DUTCH ACCREDITATION COUNCIL RvA

PO Box 2768 NL-3500 GT Utrecht

The Dutch Accreditation Council RvA, operating as accreditation body, hereby grants accreditation to:

Linde Gas Benelux BV
Speciale Gassen
Dieren

The organisation has demonstrated to be technical competent, to be capable to generate technical valid results and work according to a management system.

This accreditation is based on an assessment against the requirements as laid down in ISO/IEC 17025:2005 and in the RvA regulations.

The accreditation covers the activities as specified in the authorized annex bearing the accreditation number.

The accreditation is valid provided that the organisation continues to meet the requirements.

This accreditation with number:

K 091

is granted on 27 July 2009 and is valid until

9 January 2012

The accreditation has been granted for the first time on

9 January 1996

The Chief Executive

Ir. J.C. van der Poel

Annex to ISO/IEC 17025 declaration of accreditation
for registration number: **K 091**

RAAD VOOR ACCREDITATIE

of **Linde Gas Benelux BV**
Speciale Gassen
Dieren

This annex is valid from: **17-01-2011** to **01-02-2012**

Replaces annex dated: **27-07-2009**

HCS code	Measured quantity, Instrument, Measure	Range	CMC *	Remarks
CH 0 0	CHEMICAL ANALYSIS, REFERENCE MATERIALS			
RM 2 0	Gas mixtures in Nitrogen or Air			
	Carbon Monoxide[2)]	(0,2 – 1) % [1)]	1,0 % (rel.) mol/mol 1,0 % (rel.) vol/vol	
		(1 – 30) % [1)]	0,5 % (rel.) mol/mol 1,0 % (rel.) vol/vol	
	Carbon Dioxide[2)]	(0,2 – 1) % [1)]	1,0 % (rel.) mol/mol 1,0 % (rel.) vol/vol	
		(1 – 50) % [1)]	0,5 % (rel.) mol/mol 1,0 % (rel.) vol/vol	
	Propane[2)]	(0,01 – 10) % [1)]	1,0 % (rel.) mol/mol 1,0 % (rel.) vol/vol	
	Oxygen[2)]	(0,5 – 1) % [1)]	1,0 % (rel.) mol/mol 1,0 % (rel.) vol/vol	
		(1 – 30) % [1)]	0,5 % (rel.) mol/mol 1,0 % (rel.) vol/vol	
	Carbon Monoxide in Nitrogen	(150 – 2000) ppm [1)]	1,0 % (rel.) mol/mol 1,0 % (rel.) vol/vol	
	Propane in Nitrogen / Air	(10 – 100) ppm [1)]	2,0 % (rel.) mol/mol 2,0 % (rel.) vol/vol	

*
Calibration and Measurement Capability (CMC): Demonstrated measurement uncertainty, with coverage probability of 95%, in a given measurement point or measurement range.
Measurement uncertainty, *U*, is calculated according to EA-4/02 "Expression of the Uncertainty of Measurement in Calibration".

1) The composition of the mixtures is being prepared and analysed as mole fraction. During conversion into volume fractions the following ambient conditions are presumed: Temperature: 15 °C and pressure: 100,0 kPa.
2) Gas mixtures can be produced as binary or as multi-component. Only those gas mixtures will be produced which can be produced in a safe way. This is valid for gas mixtures containing oxygen, propane and/or carbon monoxide.
All measurements are carried out inside the laboratory.

This annex has been approved by:

Ir. J.C. van der Poel
Chief Executive