MEASUREMENT REPORT

TRANSPORTATION

Conditions of the transfer standards on arrival:

Date of arrival:	
Method of transportation:	
Transportation box:	
Other remarks:	

Initial inspection of transfer standards:

Weight	200 g	20 g	2 g	200 mg
Top				
Side envelope				/
Bottom				
Comments				

Conditions of the transfer standards on departure:

Date of departure:	
Method of transportation:	
Transportation box:	
Other remarks:	

Final inspection of transfer standards:

Weight	200 g	20 g	2 g	200 mg
Top				
Side envelope				/
Bottom				
Comments				

CALIBRATION RESULTS

Nominal value	Mass (true) m	Standard uncertainty u_m (k=1)	Conventional mass m_c	Standard uncertainty u_{mc} (k=1)	No. of measurement cycles *)
200 g					
20 g					
2 g					
200 mg					

*) If the calibration was made by other procedures than one-to-one comparison (e.g. subdivision using a system of weighing equations), give the degrees of freedom of this procedure.

DATA PROVIDED BY MIRS

Weight	Volume V (cm^3)	Uncertainty u_V (cm^3) (k = 1)	Centre of gravity z (mm)	Uncertainty u_z (mm) (k = 1)	Magnetic susceptibility χ
200 g	25,102	0,006	21	2,0	χ < 0,02
20 g	2,5091	0,0016	9,7	2,0	χ < 0,02
2 g	0,2514	0,0009	4,6	1,0	χ < 0,06
Weight	Density ρ (kgm^{-3})	Relative uncertainty ρ (k = 1)			
200 mg	8600	2 %			

The assumed volume temperature expansion coefficient for the 2 g, 20 g and 200 g weight is $\alpha = 48 \pm 5 \cdot 10^{-6}\ K^{-1}$

TRACEABILITY OF REFERENCE STANDARDS

Insert the standard(s) including additional weights used for the calibration and its traceability to the international prototype of the kilogram

200 g

Identification	Mass *m*	Standard uncertainty u_m (*k*=1)	Volume V	Standard uncertainty u_V (*k*=1)	Calibration date

20 g

Identification	Mass *m*	Standard uncertainty u_m (*k*=1)	Volume V	Standard uncertainty u_V (*k*=1)	Calibration date

2 g

Identification	Mass *m*	Standard uncertainty u_m (*k*=1)	Volume V	Standard uncertainty u_V (*k*=1)	Calibration date

200 mg

Identification	Mass *m*	Standard uncertainty u_m (*k*=1)	Volume V	Standard uncertainty u_V (*k*=1)	Calibration date

DESCRIPTION OF THE MEASUREMENT PROCEDURE

UNCERTAINTY BUDGET

The uncertainties shall be estimated and combined following the Guide to the Expression of Uncertainty in Measurement JCGM 100:2008.

	(Standard) uncertainty contributions (mg)			
Uncertainty component	200 g	20 g	2 g	200 mg
Combined uncertainty u_c (k=1)				

DETAILS OF THE BALANCE USED FOR THE CALIBRATION

Weight	Manufacturer	Type	Maximum load	Resolution	Standard deviation*	Manual/ automatic
200 g						
20 g						
2 g						
200 mg						

*Indicate the weighing procedure and number of measurements

DETAILS OF THE INSTRUMENTS USED FOR AIR DENSITY DETERMINATION

	Manufacturer	Type	Range	Resolution	Standard uncertainty (k=1)
Temperature					
Pressure					
Humidity					
CO_2					

DESCRIPTION OF AIR BUOYANCY DETERMINATION

ENVIRONMENTAL DATA DURING CALIBRATION

Insert the maximum and minimum values of the measured quantities and their standard uncertainties.

Temperature t (^{O}C)	Pressure p (mbar)	Relative humidity h (%)	$x(CO_2) \times 10^6$	Air density ρ_a (kg/m^3)

DESCRIPTION OF THE MEASURING ROOM

Mean temperature	
Minimum, maximum temperature	
Maximum change of temperature during 8 hours	
Mean humidity	
Minimum, maximum humidity	

Laboratory:	Responsible person:
Date:	Signature: