



**EPA Protocol Mixtures** (continued)

Multicomponent Mixtures	Product Code	Cylinder Size	Content		Equipment Recommendations	Model No.	Page No.
			US	Metric			
<b>Carbon Dioxide, Oxygen in Nitrogen</b>	G0844018	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No.***	Series 3120 Series 3530	299 313
	G0844047	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>			
	G0844059	3R	29 ft <sup>3</sup>	0.82 m <sup>3</sup>			
Carbon Dioxide ≥ 400 ppm							
Oxygen ≥ 0.8 %							
<i>EPA Certification: 36 months</i>							
<b>Carbon Monoxide, Oxygen in Nitrogen</b>	G0844218	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No.***	Series 3120 Series 3530	299 313
	G0844247	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>			
	G0844259	3R	29 ft <sup>3</sup>	0.82 m <sup>3</sup>			
Carbon Monoxide ≥ 8 ppm							
Oxygen ≥ 0.8 %							
<i>EPA Certification: 36 months</i>							
<b>Carbon Monoxide, Carbon Dioxide in Nitrogen</b>	G0843818	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 350	Series 3120 Series 3530	299 313
	G0843847	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>			
	G0843859	3R	29 ft <sup>3</sup>	0.82 m <sup>3</sup>			
Carbon Monoxide ≥ 8 ppm							
Carbon Dioxide ≥ 400 ppm							
<i>EPA Certification: 36 months</i>							
<b>Carbon Monoxide, Carbon Dioxide, Oxygen in Nitrogen</b>	G0845318	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No.***	Series 3120 Series 3530	299 313
	G0845347	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>			
	G0845359	3R	29 ft <sup>3</sup>	0.82 m <sup>3</sup>			
Carbon Monoxide ≥ 8 ppm							
Carbon Dioxide ≥ 400 ppm							
Oxygen ≥ 0.8 %							
<i>EPA Certification: 36 months</i>							
<b>Methane, Oxygen in Nitrogen</b>	G0843018	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No.***	Series 3120 Series 3530	299 313
	G0843047	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>			
	G0843059	3R	29 ft <sup>3</sup>	0.82 m <sup>3</sup>			
Methane ≥ 1 ppm							
Oxygen ≥ 0.8 %							
<i>EPA Certification: 36 months</i>							
<b>Nitric Oxide, Carbon Dioxide in Nitrogen</b>	G0843618	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 660	Series 3810 Series 3510	318 312
	G0843647	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>			
	G0843659	3R	29 ft <sup>3</sup>	0.82 m <sup>3</sup>			
Nitric Oxide ≥ 10 ppm							
Carbon Dioxide ≥ 400 ppm							
<i>EPA Certification: 24 months</i>							
<b>Nitric Oxide, Carbon Monoxide in Nitrogen</b>	G0843418	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 660	Series 3810 Series 3510	318 312
	G0843447	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>			
	G0843459	3R	29 ft <sup>3</sup>	0.82 m <sup>3</sup>			
Nitric Oxide ≥ 4 ppm							
Carbon Monoxide ≥ 8 ppm							
<i>EPA Certification: 24 months; if either concentration is less than the above, shelf life is six (6) months.</i>							
<b>Nitric Oxide, Carbon Monoxide, Carbon Dioxide in Nitrogen</b>	G0845718	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 660	Series 3810 Series 3510	318 312
	G0845747	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>			
	G0845759	3R	29 ft <sup>3</sup>	0.82 m <sup>3</sup>			
Nitric Oxide ≥ 10 ppm							
Carbon Monoxide ≥ 20 ppm							
Carbon Dioxide ≥ 400 ppm							
<i>EPA Certification: 24 months</i>							
<b>Nitric Oxide, Sulfur Dioxide in Nitrogen</b>	G0844418	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 660	Series 3810 Series 3610A	318 316
	G0844447	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>			
	G0844459	3R	29 ft <sup>3</sup>	0.82 m <sup>3</sup>			
Nitric Oxide ≥ 10 ppm							
Sulfur Dioxide ≥ 40 ppm							
<i>EPA Certification: 24 months</i>							
<b>Nitric Oxide, Sulfur Dioxide, Carbon Dioxide in Nitrogen</b>	G0845418	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 660	Series 3810 Series 3510	318 312
	G0845447	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>			
	G0845459	3R	29 ft <sup>3</sup>	0.82 m <sup>3</sup>			
Nitric Oxide ≥ 10 ppm							
Sulfur Dioxide ≥ 40 ppm							
Carbon Dioxide ≥ 400 ppm							
<i>EPA Certification: 24 month</i>							
<b>Nitric Oxide, Sulfur Dioxide, Carbon Monoxide in Nitrogen</b>	G0845618	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 660	Series 3810 Series 3510	318 312
	G0845647	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>			
	G0845659	3R	29 ft <sup>3</sup>	0.82 m <sup>3</sup>			
Nitric Oxide ≥ 10 ppm							
Sulfur Dioxide ≥ 40 ppm							
Carbon Monoxide ≥ 20 ppm							
<i>EPA Certification: 24 month</i>							



