



Nitrogen

Description

Formula: N₂

Gas Data

Molecular Weight: 28.01
 Density: 1.153 kg/m³ @ 21.1°C, 101.325 kPa
 0.07199 lb/ft³ @ 70°F, 14.696 psia
 Specific Volume: 0.8673 m³/kg @ 21.1°C, 101.325 kPa
 13.89 ft³/lb @ 70°F, 14.696 psia

Shipping Information

CAS Registry Number: 7727-37-9
 UN Number: UN 1066
 ECCN Number: EAR99
 DOT Proper Shipping Name: Nitrogen, Compressed
 DOT Classification: 2.2 (Nonflammable Gas)
 DOT Label: NON-FLAMMABLE GAS
 TC Shipping Name: Nitrogen, 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 kg | |
|---------------|----------------------|----------------------|-----------------------|----------------------------|-----|
| 1U | 677 | 6,000 | 41,369 | 359 | 163 |
| 1H | 680 | 3,500 | 24,132 | 233 | 106 |
| 1L | 580 | 2,640 | 18,202 | 170 | 77 |
| 1A | 580 | 2,490 | 17,167 | 151 | 68 |
| 1R | 580 | 2,000 | 13,790 | 69 | 31 |
| 2 | 580 | 2,000 | 13,790 | 80 | 36 |
| 2R | 580 | 2,000 | 13,790 | 48 | 22 |
| 3 | 580 | 2,000 | 13,790 | 41 | 19 |
| 3R | 580 | 2,000 | 13,790 | 28 | 13 |
| 4 | 580 | 2,000 | 13,790 | 23 | 10 |
| 6 | 580 | 1,585 | 10,928 | 20 | 9 |
| 6A | 180 | 1,775 | 12,238 | 2 | 1 |
| 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 | US | Content Metric | Equipment Recommendations | Model No. | Page No. |
|---|--------------|---------------|----------------------|---------------------|--|--|--------------------------|
| Nitrogen, Research Purity 99.9999% | G2173112 | 1L | 300 ft ³ | 8.50 m ³ | Dual Stage Reg. Single Stage Reg. Outlet Plug Wrench | Consult Factory Consult Factory TW-4 | – – 430 |
| <i>Guaranteed Specifications</i> | G2173101 | 1A | 255 ft ³ | 7.22 m ³ | | | |
| Carbon Dioxide < 0.1 ppm | G2659809 | 1R | 144 ft ³ | 4.08 m ³ | | | |
| Carbon Monoxide < 0.1 ppm | G2173140 | 2 | 81 ft ³ | 2.29 m ³ | | | |
| THC < 0.1 ppm | G2173150 | 3 | 32 ft ³ | 0.91 m ³ | | | |
| Oxygen < 0.5 ppm | G2173165 | 4 | 11 ft ³ | 0.31 m ³ | | | |
| Water < 0.2 ppm | G2173178 | 6 | 3.53 ft ³ | 100 L | | | |
| | G2173183 | 7B | 1.77 ft ³ | 50 L | | | |
| | G2173182 | 7A | 0.88 ft ³ | 25 L | | | |
| <i>A Certificate of Analysis is available on request at a nominal charge.</i> | | | | | | | |
| Nitrogen, Matheson Purity 99.9995% | G1881112 | 1L | 300 ft ³ | 8.50 m ³ | Dual Stage Reg. Single Stage Reg. LB Regulator Outlet Plug Wrench | Series 3810-580 Series 3510-580 Series 3570-170 TW-4* | 318 312 314 430 |
| <i>Guaranteed Specifications</i> | G1881101 | 1A | 255 ft ³ | 7.22 m ³ | | | |
| Carbon Dioxide < 0.5 ppm | G1881140 | 2 | 81 ft ³ | 2.29 m ³ | | | |
| Carbon Monoxide < 0.5 ppm | G1881150 | 3 | 32 ft ³ | 0.91 m ³ | | | |
| Oxygen < 1 ppm | G1881165 | 4 | 11 ft ³ | 0.31 m ³ | | | |
| THC < 0.2 ppm | G1881172 | 6A | 3.64 ft ³ | 103 L | | | |
| Water < 1 ppm | G1881175 | LB | 2 ft ³ | 56 L | | | |
| <i>A Certificate of Analysis is available on request at a nominal charge.</i> | | | | | | | |
| <i>*Except LB</i> | | | | | | | |
| Nitrogen, UHP Enable, 99.999% | G2671452 | 1L | 300 ft ³ | 8.50 m ³ | Dual Stage Reg. Single Stage Reg. Outlet Plug Wrench | Series 3810-580 Series 3510-580 | 318 312 |
| <i>Guaranteed Specifications</i> | G2671091 | 1A | 255 ft ³ | 7.22 m ³ | | | |
| Carbon Dioxide < 1 ppm | | | | | Outlet Plug Wrench | TW-4 | 430 |
| Carbon Monoxide < 1 ppm | | | | | | | |
| Oxygen < 1 ppm | | | | | | | |
| THC < 0.5 ppm | | | | | | | |
| Water < 1 ppm | | | | | | | |
| <i>A lot analysis is available on request. Please inquire for individual cylinder analysis.</i> | | | | | | | |
| Nitrogen, Ultra High Purity 99.999% | G1959112 | 1L | 300 ft ³ | 8.50 m ³ | Dual Stage Reg. Single Stage Reg. LB Regulator Outlet Plug Wrench | Series 3120-580 Series 3530-580 Series 3570-170 TW-4* | 299 313 314 430 |
| <i>Guaranteed Specifications</i> | G1959101 | 1A | 255 ft ³ | 7.22 m ³ | | | |
| Carbon Dioxide < 1 ppm | G1959140 | 2 | 81 ft ³ | 2.29 m ³ | | | |
| Carbon Monoxide < 1 ppm | G1959150 | 3 | 32 ft ³ | 0.91 m ³ | | | |
| Oxygen < 2 ppm | G1959165 | 4 | 11 ft ³ | 0.31 m ³ | | | |
| THC < 0.5 ppm | G1959175 | LB | 2 ft ³ | 56 L | | | |
| Water < 3 ppm | | | | | | | |
| <i>A lot analysis is available on request. Please inquire for individual cylinder analysis.</i> | | | | | | | |
| <i>*Except LB</i> | | | | | | | |



