



Concorde Specialty Gases, Inc.

PRODUCT SPECIFICATIONS SHEET:

Xenon, Xe

Xenon gas is odorless, colorless, tasteless, nontoxic, and chemically inert. The concentration of Xenon gas in the atmosphere, by volume percent, is 8.7×10^{-6} . It's principally shipped and used in gaseous form for excimer lasers, window insulation, ion propulsion, medical applications and R&D laboratory research. Xenon gas is also used in lamps that produce intense, extremely short flashes of light, such as stroboscopes and lights for high-speed photography. When a charge of electricity is passed through the gas at low pressure, it emits a flash of bluish-white light; at higher pressures white light resembling daylight is emitted.

Safety Requirements: The cryogenic liquid will rapidly boil to the gas at standard temperatures and pressures. The liquidified gas can cause frostbite to any contaminated tissue. The main health hazard associated with release of this gas is asphyxiation by displacement of oxygen (see MSDS for further information).

Xenon Research/Scientific Grade:

Xenon Research/Scientific Grade Maximum Impurities	
Xenon	99.999%
Krypton	<0.56 ppmv
Water (H ₂ O)	0.1 ppmv
Hydrogen	<0.1 ppmv
Oxygen	0.1 ppmv
Nitrogen	0.46 ppmv
Total Hydrocarbon Content (THC)	0.1 ppmv
CO ₂	0.1 ppmv

Physical Constants	
Chemical Name	Xe
Molecular Weight	131.3
Density of the gas at 70°F (21.1°C), 1 atm	0.3416 lb/ft ³ , 5.472 kg/m ³
Specific gravity of the gas at 70°F (21.1°C), 1 atm	4.560
Specific volume of the gas at 70°F (21.1°C), 1 atm	2.927 ft ³ /lb, 0.183 m ³ /kg
Boiling Point at 1 atm	-162.6°F, -108.2°C
Melting Point at 1 atm	-168°F, -111°C
Critical Temperature at 1 atm	61.9°F, 16.6°C
Critical Pressure	847.0 psia, 58.4 bar
Critical Density	68.67 lb/ft ³ , 1100 kg/m ³
Triple Point	-169.2°F, -112.8°C
Latent heat of vaporization at normal boiling point	41.4 Btu/lb, 96.3 kJ/kg
Latent heat of fusion at triple point	7.57 Btu/lb, 17.6 kJ/kg