



CERTIFIED REFERENCE MATERIAL BCR[®] – 341

CERTIFICATE OF ANALYSIS

BENZO[<i>b</i>]NAPHTHO[2,1- <i>d</i>]FURAN ¹⁾		
	Mass fraction	
	Certified value ²⁾ [g/g]	Uncertainty ³⁾ [g/g]
Benzo[<i>b</i>]naphtho[2,1- <i>d</i>]furan	0.996	+ 0.004 - 0.005

1) CAS # 239-30-5.
2) The value is the unweighed mean of 22 accepted sets of results, independently obtained by 8 laboratories. The value is traceable to the SI.
3) The certified uncertainty is the expanded uncertainty estimated in accordance with the Guide to the Expression of Uncertainty in Measurement (GUM) with a coverage factor of $k = 2$, corresponding to a level of confidence of about 95 %, based on a standard uncertainty of 0.0024 g/g.

This certificate is valid for one year after purchase.

Sales date:

The minimum amount of sample to be used is 0.1 mg.

NOTE

This material has been certified by BCR (Community Bureau of Reference, the former reference materials programme of the European Commission). The certificate has been revised under the responsibility of IRMM.

Brussels, March 1990
Revised: December 2007

Signed: 

Prof. Dr. Hendrik Emons
Unit for Reference Materials
EC-JRC-IRMM
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DESCRIPTION OF THE SAMPLE

The material is available in amber glass vials containing 10 mg.

ANALYTICAL METHOD USED FOR CERTIFICATION

- Gas chromatography (GC)
- High performance liquid chromatography (HPLC)
- Gas chromatography/Mass spectrometry (GC/MS)
- Mass spectrometry (MS)

PARTICIPANTS

- Biochemisches Institut für Umweltcarcinogene, Ahrensburg (DE)
- Bundesanstalt für Materialprüfung, Berlin (DE)
- Centre d'Etudes et de Recherches des Charbonnages de France, Verneuil-en-Halatte (FR)
- CNR, Istituto Inquinamento Atmosferico, Roma (IT)
- ECN, Stichting Energieonderzoek Centrum Nederland, Petten (NL)
- Instituut voor Toegepaste Chemie, TNO, Delft (NL)
- Instituut voor Toegepaste Chemie, TNO, Zeist (NL)
- Istituto Superiore di Sanità, Roma (IT)
- Laboratory of the Government Chemist, Teddington (UK)
- Risø National Laboratory, Roskilde (DK)
- Studiecentrum voor Kernenergie/Centre d'Etude de l'Energie Nucléaire, Mol (BE)
- Union Technique de l'Automobile, du Motorcycle et du Cycle, Paris (FR)

SAFETY INFORMATION

Cancer suspect agent. The material must be handled with great care, especially avoiding skin contamination, ingestion or inhalation. It is essential that these compounds are only handled by persons properly qualified and trained in the handling and use of potentially toxic hazardous chemicals.

INSTRUCTIONS FOR USE

The material is intended mainly for the qualitative and quantitative calibration of analytical apparatus and methods and for the study of biological activity. Solutions prepared for calibration purposes should be protected from extended exposure to light and air. The samples should be carefully opened in a restricted area and preferably in a protective hood or glove box set aside for this purpose. Discard solutions after use in accordance with appropriate safety regulations for carcinogens or cancer suspect agents.

STORAGE

The material should be stored in the dark at 4 °C. However, the European Commission cannot be held responsible for changes that happen during storage of the material at the customer's premises, especially of opened samples.

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NOTE

A technical report on the production of BCR-341 is available on the internet (<http://www.irmm.jrc.be>). A paper copy can be obtained from IRMM on request.