



# Pure Gases

Pure Gases

## Helium

### Description

Formula: He

### Gas Data

Molecular Weight: 4.00  
 Density: 0.165 kg/m<sup>3</sup> @ 21.1°C, 101.325 kPa  
 0.0103 lb/ft<sup>3</sup> @ 70°F, 14.696 psia  
 Specific Volume: 6.06 m<sup>3</sup>/kg @ 21.1°C, 101.325 kPa  
 97.1 ft<sup>3</sup>/lb @ 70°F, 14.696 psia

### Shipping Information

CAS Registry Number: 7440-59-7  
 UN Number: UN 1046  
 ECCN Number: 1C980  
 DOT Proper Shipping Name: Helium, Compressed  
 DOT Classification: 2.2 (Nonflammable Gas)  
 DOT Label: NON-FLAMMABLE GAS  
 TC Shipping Name: Helium, Compressed  
 TC Classification: 2.2  
 TC Label: NON-FLAMMABLE GAS,  
 NON-POISONOUS GAS

### Cylinder Specifications

Cylinder Size	Valve Outlet CGA No.	Pressure psig @ 70°F	Pressure kPa @ 21.1°C	Approximate Ship Weight lb	kg
1U	677	6,000	41,369	322	146
1H	680	3,500	24,132	198	90
1L	580	2,640	18,202	150	68
1A	580	2,490	17,167	133	60
2	580	2,000	13,790	74	34
3	580	2,000	13,790	39	18
4	580	2,000	13,790	22	10
6	580	1,585	10,928	20	9
7B	580	1,650	11,376	6	3
7A	580	825	5,688	6	3
7	580	225	1,551	6	3
LB	170	1,775	12,238	6	3

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content US	Content Metric	Equipment Recommendations	Model No.		
<b>Helium, Research Purity 99.9999%</b>	G2137101	1A	244 ft <sup>3</sup>	6.91 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. LB Regulator Leak Detector Outlet Plug Wrench	Consult Factory Consult Factory Series 3570-170 8066 TW-4		
<i>Guaranteed Specifications</i>	G2137140	2	77 ft <sup>3</sup>	2.18 m <sup>3</sup>				
Carbon Dioxide < 0.1 ppm	G2137150	3	31 ft <sup>3</sup>	0.88 m <sup>3</sup>				
Carbon Monoxide < 0.1 ppm	G2137165	4	10 ft <sup>3</sup>	0.28 m <sup>3</sup>				
Nitrogen < 0.4 ppm	G2137178	6	3.53 ft <sup>3</sup>	100 L				
Oxygen < 0.1 ppm	G2137183	7B	1.77 ft <sup>3</sup>	50 L				
THC as Methane < 0.1 ppm	G2137182	7A	0.88 ft <sup>3</sup>	25 L				
Water < 0.2 ppm	G2137181	7	0.25 ft <sup>3</sup>	7 L				
<i>A Certificate of Analysis is available on request at a nominal charge. Guarantee is for total purity on a neon free basis.</i>								
<b>Helium, Matheson Purity 99.9995%</b>	G1841112	1L	288 ft <sup>3</sup>	8.16 m <sup>3</sup>			Dual Stage Reg. Single Stage Reg. LB Regulator Leak Detector Outlet Plug Wrench	Series 3810-580 Series 3510-580 Series 3570-170 8066 TW-4*
<i>Guaranteed Specifications</i>	G1841101	1A	244 ft <sup>3</sup>	6.91 m <sup>3</sup>				
Argon < 0.5 ppm	G1841140	2	77 ft <sup>3</sup>	2.18 m <sup>3</sup>				
Carbon Dioxide < 0.1 ppm	G1841150	3	31 ft <sup>3</sup>	0.88 m <sup>3</sup>				
Carbon Monoxide < 0.1 ppm	G1841165	4	10 ft <sup>3</sup>	0.28 m <sup>3</sup>				
Nitrogen < 1 ppm	G1841175	LB	2 ft <sup>3</sup>	56 L				
Oxygen < 1 ppm								
THC < 0.1 ppm Water < 0.5 ppm								
<i>A Certificate of Analysis is available on request at a nominal charge. *Except LB</i>								
<b>Helium, UHP Enable 99.999%</b>	G2671450	1L	288 ft <sup>3</sup>	8.16 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Leak Detector Outlet Plug Wrench	Series 3810-580 Series 3510-580 8066 TW-4		
<i>Guaranteed Specifications</i>	G2671089	1A	244 ft <sup>3</sup>	6.91 m <sup>3</sup>				
Carbon Dioxide < 0.5 ppm								
Carbon Monoxide < 1 ppm								
430Oxygen < 1 ppm								
Nitrogen < 4 ppm								
THC < 0.5 ppm Water < 1 ppm								
<i>A lot analysis is available on request. Please inquire for individual cylinder analysis.</i>								
<b>Helium, Ultra High Purity 99.999%</b>	G1929112	1L	288 ft <sup>3</sup>	8.16 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. LB Regulator Leak Detector Outlet Plug Wrench	Series 3810-580 Series 3510-580 Series 3570-170 8066 TW-4*		
<i>Guaranteed Specifications</i>	G1929101	1A	244 ft <sup>3</sup>	6.91 m <sup>3</sup>				
Carbon Dioxide < 1 ppm	G1929140	2	77 ft <sup>3</sup>	2.18 m <sup>3</sup>				
Carbon Monoxide < 1 ppm	G1929150	3	31 ft <sup>3</sup>	0.88 m <sup>3</sup>				
Nitrogen < 8 ppm	G1929165	4	10 ft <sup>3</sup>	0.28 m <sup>3</sup>				
Oxygen < 4 ppm	G1929175	LB	2 ft <sup>3</sup>	56 L				
THC < 0.5 ppm Water < 5 ppm								
<i>A lot analysis is available on request. Please inquire for individual cylinder analysis. *Except LB</i>								



