



Neon

Product Specification Sheet

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Neon – A Colorless, Odorless, Inert Monatomic Gas

Neon is a chemical element with the symbol Ne and the atomic number 10. It is a noble gas. Neon is a colorless, odorless, monatomic gas under standard conditions, with about two-thirds the density of air. Neon is used for vacuum tubes, high-voltage indicators, lighting arresters, wave meter tubes, television tubes, and helium neon lasers. Liquefied neon is commercially used as a cryogenic refrigerant in applications not requiring the lower temperature range attainable with more extreme liquid helium refrigeration.

Specifications

Safety Requirements: The cryogenic liquid will rapidly boil to the gas at standard temperatures and pressures. The liquefied 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).

Physical Constants	
Chemical Name	Ne
Molecular Weight	20.179
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	19.16 cu. ft/lb
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	-288.75°C
Critical Pressure	26.786 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

Neon Research/Scientific Grade Maximum Impurities	
Neon Purity	99.999%
O ₂ + Air	.19
Helium	3.04
Hydrogen	< 0.1 ppmv
Carbon Monoxide	< 0.1 ppmv
Nitrogen	0.19 ppmv
Methane	< 0.1ppmv
Carbon Dioxide	< 0.1ppmv

Shipping Information	
Shipping Class	70
DOT Name	Neon
TC Name	Neon Compressed
DOT Class	2.2 (Nonflammable Gas)
TC Class	2.2 (Nontoxic, Nonflammable gas)
WHMIS Class	A
DOT Label	Nonflammable Gas
CAS Registry No.	7440-01-09
UN No./IATA No.	UN1065