

Analytical data is only as good as the products and instruments used in the research. Gas management needs to be flawless when it comes to running gas chromatographs. Matheson Tri-Gas is the specialty gas supplier that designs, engineers and manufactures both the specialty gas and gas delivery equipment critical to reliable operation of gas chromatographs. Our **Calibration Products for Laboratory Analysis** offer researchers and engineers portable solutions for GC support in the lab, plant or field.

### How to find the Laboratory Analysis Calibration Products you need:

Our gas management products for GC work are offered as follows:

- Pure Gases
- Two Component Mixtures
- Multicomponent Mixtures

*If you don't see your product listed, please call Matheson Tri-Gas for more information!*

## Pure Gases

Product Description	Base Code	MicroMAT™/MiniMAT™ Cylinders							
		10	14	17	58	105	116	221	6R
Air Ultra Zero Certified	GMT10002				TH	TG			6R
Air Zero Gas	GMT10004	TK	TC		TH	TG		TD	6R
Argon, Ultra High Purity	GMT10006	TK	TC		TH	TG		TD	6R
n-Butane, CP	GMT10365		TC	TB					
Carbon Dioxide, Bone Dry	GMT10055	TK	TC		TH	TG		TD	6R
Ethane, CP	GMT10424		TC	TB				6R	
Ethylene, CP	GMT10426		TC	TB				6R	
Helium, Ultra High Purity	GMT10009	TK	TC		TH	TG		TD	6R
Hydrogen, Ultra High Purity	GMT10013		TC	TB				6R	
Isobutane, CP	GMT10427		TC	TB				6R	
Methane, Ultra High Purity	GMT10017		TC	TB				6R	
Nitrogen, Ultra High Purity	GMT10021		TC	TB	TH	TG		TD	6R
Nitrogen Zero Gas	GMT10022	TK	TC		TH	TG		TD	6R
Nitrous Oxide, CP	GMT10366		TC						
Oxygen Zero Gas	GMT10024		TC						
Propane, CP	GMT10367		TC	TB					
Propylene, CP	GMT10425		TC	TB					

### Ordering Information

When ordering, use base code plus cylinder designation suffix for the appropriate cylinder type.  
Ex: GMT10002TH is for Air Ultra Zero Certified in a MicroMAT™-58 Cylinder

Note: See Cylinder Specifications Chart on page 152 for description of cylinders.

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*Don't see a product or cylinder size you need, call us to quote!*



