

# Helium

# He

Grade	Semicon 5N	ULSI 6N
Purity, %	99.999	99.9999
Oxygen	≤2.0 ppmv	≤50 ppbv
Nitrogen	≤3.0 ppmv	≤400 ppbv
Carbon Dioxide	≤1.0 ppmv	≤100 ppbv
Carbon Monoxide	≤1.0 ppmv	≤50 ppbv
Methane	≤1.0 ppmv	≤100 ppbv
Water	≤3.0 ppmv	≤200 ppbv

- A lot analysis is provided for each order. – Individual analysis is also available upon request.
- Pneumatic valves and JIS connections are available upon request.

CYLINDER	Internal Volume	Liters	43.8	5.9
	<b>Cylinder Sizes &gt;&gt;</b>		<b>QF/QA/QB</b>	<b>UA/UF</b>
	Content	Liters	6,910	880
		ft <sup>3</sup>	244	31
	Cylinder Pressure*	psig	2,490	2,000
atm		176.1	141.6	

\* @ NTP

SHIP	DOT Shipping Name	Helium, Compressed	UN Number	UN 1046	Shipped as
	DOT Classification	2.2 (Non-Flammable Gas)	ECCN #	1C980	Compressed Gas
	DOT Label	NON-FLAMMABLE GAS	Harmonized #	2804.29.0010	

TECHNICAL DATA	Specific Volume	6.06 m <sup>3</sup> /kg
	@NTP	97.1 ft <sup>3</sup> /lb
	CAS No	7440-59-7
	CGA/DISS/JIS	580/718/W22-14L
	Atomic Weight	4.00 g/mol

Critical Temperature	-268.0°C	-450.3°F
Critical Pressure	229 atm	18.5 psia

NTP = 21°C or 70°F and 101.3 kPa or 1 atm

Cylinder	Treatment	Nominal Diameter (OD)xHeight*		Material of Construction	
		cm	Inches	Cylinder	Valve
QF	ULTRA-LINE®	23x130/134/143	9x51/52.5/56	CS	SS
QA	ULTRA-LINE®	23x130/134/143	9x51/52.5/56	CS	Brass
QB	ULTRA-LINE II®	23x130/134/143	9x51/52.5/56	CS	SS
UA	ULTRA-LINE®	15x51/55/64	6x19/20.5/24	CS	Brass
UF	ULTRA-LINE®	15x51/55/64	6x19/20.5/24	CS	SS

\*Height is reported as the distance from the bottom of the cylinder to the cylinder neck/ center of the valve outlet/ top of the handwheel  
CS: Carbon Steel SS: Stainless Steel



**MATHESON**

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