



EPA Protocol Mixtures

All of the following mixtures are certified using EPA Protocol G1 Procedure: No dilution.

If you require an EPA Protocol concentration beyond direct analysis limits to NIST SRM, Matheson has quantitative capability to provide EPA Protocol G2 mixtures: using dilution. Please inquire.

Shipping Information

UN Number:	UN 1956
DOT Proper Shipping Name:	Compressed Gas, nos (List of Components)
DOT Classification:	2.2 (Nonflammable Gas)
DOT Label:	NON-FLAMMABLE GAS
TC Shipping Name:	Compressed Gas, nos (List of Components)
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
1R	**	2,000	13,904	69	36
2R	**	2,000	13,904	48	22
3R	**	2,000	13,904	28	13

**See Equipment Recommendations for Valve Outlet CGA Number.

Binary Mixtures	Product Code	Cylinder Size	Content		EPA Protocol Concentrations	Shelf Life Months	Equipment Recommendations	Model No.
			US	Metric				
Carbon Dioxide in Air	G0840218	1R	145 ft ³	4.11 m ³	≥ 400 ppm	36	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 590	Series 3120 Series 3530
	G0840247	2R	78 ft ³	2.21 m ³				
	G0840259	3R	29 ft ³	0.82 m ³				
Carbon Dioxide in Nitrogen	G0840418	1R	143 ft ³	4.05 m ³	≥ 400 ppm	36	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 580	Series 3120 Series 3530
	G0840447	2R	77 ft ³	2.18 m ³				
	G0840459	3R	29 ft ³	0.82 m ³				
Carbon Monoxide in Air	G0840618	1R	145 ft ³	4.11 m ³	2 - < 8 ppm	6	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 590	Series 3120 Series 3530
	G0840647	2R	78 ft ³	2.21 m ³	≥ 8 ppm	36		
	G0840659	3R	29 ft ³	0.82 m ³				
Carbon Monoxide in Nitrogen	G0840818	1R	143 ft ³	4.05 m ³	2 - < 8 ppm	6	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 350	Series 3120 Series 3530
	G0840847	2R	77 ft ³	2.18 m ³	≥ 8 ppm	36		
	G0840859	3R	29 ft ³	0.82 m ³				
Hydrogen Sulfide in Air	G0841018	1I	145 ft ³	4.11 m ³	2 - < 4 ppm	6	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 660	Series 3810 Series 3610A
	G0841047	2I	78 ft ³	2.21 m ³	≥ 4 ppm	6		
	G0841059	3I	29 ft ³	0.82 m ³				
Hydrogen Sulfide in Nitrogen	G0841218	1I	143 ft ³	4.05 m ³	2 - < 4 ppm	6	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 330	Series 3810 Series 3610A
	G0841247	2I	77 ft ³	2.18 m ³	≥ 4 ppm	12		
	G0841259	3I	29 ft ³	0.82 m ³				
Methane in Air	G0841418	1R	145 ft ³	4.11 m ³	< 1 ppm	6	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 590	Series 3120 Series 3530
	G0841447	2R	78 ft ³	2.21 m ³	≥ 1 ppm	36		
	G0841459	3R	29 ft ³	0.82 m ³				
Nitric Oxide in Nitrogen ≥ 10 ppm	G0841618	1R	143 ft ³	4.05 m ³	1 - < 4 ppm ≥ 4 ppm	6	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 660	Series 3810 Series 3510
	G0841647	2R	77 ft ³	2.18 m ³				
	G0841659	3R	29 ft ³	0.82 m ³				
Nitric Oxide in Nitrogen 2.5 - 9.9 ppm	G2659672	1R	143 ft ³	4.05 m ³				
	G2659673	2R	77 ft ³	2.18 m ³				
	G2659670	1R	143 ft ³	4.05 m ³				
	G2659671	2R	77 ft ³	2.18 m ³				
Nitrogen Dioxide (as NOx) in Air (2% Certification)	G0841818	1R	145 ft ³	4.11 m ³	20 - < 80 ppm	6	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 660	Series 3810 Series 3510
	G0841847	2R	78 ft ³	2.21 m ³	≥ 80 ppm	24		



Gas Mixtures – Products for Specialty Gas Applications

Environmental Compliance Standards

EPA Protocol Mixtures (continued)

Binary Mixtures	Product Code	Cylinder Size	Content		EPA Protocol	Concentrations	Equipment Recommendations	Model No.
			US	Metric		Shelf Life Months		
Oxygen in Nitrogen	G0842018	1R	143 ft ³	4.05 m ³	0.3 % - < 0.8 %	6	Dual Stage Reg.	Series 3120
	G0842047	2R	77 ft ³	2.18 m ³		≥ 0.8 %	36	Single Stage Reg.
	G0842059	3R	29 ft ³	0.82 m ³			Valve Outlet CGA No. ***	
Propane in Air	G0842218	1R	145 ft ³	4.11 m ³	< 1 ppm	6	Dual Stage Reg.	Series 3120
	G0842247	2R	78 ft ³	2.21 m ³		≥ 1 ppm	36	Single Stage Reg.
	G0842259	3R	29 ft ³	0.82 m ³			Valve Outlet CGA No. 590	
Propane in Nitrogen	G0842418	1R	143 ft ³	4.05 m ³	< 1 ppm	6	Dual Stage Reg.	Series 3120
	G0842447	2R	77 ft ³	2.18 m ³		≥ 1 ppm	36	Single Stage Reg.
	G0842459	3R	29 ft ³	0.82 m ³			Valve Outlet CGA No. 350	
Sulfur Dioxide in Air	G0849018	1R	145 ft ³	4.11 m ³	10 - 39 ppm	6	Dual Stage Reg.	Series 3810
	G0849047	2R	78 ft ³	2.21 m ³	40 to 499 ppm	24	Single Stage Reg.	Series 3510
	G0849059	3R	29 ft ³	0.82 m ³	≥ 500 ppm	36	Valve Outlet CGA No. 660	
Sulfur Dioxide in Nitrogen	G0842618	1R	143 ft ³	4.05 m ³	10 - 39 ppm	6	Dual Stage Reg.	Series 3810
	G0842647	2R	77 ft ³	2.18 m ³	40 to 499 ppm	24	SingStage Reg.	Series 3510
	G0842659	3R	29 ft ³	0.82 m ³	≥ 500 ppm	36	Valve Outlet CGA No. 660	

*** Valve Outlet CGA Number is CGA 580 for concentration of Oxygen ≤ 5%, CGA 590 for concentration of Oxygen > 5% but ≤ 23%, and CGA 296 for concentration of Oxygen > 23%.

⚠ WARNING: This product can expose you to chemicals including Sulfur Dioxide, 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.

⚠ 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.