



CERTIFIED REFERENCE MATERIAL BCR[®] – 271

CERTIFICATE OF ANALYSIS

BENZ[a]ANTHRACENE ¹⁾		
	Mass fraction	
	Certified value ²⁾ [g/g]	Uncertainty ³⁾ [g/g]
Benz[a]anthracene	0.9984	0.0009
<p>1) Benz[a]anthracene (according to IUPAC rules); synonyms: 1,2-Benzoanthracene, 1,2 Benzoanthrene, Benzo[b]phenanthrene, 2,3-Benzophenanthrene, Tetraphene, Naphthanthracene; CAS # 56-55-3</p> <p>2) Unweighted mean of accepted mean value. The certified value is traceable to the International System of Units (SI).</p> <p>3) The certified uncertainty is the expanded uncertainty estimated in accordance with the Guide to Expression of Uncertainty in Measurement (GUM) with a coverage factor $k = 2$, corresponding to a level of confidence of about 95 %.</p>		

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, November 1985

Revised: November 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 an amber glass vial containing 20 mg.

ANALYTICAL METHOD USED FOR CERTIFICATION

- Gas liquid chromatography (GLC)
- High performance liquid chromatography (HPLC)
- Mass spectrometry (GC/MS and direct inlet MS)

PARTICIPANTS

- Biochemisches Institut für Umweltkarzinogene, Ahrensburg (DE)
- BP Research Centre, Sunbury-on-Thames (GB)
- Bundesanstalt für Materialforschung und -prüfung, Berlin (DE)
- Centre d'Etudes et Recherches des Charbonnages de France, Verneuil (FR)
- CNR, Istituto sull'Inquinamento Atmosferico, Roma (IT)
- Energieonderzoek Centrum Nederland, Petten (NL)
- European Commission, Community Bureau of Reference, Brussels (BE)
- Institut Curie, Paris (FR)
- Instituut voor Toegepaste Chemie, TNO, Delft (NL)
- Instituut voor Toegepaste Chemie, TNO, Utrecht (NL)
- Istituto Superiore di Sanità, Roma (IT)
- Katholieke Universiteit, Nijmegen (NL)
- Laboratoire Central de la Préfecture de Police, Paris (FR)
- National Physical Laboratory, Teddington (GB)
- Studiecentrum voor Kernenergie/Centre d'Etudes Nucléaires, Mol (BE)
- Vrije Universiteit, Chemie sub-faculteit, Amsterdam (NL)

SAFETY INFORMATION

Cancer suspect agent. The material must be handled with great care, especially avoiding skin contamination, ingestion or inhalation. Discard solutions after use in accordance with appropriate safety regulations for carcinogenic or cancer suspect agents.

INSTRUCTIONS FOR USE

Solutions intended for calibration purpose should be freshly prepared and should not be exposed to light for extended periods.

STORAGE

The material should be shielded from sunlight and be stored in the darkness at 4 °C to prevent photo-oxidation reactions.

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-271 is available on the internet (<http://www.irmm.jrc.be>). A paper copy can be obtained from IRMM on request.