



Nitrous Oxide

Description

Formula: N₂O
 Synonyms: Nitrogen Monoxide, Dinitrogen Monoxide, Laughing Gas

Gas Data

Molecular Weight: 44.01
 Density: 1.947 kg/m³ @ 21.1°C, 101.325 kPa
 0.1215 lb/ft³ @ 70°F, 14.696 psia
 Specific Volume: 0.5136 m³/kg @ 21.1°C, 101.325 kPa
 8.230 ft³/lb @ 70°F, 14.696 psia

Shipping Information

CAS Registry Number: 10024-97-2
 UN Number: UN 1070
 ECCN Number: EAR99
 DOT Proper Shipping Name: Nitrous Oxide
 DOT Classification: 2.2 (Nonflammable Gas)
 DOT Label: NON-FLAMMABLE GAS, OXIDIZER
 TC Shipping Name: Nitrous Oxide, 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 psig @ 70°F	Pressure kPa @ 21.1°C	Approximate Ship Weight	
				lb	kg
1A	326	745	5,137	192	87
1R	326	745	5,137	98	44
2	326	745	5,137	94	43
2R	326	745	5,137	63	29
3	326	745	5,137	45	20
3R	326	745	5,137	34	15
LB	170	745	5,137	6	3
QA	326	745	5,137	192	87

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content US	Content Metric	Equipment Recommendations	Model No.
Nitrous Oxide, Research Purity 99.999% <i>Guaranteed Specifications</i>	G2174504	QA	60 lb	27.22 kg	Dual Stage Reg. Single Stage Reg.	Series 3810-326 Series 3510-326
Ammonia < 0.5 ppm						
Carbon Dioxide < 2.0 ppm						
Carbon Monoxide < 0.1 ppm						
Methane < 0.1 ppm						
Nitrogen < 2.0 ppm						
NOx < 0.5 ppm						
Oxygen < 2.0 ppm						
Water < 2.0 ppm						
<i>A Certificate of Analysis is available on request at a nominal charge. Caution: not for human consumption.</i>						
Nitrous Oxide, Matheson Purity 99.997% <i>Guaranteed Specifications</i>	G1882104	QA	60 lb	27.22 kg	Dual Stage Reg. Single Stage Reg. Gas Warmer	Series 3810-326 Series 3510-326 6284-326
Carbon Dioxide < 3 ppm						
Carbon Monoxide < 0.5 ppm						
Methane < 0.5 ppm						
Nitrogen < 7 ppm						
NOx < 1 ppm						
Oxygen < 3 ppm						
Water < 3 ppm						
<i>A Certificate of Analysis is available on request at a nominal charge. Caution: Not for human consumption.</i>						
Nitrous Oxide, SFC Purity 99.995% <i>Guaranteed Specifications</i>	G2468118	1R	39 lb	17.69 kg	Dual Stage Reg. Single Stage Reg. Gas Warmer	Series 3120-326 Series 3530-326 6284-326
Carbon Dioxide < 2 ppm	G2468147	2R	21 lb	9.53 kg		
Water < 2 ppm	G2468159	3R	8 lb	3.63 kg		
Methane < 1 ppm						
Nitrogen < 8 ppm						
Oxygen < 2 ppm						
<i>A Certificate of Analysis is available on request at a nominal charge. Caution: Not for human consumption.</i>						



Nitrous Oxide (continued)

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content US	Content Metric	Equipment Recommendations	Model No.
Nitrous Oxide, Ultra High Purity 99.99%	G1969101	1A	60 lb	27.22 kg	Dual Stage Reg. Single Stage Reg. LB Regulator Gas Warmer	Series 3120-326 Series 3530-326 Series 3550-170 6284-326
<i>Guaranteed Specifications</i>	G1969140	2	20 lb	9.07 kg		
Carbon Dioxide < 2 ppm	G1969150	3	6 lb	2.72 kg		
Carbon Monoxide < 2 ppm	G1969175	LB	0.5 lb	227 gm		
Nitrogen < 10 ppm						
Oxygen < 4 ppm						
THC as CH ₄ < 2 ppm						
<i>A lot analysis will be provided with each cylinder. Please inquire for individual cylinder analysis. Caution: Not for human consumption.</i>						
Nitrous Oxide, CP Grade 99%	G1570101	1A	60 lb	27.22 kg	Dual Stage Reg. Single Stage Reg. LB Regulator Gas Warmer	Series 81-326 Series 18-326 Series 3320-170 6284-326
	G1570140	2	20 lb	9.07 kg		
	G1570150	3	6 lb	2.72 kg		
	G1570175	LB	0.5 lb	227 gm		
<i>A Certificate of Conformance will be provided on request. Caution: Not for human consumption.</i>						

⚠ WARNING: This product can expose you to chemicals including Nitrous Oxide, 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.

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