



## Certificate of Analysis

### ISO Guide 34 Reference Material

#### Product Identification

Article Code: DRE-C10427500  
Article Name: Basic Violet 3  
Formula: C<sub>25</sub>H<sub>30</sub>CIN<sub>3</sub>  
Mol. Weight: 407.98  
CAS No.: 548-62-9

Lot Number: G131866  
Expiry Date: 10.03.2021  
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 and light. The expiry date is valid for original sealed bottles under recommended storage conditions only.

Purity: 88.18% (g/g)

Expanded Uncertainty U= 1.07% (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:  $u(\text{RM}) = \sqrt{u(\text{char})^2 + u(\text{bb})^2 + u(\text{ts})^2 + u(\text{sts})^2}$ ;  $u(\text{char})$  is the uncertainty of purity determination;  $u(\text{bb})$  uncertainty of homogeneity test;  $u(\text{ts})$  uncertainty of stability test long-term;  $u(\text{sts})$  uncertainty of stability test short-term.  $u(\text{ts})$  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

Detection: DAD

Column: Poroshell 120 EC-C18 (2.7µm, 4.6x50mm)

Inj.-Vol.: 10.0 µl

Flow: 1.0 ml/min

Ret.Time: 7.52 min

#### Method Details

Eluent A: Acetonitrile

Eluent B: WA + 1.7g/L Tetrabutylammoniumhydrogen sulfate + 0.7g/L Na<sub>2</sub>HPO<sub>4</sub>, pH=3.35

Time [min]	Eluent A [%]	Eluent B [%]
0	20	80
1	20	80
9	50	50
15	50	50
20	20	80

#### Comment

Traceability: The balances used are calibrated with weights traceable to the national standards (DKD).

Calibrated class A glassware is used for volumetric measurements.

Certificate Revision 1

Water Content: 5.07% (g/g) by Karl-Fischer-Titration ( $U(\text{exp}) = 0.54\%$  (g/g)).

