



## Calibration Products for Air Toxics Monitoring

Matheson Calibration Products for Air Toxics Monitoring are designed to meet Method TO-14 Standards set forth by the US EPA. These mixes are blended by gravimetric blending techniques and are available at 1 ppm or 100 ppb concentration for each analyte in VOC Free Nitrogen. Analytical results are verified by GCMS techniques. Mixes consisting of two components or multicomponents can be produced depending on your specific requirements.



### Toxi-MAT-14™ 40 Component Mixture for EPA Method TO-14

Benzene	1,2-Dichloroethane	Methyl bromide	Tetrachloroethylene
Benzyl chloride	1,1-Dichloroethylene	Methyl chloride	Trichlorofluoromethane
Carbon tetrachloride	cis-1,2-Dichloroethylene	Methylene chloride	1,1,2-Trichlorotrifluoroethane
Chlorobenzene	1,2-Dichloropropane	Styrene	1,2,4-Trimethylbenzene
Chloroform	cis-1,3-Dichloropropene	1,1,2,2-Tetrachloroethane	1,3,5-Trimethylbenzene
1,2-Dibromoethane	trans-1,3-Dichloropropene	Trichloroethylene	Vinyl chloride
m-Dichlorobenzene	1,2-Dichlorotetrafluoroethane	Toluene	m-Xylene
o-Dichlorobenzene	Ethyl chloride	1,2,4-Trichlorobenzene	o-Xylene
p-Dichlorobenzene	Ethylbenzene	1,1,1-Trichloroethane	p-Xylene
Dichlorodifluoromethane	Hexachloro-1,3-Butadiene	1,1,2-Trichloroethane	Balance VOC Free Nitrogen
1,1-Dichloroethane			

Available in 1 ppm and 100 ppb concentration. 12 month shelf-life

**NOTE: Toxi-MAT™ 14 is a 40 Component Mixture containing Benzyl Chloride**

⚠ WARNING: This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and 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 Tetrachloride, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Ethylbenzene, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Styrene, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including p-Dichlorobenzene, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Toluene, 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 Tetrachloroethylene (Perchloroethylene), which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Chloroform, which is known to the State of California to cause cancer and 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 Methyl Bromide, as a structural fumigant, 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 Methyl Chloride, 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 Vinyl chloride, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including 1,1-Dichloroethane, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including 1,2-Dichloropropane, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Trichloroethylene, which is known to the State of California to cause cancer and 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 1,1,2,2-Tetrachloroethane, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Cylinder Size	Cylinder Pressure (psi)	Contents		1 ppm Item Code	100 ppb Item Code
		US	Metric		
6R	1,775	3.65 ft <sup>3</sup>	103L	G0819453	G0819553

#### Ordering Information

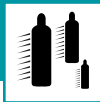
When ordering, use base code plus cylinder designation suffix for the appropriate cylinder type.

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.

[www.mathesongas.com](http://www.mathesongas.com)

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



## Toxi-MAT-15™ Calibration Standard; 62 Minor Components

Acetone	cis-1,2-Dichloroethylene	2-Propanol
Benzene	trans-1,2-Dichloroethylene	Propylene
Benzyl chloride	1,2-Dichloropropane	Styrene
Bromoform	Cis-1,3-Dichloropropene	1,1,2,2-Tetrachloroethane
Bromodichloromethane	Trans-1,3-Dichloropropene	Tetra Chloroethylene
1,3-Butadiene	1,2-Dichlorotetrafluoroethane (Freon 114)	Tetrahydrofuran
2-Butanone (MEK)	1,4-Dioxane	Toluene
Carbon disulfide	Ethanol	1,2,4-Trichlorobenzene
Carbon tetrachloride	Ethyl acetate	1,1,1-Trichloroethane
Chlorobenzene	Ethyl chloride (Chloroethane)	1,1,2-Trichloroethane
Chloroform	Ethylbenzene	Trichloroethylene
Cyclohexane	4-Ethyltoluene (p-ethyltoluene)	Trichlorofluoromethane (Freon 11)
Dibromochloromethane	Heptane	1,1,2-Trichlorotrifluoroethane (Freon 113)
1,2-Dibromoethane (Ethylene dibromide)	Hexane	1,2,4-Trimethylbenzene
m-Dichlorobenzene (1,3)	2-Hexanone (MBK)	1,3,5-Trimethylbenzene
o-Dichlorobenzene (1,2)	Hexachloro-1,3-Butadiene(Hexachlorobutadiene)	Vinyl acetate
p-Dichlorobenzene (1,4)	4-Methyl-2-Pentanone (MIBK)	Vinyl chloride
Dichlorodifluoromethane (Freon 12)	Methyl bromide (Bromomethane)	m-Xylene
1,1-Dichloroethane	Methyl chloride (Chloromethane)	o-Xylene
1,2-Dichloroethane	Methylene chloride	p-Xylene
1,1-Dichloroethylene	MTBE	Balance VOC Free Nitrogen

Available in 1 ppm concentration. 6 month shelf-life

⚠ WARNING: This product can expose you to chemicals including Ethylbenzene, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Styrene, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including p-Dichlorobenzene, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Ethylene dibromide, which is known to the State of California to cause cancer and 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 1,3-Butadiene, which is known to the State of California to cause cancer and 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 Toluene, 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 Tetrachloride, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Chloroform, which is known to the State of California to cause cancer and 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 Benzene, which is known to the State of California to cause cancer and 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 Methyl Bromide, as a structural fumigant, 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 Methyl Chloride, 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 Vinyl chloride, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Carbon Disulfide, 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 Bromoform, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including 1,1-Dichloroethane, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including 1,2-Dichloropropane, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Trichloroethylene, which is known to the State of California to cause cancer and 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 1,1,2,2-Tetrachloroethane, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Hexachlorobutadiene, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Cylinder Size	Cylinder Pressure (psi)	Contents		1 ppm Item Code
		US	Metric	
6R	1,775	3.65 ft <sup>3</sup>	103L	G2660004

