

CERTIFICATE OF ACCREDITATION

This is to attest

BUZWAIR SCIENTIFIC & TECHNICAL GASES (BSTG)

BUILDING NO.131, STREET NO.2, NEW INDUSTRIAL AREA, GREEN ZONE DOHA, NA 319, QATAR

Reference Material Producer RMP-101

has met the requirements of AC784, *IAS Accreditation Criteria for Reference material producer*, and has demonstrated compliance with ISO standard 17034:2016, *General requirements for the competence of reference material producers*. This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date November 25, 2024



International Accreditation Service
Issued under the authority of IAS management

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | www.iasonline.org

BUZWAIR SCIENTIFIC & TECHNICAL GASES (BSTG)

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Accredited to ISO 17034:2016

Effective Date November 25, 2024

RMP Category	Type (CRM/RM)	Matrix/Artefact	Property certified (Analyte/Parame- ter/Identity)	Range (if applicable)	Characterization procedure/ technique used
Chemical	RM/CRM	Reference Gases & Mixtures In Nitrogen or Argon or Hydrogen or Hydrocarbon or Synthetic Air or Helium).	Carbon Monoxide Carbon Dioxide Oxygen Methane Ethane Propane Butane Pentane Hexane Heptane Octane Nonane n-Decane Nitrogen Hydrogen Helium Argon Hydrogen sulfide Carbonyl sulfide	1.00 to 10000 (µmol/mol)/(p pm) 1.00 to 99.9 mol/mol (%)	Preparation by a single primary reference procedure (Gravimetry as per ISO 6142-1:2020) and Verification method as per ISO6143-3:2001 by using following techniques FT-IR spectroscopy, zirconia and/or GC-TCD, GC-FID, GC-FPD and/or GC-PDHID.
			Hydrogen sulfide Carbonyl sulfide Methyl mercaptan Ethyl mercaptan Dimethyl sulfide.	1.00 to 50.00 (µmol/mol)/(p pm)	Preparation by a single primary reference procedure (Gravimetry as per ISO6142-1:2020) and Verification method as per ISO6143-3:2001 and by using GC-FPD technique.
			Hydrocarbon Gases Mixture (e.g. Alkene, alkyne, and Aromatic and Cyclic compound).	0.001 to 99.9 mol/mol (%)	Preparation by a single primary reference procedure (Gravimetry as per ISO6142-1:2020). Verification method as per ISO 6143-3:2001 by using GC-FID technique.



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Chemical	RM/CRM	Reference Gases & Mixtures (in Nitrogen or Ar- gon or Hydrogen or Helium or oxygen).	Water Vapour Content	2.0 to 100 (µmol/mol)/(pp m)	Preparation by a single primary reference procedure (gravimetry as per ISO6142-1:2020). Verification method as per ISO6143-3:2001 and by using FT-IR spectroscopy.
Chemical	RM/CRM	Reference Gases & Mixtures (in Nitrogen or Synthetic Air or Helium)	Nitric Oxide, Nitrogen Dioxide, Nitrous oxide, Sulfur Dioxide, Carbon Dioxide, Carbon Monoxide,	1.0 to 5000 (µmol/mol) (ppm)	Preparation by a single primary reference procedure (Gravimetry as per ISO6142-1:2020). Verification method as per ISO6143-3:2001 by using FT-IR spectroscopy.

