



# Oxygen

### Description

Formula: O<sub>2</sub>

### Gas Data

Molecular Weight: 32.00  
 Density: 1.326 kg/m<sup>3</sup> @ 21.1°C, 101.325 kPa  
 0.08279 lb/ft<sup>3</sup> @ 70°F, 14.696 psia  
 Specific Volume: 0.7541 m<sup>3</sup>/kg @ 21.1°C, 101.325 kPa  
 12.08 ft<sup>3</sup>/lb @ 70°F, 14.696 psia

### Shipping Information

CAS Registry Number: 7782-44-7  
 UN Number: UN 1072  
 ECCN Number: EAR99  
 DOT Proper Shipping Name: Oxygen, Compressed  
 DOT Classification: 2.2 (Nonflammable Gas)  
 DOT Label: NON-FLAMMABLE GAS, OXIDIZER  
 TC Shipping Name: Oxygen, Compressed  
 TC Classification: 2.2, 5.1  
 TC Label: NON-FLAMMABLE GAS,  
 NON-POISONOUS GAS, OXIDIZER

### Cylinder Specifications

Cylinder Size	Valve Outlet CGA No.	Pressure		Approximate Ship Weight	
		psig @ 70°F	kPa @ 21.1°C	lb	kg
1L	540	2,640	18,202	173	78
1A	540	2,200	15,168	153	69
2	540	1,600	11,032	80	36
3	540	1,600	11,032	41	19
4	540	1,600	11,032	13	6
6	540	1,585	10,928	20	9
7B	540	1,650	11,376	6	3
7A	540	825	5,688	6	3
7	540	225	1,551	6	3
LB	170	1,600	11,032	6	3

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content US	Content Metric	Equipment Recommendations	Model No.	Page No.
<b>Oxygen, Research Purity 99.998%</b>	G2182101	1A	249 ft <sup>3</sup>	7.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Flash Arrestor Leak Detector Detector Tube	Series 3810-540 Series 3510-540 6104A 8081A 8014-159SC	318 312 434 404 392
<i>Guaranteed Specifications</i>	G2182140	2	70 ft <sup>3</sup>	1.98 m <sup>3</sup>			
Argon < 5 ppm	G2182150	3	28 ft <sup>3</sup>	0.79 m <sup>3</sup>			
Carbon Dioxide < 0.1 ppm	G2182165	4	10 ft <sup>3</sup>	0.28 m <sup>3</sup>			
Carbon Monoxide < 0.1 ppm	G2182178	6	3.53 ft <sup>3</sup>	100 L			
Hydrogen < 0.1 ppm	G2182183	7B	1.76 ft <sup>3</sup>	50 L			
Krypton < 1 ppm	G2182182	7A	0.88 ft <sup>3</sup>	25 L			
Nitrogen < 5 ppm	G2182181	7	0.25 ft <sup>3</sup>	7 L			
Nitrous Oxide < 2 ppm							
THC < 0.1 ppm							
Water < 1 ppm							
<i>A Certificate of Analysis is available on request at a nominal charge. Caution: Not for human consumption.</i>							
<b>Oxygen, Matheson Purity 99.997%</b>	G1885112	1L	337 ft <sup>3</sup>	9.54 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. LB Regulator Flash Arrestor Leak Detector Detector Tube	Series 3810-540 Series 3510-540 Series 3570-170 6104A 8081A 8014-159SC	318 312 314 434 404 392
<i>Guaranteed Specifications</i>	G1885101	1A	249 ft <sup>3</sup>	7.05 m <sup>3</sup>			
Argon < 15 ppm	G1885140	2	70 ft <sup>3</sup>	1.98 m <sup>3</sup>			
Carbon Dioxide < 1 ppm	G1885150	3	28 ft <sup>3</sup>	0.79 m <sup>3</sup>			
Carbon Monoxide < 1 ppm	G1885165	4	10 ft <sup>3</sup>	0.28 m <sup>3</sup>			
Krypton < 10 ppm	G1885175	LB	2 ft <sup>3</sup>	56 L			
Nitrogen < 10 ppm							
THC < 0.5 ppm							
Water < 1 ppm							
<i>A Certificate of Analysis is available on request at a nominal charge. Caution: Not for human consumption.</i>							
<b>Oxygen, Ultra High Purity 99.98%</b>	G1979112	1L	337 ft <sup>3</sup>	9.54 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. LB Regulator Flash Arrestor Leak Detector Detector Tube	Series 3120-540 Series 3530-540 Series 3570-170 6103A-O 8081A 8014-159SC	299 313 314 434 404 392
<i>Guaranteed Specifications</i>	G1979101	1A	249 ft <sup>3</sup>	7.05 m <sup>3</sup>			
Carbon Dioxide < 1 ppm	G1979140	2	70 ft <sup>3</sup>	1.98 m <sup>3</sup>			
Carbon Monoxide < 1 ppm	G1979150	3	28 ft <sup>3</sup>	0.79 m <sup>3</sup>			
Nitrogen < 15 ppm	G1979165	4	10 ft <sup>3</sup>	0.28 m <sup>3</sup>			
THC < 1 ppm	G1979175	LB	2 ft <sup>3</sup>	56 L			
Water < 5 ppm							
<i>A lot analysis is available on request. Please inquire for individual cylinder analysis. Caution: Not for human consumption.</i>							



## Oxygen (continued)

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content		Equipment Recommendations	Model No.	Page No.
			US	Metric			
<b>Oxygen, Zero Gas 99.8%</b> THC as CH <sub>4</sub> < 0.5 ppm	G2060112	1L	337 ft <sup>3</sup>	9.54 m <sup>3</sup>	Dual Stage Reg.	Series 3120-540	299
	G2060101	1A	249 ft <sup>3</sup>	7.05 m <sup>3</sup>	Single Stage Reg.	Series 3530-540	313
	G2060140	2	70 ft <sup>3</sup>	1.98 m <sup>3</sup>	LB Regulator	Series 3570-170	314
	G2060150	3	28 ft <sup>3</sup>	0.79 m <sup>3</sup>	Flash Arrestor	6103A-O	434
	G2060165	4	10 ft <sup>3</sup>	0.28 m <sup>3</sup>	Leak Detector	8081A	404
	G2060175	LB	2 ft <sup>3</sup>	56 L	Detector Tube	8014-159SC	392
<p><i>A lot analysis will be provided with each cylinder. Please inquire for individual cylinder analysis.</i>  <i>Caution: Not for human consumption</i></p>							
<b>Oxygen, Extra Dry 99.6%</b>	G1177201	1A	249 ft <sup>3</sup>	7.05 m <sup>3</sup>	Dual Stage Reg.	Series 3120-540	299
	G1177240	2	70 ft <sup>3</sup>	1.98 m <sup>3</sup>	Single Stage Reg.	Series 3530-540	313
	G1177250	3	28 ft <sup>3</sup>	0.79 m <sup>3</sup>	LB Regulator	Series 3550-170	314
	G1177265	4	10 ft <sup>3</sup>	0.28 m <sup>3</sup>	Flash Arrestor	6103A-O	434
	G1177275	LB	2 ft <sup>3</sup>	56 L	Leak Detector	8081A	404
<p><i>A Certificate of Conformance will be provided on request.</i>  <i>Caution: Not for human consumption.</i></p>							