

**Certified Reference Material
Product Name**


Haloacetic Acids Mixture 929 1000-3000 µg/mL in Methyl-tert-butyl ether

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 Code DRE-GA09000929MB **Lot Number** 2-H489230MB **Format** Multicomponent Solution **Expiry Date** 11 Sep 2026 **Storage Temp** -18°C +/- 4°C

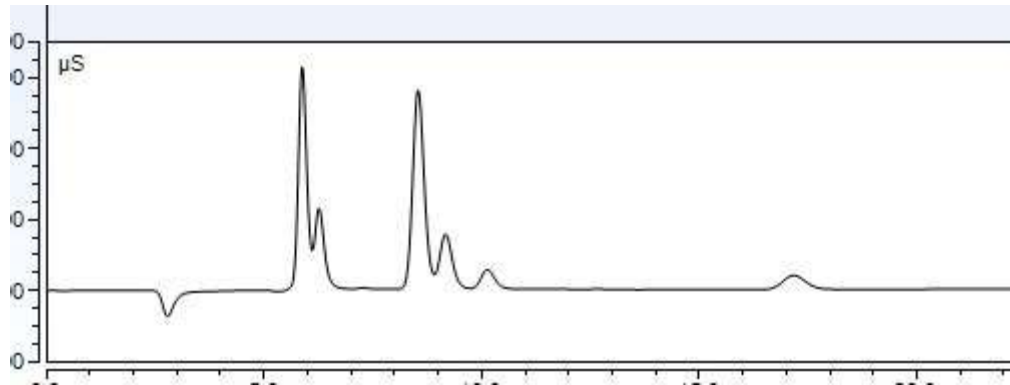
Compound Name	CERTIFIED		CAS	Lot Number	Purity (%)	Amount (mg)	RT (min)
	Concentration (ug/mL)	Expanded Uncertainty U (ug/mL)					
Chloroacetic Acid	2974	190	79-11-8	650.286.1P	98	60.70	5.88
Bromoacetic Acid	2008	100	79-08-3	1496.7.2P	99.9	40.20	6.26
Dichloroacetic Acid	3058	160	79-43-6	1495.7.2P	99.3	61.60	8.54
Dalapon	1975	110	75-99-0	863.421.3P	94.5	41.80	8.54
Bromochloroacetic Acid	2005	100	5589-96-8	1497.1.1.1P	99.5	40.30	9.17
Dibromoacetic Acid	984.6	55	631-64-1	1498.1.2P	97	20.30	10.13
Trichloroacetic Acid	1005	56	76-03-9	649.7.2P	100	20.10	17.17

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 HuiChen Stavros, Ph.D.	CERTIFIED ON 26 Sep 2022		RM Release
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CHROMATOGRAM



Instrument
IC

Detection
Conductivity

Column/Flow
IonPac AS23 4x250 mm with
IonPac AG24 Guard 2x50 mm / 1
mL/min

Method Details
Suppressor: AERS 500 4 mm
Eluent: 0.0045 M of carbonate and
0.0008M of bicarbonate

Inj.-Vol
10 µL

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: M-t-BE, Lot no. 216896, 20 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 274 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 56 100 19560019 by TUV USA and accredited to ISO 17025:2017 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