



EUROPEAN COMMISSION

JOINT RESEARCH CENTRE

Institute for Reference Materials and Measurements



# CERTIFIED REFERENCE MATERIAL BCR<sup>®</sup> – 307

## CERTIFICATE OF ANALYSIS

2-NITRONAPHTHALENE <sup>1)</sup>		
	Mass fraction	
	Certified value <sup>2)</sup> [g/g]	Uncertainty <sup>3)</sup> [g/g]
2-Nitronaphthalene	0.9977	+ 0.0009 - 0.0011
<p>1) CAS # 581-89-5.</p> <p>2) This value is the unweighted mean of 20 sets of results, independently obtained from 6 laboratories. The value is traceable to the SI.</p> <p>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 <math>k = 2</math>, 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, June 1987

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 (direct inlet)

## PARTICIPANTS

- Biochemisches Institut für Umweltcarcinogene, Ahrensburg (DE)
- Bundesanstalt für Materialprüfung, Berlin (DE)
- Centre d'Etudes et de Recherches des Charbonnages de France, Verneuil (FR)
- CNR Istituto Inquinamento Atmosferico, Roma (IT)
- Energie Centrum Nederland (ECN), Petten (NL)
- Instituut voor Toegepaste Chemie, TNO, Zeist (NL)
- Istituto Superiore di Sanità, Roma (IT)
- National Physical Laboratory, Teddington (GB)
- Instituut voor Toegepaste Chemie, TNO, Delft (NL)
- Studiecentrum voor Kernenergie/Centre d'Etude de l'Energie Nucléaire, Mol (BE)
- Union Technique de l'Automobile, du Motocycle et du Cycle (UTAC), Montlhéry (FR)

## 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

This material is intended for the calibration of measurement procedures. Solutions for calibration purposes should be freshly prepared and be protected from extended exposure to light and air. Discard solutions after use.

## STORAGE

The material should 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.

## LEGAL NOTICE

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## NOTE

A technical report on the production of BCR-307 is available on the internet (<http://www.irmm.jrc.be>). A paper copy can be obtained from IRMM on request.