Nitrogen (continued)

| Gas Grade Purity Specifications | Product Code | Cylinder Size | Content US | Content Metric | Equipment Recommendations | Model No. | Page No. | |
|--|---|---------------|---------------------|----------------------|--|--|--------------------------|---------------------|
| Nitrogen, Prepurified 99.998% | G1168312 | 1L | 300 ft ³ | 8.50 m ³ | Dual Stage Reg. Single Stage Reg. LB Regulator Outlet Plug Wrench | Series 3120-580 Series 3530-580 Series 3570-170 TW-4* | 299 313 314 430 | |
| | G1168301 | 1A | 255 ft ³ | 7.22 m ³ | | | | |
| | G1168340 | 2 | 81 ft ³ | 2.29 m ³ | | | | |
| | G1168350 | 3 | 32 ft ³ | 0.91 m ³ | | | | |
| | G1168365 | 4 | 11 ft ³ | 0.31 m ³ | | | | |
| | G1168375 | LB | 2 ft ³ | 56 L | | | | |
| <p>A Certificate of Conformance will be provided on request. A lot analysis is available at a nominal charge. *Except LB</p> | | | | | | | | |
| Nitrogen, VOC Free 99.9995% Guaranteed Specification | G1168918 | 1R | 144 ft ³ | 4.08 m ³ | Dual Stage Reg. Single Stage Reg. Outlet Plug Wrench | Series 3120-580 Series 3530-580 TW-4 | 299 313 430 | |
| | G1168947 | 2R | 76 ft ³ | 2.15 m ³ | | | | |
| | Carbon Dioxide < 0.3 ppm | G1168959 | 3R | 29 ft ³ | | | | 0.82 m ³ |
| | Carbon Monoxide < 0.05 ppm | G1168972 | 6A | 3.64 ft ³ | | | | 103 L |
| | Oxygen < 2 ppm | | | | | | | |
| | THC < 0.01 ppm | | | | | | | |
| Total VOC < 0.01 ppm | | | | | | | | |
| Water < 2 ppm | | | | | | | | |
| <p>A Certificate of Conformance will be provided on request. A lot analysis is available at a nominal charge.</p> | | | | | | | | |
| Nitrogen, Acid Rain, CEM Grade 99.9995% Guaranteed Specifications | G1169018 | 1R | 144 ft ³ | 4.08 m ³ | Dual Stage Reg. Single Stage Reg. Outlet Plug Wrench | Series 3120-580 Series 3530-580 TW-4 | 299 313 430 | |
| | G1169047 | 2R | 76 ft ³ | 2.15 m ³ | | | | |
| | Carbon Dioxide < 1 ppm | G1169059 | 3R | 29 ft ³ | | | | 0.82 m ³ |
| | Carbon Monoxide < 0.5 ppm | | | | | | | |
| | Oxygen < 0.5 ppm | | | | | | | |
| | NOx < 0.1 ppm | | | | | | | |
| Sulfur Dioxide < 0.1 ppm | | | | | | | | |
| THC < 0.1 ppm | | | | | | | | |
| Water < 1 ppm | | | | | | | | |
| <p>A Certificate of Conformance will be provided on request. A lot analysis is available at a nominal charge.</p> | | | | | | | | |
| Nitrogen, Vehicle Emission Zero 99.9995% Guaranteed Specification | G2659806 | 1L | 300 ft ³ | 8.5 m ³ | Dual Stage Reg. Single Stage Reg. Outlet Plug Wrench | Series 3120-580 Series 3530-580 TW-4 | 299 313 430 | |
| | G2659807 | 1A | 255 ft ³ | 7.22 m ³ | | | | |
| | Carbon Dioxide < 1 ppm | G2659808 | 1R | 144 ft ³ | | | | 4.08 m ³ |
| | Carbon Monoxide < 0.5 ppm | | | | | | | |
| | NOx < 0.1 ppm | | | | | | | |
| | Oxygen < 0.5 ppm | | | | | | | |
| THC < 0.1 ppm | | | | | | | | |
| Water < 1 ppm | | | | | | | | |
| <p>A Certificate of Conformance will be provided on request. A lot analysis is available at a nominal charge.</p> | | | | | | | | |
| Nitrogen, Zero Gas 99.998% | G2056112 | 1L | 300 ft ³ | 8.50 m ³ | Dual Stage Reg. Single Stage Reg. LB Regulator Outlet Plug Wrench | Series 3120-580 Series 3530-580 Series 3550-170 TW-4* | 299 313 314 430 | |
| | Certified Total | G2056101 | 1A | 255 ft ³ | | | | 7.22 m ³ |
| | Hydrocarbons as CH ₄ < 0.5 ppm | G2056140 | 2 | 81 ft ³ | | | | 2.29 m ³ |
| | | G2056150 | 3 | 32 ft ³ | | | | 0.91 m ³ |
| | | G2056165 | 4 | 11 ft ³ | | | | 0.31 m ³ |
| | | G2056175 | LB | 2 ft ³ | | | | 56 L |
| | | | | | | | | |
| <p>A lot analysis is available on request. Please inquire for individual cylinder analysis. *Except LB</p> | | | | | | | | |
| Nitrogen, High Purity 99.99% | G1168212 | 1L | 300 ft ³ | 8.50 m ³ | Dual Stage Reg. Single Stage Reg. LB Regulator Outlet Plug Wrench | Series 1250-580 Series 3530-580 Series 3550-170 TW-4* | 299 313 314 430 | |
| | G1168201 | 1A | 255 ft ³ | 7.22 m ³ | | | | |
| | G1168240 | 2 | 81 ft ³ | 2.29 m ³ | | | | |
| | G1168250 | 3 | 32 ft ³ | 0.91 m ³ | | | | |
| | G1168265 | 4 | 11 ft ³ | 0.31 m ³ | | | | |
| | G1168275 | LB | 2 ft ³ | 56 L | | | | |
| | | | | | | | | |
| <p>A Certificate of Conformance will be provided on request. *Except LB</p> | | | | | | | | |



