Amount of substance, Gases, South Africa, NMISA (National Metrology Institute of South Africa)

In the case where an uncertainty range is given, the expanded uncertainty range is expressed as the uncertainty of the smallest value of the quantity to the uncertainty of the largest value of the quantity

The expanded uncertainty corresponds to a coverage factor k = 2 and to a level of confidence of 95%

NMI Service Identifier	Measurement Service Category	Matrix	Measurand		Dissemination Range of Measurement Capability			Range of Expanded Uncertainties as Disseminated				Range of Certified Values in Reference Materials			Range of Expanded Uncertainties for Certified Value				Mechanism(s) for Measurement Service Delivery	Comments
			Analyte or Component	Quantity	From	To	Unit	From	To	Unit	Is the expanded uncertainty a relative one?	From	To	Unit	From	To	Unit	Is the expanded uncertainty a relative one?		
GAS-Q4-02-5	Environmental	nitrogen	carbon monoxide	Amount of substance fraction	1	100	µmol/mol	1.0	0.3	%	Yes	1	100	µmol/mol	1.0	0.3	%	Yes	CRMs, certification	Approved on 16 July 2010
GAS-Q4-02-6	Environmental	nitrogen	carbon monoxide	Amount of substance fraction	100	10000	µmol/mol	0.3	0.3	%	Yes	100	10000	µmol/mol	0.3	0.3	%	Yes	CRMs, certification	Approved on 16 July 2010
GAS-Q4-02-1	Environmental	nitrogen	carbon monoxide	Amount of substance fraction	0.01	0.1	mol/mol	0.3	0.3	%	Yes	0.01	0.1	mol/mol	0.3	0.3	%	Yes	CRMs, certification	Approved on 16 July 2010
GAS-Q4-02-7	Environmental	nitrogen	carbon dioxide	Amount of substance fraction	100	1000	µmol/mol	1.0	0.3	%	Yes	100	1000	µmol/mol	1.0	0.3	%	Yes	CRMs, certification	Approved on 16 July 2010
GAS-Q4-02-2	Environmental	nitrogen	carbon dioxide	Amount of substance fraction	0.1	0.2	mol/mol	0.3	0.3	%	Yes	0.1	0.2	mol/mol	0.3	0.3	%	Yes	CRMs, certification	Approved on 16 July 2010
GAS-Q4-04-1	Forensic	nitrogen	ethanol	Amount of substance fraction	100	1000	µmol/mol	2.0	1.0	%	Yes								Calibration, certification	Approved on 16 July 2010
GAS-Q4-02-8	Environmental	nitrogen	carbon dioxide	Amount of substance fraction	1000	10000	µmol/mol	0.3	0.3	%	Yes	1000	10000	µmol/mol	0.3	0.3	%	Yes	CRMs, certification	Approved on 16 July 2010
GAS-Q4-02-4	Environmental	purified air	ozone	Amount of substance fraction	0	1000	nmol/mol	Q[2.54 nmol/mol, 1.50%]	Q[2.54 nmol/mol, 1.50%]	%	Yes								Calibration	Approved on 16 July 2010
GAS-Q4-02-9	Environmental	nitrogen	nitrogen monoxide	Amount of substance fraction	10	1000	µmol/mol	3.0	1.0	%	Yes	10	1000	µmol/mol	3.0	1.0	%	Yes	CRMs, certification	Approved on 24 June 2008
GAS-Q4-02-10	Environmental	nitrogen	nitrogen monoxide	Amount of substance fraction	1000	10000	µmol/mol	1.0	1.0	%	Yes	1000	10000	µmol/mol	1.0	1.0	%	Yes	CRMs, certification	Approved on 24 June 2008