Gravimetric Certificate

Dr. Ehrenstorfer

Reference Materials for Residue Analysis

Product Identification

10206356 2-Aminonaphthalene D7
Formula C10H2ND7
Mol.Weight 150.23
CAS No. 93951-94-1

Expiry Date 19.11.2016
Lot Number 41021ME
Store at 20°C in the dark

Please note: The expiry date is valid under recommended storage conditions only.

Gravimetric Data

Product Name	Conc. (mg/l)	Purity %	Weight (mg)
2-Aminonaphthalene D7	100,000	98,1	2,042

Solvent Information

Solvent	Lot No.	Exact Quantity (ml)
Methanol	21203	20,00

Traceability Data

10206356 21218	neat product
10206356 41021ME	100,000 mg/l

Analytical Data

Detection: HPLC/DAD
Column: ReproSil 100 C18 5µ 250x3
Inj.-Vol.: 10,00 µl
Flow: 1,0 ml/min
Ret.-Time: **1,38 min.**

Method Details:
Acetonitrile:H2O+0,5% H3PO4 4:1

Identity check RT, UV
Comment Chemical purity: 99,0%
Isotopic purity: 99,1%,

The uncertainty/tolerance of this standard is +/- 5,0 %, calculated in accordance with the EURACHEM/CITAC Guide - Quantifying Uncertainty in Analytical Measurement - Second Edition. The uncertainty given is the expanded combined uncertainty and represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The expanded uncertainty is U which is Uc(y)*K, where K is the coverage factor at the 95% confidence level (K=2). The expanded uncertainty is based on the combination of uncertainties associated with each individual operation involved in the preparation of this product.

Certified on 24.11.2014
by V. Wagner

The Laboratory LGC Labor GmbH is accreditated by DAkkS as indicated by the Accreditation Number D-RM-14174-01 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 organic pure substances.

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Data File D:\CHEM32\1\DATA\201410KW43\10206356-11.D
Sample Name: 41021ME

