

Technical Specifications of primary calibration standards for CH₄, N₂O, CO₂ and NH₃:

1. Greenhouse gas calibration standard should contain a mixture of ~2000 ppm (99.999% purity) of CO₂, ~2 ppm (99.999% purity) of N₂O and ~9 ppm (99.999% purity) of CH₄.
2. Ammonia gas calibration standard should contain ~2 ppm (99.999% purity) of NH₃ concentration.
3. All primary calibration standards should be balanced with N₂ in a cylinder of 10L water capacity filled with 130 - 140 bar pressure.
4. All primary calibration standards should be balanced with N₂ in a cylinder of 10L water capacity filled with 130 - 140 bar pressure.
5. All primary calibration standards should have National Institute of Standards and Technology (NIST), USA traceability as evidenced through certification of the gas standards.
6. Compatible pressure regulators for the aforementioned cylinders with following specifications:
 - a) Inlet Connection Valve: CGA 705, Outlet Connections should be 1/4" NPT – F, Diaphragm – Hastalloy (C- 276).
 - b) Inlet Pressure Range: 150 bar and Outlet Pressure Range: 0-8 bar.
7. The pressure regulators should have certification of analysis for inertness to abundant gases in the atmosphere such as oxygen.