

Methods 26, 26A & 321 Calibration Gas Standards

HCl and HCl/SF₆ Calibration Gas Standards

US EPA Methods 26 and 26A are utilized for the determination of HCl emissions from combustions stacks, primarily waste incinerators. US EPA Method 321 is utilized for HCl emissions from Portland cement plants.

In particular, US EPA Method 321, ***Gaseous HCl Emissions at Portland Cement Kilns by Fourier Transform Infrared (FTIR) Spectroscopy***, states in paragraph 9.1.1 that:

“An HCl standard of approximately 50 ppm in a balance of ultra pure nitrogen is recommended. The SF₆ (tracer) concentration shall be 2 to 5 ppm depending upon the measurement path length. The spike ratio (spike flow/total flow) shall be no greater than 1:10, and an ideal spike concentration should approximate the native effluent concentration.”

Spectra Gases supplies both HCl in nitrogen and HCl spiked with SF₆ in nitrogen for use as a calibration standard for US EPA Methods 26, 26A and 321. HCl concentrations below 1000 ppm are supplied in aluminum cylinders that have been passivated by the proprietary SpectraShield™ process. HCl concentrations above 1000 ppm are supplied in steel cylinders which have been highly polished then passivated by the proprietary SpectraShield™ process. Whether supplied in aluminum or steel cylinders these HCl and HCl/SF₆ standards have guaranteed stability periods of 12 months.

Component	Concentration	Blend	Analytical	CGA
HCl balance N ₂	10 ppm to 100 ppm	10%	5%	330
HCl balance N ₂	100 ppm to 1%	10%	5%	330
HCl / SF ₆ balance N ₂	10 ppm HCl / 2 ppm SF ₆	10%	5%	330
HCl / SF ₆ balance N ₂	50 ppm HCl / 2 ppm SF ₆	10%	5%	330

