



Scientific &
Laboratory
Solutions

Leaders in Specialty Gas Solutions

CAC
GAS&INSTRUMENTATION

Australia
www.cacgas.com.au

Asia
www.cacgas.com.sg

Certified Reference Materials

CAC Gas offers a wide range of certified reference materials including specialty gas mixtures, liquids, and liquefied gas standards.



Curated from several industry leading manufacturers, only mixtures that meet CAC's high standard for quality are supplied to meet the needs of an ever-evolving landscape of analytical applications.

CAC GAS's range of gases and liquids are available in a wide array of cylinders, bottles and ampoules.

All certified reference materials supplied by CAC Gas are manufactured using traceable weights and measures before being analysed or tested by specific, documented methods, and come with a certificate stating the method(s) used.

These methods exist to promote similar product quality and properties for a single product type from various manufacturers, or to ensure a minimum product quality. Methods may be nationally or internationally recognized, such as those from ASTM, ISO, or US EPA.

Traceability is demonstrated by an unbroken chain of measurements or calibrations all the way to the accepted international primary reference materials. This means the calibration of the instrumentation involved throughout the manufacturing process (scales/balances, mass flow controllers, pressure gauges, etc.) be ISO17025 certified. Calibration certificates for relative instruments are kept on file and referred to on the mixture certificate if required.

To meet the most stringent of customer requirements some mixtures will have been produced or calibrated within the scope of an ISO17034 or ISO17025 accredited organisation whose accreditation is recognised under the ILAC MRA, so they are accepted globally.

Accreditation proves the producer's technical capability in measurement, and stated traceability to SI units, having been thoroughly assessed by the relevant national testing authority.

*These mixtures meet the requirements of:

ISO/IEC17025:2017

ISO Guide 30:2015 (Clause 2.1.1 or 2.1.2)

AS2290:2018



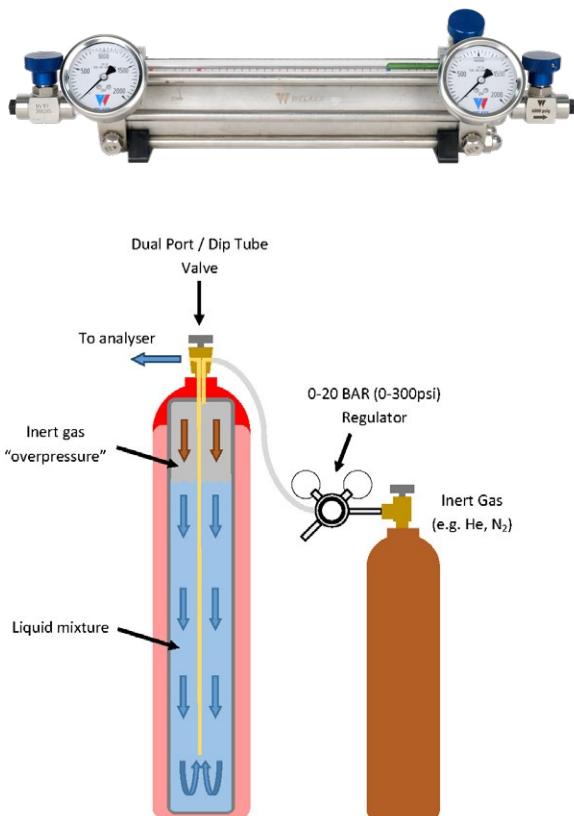
Light Liquid Hydrocarbons & Liquid Reference Materials

Light Liquid Hydrocarbons

Light liquid hydrocarbons, sometimes referred to as liquified gas mixtures, are mostly known to fit between what can easily be distinguished as crude oil product, or natural gas streams. Light liquids fit a broad spectrum of process conditions spanning from NGLs, LPGs, condensates, petrochemical and Refinery Gases.

They are available in a range cylinders including constant pressure (CPC) and standard gas cylinders fitted with dip tube valves which can ensure the composition of the standard remains homogenous by keeping it under pressure.

