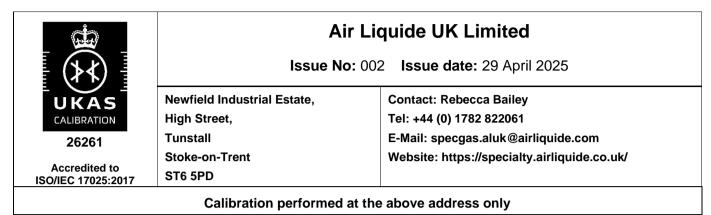
# **Schedule of Accreditation**

issued by

**United Kingdom Accreditation Service** 

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK



Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty ( <i>k</i> = 2)	Remarks
BINARY GAS MIXTURES	amount fraction (µmol/mol)	amount fraction (µmol/mol)	
Propane/air	3.3 to 3300	1% relative	In house method SOP 1912 - Calibration of gas mixtures by ISO 6143:2001
			Calibration analyses for propane mixtures using FID analyser Measures as THC
Nitric oxide/nitrogen	3.0 to 3000	1% relative	In house method SOP 1912 - Calibration of gas mixtures by ISO 6143:2001
			Calibration analyses for NO mixtures using chemiluminescence analyser
	amount fraction (% mol/mol)	amount fraction (% mol/mol)	
Oxygen/nitrogen	1.0 to 23.5	1% relative	In house method SOP 1912 - Calibration of gas mixtures by ISO 6143:2001
			Calibration analyses for oxygen mixtures using paramagnetic analyser
END			

# Calibration and Measurement Capability (CMC)



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Air Liquide UK Limited

Issue No: 002 Issue date: 29 April 2025

Accredited to ISO/IEC 17025:2017

#### Calibration performed at main address only

# Appendix - Calibration and Measurement Capabilities

## Introduction

The definitive statement of the accreditation status of a calibration laboratory is the Accreditation Certificate and the associated Schedule of Accreditation. This Schedule of Accreditation is a critical document, as it defines the measurement capabilities, ranges and boundaries of the calibration activities for which the organisation holds accreditation.

#### Calibration and Measurement Capabilities (CMCs)

The capabilities provided by accredited calibration laboratories are described by the Calibration and Measurement Capability (CMC), which expresses the lowest measurement uncertainty that can be achieved during a calibration. If a particular device under calibration itself contributes significantly to the uncertainty (for example, if it has limited resolution or exhibits significant non-repeatability) then the uncertainty quoted on a calibration certificate will be increased to account for such factors.

The CMC is normally used to describe the uncertainty that appears in an accredited calibration laboratory's schedule of accreditation and is the uncertainty for which the laboratory has been accredited using the procedure that was the subject of assessment. The measurement uncertainty is calculated according to the procedures given in the GUM and is normally stated as an expanded uncertainty at a coverage probability of 95 %, which usually requires the use of a coverage factor of k = 2. An accredited laboratory is not permitted to quote an uncertainty that is smaller than the published measurement uncertainty in certificates issued under its accreditation.

## Expression of CMCs - symbols and units

It should be noted that the percentage symbol (%) represents the number 0.01. In cases where the measurement uncertainty is stated as a percentage, this is to be interpreted as meaning percentage of the measurand. Thus, for example, a measurement uncertainty of 1.5 % means  $1.5 \times 0.01 \times q$ , where q is the quantity value.

The notation Q[a, b] stands for the root-sum-square of the terms between brackets: Q[a, b] =  $[a^2 + b^2]^{1/2}$