

# Certificate of Analysis

## ISO Guide 34 Reference Material



### Product Identification

Article Code: DRE-C15654000

Article Name: Noviflumuron

Formula: C<sub>17</sub>H<sub>7</sub>Cl<sub>2</sub>F<sub>9</sub>N<sub>2</sub>O<sub>3</sub>

Mol. Weight: 529.14

CAS No.: 121451-02-3

Lot Number: G753095

Expiry Date: 26.04.2024

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: 98.33% (g/g)

Expanded Uncertainty U= 0.30% (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 9:1
Column:	ReproSil 100 C18 5 µm 250 x 3 mm	
Inj.-Vol.:	10 µl	
Flow:	1.0 ml/min	
Ret.Time:	1.95 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: 0.15% (g/g) by Karl-Fischer-Titration ( $U(\text{exp}) = 0.03\%$  (g/g)).

Identity: EA, NMR, RT, IR, UV

Certificate Revision 1 - 26.04.2018 - N. Müller

Certified on: 26.04.2018

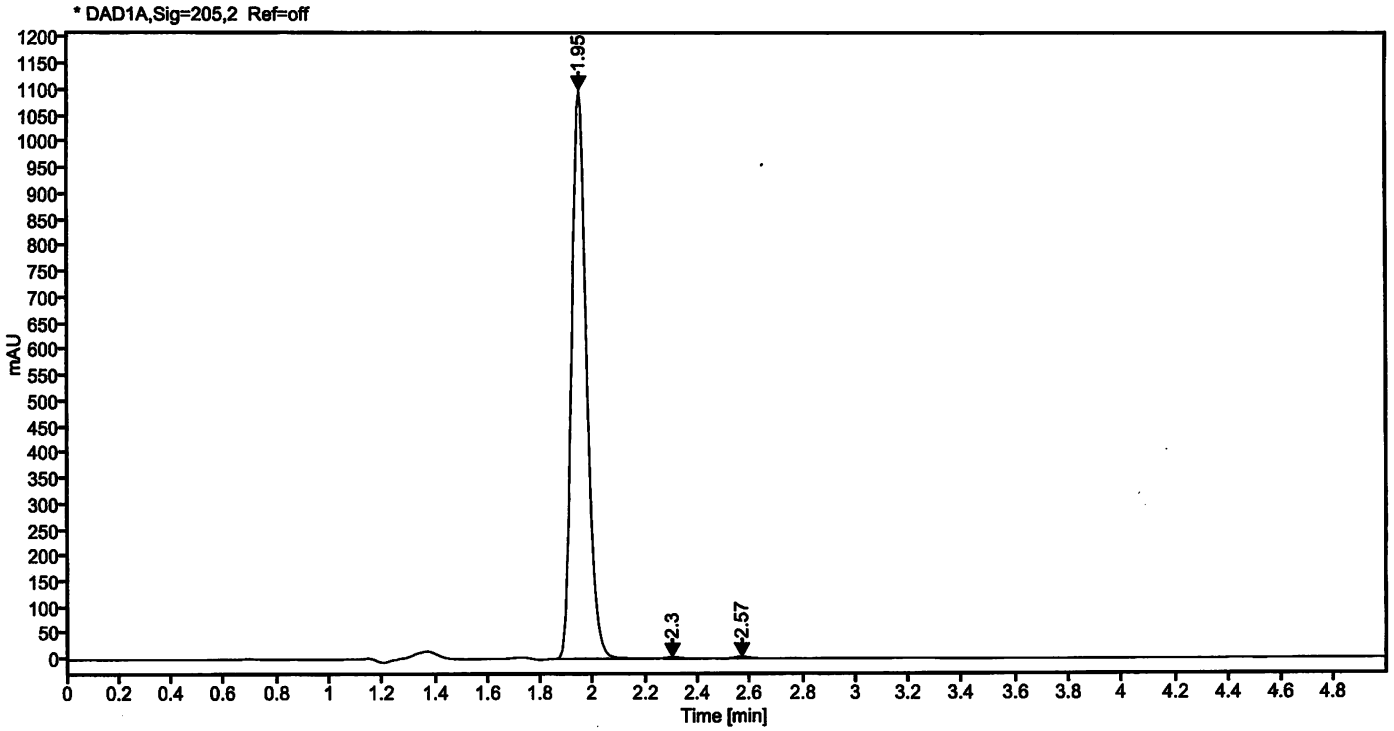
Certified by: N. Müller

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: 15654000-28.dx Instrument: DAD5  
Sample name: 80428ME G753095 Sequence Name: 25042018-1a  
Inj. volume [µl]: 10.0 Injection date: 4/25/2018 6:08:32 PM  
Acq. method: S1\_91PK.amx Location: P1-A5  
Sample Description Noviflumuron



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

Nr.	RT [min]	Area	Height	Area%
1	1.95	4368.17964	1100.51	99.25
2	2.30	15.91174	3.23	0.36
3	2.57	17.21900	3.75	0.39
	Sum	4401.31		