DESCRIPTION

Neon is a rare atmospheric gas which is odorless, colorless, tasteless, nontoxic, monatomic and chemically inert. The concentration of Neon in the atmosphere, by volume percent, is 1.8 x 10-3. Neon is principally shipped and used in gaseous form
for excimer lasers, plasma displays, light bulbs, neon signs and R & D laboratory research. Spectra Gases Material Safety Data Sheets (MSDS) are available for Neon gas and should be used as guidelines in regard to first aid, methods of storage, handling
and general use of Neon.

PURITY SPECIFICATIONS (MAXIMUM IMPURITY LEVELS)*

Contaminant	Research Grade 99.999%	UHP Grade 99.996%
Carbon Dioxide (CO_2)	0.5 ppm	1.0 ppm
Carbon Monoxide (CO)	0.5 ppm	1.0 ppm
Helium (He)	8.0 ppm	35.0 ppm
Methane (CH_4)	0.5 ppm	1.0 ppm
Nitrogen (N_2)	1.0 ppm	4.0 ppm
Oxygen (O_2)	0.5 ppm	1.0 ppm
Water (H_20)	0.5 ppm	1.0 ppm

** Higher purities are available upon request.*

CYLINDER INFORMATION

Purity	Cylinder Size*	Valve Outlet*	Volume Liters	Gross Weight Lbs/Kg	Pressure Psig/Bar
Research Grade	1	580	7500	152 / 69	2400 / 167
	2	580	5000	125 / 57	1760 / 122
	3	580	2000	52 / 24	1925 / 134
	4	580	1000	25 / 11	2000 / 139
	LB	580/170	50	6 / 3	2000 / 139
UHP Grade	1	580	7500	152 / 69	2400 / 167
	2	580	5000	125 / 57	1760 / 122
	3	580	2000	52 / 24	1925 / 134
	4	580	1000	25 / 11	2000 / 139
	LB	580/170	50	6 / 3	2000 / 139
Non-Refillable Cylinders	D1	580	400	13 / 6	1625 / 113
	D2	580	200	9 / 4	1250 / 87
	D2	580	100	9 / 4	600 / 42
	D3	580	50	6 / 3	725 / 51
	D3	580	25	6 / 3	350 / 25
	D7	580	20	3 / 1	240 / 18
	D7	580	12	3 / 1	140 / 11

** Additional cylinder sized and/or valve outlets are available upon request.*

(Continued)

PHYSICAL CONSTANTS		
Chemical name		Ne
Molecular weight		20.183
Density of the gas at 70°F (21,1° C), 1 atm		0.05215 lb/ft3, 0.83536 kg/ m3
Specific gravity of the gas at 70°F (21,1° C), 1 atm		0.696
Specific volume of the gas at 70°F (21,1° C), 1 atm		19.18 ft3/lb, 1.197 m3/kg
Boiling point at 1 atm		–410.9°F, –246.0°C
Melting point at 1 atm		–415.6°F, –248.7°C
Critical temperature at 1 atm		–379.8°F, –228.8°C
Critical pressure		384.9 psia, 26.54 bar
Critical density		30.15 lb/ft3, 483 kg/m3
Triple point at 6.29 psia (0.434 bar)		–415.4°F, –248.6°C
Latent heat of vaporization at normal boiling point		37.08 Btu/lb, 86.3 kJ/kg
Latent heat of fusion at triple point		7.14 Btu/lb, 16.6 kJ/kg
Specific heat of the gas at 70°F (21,1° C), 1 atm	Cp	0.25 Btu/(lb) (°F) 1.05 kJ/(kg) (°C)
	Cv	0.152 Btu/(lb) (°F) 0.636 kJ/(kg) (°C)

SHIPPING DATA	
Synonyms	He
CAS Register Number	7440-59-7
DOT Classification	Nonflammable gas
DOT Label	Nonflammable gas
Transport Canada Classification	2.2
Substance Identification (SI)	1046
UN Number	UN 1046
Hazards	High Pressure and suffocation
Toxicity (TLV)	Asphyxiant
Flammability Range (in air)	Nonflammable gas
Odor	None