



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

Alchemie Gases & Chemicals Pvt. Ltd.
T-112, M.I.D.C. Tarapur, Thane, Maharashtra, 401506 India

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2005

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated January 2009):

Chemical Calibration
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

<i>Initial Accreditation Date:</i>	<i>Issue Date:</i>	<i>Accreditation No.:</i>	<i>Certificate No.:</i>
May 20, 2013	May 20, 2013	75840	L13-107

Tracy Szerszen
President/Operations Manager

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjllabs.com



Certificate of Accreditation: Supplement

Alchemie Gases & Chemical Pvt. Ltd.

T-112, M.I.D.C. Tarapur, Thane, Maharashtra, 401506 India
Nipun Bhatt Phone: 9820008879

Accreditation is granted to the facility to perform the following calibrations:

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Gas Mixture/Natural Gas Mixture Cylinder	Nitrogen 0.1% mol fraction to 6.5% mol fraction 6.5% mol fraction to 12% mol fraction	(0.0096) % mol fraction (-0.0359+0.007C) % mol fraction	Calibration Gas Mixtures in accordance with ISO6143:2001 using Gas Chromatography with thermal conductivity detector (TCD) & Based on ISO/6974-1:2012 ISO/6974-2:2012 ISO 6974-5:2000/ IS 15130 (Part 5) : 2002
	Carbon Dioxide 0.05% mol fraction to 8% mol fraction	(0.00595 -0.000134 C+ 0.000187 C ²) % mol fraction	
	Methane 64% mol fraction to 100 % mol fraction	(0.166 – 0.0016 C) % mol fraction	
	Ethane 0.1% mol fraction to 14.0% mol fraction	(0.0036 + 0.0005 C + 0.0001 C ²) % mol fraction	
	Propane 0.05% mol fraction to 8% mol fraction	((+0.000511) + 0.00254 C) % mol fraction	
	Iso-Butane 0.01% mol fraction to 1.2% mol fraction	(0.000686 -0.000277 C+ 0.00454 C ²) % mol fraction	
	n-Butane 0.01% mol fraction to 0.7% mol fraction 0.7% mol fraction to 1.2% mol fraction	(0.0008) % mol fraction (0.0341 - 0.0859 C + 0.0548 C ²) % mol fraction	
	Neo-pentane 0.005% mol fraction to 0.35% mol fraction	(0.00314 – 0.0276 C + 0.0793 C ²) % mol fraction	
	Iso-pentane 0.005% mol fraction to 0.35% mol fraction	(0.000339 + 0.00272 C) % mol fraction	
	n-Pentane 0.005% mol fraction to 0.35% mol fraction	(0.0006 + 0.0008 C) % mol fraction	
	n-Hexane 0.0050% mol fraction to 0.22% mol fraction 0.22% mol fraction to 0.35% mol fraction	(0.0008) % mol fraction (-0.00537 + 0.028 C) % mol fraction	



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Calculation of Physical Properties	Nitrogen < 30% mol fraction	Net Calorific Value : 0.1% mol fraction relative	ISO 6976:1995 IS 14504: 1998
	Carbon Dioxide < 15% mol fraction	Gross Calorific Value : 0.1% mol fraction relative	
	Ethane < 15% mol fraction	Relative Density : 0.1% mol fraction relative	
	Other Components <5% mol fraction Methane: No restriction	Gas Density : 0.1% mol fraction relative Wobble Index : 0.1% mol fraction relative	
	Methane: No restriction	Wobble Index : 0.1% mol fraction relative	

1. The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represent the smallest measurement uncertainties attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is expressed at a confidence level of 95 % using a coverage factor k (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the CMC for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.
2. The laboratories range of calibration capability for all disciplines for which they are accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.
3. "C" represents concentration of the component in % mole fraction.