



## Introduction (continued)

### How to Find What You Need

We have organized and segmented gas mixture products as follows:

- Component Blending Library
- Alphabetical Listing of Popular Gas Mixtures and Specifications

For those customers who focus on application as opposed to product, Matheson's new section entitled "Products for Specialty Gas Applications" organizes our specialty gas and equipment by application. Please refer to pages 111 - 149 of this catalog to review.

### Component Blending Library

Matheson's component blending library is the most comprehensive offering in the specialty gas industry today. We can customize your special mixtures to meet your specifications. Matheson always evaluates each potential gas mixture for safety, reactivity and stability. Custom standards encompass unique components and combinations that require specialized blend tolerance, accuracy, traceability and stability specifications.

Matheson can also blend mixtures with customer-supplied components.

*Please contact us to help you develop the custom product you need.*

### Component Blending Library

Acetaldehyde	Butyl Acetate
Acetone	Butyl Acrylate
Acetonitrile	n-Butyl Alcohol
Acetylene	s-Butyl Alcohol
Acrolein	t-Butyl Alcohol
Acrylonitrile	t-Butylbenzene
Allene	n-Butyl Mercaptan
Ammonia	s-Butyl Mercaptan
Amyl Alcohol	t-Butyl Mercaptan
sec-Amyl Alcohol	Carbon Dioxide
Argon	Carbon Disulfide
Benzaldehyde	Carbon Monoxide
Benzene	Carbon Tetrachloride
Benzyl Chloride	Carbon Tetrafluoride
Boron Trichloride	Carbonyl Sulfide
Boron Trifluoride	Chlorine
Bromo Benzene	Chlorobenzene
Bromochloromethane	Chlorodifluoromethane
Bromoethane	Chloroethane
Bromoethene	Chloroethene
Bromoform	Chloroform
Bromomethane	Chloromethane
Bromotrifluoromethane	Chloromethyl Benzene
1,3-Butadiene	Chloromethyl Ethyl Ether
Butanal	Chloropentafluoroethane
n-Butane	Chlorotrifluoroethylene
2-Butanol	Chlorotrifluoromethane
2-Butanone	Cyclohexane
1-Butene	Cyclohexanone
cis-2-Butene	Cyclopentane
trans-2-Butene	Cyclopentene

Cyclopropane	Ethyl Acetate
Decane	Ethyl Acrylate
Deuterium	Ethyl Alcohol
Dibromo Chloromethane	Ethylamine
1,2-Dibromoethane	Ethylbenzene
Dibromomethane	Ethyl Bromide
1,2-Dichlorobenzene	Ethyl Chloride
1,3-Dichlorobenzene	Ethylene
1,4-Dichlorobenzene	Ethylene Dibromide
m-Dichlorobenzene	Ethylene Dichloride
o-Dichlorobenzene	Ethyl Ether
p-Dichlorobenzene	Ethyl Formate
Dichlorodifluoromethane	Ethylene Glycol
1,1-Dichloroethane	Ethylene Oxide
1,2-Dichloroethane	Ethyl Mercaptan
Ethylidene Dichloride	1-Ethyl-2-Methylbenzene
(E)-1,2-Dichloroethene	1-Ethyl-3-Methylbenzene
(Z)-1,2-Dichloroethene	Ethyl Methyl Ether
1,1-Dichloroethylene	Ethyl Tertiary Butyl Ether
cis-1,2-Dichloroethylene	m-Ethyltoluene
trans-1,2-Dichloroethylene	o-Ethyltoluene
Vinylidene Chloride	p-Ethyltoluene
Dichloromethane	Fluorine
1,2-Dichloropropane	Fluorobenzene
1,3-Dichloropropane	Fluoroform
1,3-Dichloropropane	Fluoromethane
cis-1,3-Dichloropropylene	Furane
trans-1,3-Dichloropropylene	Furfural
1,1-Dichloro- 1,2,2,2-	HCN
Tetrafluoroethane	Helium
1,1-Dichlorotetrafluoroethane	Heptane
1,2-Dichloro- 1,1,2,2-	Heptene
Tetrafluoroethane	Hexachloro-1,3-Butadiene
1,2-Dichlorotetrafluoroethane	Hexafluoroethane
Diethylamine	Hexafluoropropylene
Diethyl Disulfide	Hexanal
Diethyl Ether	Hexane
Diethyl Sulfide	1-Hexene
Dimethoxyethane	2-Hexene
Dimethylamine	Hydrogen
1,2-Dimethylbenzene	Hydrogen Bromide
1,3-Dimethylbenzene	Hydrogen Chloride
1,4-Dimethylbenzene	Hydrogen Cyanide
2,2-Dimethylbutane	Hydrogen Fluoride
2,3-Dimethylbutane	Hydrogen Iodide
Dimethyl Disulfide	Hydrogen Sulfide
Dimethyl Ether	Isobutane
1,1-Dimethylethyl-Benzene	Isobutylene
2,3-Dimethylpentane	Isobutyl Mercaptan
2,4-Dimethylpentane	Iso Octane
Dimethyl Sulfide	Isopentane
Dodecane	Isoprene
ETBE	Isopropyl Alcohol
Ethanal	Isopropyl Mercaptan
Ethanamine	Krypton
Ethane	MEK
Ethanol	Mesitylene



