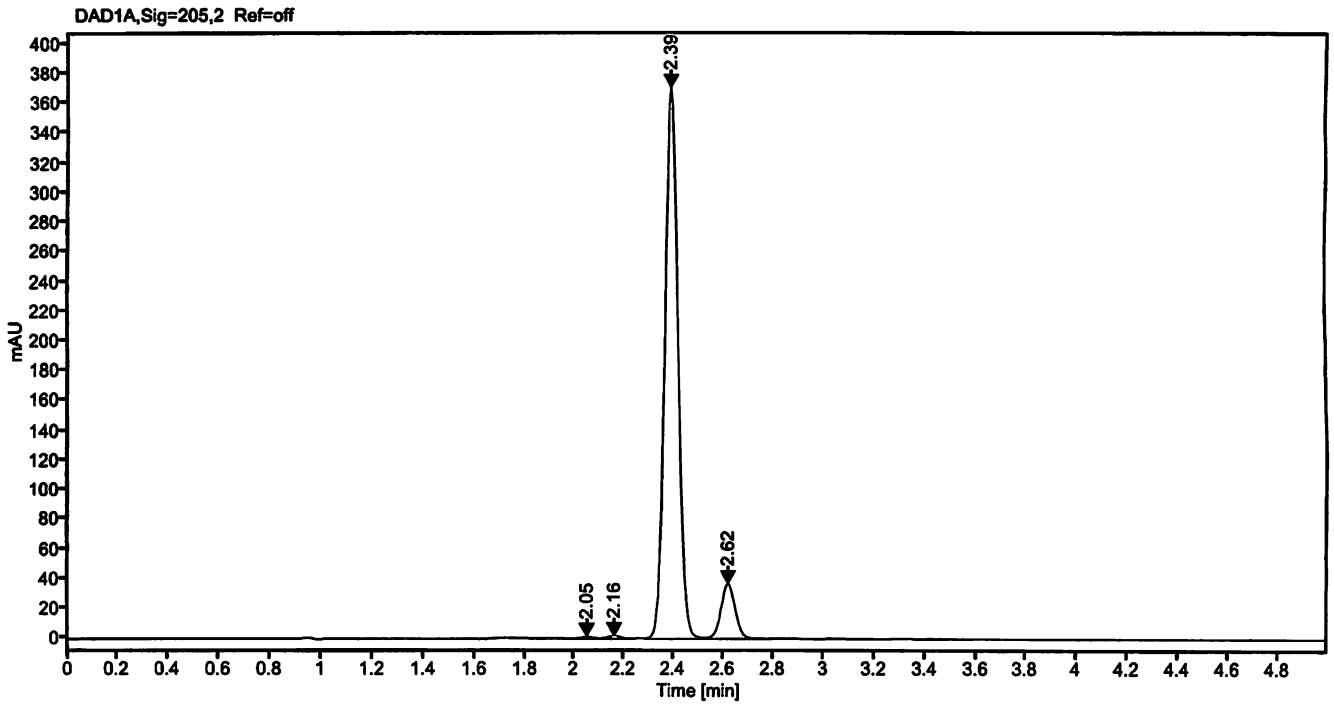
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The warranty for this product is limited to the purchasing price of this product.

21.01.2019
ALP

Data file: 11290000-16.dx
Sample name: 90122AL G999716
Inj. volume [µl]: 3.0
Acq. method: S1_41K.amx

Instrument: DAD5
Sequence Name: 23012019-3
Injection date: 1/24/2019 12:24:20 AM
Location: D2F-C7

Sample Description Chlorfenvinphos



Signal: DAD1A,Sig=205,2 Ref=off

Nr.	RT [min]	Area	Height	Area%
1	2.05	4.05962	1.24	0.27
2	2.16	6.51310	1.69	0.43
3	2.39	1368.86671	370.00	89.78
4	2.62	145.23751	36.54	9.53
	Sum	1524.68		