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Certificate of Analysis

CERTIFIED REFERENCE MATERIAL
Organic substance

Ref No: SB16821.500MG **Lot No**: XXXXXX **Certification Date:XXXXXX**

Barcode: XXXXXXXX

Description of the Reference Material (CRM): Nicotine

CAS No: 54-11-5 Emperical formula: $C_{10}H_{14}N_2$ MW: 162.232

Certified Purity/ Uncertainty: 99.3 +/- 0.1 %

Storage Conditions: Store in a refrigerator at temperatures between 2°C to 8°C

Expiry date: XXXXXXXXXX

Method of certification: CRM's calibration procedure (WQP 5.15.1/22)

The following methods of analysis are used to determine purity: HPLC

Analytical Data:

		Gradient elution (time):	A%	B%
Column:	Chromolith® Performance RP-18e 4.6x100 mm, 2µm particle size			
Mobile phase:	A: Water B: Acetonitrile	0	80	20
Flow rate:	2.0 ml/min	7	0	100
Column temperature:	20 °C	8	0	100
Injection volume:	10µl	9	80	20
Detector	DAD	11	80	20

Concept of Certification and traceability statement:
The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k = 2, which for a normal distribution corresponds to a coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with EA 4/02.
Metrological traceability is established through in-house validated method.
The measurement results are traceable to SI.

Intended use:
For Laboratory Use Only
This CRM is intended for:

SAMPLE

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for France, Belgium and Switzerland:
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Calibration of TLC, GC/FID, GC/TCD, GC/ECD, GC/MS, GC/MS/MS, LC/UV, LC/MS and LC/MS/MS
Validation of analytical methods
Preparation of "working reference samples"
Detection limit and linearity studies

This statement is not intended to restrict the use for other purposes.

Instructions for the correct use of this reference material:
This CRM can be used directly or can be diluted in an appropriate solvent. Only a clean glassware should be used.

Stability and storage:
This CRM is with a guaranteed purity +/- 2% deviation prior to the expiration date. Stability is guaranteed, provided that the material is kept in its original packaging, tightly closed stored, as written in the section: Storage Conditions.

Hazardous situation:
The normal laboratory safety precautions should be observed when working with this CRM.
Further details for the handling of this chemical are available as safety data sheet.

Level of homogeneity
The material was tested for homogeneity by analyzing randomly selected samples according to an in-house procedure. The level of homogeneity proved satisfactory for a sample volume of min. 2 mg. The uncertainty incorporates the sample standard deviation combined with the uncertainty calculated from homogeneity and stability studies.

This certificate relates solely to the lot number given above.
All processes (including generating of this certificate) are completely controlled by the specialized Computer-Aided-Manufacturing (CAM) software.

This Certified Reference Material was produced under a quality management system that is:
- Registered to ISO 9001 Quality Management System (Lloyd's Register Quality Assurance Ltd Cert No 0039638)
- Accredited according to ISO/IEC 17025
- Accredited according to ISO 17034

This document is designed and the certified value and uncertainty are determined in accordance with ISO Guide 31, ISO Guide 35,and Eurachem / CITAC Guides

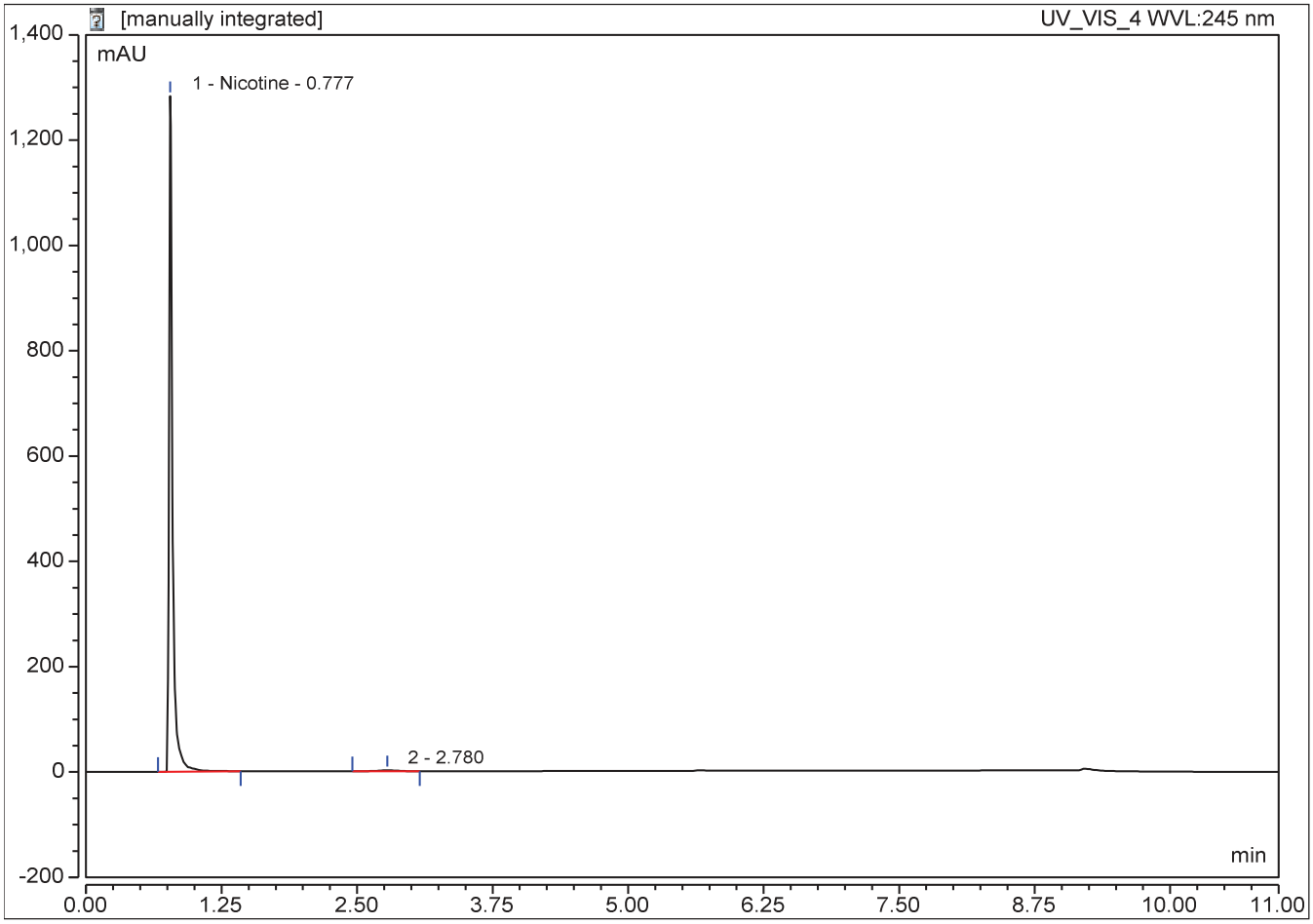
Names of certifying officers:

Laboratory: Margarita Dimitrova

Manager: Taralova Krassimira Taralova

End

Peak Integration Report

Sample Name:	**Nicotine_41476741**	*Inj. Vol.:*	**5.00**
Instrument Method:	**Chromolith short**		
Inj. Date / Time:	**19-Aug-2022** / **14:01**	*Run Time:*	**11.00**

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Rel.Area %
1	0.78	**Nicotine**	BMB*	48.787	1283.537	99.26
		TOTAL:		48.79	1283.54	99.26