



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.	Page 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	299 313
	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	299 313
	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	299 313
	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	299 313
	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	318 316
	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	318 316
	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	299 313
	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 24	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 660	Series 3810 Series 3510	318 312
	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 2.5 - 9.9 ppm 1.0 - 2.4 ppm (2% Cert.) 1.0 - 2.4 ppm (2% Cert.)	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 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	318 312
	G0841847	2R	78 ft ³	2.21 m ³	≥ 80 ppm	24			



EPA Protocol Mixtures *(continued)*

Binary Mixtures	Product Code	Cylinder Size	Content		EPA Protocol	Concentrations	Equipment Recommendations	Model No.	Page 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	299
	G0842047	2R	77 ft ³	2.18 m ³		≥ 0.8 %	36	Single Stage Reg.	Series 3530
	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	299
	G0842247	2R	78 ft ³	2.21 m ³		≥ 1 ppm	36	Single Stage Reg.	Series 3530
	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	299
	G0842447	2R	77 ft ³	2.18 m ³		≥ 1 ppm	36	Single Stage Reg.	Series 3530
	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	318
	G0849047	2R	78 ft ³	2.21 m ³	40 to 499 ppm	24	Single Stage Reg.	Series 3510	312
	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	318
	G0842647	2R	77 ft ³	2.18 m ³	40 to 499 ppm	24	SingStage Reg.	Series 3510	312
	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%.