



Carbon Dioxide

Description

Synonym: Carbonic Anhydride, Carbonic Acid Gas
Formula: CO₂

Gas Data

Molecular Weight: 44.01
Density: 1.833 kg/m³ @ 21.1°C, 101.325 kPa
0.1144 lb/ft³ @ 70°F, 14.696 psia
Specific Volume: 0.5456 m³/kg @ 21.1°C, 101.325 kPa
8.741 ft³/lb @ 70°F, 14.696 psia

Safety Information

Permissible Exposure Limit (TLV): 5000 ppm

Shipping Information

CAS Registry Number: 124-38-9
UN Number: UN 1013
ECCN Number: 1C980
DOT Proper Shipping Name: Carbon Dioxide
DOT Classification: 2.2 (Non Flammable Gas)
DOT Label: NON-FLAMMABLE GAS
TC Shipping Name: Carbon Dioxide
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
1L	320	830	5,724	218	99
1A	320	830	5,724	192	87
1R	320	830	5,724	88	40
2	320	830	5,724	98	44
2R	320	830	5,724	62	28
3	320	830	5,724	47	21
3R	320	830	5,724	34	15
6	320	830	5,724	20	9
7	320	830	5,724	6	3
7A	320	830	5,724	6	3
LB	170	830	5,724	6	3

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content US	Content Metric	Equipment Recommendations	Model No.	Page No.			
Carbon Dioxide, Research Purity 99.999%	G2110101	1A	60 lb	27.22 kg	Dual Stage Reg. Single Stage Reg. LB Regulator Leak Detector Detector Tube Cyl. Valve Wrench	Series 3120-320 Series 3530-320 Series 3550-170 8066 8014-126SF TW-5	299 313 314 406 391 430			
<i>Guaranteed Specifications</i>	G2110118	1R	39 lb	17.69 kg						
Carbon Monoxide <	0.2 ppm	G2110140	2	24 lb				10.89 kg		
Hydrogen <	1 ppm	G2110150	3	8 lb				3.63 kg		
Nitrogen <	5 ppm	G2110178	6	3.53 ft ³				100 L		
Oxygen <	2 ppm	G2110183	7B	1.77 ft ³				50 L		
Water <	2 ppm	G2110182	7A	0.88 ft ³				25 L		
THC as Methane <	4 ppm									
<i>A Certificate of Analysis will be provided with each cylinder at a nominal charge.</i>										
Carbon Dioxide, SFC Purity 99.999%	G2412118	1R	39 lb	17.69 kg				Dual Stage Reg. Single Stage Reg. Leak Detector Detector Tube Cyl. Valve Wrench	Series 3120-320* Series 3530-320* 8066 8014-126SF TW-5	299 313 406 391 430
<i>Guaranteed Specifications</i>	G2658748	2R	20 lb	9.07 kg						
Nitrogen <	5 ppm	G2658749	3R	8 lb	3.63 kg					
Oxygen <	5 ppm									
THC as Methane <	4 ppm									
Total Halocarbons <	50 ppb									
Water <	1 ppm									
<i>A Certificate of Analysis will be provided with each cylinder at a nominal charge.</i>										
<i>Supplied with full length eductor tube. The 1R can be pressurized to 1500 psig with helium and FLET: order G2659694ETHE.</i>										
<i>*Regulators for gas phase only</i>										



Carbon Dioxide (continued)

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content US	Content Metric	Equipment Recommendations	Model No.	Page No.
Carbon Dioxide, Coleman Instrument 99.99%	G2401101	1A	60 lb	27.22 kg	Dual Stage Reg.	Series 1250-320	296
<i>Guaranteed Specifications</i>	G2401140	2	24 lb	10.89 kg	Single Stage Reg.	Series 3530-320	313
Oxygen < 20 ppm	G2401150	3	8 lb	3.63 kg	LB Regulator	Series 3550-170	314
Nitrogen < 50 ppm	G2401175	LB	0.5 lb	227 gm	Gas Warmer	6284-320	436
					Leak Detector	8066	406
					Detector Tube	8014-126SF	391
					Cyl. Valve Wrench	TW-5	430
<i>A Certificate of Conformance will be provided on request.</i>							
Carbon Dioxide, Bone Dry 99.8%	G1123312	1L	70 lb	31.75 kg	Dual Stage Reg.	Series 81-320**	293
	G1123301	1A	60 lb	27.22 kg	Single Stage Reg.	Series 18-320**	292
	G1123340	2	24 lb	10.89 kg	LB Regulator	Series 3320-170**	302
	G1123350	3	8 lb	3.63 kg	Gas Warmer	6284-320	435
	G1123375	LB	0.5 lb	227 gm	Leak Detector	8066	406
					Detector Tube	8014-126SF	391
					Cyl. Valve Wrench	TW-5	430
					Manual Control Valve (for liquid)	52A-320	417
<i>1A, 40 lbs CO₂, FLET, up to 2,000 psig helium head pressure: order item G2659697ETHE.</i>							
<i>1A, 60 lbs CO₂, full length eductor tube - FLET - order item G265969F.</i>							
<i>A Certificate of Conformance will be provided on request.</i>							
<i>By quotation, all except LB can be furnished with full length eductor tubes for liquid withdrawal.</i>							
<i>**Regulators for gas phase only</i>							
Carbon Dioxide, CP Grade 99.5%	G1123112	1L	70 lb	31.75 kg	Dual Stage Reg.	Series 81-320**	293
	G1123101	1A	60 lb	27.22 kg	Single Stage Reg.	Series 18-320**	292
	G1123140	2	24 lb	10.89 kg	Gas Warmer	6284-320	435
	G1123150	3	8 lb	3.63 kg	Leak Detector	8066	406
					Detector Tube	8014-126SF	391
					Cyl. Valve Wrench	TW-5	430
					Manual Control Valve (for liquid)	52A-320	417
<i>A Certificate of Conformance will be provided on request.</i>							
<i>By request, all can be furnished with full length eductor tubes for liquid withdrawal.</i>							
<i>**Regulators for gas phase only</i>							
Carbon Dioxide, UHP, 99.995%	G2670450	1A	60 lb	27.22 kg	Manual Control Valve (for liquid)	52A-320	417
<i>Impurities</i>	G2670451*	1A	60 lb	27.22 kg	Gas Warmer	6284-320	435
Oxygen < 10 ppm	G2670456	1R	39 lb	17.69 kg	Leak Detector	8066	406
Nitrogen < 20 ppm	G2670452	2	24 lb	10.84 kg	Detector Tube	8014-126SF	391
THC as Methane < 5 ppm					Cyl. Valve Wrench	TW-5	430
Water < 5 ppm							
<i>*With FLET</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.