

## MASS FLOW GAS CORRECTION FACTORS (SORTED BY CHEMICAL FORMULA)

<u>Gas Type</u>	<u>Chemical Formula</u>	<u>Correction Factor vs. Nitrogen</u>	<u>Specific Heat (kcal/kg°K @ 25°C &amp; 1 Atm.)</u>	<u>Density (kg/m<sup>3</sup> @ 0°C &amp; 1 Atm.)</u>
Air	-----	1.000	0.240	1.293
Argon	Ar	1.443	0.1244	1.782
Arsine	AsH <sub>3</sub>	0.662	0.1167	3.478
Diborane	B <sub>2</sub> H <sub>6</sub>	0.434	0.508	1.235
Pentaborane	B <sub>5</sub> H <sub>9</sub>	0.260	0.38	2.816
Boron Trichloride	BCl <sub>3</sub>	0.410	0.1279	5.227
Boron Trifluoride	BF <sub>3</sub>	0.510	0.1778	3.025
Bromine	Br <sub>2</sub>	0.810	0.0539	7.130
Bromine Trifluoride	BrF <sub>3</sub>	0.380	0.1161	6.108
Bromine Pentafluoride	BrF <sub>5</sub>	0.260	0.1369	7.803
1,2-Dichlorotetrafluoroethane (Freon-114)	C <sub>2</sub> Cl <sub>2</sub> F <sub>4</sub>	0.220	0.160	7.626
Chloropentafluoroethane (Freon-115)	C <sub>2</sub> ClF <sub>5</sub>	0.240	0.164	6.892
Tetrafluoroethylene	C <sub>2</sub> F <sub>4</sub>	0.330	0.1940	4.523
Hexafluoroethane (Freon-116)	C <sub>2</sub> F <sub>6</sub>	0.240	0.1843	6.157
Acetylene	C <sub>2</sub> H <sub>2</sub>	0.602	0.391	1.162
1,1-Difluoroethylene (Freon-1132A)	C <sub>2</sub> H <sub>2</sub> F <sub>2</sub>	0.430	0.224	2.857
Vinyl Bromide	C <sub>2</sub> H <sub>3</sub> Br	0.460	0.1241	4.772
Vinyl Chloride	C <sub>2</sub> H <sub>3</sub> Cl	0.480	0.2054	2.788
Vinyl Fluoride	C <sub>2</sub> H <sub>3</sub> F	0.551	0.2713	2.080
Ethylene	C <sub>2</sub> H <sub>4</sub>	0.622	0.351	1.252
Ethylene Oxide	C <sub>2</sub> H <sub>4</sub> O	0.520	0.268	1.965
Ethyl Chloride	C <sub>2</sub> H <sub>5</sub> Cl	0.400	0.244	2.879
Monoethylamine	C <sub>2</sub> H <sub>5</sub> NH <sub>2</sub>	0.350	0.387	2.011
Ethane	C <sub>2</sub> H <sub>6</sub>	0.497	0.4097	1.342
Dimethylamine	(CH <sub>3</sub> ) <sub>2</sub> NH	0.370	0.366	2.011
Dimethyl Ether	(CH <sub>3</sub> ) <sub>2</sub> O	0.390	0.3414	2.055
Cyanogen	C <sub>2</sub> N <sub>2</sub>	0.440	0.2613	2.322
Perfluoropropane	C <sub>3</sub> F <sub>8</sub>	0.170	0.194	8.388

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Allene (Propadiene)	C <sub>3</sub> H <sub>4</sub>	0.430	0.352	1.787
Methyl Acetylene	C <sub>3</sub> H <sub>4</sub>	0.430	0.3547	1.787
Cyclopropane	C <sub>3</sub> H <sub>6</sub>	0.460	0.3177	1.877
Propylene	C <sub>3</sub> H <sub>6</sub>	0.405	0.3541	1.877
Propane	C <sub>3</sub> H <sub>8</sub>	0.372	0.3735	1.967
Trimethylamine	(CH <sub>3</sub> ) <sub>3</sub> N	0.270	0.3710	2.639
Octafluorocyclobutane (Freon-C318)	C <sub>4</sub> F <sub>8</sub>	0.170	0.185	8.937
Butane	C <sub>4</sub> H <sub>10</sub>	0.260	0.4007	2.593
Isobutane	C <sub>4</sub> H <sub>10</sub>	0.260	0.3872	3.593
Butadiene	C <sub>4</sub> H <sub>6</sub>	0.320	0.3514	2.413
Ethyl Acetylene	C <sub>4</sub> H <sub>6</sub>	0.320	0.3513	2.413
1-Butene	C <sub>4</sub> H <sub>8</sub>	0.295	0.3648	2.503
cis-2-Butene	C <sub>4</sub> H <sub>8</sub>	0.324	0.336	2.503
Isobutylene	C <sub>4</sub> H <sub>8</sub>	0.290	0.3701	2.503
trans-2-Butene	C <sub>4</sub> H <sub>8</sub>	0.291	0.374	2.503
2,2-Dimethylpropane	C <sub>5</sub> H <sub>12</sub>	0.220	0.3914	3.219
Triisobutylaluminum	(C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> Al	0.061	0.508	8.848
Dibromodifluoromethane	CB <sub>2</sub> F <sub>2</sub>	0.190	0.15	9.362
Bromotrifluoromethane (Freon-13B1)	CB <sub>3</sub> F <sub>3</sub>	0.370	0.1113	6.644
Dichlorodifluoromethane (Freon-12)	CCl <sub>2</sub> F <sub>2</sub>	0.354	0.1432	5.395
Trichlorofluoromethane (Freon 11)	CCl <sub>3</sub> F	0.330	0.1357	6.129
Carbon Tetrachloride	CCl <sub>4</sub>	0.309	0.1655	6.860
Chlorotrifluoromethane (Freon-13)	CClF <sub>3</sub>	0.380	0.153	4.660
Carbon Tetrafluoride (Freon-14)	CF <sub>4</sub>	0.420	0.1654	3.926
Methyl Bromide	CH <sub>3</sub> Br	0.560	0.1106	4.236
Methyl Chloride	CH <sub>3</sub> