

# Certificate of Analysis



EHRENSTORFER™

## ISO Guide 34 Reference Material

### Product Identification

Article Code: DRE-CA12670400

Article Name: Dimethachlor-oxalamic acid (OA)

Formula: C<sub>13</sub>H<sub>17</sub>NO<sub>4</sub>

Mol. Weight: 251.28

CAS No.: 1086384-49-7

Lot Number: G169720

Expiry Date: 30.05.2022

Storage Temperature: 20°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: 91.75% (g/g)

Expanded Uncertainty U= 0.41% (g/g)

The uncertainty of this standard is calculated in accordance with the ISO Guide 34 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+0.5% H<sub>3</sub>PO<sub>4</sub> 4:1

Column: YMC-Pack ODS-AQ 3 µm 150 x 3 mm

Inj.-Vol.: 10 µl

Flow: 1.0 ml/min

Ret.Time: 0.84 min

### 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: 5.93% (g/g) by Karl-Fischer-Titration ( $U(\text{exp}) = 0.03\%$  (g/g)).

Identity: EA, NMR, RT, IR, UV, MS

Certificate Revision 1 - 30.05.2018 - M. Beck

Certified on: 30.05.2018

Certified by: M. Beck

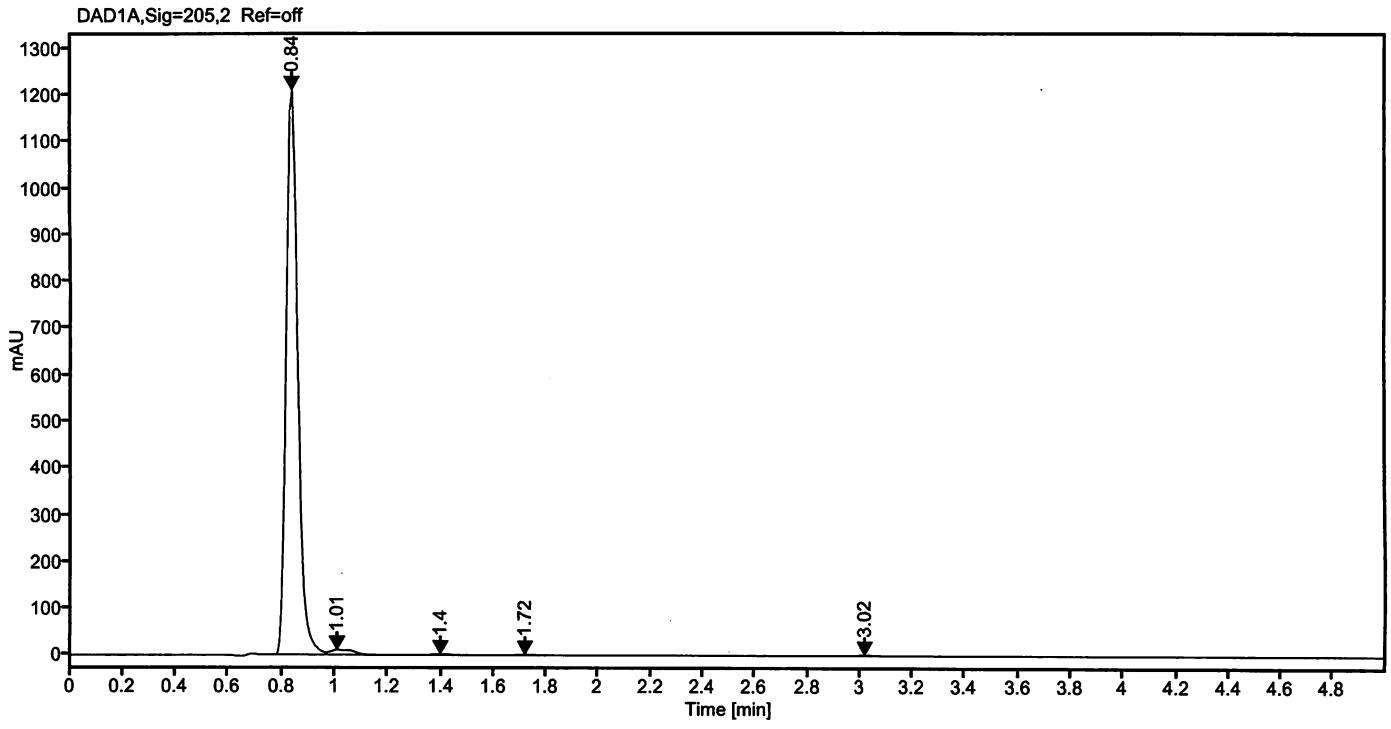
RM Release

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 Guide 34:2009 with relevant parts of DIN EN ISO/IEC 17025:2005 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.

Data file: 12670400-06.dx Instrument: DAD5  
Sample name: 80220AL G169720 Sequence Name: 12032018-YMC  
Inj. volume [µl]: 10.0 Injection date: 3/12/2018 5:03:07 PM  
Acq. method: S3\_41PK\_D.amx Location: P2-A7

Sample Description Dimethachlor oxalamic acid (OA)  
Column: YMC-Pack ODS-AQ, 3 µm, 150 x 3 mm



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

| Nr. | RT [min] | Area       | Height  | Area% |
|-----|----------|------------|---------|-------|
| 1   | 0.84     | 3715.03392 | 1211.02 | 97.63 |
| 2   | 1.01     | 68.11135   | 11.12   | 1.79  |
| 3   | 1.40     | 11.04001   | 2.24    | 0.29  |
| 4   | 1.72     | 4.08222    | 1.14    | 0.11  |
| 5   | 3.02     | 6.87698    | 1.31    | 0.18  |
|     | Sum      | 3805.14    |         |       |