## Helium (continued)

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content		Equipment Recommendations	Model No.
			US	Metric		
<b>Helium, Zero Gas 99.995%</b> Guaranteed Specifications THC < 0.5 ppm	G2033112	1L	288 ft <sup>3</sup>	8.16 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. LB Regulator Leak Detector Cyl. Valve Wrench	Series 3120-580
	G2033101	1A	244 ft <sup>3</sup>	6.91 m <sup>3</sup>		Series 3530-580
	G2033140	2	77 ft <sup>3</sup>	2.18 m <sup>3</sup>		Series 3550-170
	G2033150	3	31 ft <sup>3</sup>	0.88 m <sup>3</sup>		8066
	G2033165	4	10 ft <sup>3</sup>	0.28 m <sup>3</sup>		TW-4*
	G2033175	LB	2 ft <sup>3</sup>	56 L		
<i>A lot analysis is available on request. Please inquire for individual cylinder analysis.</i>						
<i>*Except LB</i>						
<b>Helium, High Purity 99.995%</b>	G1141112	1L	288 ft <sup>3</sup>	8.16 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. LB Regulator Leak Detector Outlet Plug Wrench	Series 3120-580
	G1141101	1A	244 ft <sup>3</sup>	6.91 m <sup>3</sup>		Series 3530-580
	G1141140	2	77 ft <sup>3</sup>	2.18 m <sup>3</sup>		Series 3550-170
	G1141150	3	31 ft <sup>3</sup>	0.88 m <sup>3</sup>		8066
	G1141165	4	10 ft <sup>3</sup>	0.28 m <sup>3</sup>		TW-4*
	G1141175	LB	2 ft <sup>3</sup>	56 L		
<i>A Certificate of Conformance will be provided on request.</i>						
<i>*Except LB</i>						
<b>Helium, 3500 psig 99.995%</b>	G1141208	1H	332 ft <sup>3</sup>	9.40 m <sup>3</sup>	Single Stage Reg. Leak Detector Cyl. Valve Wrench	Series 3060-680 8066 TW-2
<i>A Certificate of Conformance will be provided on request.</i>						
<b>Helium, 6000 psig 99.995%</b>	G1141321	1U	515 ft <sup>3</sup>	14.58 m <sup>3</sup>	Single-Stage Reg. Leak Detector Outlet Plug Wrench	Series 3060-677 8066 TW-4
<i>A Certificate of Conformance will be provided on request.</i>						

⚠ WARNING: This product can expose you to chemicals including Carbon Monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).