Main Impurity: Congeners

Identity: EA, NMR, RT, IR, UV

Certified on: 10.03.2017  
Certified by: N. Müller

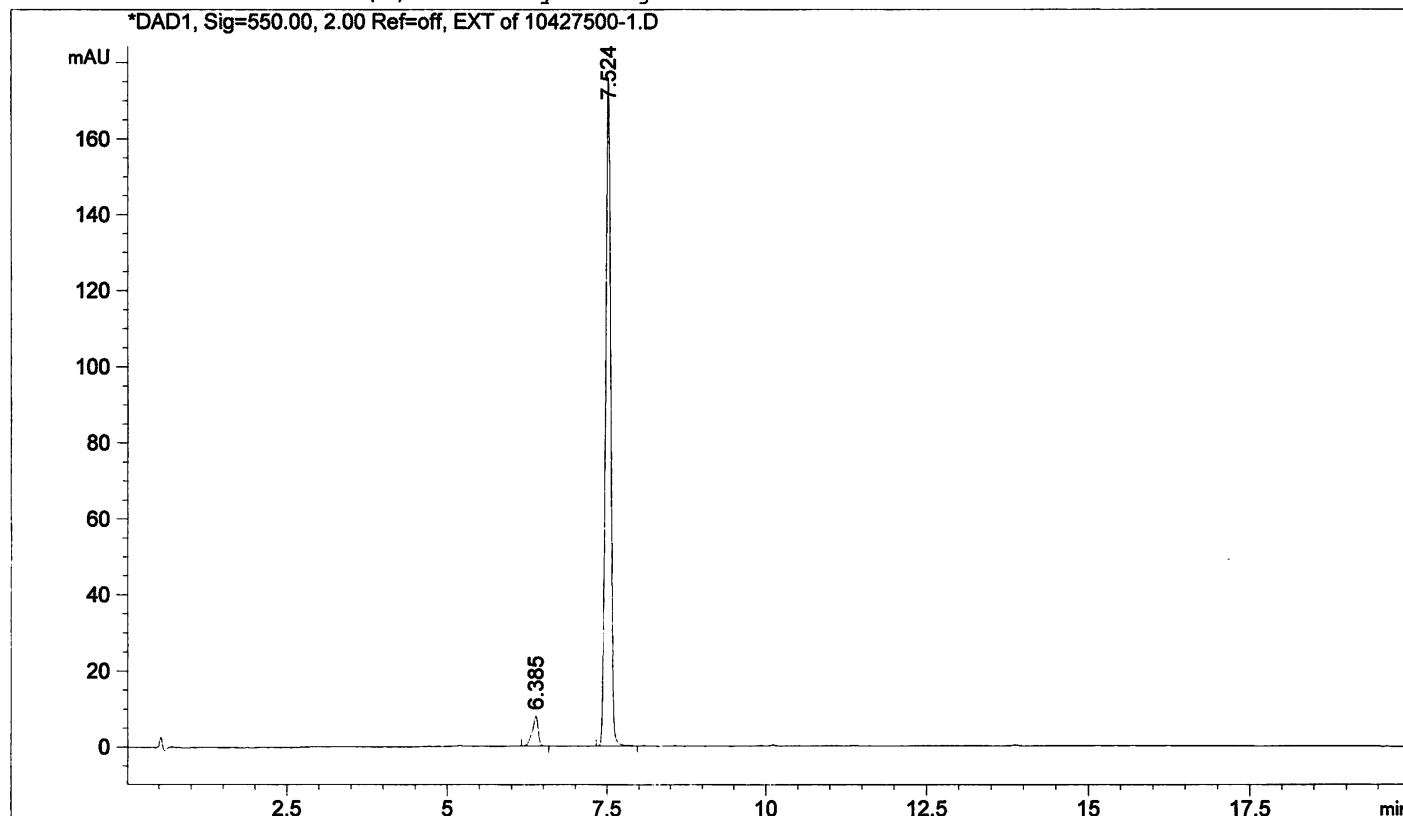
The LGC Labor GmbH, accredited by DAkkS as indicated by the accreditation number D-RM-19883-01 & D-PL-19883-01, has shown competence based on ISO Guide 34:2009 with relevant parts of DIN EN ISO/IEC 17025:2005 for production of certified reference materials in form of organic pure substances and in form of single and multi-component solutions of organic pure substances.

Sample Name: 70309AL G131866

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Acq. Operator	: DAD3_Admin	Seq. Line	: 8	<i>10.3.17 K</i>
Acq. Instrument	: DAD3	Location	: Vial 77	
Injection Date	: 09.03.2017 11:35:39	Inj	: 1	
		Inj Volume	: 10.000 µl	
Acq. Method	: C:\CHEM32\1\DATA\2017KW10\090317-1 2017-03-09 08-24-22\GRADIENT_BRILLIANTBLACKBN_C_S2.M			
Last changed	: 10.02.2017 07:14:51 by DAD3_Admin			
Analysis Method	: C:\CHEM32\1\METHODS\GRADIENT_BRILLIANTBLACKBN_C_S2.M			
Last changed	: 10.02.2017 07:14:51 by DAD3_Admin			
Method Info	: Gradient for Azodyes			
Sample Info	: Basic Violet 3			
	Column: Poroshell 120 EC-C18, 2,7 µm, 4,6 x 50 mm			
	Eluent A: Acetonitrile			
	Eluent B: 1,7 g Tetrabutylammoniumhydrogen sulfate + 0,7 g Na2HPO4 pro 1L WA, pH = 3.35			

Additional Info : Peak(s) manually integrated



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Area Percent Report  
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Sorted By	:	Retention Time
Multiplier:	:	1.0000
Dilution:	:	1.0000

Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1, Sig=550.00, 2.00 Ref=off, EXT  
Signal has been modified after loading from rawdata file!

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