## Introduction (continued)

Methacrylonitrile	MTBE	R-1113	1,1,1,2-Tetrafluoroethane
Methane	Naphthalene	R-1114	Tetrafluoroethylene
Methanol	Neon	R-112	Tetrafluoromethane
MethOxyethane	Nitric Oxide	R-1120	Tetrahydrofuran
MethOxyethene	Nitrobenzene	R-113	Tetrahydrothiophene
2-Methoxy-2-methylpropane	Nitrogen	R-113A	Thiophene
Methyl Acetate	Nitrogen Dioxide	R-1130	Toluene
Methyl Acetylene	Nitromethane	R-1132A	Toluene d8
Methylal	1-Nitropropane	R-114	1,2,3-Trichlorobenzene
Methyl Alcohol	Nitrous Oxide	R-114A	1,2,4-Trichlorobenzene
Methylamine	Nonane	R-116	1,2,2-Trichloro-1,1-
Methylbenzene	1-Nonene	R-12	Difluoroethane
Methyl Bromide	Octafluorocyclobutane	R-121	1,1,1-Trichloroethane
2-Methyl-2-Butanol	Octafluoropropane	R-121A	1,1,2-Trichloroethane
2-Methyl-2-Butene	Octane	R-122	Trichloroethylene
3-Methyl-1-Butene	1-Octene	R-124	Trichlorofluoromethane
Methyl Chloride	Oxygen	R-13	Trichloromethane
Methyl Chloroform	Pentachlorofluoroethane	R-130	1,2,3-Trichloropropane
Methyl Cyclohexane	1,4-Pentadiene	R-134A	1,1,1-Trichloro-2,2,2-
Methyl Cyclopentane	n-Pentane	R-13B1	Trifluoroethane
Methyl Disulfide	1-Pentanol	R-14	1,1,1-Trichlorotrifluoroethane
Methylene Bromide	2-Pentanol	R-140	1,1,2-Trichloro-1,2,2-
Methylene Chloride	1-Pentene	R-140A	Trifluoroethane
Methyl Cyclohexane	cis-2-Pentene	R-150A	1,1,2-Trichlorotrifluoroethane
Methyl Ethyl Ether	trans-2-Pentene	R-160	Tridecane
Methyl Ethyl Ketone	Perfluorocyclobutane	R-218	Triethylamine
Methyl Ethyl Sulfide	Perfluoroethane	R-22	Trifluoromethane
Methyl Fluoride	Perfluoropropane	R-23	Trimethylamine
Methyl Formate	alpha-Pinene	R-30	1,2,3-Trimethylbenzene
2-Methylheptane	beta-Pinene	R-40	1,2,4-Trimethylbenzene
3-Methylheptane	Propanal	R-41	1,3,5-Trimethylbenzene
2-Methylhexane	Propane	R-C318	Trimethylene
3-Methylhexane	1-Propanol	Styrene	2,2,4-Trimethylpentane
5-Methyl-2-Hexanone	2-Propanol	Sulfur Hexafluoride	2,3,4-Trimethylpentane
Methyl Iodide	2-Propanone	1,1,2,2-	Undecane
Methyl Isoamyl Ketone	Propionaldehyde	Tetrachlorodifluoroethane	1-Undecene
Methyl Isobutyl Ketone	Propionitrile	Tetrachloro-1,2-Difluoroethane	Vinyl Acetate
Methyl Mercaptan	Propyl Acetate	1,1,1,2-Tetrachloroethane	Vinyl Acetylene
Methyl Methacrylate	Propyl Alcohol	1,1,2,2-Tetrachloroethane	Vinyl Bromide
2-Methylpentane	Propyl Amine	Tetrachloroethene	Vinyl Chloride
3-Methylpentane	Propylbenzene	Tetrachloroethylene	Vinyl Methyl Ether
4-Methyl -2-Pentanone	Propyl Cyclohexane	1,1,1,2-Tetrachloro-2-	Vinylidene Chloride
2-Methyl- 1-Pentene	Propyl Disulfide	Fluoroethane	Xenon
4-Methyl- 1-Pentene	Propylene	1,1,2,2-Tetrachloro-1-	m-Xylene
2-Methyl-2-Propanol	Propylene Oxide	Fluoroethane	o-Xylene
Methyl Tertiary Butyl Ether	n-Propyl Mercaptan	Tetrachloromethane	p-Xylene
Monoethylamine	R-11		
Monomethylamine	R-111		



## Introduction (continued)

⚠ 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).

⚠ WARNING: This product can expose you to chemicals including Nitrous Oxide, 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 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 Ethylene Dichloride (1,2-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 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 Ethylene Glycol (ingested), 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 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 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 Furan, 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 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 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 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 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).

⚠ 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 Bromoethane, 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 Chloroethane (Ethyl 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 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 Acetaldehyde, 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 Oxide, 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 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).



## Introduction (continued)

⚠ 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 Vinylidene Chloride (1,1-Dichloroethylene), 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 Propylene Oxide, 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 Isoprene, 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 Naphthalene, 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 Hydrogen Cyanide (HCN) and cyanide salts (CN salts), 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 1,3-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 Tetrafluoroethylene, 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 Dichloromethane (Methylene 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).