

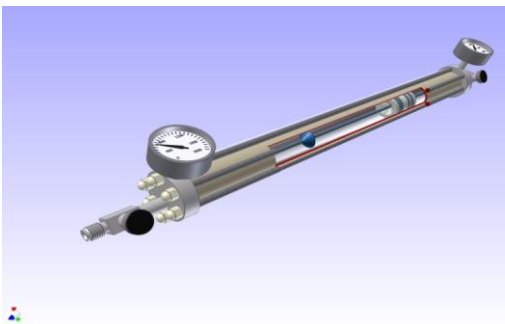
Certified Reference Materials

LPG (Liquefied Petroleum Gas)

For more than 25 years VSL is preparing Calibration Gas Mixtures. The hierarchy chain in traceable gas mixtures starts with a suite of highly accurate Primary Standard Gas Mixtures (PSMs). These standards are produced by gravimetric methods from high purity gases that have been analysed extensively on possible impurities. Extensive maintenance programmes including stability studies are important parts of a rigorous Quality Assurance programme. This programme is accredited against ISO/IEC17025 and ISO Guide 34. In most cases, these standards cover the full range of composition from low ppm up to percentage level and are blended as binary mixtures and also as multi component gas mixtures.

LPG

LPG (liquefied petroleum gas) is widely used as car fuel and in the industry as fuel and feedstock. For the purpose of quality control, determination of the energy content, and fiscal measurement of LPG, VSL offers now also Certified Reference Mixtures of LPG. The composition ranges are given in the table below.



Constant Pressure Cylinder (1000 cc)

Component	Concentration (mol/mol)	Uncertainty ($k=2$)
Ethane	0.1 - 0.3 × 10 ⁻²	0.5 %
Propylene	0.5 - 50 × 10 ⁻²	0.5 %
<i>n</i> -Butane	0.2 - 1 × 10 ⁻²	0.5 %
<i>i</i> -Butane	0.2 - 3 × 10 ⁻²	0.5 %
<i>i</i> -Pentane	0.1 - 1 × 10 ⁻²	0.5 %
Propane	Balance	0.5 %

The Mixtures are filled in a 1000 cc Constant Pressure Cylinder (CPC). The stability of the mixtures is warranted for one year, but stability studies are ongoing. It is expected that the warranty can be extended in the near future.

Prices

Item	EUR
LPG CRM mixture	3840.--
1000 CC CPC	900.--
Carry Case for CPC	300.--

Delivery time for this certified reference materials is 12 weeks after receiving your order. Delivery is EXW (Ex Works). If desired we can take care of delivery DDU (Delivery Duty Unpaid) at additional costs. Please indicate this on your order.

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