## Two Component Mixtures

Product Description	Base Code	MicroMAT™/MiniMAT™ Cylinders							
		10	14	17	58	105	116	221	6R
<b>Acetylene</b>									
1 % Acetylene in Helium	GMT10303		TC		TH				
1 % Acetylene in Nitrogen	GMT10304		TC		TH				
<b>Ammonia</b>									
50 ppm Ammonia in Nitrogen	GMT10220				TH		TM		6R
<b>Benzene</b>									
1 ppm Benzene in Air	GMT10307	TK	TC		TH	TG			6R
10 ppm Benzene in Air	GMT10306	TK	TC		TH	TG			6R
100 ppm Benzene in Air	GMT10305	TK	TC		TH	TG			6R
<b>1,3-Butadiene</b>									
10 ppm 1,3-Butadiene in Nitrogen	GMT10241				TH				6R
<b>Carbon Dioxide</b>									
100 ppm Carbon Dioxide in Helium	GMT10431	TK	TC		TH	TG			6R
1000 ppm Carbon Dioxide in Helium	GMT10331	TK	TC		TH	TG			6R
1 % Carbon Dioxide in Helium	GMT10308	TK	TC		TH	TG			6R
10 % Carbon Dioxide in Helium	GMT10319	TK	TC		TH	TG			6R
100 ppm Carbon Dioxide in Nitrogen	GMT10314	TK	TC		TH	TG			6R
1000 ppm Carbon Dioxide in Nitrogen	GMT10313	TK	TC		TH	TG			6R
1 % Carbon Dioxide in Nitrogen	GMT10309	TK	TC		TH	TG			6R
<b>Ethane</b>									
1.5 % Ethane in Air	GMT10032	TK	TC	TB	TH	TG		TD	6R
100 ppm Ethane in Helium	GMT10423	TK	TC	TB	TH	TG		TD	6R
1000 ppm Ethane in Helium	GMT10422	TK	TC	TB	TH	TG		TD	6R
1 % Ethane in Helium	GMT10421	TK	TC	TB	TH	TG		TD	6R
<b>Ethylene</b>									
8-10 ppm Ethylene in Air	GMT10354	TK	TC	TB	TH	TG		TD	6R
100 ppm Ethylene in Helium	GMT10325	TK	TC	TB	TH	TG		TD	6R
1000 ppm Ethylene in Helium	GMT10333	TK	TC	TB	TH	TG		TD	6R
8-10 ppm Ethylene in Nitrogen	GMT10322	TK	TC	TB	TH	TG		TD	6R
1000 ppm Ethylene in Nitrogen	GMT10334	TK	TC	TB	TH	TG		TD	6R
1 % Ethylene in Nitrogen	GMT10311	TK	TC	TB	TH	TG		TD	6R
<b>Hydrogen</b>									
100 ppm Hydrogen in Helium	GMT10330		TC	TB	TH	TG		TD	6R
100 ppm Hydrogen in Nitrogen	GMT10332	TK	TC	TB	TH	TG		TD	6R
1000 ppm Hydrogen in Nitrogen	GMT10335	TK	TC	TB	TH	TG		TD	6R
1 % Hydrogen in Nitrogen	GMT10328	TK	TC	TB	TH	TG		TD	6R
<b>Isobutane</b>									
100 ppm Isobutane in Air	GMT10045	TK	TC		TH	TG		6R	

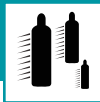
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## Two Component Mixtures (continued)

Product Description	Base Code	MicroMAT™/MiniMAT™ Cylinders							
		10	14	17	58	105	116	221	6R
<b>Methane</b>									
10 ppm Methane in Air	GMT10034	TK	TC		TH	TG			6R
100 ppm Methane in Air	GMT10035	TK	TC		TH	TG			6R
100 ppm Methane in Helium	GMT10337	TK	TC		TH				
1000 ppm Methane in Helium	GMT10336	TK	TC		TH				
1 % Methane in Helium	GMT10312	TK	TC		TH				
10 % Methane in Helium	GMT10320	TK	TC						
100 ppm Methane in Nitrogen	GMT10341	TK	TC		TH				
1000 ppm Methane in Nitrogen	GMT10339	TK	TC		TH				
1 % Methane in Nitrogen	GMT10338	TK	TC		TH				
10 % Methane in Nitrogen	GMT10321	TK	TC						
<b>Nitrogen</b>									
100 ppm Nitrogen in Helium	GMT10343	TK	TC		TH				
1000 ppm Nitrogen in Helium	GMT10340	TK	TC		TH				
1 % Nitrogen in Helium	GMT10315	TK	TC		TH				
<b>Nitrous Oxide</b>									
100 ppm Nitrous Oxide in Helium	GMT10345	TK	TC		TH				
1 % Nitrous Oxide in Helium	GMT10316	TK	TC		TH				
10 % Nitrous Oxide in Helium	GMT10323	TK	TC		TH				
0.1 ppm Nitrous Oxide in Nitrogen	GMT10302		TC		TH				
1 ppm Nitrous Oxide in Nitrogen	GMT10349	TK	TC		TH				
100 ppm Nitrous Oxide in Nitrogen	GMT10346	TK	TC		TH				
1000 ppm Nitrous Oxide in Nitrogen	GMT10342	TK	TC		TH				
<b>Oxygen</b>									
100 ppm Oxygen in Helium	GMT10353	TK	TC	TB	TH	TG		TD	6R
1 % Oxygen in Helium	GMT10317	TK	TC	TB	TH	TG		TD	6R
10 % Oxygen in Helium	GMT10324	TK	TC	TB	TH	TG		TD	6R
100 ppm Oxygen in Nitrogen	GMT10347	TK	TC	TB	TH	TG		TD	6R
1 % Oxygen in Nitrogen	GMT10318	TK	TC	TB	TH	TG		TD	6R
2 % Oxygen in Nitrogen	GMT10356	TK	TC	TB	TH	TG		TD	6R
6 % Oxygen in Nitrogen	GMT10357	TK	TC	TB	TH	TG		TD	6R
10 % Oxygen in Nitrogen	GMT10326	TK	TC	TB	TH	TG		TD	6R
19 % Oxygen in Nitrogen	GMT10042	TK	TC	TB	TH	TG		TD	6R
<b>1,1,1-Trichloroethane</b>									
10 ppm 1,1,1-Trichloroethane in Nitrogen	GMT10301		TC		TH				6R
<b>Trichloroethylene</b>									
10 ppm Trichloroethylene in Nitrogen	GMT10359		TC		TH				6R
<b>Vinyl Chloride</b>									
1 ppm Vinyl Chloride in Nitrogen	GMT10363				TH				6R
10 ppm Vinyl Chloride in Nitrogen	GMT10362				TH				6R
50 ppm Vinyl Chloride in Nitrogen	GMT10364		TC		TH				6R
100 ppm Vinyl Chloride in Nitrogen	GMT10360		TC		TH				6R
1000 ppm Vinyl Chloride in Nitrogen	GMT10361		TC		TH				6R

