



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.	Page No.
Nitrous Oxide, Research Purity 99.999%	G2174504	QA	60 lb	27.22 kg	Dual Stage Reg. Single Stage Reg.	Series 3810-326 Series 3510-326	318 312
<i>Guaranteed Specifications</i>							
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%	G1882104	QA	60 lb	27.22 kg	Dual Stage Reg. Single Stage Reg. Gas Warmer	Series 3810-326 Series 3510-326 6284-326	318 312 435
<i>Guaranteed Specifications</i>							
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%	G2468118	1R	39 lb	17.69 kg	Dual Stage Reg. Single Stage Reg.	Series 3120-326 Series 3530-326	299 312
<i>Guaranteed Specifications</i>	G2468147	2R	21 lb	9.53 kg			
Carbon Dioxide	<	2 ppm			Gas Warmer	6284-326	435
Water	<	2 ppm					
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.	Page 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	299
<i>Guaranteed Specifications</i>	G1969140	2	20 lb	9.07 kg		Series 3530-326	313
Carbon Dioxide < 2 ppm	G1969150	3	6 lb	2.72 kg		Series 3550-170	314
Carbon Monoxide < 2 ppm	G1969175	LB	0.5 lb	227 gm		6284-326	435
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	293
	G1570140	2	20 lb	9.07 kg		Series 18-326	292
	G1570150	3	6 lb	2.72 kg		Series 3320-170	302
	G1570175	LB	0.5 lb	227 gm		6284-326	435
<i>A Certificate of Conformance will be provided on request. Caution: Not for human consumption.</i>							