



CERTIFIED REFERENCE MATERIAL BCR[®] – 723

CERTIFICATE OF ANALYSIS

ROAD DUST			
Element	Mass fraction based on dry mass		Number of accepted sets of results p
	Certified value ¹⁾ [µg/kg]	Uncertainty ²⁾ [µg/kg]	
Palladium	6.1	1.9	8
Platinum	81.3	2.5	16
Rhodium	12.8	1.3	9
<p>¹⁾ Mean of accepted data set means each calculated from six replicates on dry basis and also corrected for recovery. The certified values are traceable to the Internal System of Units (SI).</p> <p>²⁾ The uncertainty is taken as the half-width of the 95 % confidence interval of the mean given in 1).</p>			

This certificate is valid for one year after purchase.

Sales date:

The minimum amount of sample to be used is 100 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 2002
Latest revision: March 2011

Signed: _____

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Indicative Values					
Element	Mass fraction based on dry mass			Number of accepted sets of data p	
	Indicative value ¹⁾		Uncertainty ²⁾		
Al	3.75	%	0.22	%	3
Ba	0.46	g/kg	0.04	g/kg	5
Cd	2.5	mg/kg	0.4	mg/kg	5
Co	29.8	mg/kg	1.6	mg/kg	5
Cr	440	mg/kg	18	mg/kg	6
Fe	3.29	%	0.20	%	6
Hf	2.2	mg/kg	0.7	mg/kg	6
Mn	1.28	g/kg	0.04	g/kg	5
Mo	40.0	mg/kg	0.6	mg/kg	4
Ni	171	mg/kg	3	mg/kg	4
Pb	866	mg/kg	16	mg/kg	5
Rb	75	mg/kg	5	mg/kg	6
Sb	28.2	mg/kg	2.3	mg/kg	5
Sr	254	mg/kg	19	mg/kg	6
Ti	2.58	g/kg	0.13	g/kg	4
Th	4.8	mg/kg	0.5	mg/kg	3
V	74.9	mg/kg	1.9	mg/kg	3
Y	12.5	mg/kg	1.8	mg/kg	4
Zn	1.66	g/kg	0.10	g/kg	6

¹⁾ Mean value of p accepted data sets. The values are traceable to the Internal System of Units (SI).

²⁾ The uncertainty is taken as the standard deviation of the values used to calculate the indicative value.

DESCRIPTION OF THE SAMPLE

The road dust material with a moisture content of approximately 3 % by mass is available in brown glass bottles with screw cap, containing approximately 25 g of a homogenised road dust with a particle top size of less than 90 µm.

ANALYTICAL METHOD USED FOR CERTIFICATION

TXRF, RNAA, DPCSV and ICP-MS, ICP-SFMS, ICP-HRMS (with or without isotope dilution), after dry ashing or microwave assisted or pressurised digestions with mixtures of acids.

PARTICIPANTS

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SAFETY INFORMATION

The usual laboratory safety precautions apply.

INSTRUCTIONS FOR USE

This material is intended for the verification or validation of an analytical procedure for the determination of the analytes or a certain part of them. It is not intended for use as a calibrant. If the reference material is used for checking a chemical procedure or the performance of a method, the user can refer to the results of this certification campaign after having ascertained that the repeatability of his method is satisfactory. Bottles should be manually shaken for 5 minutes before opening so that the material is re-homogenised. The analytical sample for analysis should be taken as received.

The correction to dry mass must be determined on a separate portion taken at the same time of the analysis from the same bottle. It should be done by drying in an oven at 105 °C until constant mass is attained.

STORAGE

The bottle may be kept closed at ambient temperature.

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-723 is available on the internet (<http://www.irmm.jrc.be>). A paper copy can be obtained from IRMM on request.

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