Nitrogen (continued)

| Gas Grade Purity Specifications | Product Code | Cylinder Size | Content US | Content Metric | Equipment Recommendations | Model No. | Page No. |
|--|--------------|---------------|---------------------|----------------------|--|-----------------|----------|
| Nitrogen, Extra Dry 99.9% | G1168412 | 1L | 300 ft ³ | 8.50 m ³ | Dual Stage Reg. Single Stage Reg. LB Regulator Outlet Plug Wrench | Series 81-580 | 293 |
| | G1168401 | 1A | 255 ft ³ | 7.22 m ³ | | Series 18-580 | 292 |
| | G1168440 | 2 | 81 ft ³ | 2.29 m ³ | | Series 3320-170 | 302 |
| | G1168450 | 3 | 32 ft ³ | 0.91 m ³ | | TW-4* | 430 |
| | G1168465 | 4 | 11 ft ³ | 0.31 m ³ | | | |
| | G1168475 | LB | 2 ft ³ | 56 L | | | |
| <i>A Certificate of Conformance will be provided on request.</i> | | | | | | | |
| <i>*Except LB</i> | | | | | | | |
| Nitrogen, Oxygen Free Oxygen < 0.5 ppm | G1168112 | 1L | 300 ft ³ | 8.50 m ³ | Dual Stage Reg. Single Stage Reg. LB Regulator Outlet Plug Wrench | Series 3120-580 | 299 |
| | G1168101 | 1A | 255 ft ³ | 7.22 m ³ | | Series 3530-580 | 313 |
| | G1168140 | 2 | 81 ft ³ | 2.29 m ³ | | Series 3550-170 | 314 |
| | G1168150 | 3 | 32 ft ³ | 0.91 m ³ | | TW-4* | 430 |
| | G1168165 | 4 | 11 ft ³ | 0.31 m ³ | | | |
| | G1168175 | LB | 2 ft ³ | 56 L | | | |
| <i>A Certificate of Conformance will be provided on request.</i> | | | | | | | |
| <i>*Except LB</i> | | | | | | | |
| Nitrogen, 3500 PSIG 99.998% | G1168608 | 1H | 341 ft ³ | 9.66 m ³ | Single Stage Reg. | Series 3060-680 | 298 |
| <i>A Certificate of Conformance will be provided on request.</i> | | | | | | | |
| Nitrogen, 6000 PSIG 99.998% | G1168721 | 1U | 485 ft ³ | 13.73 m ³ | Single Stage Reg. | Series 3060-677 | 298 |
| <i>A Certificate of Conformance will be provided on request.</i> | | | | | | | |