### 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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# Calibration Products for Air Toxics Monitoring

## Toxi-MAT-15™ Subset Mixture for EPA Method TO-15

Acetonitrile	Ethyl acrylate	Methyl methacrylate
Acrylonitrile	Ethyl bromide	2,2,4-Trimethylpentane
Benzyl Chloride	Hexane	2,3,4-Trimethylpentane
Bis(2-chloroethyl) ether	Methanol	Vinyl acetate
Bis(chloromethyl) ether	Methyl ethyl ketone (2-Butanone or MEK)	Vinyl bromide
1,3-Butadiene	Methyl isobutyl ketone (4-Methyl-2-Pentanone or MIBK)	Balance VOC Free Nitrogen
3-Chloroprene		

Available in 1 ppm concentration. 12 month shelf-life.

⚠ WARNING: This product can expose you to chemicals including Acrylonitrile, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Methyl Isobutyl Ketone (MIBK), which is known to the State of California to cause cancer and 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 Ethyl Acrylate, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Vinyl Bromide, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Methanol, 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).

Cylinder Size	Cylinder Pressure (psi)	Contents		1 ppm Item Code
		US	Metric	
6R	1,775	3.65 ft <sup>3</sup>	103L	G0820053

## Aro-MAT™ Calibration Standard

Benzene	Ethylbenzene	m-Xylene
Chlorobenzene	Styrene	o-Xylene
m-Dichlorobenzene	1,2,4-Trichlorobenzene	p-Xylene
o-Dichlorobenzene	1,2,4-Trimethylbenzene	Balance VOC Free Nitrogen
p-Dichlorobenzene	1,3,5-Trimethylbenzene	

⚠ WARNING: This product can expose you to chemicals including Ethylbenzene, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Styrene, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including p-Dichlorobenzene, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Cylinder Size	Cylinder Pressure (psi)	Contents		1 ppm	100 ppb
		US	Metric	Item Code	Item Code
6R	1,775	3.65 ft <sup>3</sup>	103L	G0819653	G0819753

## Chloro-MAT™ Calibration Standard

Carbon Tetrachloride	cis-1,3-Dichloropropene	Tetrachloroethylene
Chloroform	trans-1,3-Dichloropropene	1,1,1-Trichloroethane
1,1-Dichloroethane	Ethyl chloride	1,1,2-Trichloroethane
1,2-Dichloroethane	hexachloro-1,3-butadiene	Trichloroethylene
1,1-Dichloroethylene	Methyl chloride	Vinyl chloride
cis-1,2-Dichloroethylene	Methylene chloride	Balance VOC Free Nitrogen
1,2-dichloropropane	1,1,2,2-Tetrachloroethane	

⚠ WARNING: This product can expose you to chemicals including Tetrachloroethylene (Perchloroethylene), which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Carbon Tetrachloride, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠ WARNING: This product can expose you to chemicals including Chloroform, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### Ordering Information

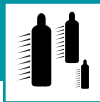
When ordering, use base code plus cylinder designation suffix for the appropriate cylinder type.

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.

[www.mathesongas.com](http://www.mathesongas.com)

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

**Chloro-MAT™ Calibration Standard** *(continued)*

⚠WARNING: This product can expose you to chemicals including Methyl Chloride, 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 1,1-Dichloroethane, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠WARNING: This product can expose you to chemicals including 1,2-Dichloropropane, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

⚠WARNING: This product can expose you to chemicals including Trichloroethylene, which is known to the State of California to cause cancer and 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 1,1,2,2-Tetrachloroethane, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Cylinder Size	Cylinder Pressure (psi)	Contents		1 ppm Item Code	100 ppb Item Code
		US	Metric		
6R	1,775	3.65 ft <sup>3</sup>	103L	G0818053	G0818153

**Chromo-MAT-1™ Calibration Standard**

Bromochloromethane

1,4-Difluorobenzene

4-Bromofluorobenzene

Balance VOC Free Nitrogen

Chlorobenzene-d5

Cylinder Size	Cylinder Pressure (psi)	Contents		1 ppm Item Code	100 ppb Item Code
		US	Metric		
6R	1,775	3.65 ft <sup>3</sup>	103L	G0818453	G0818553

**Chromo-MAT-2™ Calibration Standard**

4-Bromofluorobenzene

Balance VOC Free Nitrogen

Cylinder Size	Cylinder Pressure (psi)	Contents		1 ppm Item Code	100 ppb Item Code
		US	Metric		
6R	1,775	3.65 ft <sup>3</sup>	103L	G0818253	G0818353

**Chromo-MAT-3™ Calibration Standard**

Bromochloromethane

1,4-Difluorobenzene

Chlorobenzene-d5

Balance VOC Free Nitrogen

Cylinder Size	Cylinder Pressure (psi)	Contents		1 ppm Item Code	100 ppb Item Code
		US	Metric		
6R	1,775	3.65 ft <sup>3</sup>	103L	G0818653	G0818753

**Fluoro-MAT™ Calibration Standard**

Dichlorodifluoromethane

1,2-Dichlorotetrafluoroethane

Trichlorofluoromethane

Balance VOC Free Nitrogen

Cylinder Size	Cylinder Pressure (psi)	Contents		1 ppm Item Code	100 ppb Item Code
		US	Metric		
6R	1,775	3.65 ft <sup>3</sup>	103L	G0819053	G0819153

**Ordering Information**

When ordering, use base code plus cylinder designation suffix for the appropriate cylinder type.

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