2-Aminonaphthalene D7

22.10.14
PL

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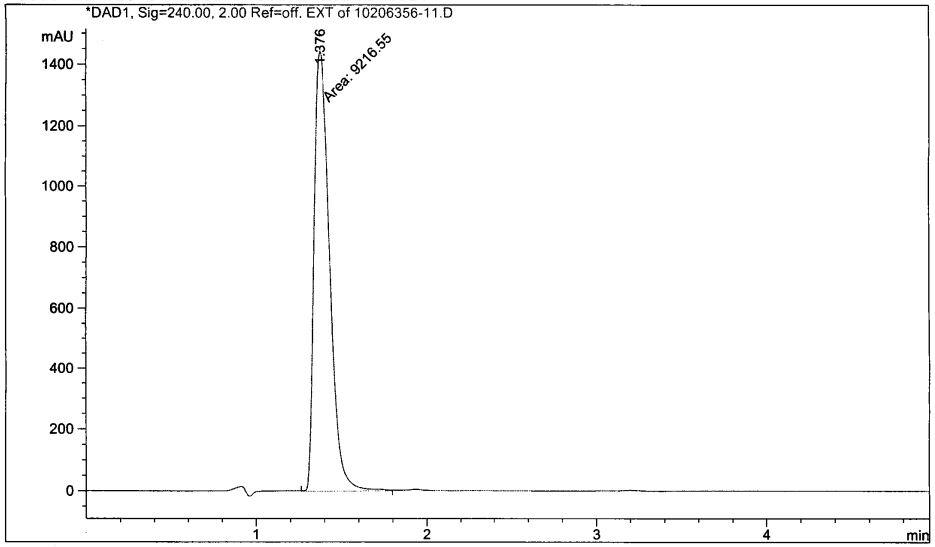
==========================================================================
Injection Date  : 22.10.2014 03:14:23          Seq. Line :  86
Sample Name     : 41021ME                      Location : Vial 2
Acq. Operator   : DAD1_Admin                       Inj :   1
Acq. Instrument : Instrument 1                 Inj Volume : 10 µl
Method          : D:\CHEM32\1\METHODS\41PK.M
Last changed    : 29.04.2013 08:42:36  by DAD1_Admin
Acetonitrile : Water + 0.5 % H3PO4 4:1+
```

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==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Retention Time
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1, Sig=240.00, 2.00 Ref=off, EXT
 Signal has been modified after loading from rawdata file!

Peak RetTime Sig Type    Area      Height     Area
  #   [min]            [mAU*s]     [mAU]       %
----|-------|---|----|----------|----------|--------|
   1   1.376  1  MM T 9216.54590 1445.96497 100.0000

Totals :              9216.54590 1445.96497


==========================================================================
                        *** End of Report ***
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Dr. Ehrenstorfer

Reference Materials for Residue Analysis

1. Application:

This standard solution is desinged for calibration or recalibration of chromatographic systems for the determination of the specified chemical compounds concerning identity and quantification. The product can also be used as reference material for interlabortory studies to validate analytical procedures.

2. Raw material:

All raw materials used to prepare this standard solution are of the highest purity. After our production process each material is checked by several of the following methods, if applicable: UV-, IR-Spectroscopy, Elemental analysis, chromotographical properties (GC/FID, GC/ECD, GC/MSD, HPLC/DAD, HPLC/MSD, TLC) and physical properties (phase, colour, odor, melting point) and Karl-Fischer for detection of traces of water.

3. Manufacturing

Prior to the production for each standard solution we calculate the necessary weight of the neat material, compensate the difference of the purity of the compound to 100%. We use an electronic scale capable of weighing to 0,000001 g with a built in automatic calibration function, which is executed minimum once a week. Once a month the balance is calibrated with weights complying with the OIML-IR-20 design requirements and traceable to the national prototype of the Physikalisch-Technische Bundesanstalt, Braunschweig, the German office of weights and measurements. Every year the balance is calibrated by the manufacturer service technician. This company is also certified by the DQS following ISO9001. All steps are documented conform to ISO 9001 requirements. The single components are weighed and filled into volumetric flask (class A glassware) with the exact quantiy of solvent as indicated on the certifcate. Solvents are stored and handled in special rooms, which have the constant ambient temperature required from the manufacturer of the volumetric equipment. The tolerance of the weighing procedure and the dilution error adds to a maximum of +/- 1.0 %.

4. Packaging and Storeage:

The final formulation was packaged in amber glass ampoules and then sealed to prevent photodegradation and evaporation. Every reference material is stored under controlled condition. One sample of each lot is kept according GLP rules to allow a recheck of the specific lot even years after the last item was sold.

5. Stability:

In regular intervals each lot is checked for stability. We guarantee the stability of the solution until the date of expiry given on the Gravimetric Certificate. In case, that the tests show a degradation within the shelf life period, the customer will be notified. We recommend to store the ampules in the dark at 20°C +/- 4°C

6. Gravimetric Certificate:

The documentation gives all the data of the production process with all the information necessary for traceability of each lot. Following GLP rules you are obliged to note the used product, lot number of the product, purity, exact weight/quantity of the product, name of the solvent, lot number of the solvent, exact quantitiy of the solvent, date of production, date of expiry and signature of the person in charge. Copies have to be authorized by stamp, signature of the person in charge according to your quality management handbook and date of authorization.

7. Analytical Quality Control

The summary of the quality control procedure is documented in the separate Certificate of Analysis. Our company holds the Quality System Certificate DQS-Reg.No.:2874-01 for the standard from the ISO 9001 / EN 29000 series and the scope as specified. The audit performed by the DQS has verified, that our quality system fulfills the requirements of DIN ISO 9001. The company is accreditated by DAkkS as indicated by the Accreditation Number D-RM-14174-01 and D-PL-4536.00 ahs 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 organicpure substances and in form of single and multi-component solutions organic pure substances.

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