# Gas Mixtures – Products for Specialty Gas Applications

## Environmental Compliance Standards

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### EPA Protocol Mixtures (continued)

Multicomponent Mixtures	Product Code	Cylinder Size	Content		Equipment Recommendations	Model No.	Page No.	
			US	Metric				
<b>Propane, Carbon Dioxide, Oxygen in Nitrogen</b>	G0845218	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No.***	Series 3120	299	
	G0845247	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>				Series 3530
	Propane ≥ 8 ppm	G0845259	3R	29 ft <sup>3</sup>		0.82 m <sup>3</sup>		
	Carbon Dioxide ≥ 400 ppm							
Oxygen ≥ 0.8 %								
EPA Certification: 36 months								
<b>Propane, Carbon Monoxide in Air</b>	G0843118	1R	145 ft <sup>3</sup>	4.11 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 590	Series 3120	299	
	G0843147	2R	78 ft <sup>3</sup>	2.21 m <sup>3</sup>				Series 3530
	Propane ≥ 1 ppm	G0843159	3R	29 ft <sup>3</sup>		0.82 m <sup>3</sup>		
	Carbon Monoxide ≥ 8 ppm							
EPA Certification: 36 months								
<b>Propane, Carbon Monoxide, Oxygen in Nitrogen</b>	G0845018	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No.***	Series 3120	299	
	G0845047	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>				Series 3530
	Propane ≥ 1 ppm	G0845059	3R	29 ft <sup>3</sup>		0.82 m <sup>3</sup>		
	Carbon Monoxide ≥ 8 ppm							
Oxygen ≥ 0.8 %								
EPA Certification: 36 months								
<b>Propane, Carbon Monoxide, Carbon Dioxide in Nitrogen</b>	G0845518	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 350	Series 3120	299	
	G0845547	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>				Series 3530
	Propane ≥ 1 ppm	G0845559	3R	29 ft <sup>3</sup>		0.82 m <sup>3</sup>		
	Carbon Monoxide ≥ 8 ppm							
Carbon Dioxide ≥ 400 ppm								
EPA Certification: 36 month								
<b>Sulfur Dioxide, Oxygen in Nitrogen</b>	G0843518	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No.***	Series 3810	318	
	G0843547	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>				Series 3510
	Sulfur Dioxide 40 to 499 ppm	G0843559	3R	29 ft <sup>3</sup>		0.82 m <sup>3</sup>		
	Oxygen ≥ 0.8 %							
EPA Certification: 24 months								
Sulfur Dioxide ≥ 500 ppm								
Oxygen ≥ 0.8 %								
EPA Certification: 36 months								
<b>Sulfur Dioxide, Carbon Dioxide in Nitrogen</b>	G0843718	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 660	Series 3810	318	
	G0843747	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>				Series 3510
	Sulfur Dioxide 40 to 499 ppm	G0843759	3R	29 ft <sup>3</sup>		0.82 m <sup>3</sup>		
	Carbon Dioxide ≥ 400 ppm							
EPA Certification: 24 months								
Sulfur Dioxide ≥ 500 ppm								
Carbon Dioxide ≥ 400 ppm								
EPA Certification: 36 months								
<b>Sulfur Dioxide, Carbon Dioxide, Carbon Monoxide in Nitrogen</b>	G0845818	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No. 660	Series 3810	318	
	G0845847	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>				Series 3510
	Sulfur Dioxide 40 to 499 ppm	G0845859	3R	29 ft <sup>3</sup>		0.82 m <sup>3</sup>		
	Carbon Dioxide ≥ 400 ppm							
Carbon Monoxide ≥ 20 ppm								
EPA Certification: 24 month								
<b>Sulfur Dioxide, Carbon Dioxide, Oxygen in Nitrogen</b>	G0845118	1R	143 ft <sup>3</sup>	4.05 m <sup>3</sup>	Dual Stage Reg. Single Stage Reg. Valve Outlet CGA No.***	Series 3810	318	
	G0845147	2R	77 ft <sup>3</sup>	2.18 m <sup>3</sup>				Series 3510
	Sulfur Dioxide 40 to 499 ppm	G0845159	3R	29 ft <sup>3</sup>		0.82 m <sup>3</sup>		
	Carbon Dioxide ≥ 400 ppm							
Oxygen ≥ 0.8 %								
EPA Certification: 24 months								
Sulfur Dioxide ≥ 500 ppm								
Carbon Dioxide ≥ 400 ppm								
Oxygen ≥ 0.8 %								
EPA Certification: 36 months								

\*\*\* 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%.

Note:

1. Mixes that do not meet the specifications described above, have a maximum shelf life of six (6) months
2. Certification periods are as prescribed by the EPA Protocol September 1997.
3. Mixes defined with a six (6) month shelf life can be recertified for a length of time defined by the higher concentration standard if the guidelines defined by the Protocol stability requirements are met.

4. Some mixes may not be available due to critical mix limitations and safety considerations.
5. To maintain mix stability, EPA Protocol gas mixes should not be used below 150 psig.
6. Please contact Matheson if your specific mix requirements are not listed.



## EPA Protocol Mixtures *(continued)*

⚠ 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](http://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](http://www.P65Warnings.ca.gov).