



Nitrogen N₂

Physical Constants of Gas

Molecular Weight 28.1
 Specific Volume 13.8 CF/lb. (0.86 m³/kg)
 Boiling Point -320.4°F (-195.8°C) 1 atm
 Gas Density 70°F 1 atm 1.185 kg/m³

Cylinder Data

CGA Valve Outlet 580, 677, 718

Shipping Data

Shipping Class 70
 DOT/TC Name Nitrogen, Compressed
 DOT Class 2.2 (Nonflammable Gas)
 TC Class 2.2 (Nontoxic, Nonflammable Gas)
 WHMIS Class A
 DOT Label Nonflammable Gas
 CAS Registry No. 7727-37-9
 UN No./ATA No. UN1066

Safety Information

Nitrogen is an inert gas that does not support life.
 Can cause rapid suffocation.

Specifications									Recommended Equipment		
Grade	Purity ^{††} (Minimum)	Size	Contents		Pressure		Weight		Description Model Number	Page	
			CF	m ³	psig	bar	lbs.	kg			
ALPHAGAZ 2 CO < 0.1 ppm CO ₂ < 0.5 ppm H ₂ < 0.1 ppm H ₂ O < 0.5 ppm O ₂ < 0.5 ppm THC < 0.1 ppm	99.9998%	49	304	9	2640	182	165	75	Two-Stage Regulator Q1-318B-580 Q1-14C-580	270 275	
		49 x 16	4864	138	2640	182	2900	1315			
		44	234	7	2265	156	149	68			
		44 x 6*	1404	40	2265	156	969	439			
ALPHAGAZ 1 H ₂ O < 3 ppm O ₂ < 2 ppm THC < 0.5 ppm	99.999%	49	304	9	2640	182	165	75	Two-Stage Regulator Q1-211B-580 Q1-14C-580 Single-Stage Regulator Q1-2900AS-677***	269 275 290	
		49 x 16	4864	138	2640	182	2900	1315			
		44	234	7	2265	156	149	68			
		44 x 6*	1404	40	2265	156	969	439			
		44HH	445	13	6000	414	335	152			
ALPHAGAZ 1000 H ₂ O < 3 ppm O ₂ < 2 ppm THC < 0.5 ppm	99.999%	230	5024	132	230/22 [†]	16/2 [†]	664	301	Single-Stage Regulator Q1-205B-580	269	
		180* [†]	4099	108	230/22 [†]	16/2 [†]	557	253			
		160* [†]	3685	97	230/22 [†]	16/2 [†]	517	234			
Acid Rain CEM Zero** CO < 0.5 ppm CO ₂ < 1 ppm H ₂ O < 2 ppm NO _x < 0.1 ppm O ₂ < 0.5 ppm SO _x < 0.1 ppm THC < 0.1 ppm	99.9995%	49	304	9	2640	182	165	75	Two-Stage Regulator Q1-318A-580 Q1-14C-580	270 275	
		44	234	7	2265	156	149	68			
		30AL	140	4	2000	138	58	26			

* Not available in Canada.

** Meets Federal Register specifications for Title 40CFR 72.2. Certificate of Conformance supplied with each cylinder.

*** For 44HH cylinder.

† Specify gas or liquid phase when ordering: gas phase is 230 psig (16 bar); liquid phase is 22 psig (2 bar).

†† Excluding argon.

Most SCOTT™ gas handling and distribution equipment is available for same-day shipping.

Nitrogen continued

Specifications									Recommended Equipment	
Grade	Purity* (Minimum)	Size	Contents		Pressure		Weight		Description Model Number	Page
			CF	m ³	psig	bar	lbs.	kg		
ALPHAGAZ Auto Part 1065** CO < 1 ppm CO ₂ < 10 ppm NO _x < 0.02 ppm O ₂ < 2 ppm THC < 0.05 ppm	99.999%	49	304	9	2640	182	165	75	Two-Stage Regulator Q1-318B-580	270
		44	234	7	2265	156	149	68		
		30AL	140	4	2000	138	58	26		
ALPHAGAZ Auto UZAM CO < 0.1 ppm CO ₂ < 1 ppm H ₂ O < 2 ppm O ₂ < 2 ppm THC < 0.05 ppm	99.999%	49	304	9	2640	182	165	75	Two-Stage Regulator Q1-318B-580	270
		44	228	7	2265	156	149	68		
		30AL	140	4	2000	138	58	26		
ALPHAGAZ Auto Zero*** CO < 1 ppm CO ₂ < 1 ppm NO _x < 0.1 ppm THC < 1 ppm	99.999%	49	304	9	2640	182	165	75	Two-Stage Regulator Q1-211B-580	269
		44	228	7	2265	156	149	68		
		30AL	140	4	2000	138	58	26		
VOC-FREE† CO < 0.1 ppm CO ₂ < 0.3 ppm H ₂ O < 2 ppm O ₂ < 2 ppm THC < 0.05 ppm	99.999%	30AL	140	4	2000	138	58	26	Two-Stage Regulator Q1-215A-580 Single-Stage Regulator Q1-19VOC-580	271
										277
EVAP H ₂ O < 4 ppm O ₂ < 5 ppm	99.998%	44	228	7	2265	156	149	68	Two-Stage Regulator Q1-318B-580	270
		30AL	140	4	2000	138	58	26		
		16AL	77	2	2000	138	36	16		
		SIII††	8	0.2	260	18	6	3		
IM240 CO < 0.5 ppm CO ₂ < 1 ppm H ₂ O < 1 ppm NO _x < 0.1 ppm O ₂ < 0.5 ppm THC < 0.1 ppm	99.997%	30AL	140	4	2000	138	58	26	Two-Stage Regulator Q1-318B-580	270
		16AL	77	2	2000	138	36	16		

* Excluding argon.

** Meets Federal Register specifications for Title 40, Part 1065.750.

*** Meets Federal Register specifications for Title 40, Part 86,114.79,114.94, 214.94 and 514.78.

† Can be individually analyzed for customer selected VOCs.

†† SIII or SCOTTY™ III = SCOTTY 221L.

We stock SCOTT™ regulators, manifolds, flowmeters, point-of-use panels, cabinets, valves and related equipment.

Nitrogen continued

Specifications									Recommended Equipment	
Grade	Purity* (Minimum)	Size	Contents		Pressure		Weight		Description Model Number	Page
			CF	m ³	psig	bar	lbs.	kg		
Electronic Grade 3 CO < 0.5 ppm CO ₂ < 0.2 ppm H ₂ O < 0.5 ppm O ₂ < 0.5 ppm THC < 0.2 ppm	99.9995%	49	304	9	2640	182	165	75	Application Dependent – Please Inquire	—
		44	234	7	2265	156	149	68		
Electronic Grade 2 CO < 0.5 ppm CO ₂ < 0.5 ppm H ₂ < 2 ppm H ₂ O < 1 ppm O ₂ < 0.5 ppm THC < 0.2 ppm	99.999%	49	304	9	2640	182	165	75	Application Dependent – Please Inquire	—
		44	234	7	2265	156	149	68		
		30AL	137	4	2000	138	60	27		
Electronic Grade 1 CO < 2 ppm CO ₂ < 1 ppm H ₂ < 2 ppm H ₂ O < 2 ppm O ₂ < 1 ppm THC < 0.2 ppm	99.999%	49	304	9	2640	182	165	75	Application Dependent – Please Inquire	—
		44	234	7	2265	156	149	68		
		30AL	137	4	2000	138	60	27		

* Excluding argon.

Need advice on SCOTT™ equipment to safely deliver gas to your point-of-use? Call our Solutions Center at 800.217.2688.