



CERTIFIED REFERENCE MATERIAL BCR[®]-049

CERTIFICATE OF ANALYSIS

BENZO[<i>j</i>]FLUORANTHENE		
	Mass fraction	
	Certified value ¹⁾ [g/g]	Uncertainty ²⁾ [g/g]
Benzo[<i>j</i>]fluoranthene	0.997	+ 0.003 - 0.006
¹⁾ The certified value is the unweighted mean of accepted mean values, independently obtained by 9 laboratories. The value is traceable to the International System of Units (SI). ²⁾ 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 $k = 2$, corresponding to a level of confidence of about 95 % and based on a standard uncertainty of 0.003.		

This certificate is valid for one year after purchase.

Sales date:

The minimum amount of sample to be used is 2.5 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, May 1997
Revised: May 2007

INFORMATION ONLY

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DESCRIPTION OF THE SAMPLE

The material is available in 100 mg quantities in a brown glass bottle encased in Al-containers equipped with Al-screw caps.

ANALYTICAL METHOD USED FOR CERTIFICATION

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

PARTICIPANTS

- Biochemisches Institut für Umweltcarcinogene, Ahrensburg (DE)
- BP Research Centre, Sunbury-on-Thames (GB)
- Bundesanstalt für Materialprüfung (B.A.M.), Berlin (DE)
- CNR, Laboratorio sull'Inquinamento Atmosferico, Roma (IT)
- Fondation Curie, Institut du Radium, Paris (FR)
- Fysisch-Chemisch Instituut TNO, Zeist (NL)
- Istituto Superiore di Sanità, Roma (IT)
- Joint Research Centre, CETIS, Ispra (IT)
- Joint Research Centre, Petten (NL)
- Laboratoire Central de la Préfecture de Police, Paris (FR)
- National Physical Laboratory, Teddington (GB)
- Organisch-Chemisch Instituut TNO, Utrecht (NL)

SAFETY INFORMATION

In view of potential detrimental health effects, the material must be handled with great care. Protective gloves must be worn when weighing solid PAH-materials to prevent skin contact. Appropriate measures should be taken to avoid inhalation of PAH-particles through aerosol formation or vaporization.

INSTRUCTIONS FOR USE

The material is intended mainly for qualitative and quantitative calibration of analytical apparatus, determination of retention time, response factors and determinations of reference spectra in chromatographic and spectrophotometric analyses.

Solutions of the material intended for calibration purposes should be freshly prepared and not allowed to be exposed to sunlight for extended periods. Calibration solutions are to be discarded after use, preferably into special waste containers to avoid contamination of ground or waste water.

STORAGE

The material should be shielded from sunlight and be stored in darkness under cool conditions 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[®]-049 is available on the internet (<http://www.irmm.jrc.be>). A paper copy can be obtained from IRMM on request.