

Helium (He)

A colorless, odorless, nonflammable, inert gas.

Grade	% Purity	O ₂	H ₂ O	THC	CO	CO ₂	Ar	N ₂
Alphagaz Nano™	99.9999	10 ppb	20 ppb	100 ppb				5*
Research ⁽¹⁾	99.9999	0.5	0.2	0.1	0.1	0.1	0.5	0.5
Chromatographic	99.9999	0.5	0.2	0.1	0.1	0.1	0.5	0.5
Ultra-Pure Carrier (UPC)	99.9995	1	1	0.5	1 ⁽²⁾	1 ⁽²⁾		3
Semiconductor ^(#)	99.999	1	1	0.5	1 ⁽²⁾	1 ⁽²⁾		5
Alphagaz1 with SMARTOP™	99.999	1	1	0.5	1 ⁽²⁾	1 ⁽²⁾		5
Ultra High Purity (UHP)	99.999	1	1	0.5	1 ⁽²⁾	1 ⁽²⁾		5
High Pressure	99.998	5	3					

Concentrations given are ppm by volume unless otherwise specified.

Notes

Purity levels given are excluding Neon.

(1) Total of impurities listed shall not exceed 1 ppm.

(2) Total CO + CO₂ shall not exceed 1 ppm


^(#)Semiconductor grade valve material is brass for standard CGA connection. Cylinders can be provided with SS or DISS valves

(*) Nitrogen spec for reference only

PRODUCT	Ordering Information					Equipment Recommendations		
	Cylinder Size	Contents ft ³	Standard Valve Outlet (CGA)	Product Number	Cylinder Pressure at 70°F (psig)	Description Product Number	Delivery Pressure Range (psig)	Page Number
Alphagaz Nano	300	291	580	HE NANO300	2,640	Two stage regulator Y12-NANO*S580-AL	B = 2-75	
	Certificate of Conformance included.							
Research	300 200 80 35	291 213 84 33	580 580 580 580	HE R300 HE R200 HE R80 HE R35	2,640 2,200 2,200 2,200	Two-Stage Regulator Y12-1215 * 580 Single-Stage Regulators Y11-1213 * 580	A = 1-30 B = 2-75 C = 4-150	
	Certificate of Analysis included.							
Chromatographic	300 200 80 35	291 213 84 33	580 580 580 580	HE CH300 HE CH200 HE CH80 HE CH35	2,640 2,200 2,200 2,200			
	Certificate of Analysis included.							
Ultra-Pure Carrier (UPC)	300 200 80 35	291 213 84 33	580 580 580 580	HE UPC300 HE UPC200 HE UPC80 HE UPC35	2,640 2,220 2,200 2,200	Two-Stage Regulator Y12-N245 * 580 Single-Stage Regulator Y11-N245 * 580	A = 0-25 B = 0- 50 D = 0- 100 G = 0-500**	E20
	Individual or Batch Certificate of Analysis available upon request.							
Semiconductor	300 200	291 213	580 580	HE SM300 HE SM200	2,640 2,200			E21
	Individual or Batch Certificate of Analysis available upon request.					*Insert delivery pressure range code	**Single stage only	
Alphagaz1 with SMARTOP™	300	291	580	HE AZ1300SMT	2,640	Two-Stage Regulator Y12-244 * 580	A = 0-25 B = 0- 50 D = 0- 100	E12
	Individual or Batch Certificate of Analysis available upon request.							

Helium (He) Cont.

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PRODUCT	Ordering Information					Equipment Recommendations		
	Cylinder Size	Contents ft ³	Standard Valve Outlet (CGA)	Product Number	Cylinder Pressure at 70°F (psig)	Description Product Number	Delivery Pressure Range (psig)	Page Number
Ultra High Purity (UHP) 	300	291	580	HE UHP300	2,640	Two-Stage Regulator Y12-244 * 580	A = 0-25 B = 0- 50 D = 0- 100	E12
	200	213	580	HE UHP200	2,200			
	80	84	580	HE UHP80	2,200			
	35	33	580	HE UHP35	2,200			
	Individual or Batch Certificate of Analysis available upon request.							
High Pressure	6K	512	677	HE HP6K	6,000	Single stage Regulators Y11-12900CS677-AL	A=200-3500 B=400-6000	
	3K	328	680	HE HP3K	3,500			
	Individual or Batch Certificate of Analysis available upon request.					Y11-12900*B680-AL	A=200-1500 B=300-3500	
Liquid	Various sizes, volumes, and grades available upon request. Individual or Batch Certificate of Analysis available upon request.							

Technical Data & Shipping Information

Molecular Weight	4.0026
Specific Volume	96.65 cf/lb @70° F & 1 ATM
Flammability Limits in Air	Nonflammable
U.S. DOT Name	Helium, Compressed or Refrigerated Liquid
ID Number	UN 1046 or UN1963
U.S. DOT Hazard Class	2.2
U.S. DOT Label	Nonflammable Gas
CAS Registry	7440-59-7



Airgas offers a wide range of gas supply modes, including high-pressure cylinders, liquid cylinders (or dewars), MicroBulk and bulk. Your Airgas specialty gas representative can help you decide which option is best for your operation. Be sure to ask about our unique line of specialty gas

Airgas Quality Policy

The purpose of the Airgas Quality System is to continually improve our manufacturing and related processes to provide our customers with the highest product purity, consistency, and service.