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Note: See Cylinder Specifications Chart on page 152 for description of cylinders.





# Calibration Products for Laboratory Analysis

## Multicomponent Mixtures

Product Description	Base Code	MicroMAT™/MiniMAT™ Cylinders							
		10	14	17	58	105	116	221	6R
<b>BTEX Mixtures in Nitrogen</b>									
Benzene, Ethyl Benzene, Toluene, Xylene 1 ppm BTEX Mixture	GMT10231				TH				6R
10 ppm BTEX Mixture	GMT10417				TH				6R
100 ppb BTEX Mixture	GMT10232				TH				6R
<b>C<sub>2</sub> to C<sub>4</sub> Alkyne in Nitrogen</b>									
Acetylene, 1-Butyne, 2-Butyne, Propyne each at 15 ppm	GMT10412		TC		TH				6R
<b>Methane, Ethane, Ethylene, Acetylene, Propane, Propylene, Propyne, n-Butane in Nitrogen each at 15 ppm</b>									
	GMT10415		TC		TH				6R
<b>n-Butane, Isobutane, cis-2-Butene, trans-2-Butene, 1-Butene, Isobutylene, 1,3-Butadiene, Ethyl Acetylene, in Nitrogen each at 15 ppm</b>									
	GMT10416		TC		TH				6R
<b>2-Olefin Mixtures in Nitrogen</b>									
cis-2-Butene, trans-2-Butene, cis-2-Pentene trans-2-Pentene, cis-2-Hexene, trans-2-Hexene each at 15 ppm	GMT10351		TC		TH				6R
<b>C<sub>2</sub> to C<sub>6</sub> Olefin Mixtures in Helium</b>									
Ethylene, Propylene, 1-Butene, 1-Pentene, 1-Hexene, each at 100 ppm	GMT10414		TC		TH				6R
Ethylene, Propylene, 1-Butene, 1-Pentene, 1-Hexene, each at 1000 ppm	GMT10358		TC		TH				6R
<b>C<sub>2</sub> to C<sub>6</sub> Olefin Mixtures in Nitrogen</b>									
Ethylene, Propylene, 1-Butene, 1-Pentene, 1-Hexene, each at 100 ppm	GMT10413		TC		TH				6R
Ethylene, Propylene, 1-Butene, 1-Pentene, 1-Hexene, each at 1000 ppm	GMT10430		TC		TH				6R
<b>C<sub>1</sub> to C<sub>6</sub> n-Paraffins Mixtures in Helium</b>									
Methane, Ethane, Propane, Butane, Pentane, Hexane each at 100 ppm	GMT10409		TC		TH				6R
Methane, Ethane, Propane, Butane, Pentane, Hexane each at 1000 ppm	GMT10411		TC		TH				6R
<b>C<sub>1</sub> to C<sub>6</sub> n-Paraffins Mixtures in Nitrogen</b>									
Methane, Ethane, Propane, Butane, Pentane, Hexane each at 15 ppm	GMT10408	TK	TC	TB	TH	TG		TD	6R
Methane, Ethane, Propane, Butane, Pentane, Hexane each at 100 ppm	GMT10410	TK	TC	TB	TH	TG		TD	6R
Methane, Ethane, Propane, Butane, Pentane, Hexane each at 1000 ppm	GMT10411	TK	TC	TB	TH	TG		TD	6R
<b>Branched Paraffins Mixtures in Nitrogen</b>									
Isobutane, 2-Methylbutane, 2,2-Dimethylpropane, 2-Methylpentane 3-Methylpentane, 2,2-Dimethylbutane each at 15 ppm	GMT10407		TC		TH				6R