Light liquid hydrocarbon reference materials have the advantage of closely matching the product being analysed, while also offering increased efficiency by allowing an increased number of calibrations with the same cylinder, when compared to a gaseous mixture.



Liquid Reference Materials

CAC GAS provides a wide variety of liquid reference materials / calibration standards from DCG partnerships. These standards are gravimetrically prepared and N.I.S.T. Traceable by weight with the gravimetric values verified by one or more analytical methods.

ASTM compliant and ISO17034 Liquid Standards in bottles and ampoules.

- Heavy Hydrocarbon Liquids
- Crude Oil
- Liquid Phase Natural Gas Liquids (NGL)

Available in 1 mL, 2 mL, 5 mL, 10 mL, 20 mL, 50 mL, 100 mL, 200 mL, 500 mL, and 1 liter sizes.



Cylinder Size Options & Specialty Cylinders



CAC GAS offers non-refillable (low volume) cylinders and high pressure (large volume) cylinders and low pressure cylinders. All valve types are available including AS, BS, CGA and DIN as required. Gases are supplied with a certificate of composition. Cylinders are labelled with the gas volume, pressure, our reference, date of manufacture and shelf life.

ISO17025 Mixtures in Non-Refillable Cylinders



In addition to all our ISO 17025 mixtures being available in high pressure cylinders, certain ISO 17025 mixtures are available in non-refillable cylinders.

Lecture Bottles



Lecture bottles are a traditional cylinder type used for scientific research applications where lower volumes are required in a variety of gases and purity grades. Lecture bottles are available for many gases from ammonia to xenon. Lecture bottles have a 0.4 litres water capacity, measure 310 mm long by 50 mm diameter and come with a CGA 180 valve. Lecture bottle stands are also available.

Gas Generators, Mixers & Diluters

GasMix provides multiple solutions for creating on-site customized gas standards. Software controlled, the GasMix line is based on mixing, diluting and injecting two to twelve gas standards. Easy to use, GasMix is a versatile tool for laboratory, environmental or industrial application.



PEAK Gas Generators are specifically designed and engineered for GC laboratory applications, the Precision series represents the cutting-edge of Peak Scientific innovation in on-demand gas generator design. Combining convenience and reliability in a stackable, modular and compact design, Precision is the safe and practical choice for your GC instrument gas requirements.

CAC GAS provides a complete line of **ACD** electrochemical gas generators designed to provide calibration gas standards for H, NO₂, CL₂, CLO₂, H₂, HCN, H₂S, NH₃ and O₃ gases. Simple to use with long life cells, these gas generators can replace gas cylinders for many applications.



Gas Control

Precision Analyser Solution



We offer a full line of high precision gas control equipment along with our MICRO300 Precision Regulator. All items are kept in stock for fast shipment.

The MICRO300 Precision Regulator, specially configured by CAC Gas & Instrumentation for highly-sensitive applications, is designed for customers who need the most accurate calibrations.

The MICRO300 features fully supported 'sensitive' pistons and a low internal volume to reduce wasted gas and minimise reactions. The regulator is available with or without SilcoNert® 2000 coating.



Typical size regulator vs the Micro300



SilcoNert® coatings can be requested on all/any components.



1/8" and 1/6" OD tubing with SilcoNert® 2000 coating.



Quality fittings from Swagelok available from stock with SilcoNert coating.

Specialty Gas Regulators

CAC GAS supplies a complete line of flow and pressure regulators for non-refillable and high-pressure cylinders to supply specialty gas standards and calibration gases.



Our flow regulators include the Fixed Flow (FF), On Demand Flow (ODFR) and Variable Flow (VAF) regulators used for calibration and gas supply to gas analysers and gas detection instrumentation. The Tech-Master, Spec-Master and Chem-Master pressure regulators are part of a line of products including manifolds and outlet points to provide a complete gas control solution. The product line is capable of managing non corrosive and corrosive gases up to n6 purity.

Whether gas chromatography, process gas analysers, environmental analysis, or gas detection we have the regulator systems to meet your gas handling requirements.



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