### Ordering Information

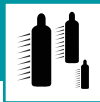
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## Multicomponent Mixtures (continued)

Product Description	Base Code	MicroMAT™/MiniMAT™ Cylinders							
		10	14	17	58	105	116	221	6R
<b>Carbon Monoxide, Carbon Dioxide in Nitrogen</b> 25 ppm Carbon Monoxide 1000 ppm Carbon Dioxide	GMT10053		TC		TH				6R
<b>Carbon Monoxide, Carbon Dioxide, Methane, Ethane, Ethylene, Acetylene in Nitrogen, each at 1 %</b>	GMT10402	TK	TC	TB	TH	TG		TD	6R
<b>Carbon Monoxide, Carbon Dioxide, Methane, Hydrogen, Oxygen in Nitrogen, each at 1 %</b>	GMT10403	TK	TC	TB	TH	TG		TD	6R
<b>Carbon Dioxide, Carbon Monoxide, Nitrogen, Oxygen, Methane, Hydrogen in Helium</b> 5 % Carbon Dioxide 5 % Carbon Monoxide 5 % Nitrogen 4 % Oxygen 4 % Methane 4 % Hydrogen	GMT10404		TC	TB		TG			6R
<b>Carbon Dioxide, Carbon Monoxide, Oxygen in Nitrogen</b> 15 % Carbon Dioxide 7 % Carbon Monoxide 5 % Oxygen	GMT10348	TK	TC	TB	TH	TG		TD	6R
<b>Carbon Dioxide, Carbon Monoxide, Oxygen, Methane in Nitrogen</b> 15 % Carbon Dioxide 7 % Carbon Monoxide 5 % Oxygen 4.5 % Methane	GMT10406	TK	TC	TB	TH	TG		TD	6R
<b>Carbon Dioxide, Carbon Monoxide, Oxygen, Hydrogen in Nitrogen, each at 0.5%</b>	GMT10401	TK	TC	TB	TH	TG		TD	6R
<b>Carbon Dioxide, Carbon Monoxide, Oxygen, Hydrogen in Nitrogen</b> 0.5 % Carbon Dioxide 0.5 % Carbon Monoxide 0.5 % Oxygen 5 % Hydrogen	GMT10428	TK	TC	TB	TH	TG		TD	6R
<b>Carbon Dioxide, Oxygen in Nitrogen</b> 1 % Carbon Dioxide 1 % Oxygen	GMT10429	TK	TC	TB	TH	TG		TD	6R
<b>1 % Carbon Dioxide 2 % Oxygen</b>	GMT10420	TK	TC	TB	TH	TG		TD	6R
<b>2 % Carbon Dioxide 24 % Oxygen</b>	GMT10350	TK	TC	TB	TH	TG		TD	6R
<b>3 % Carbon Dioxide 17 % Oxygen</b>	GMT10352	TK	TC	TB	TH	TG		TD	6R

Matheson Portables™

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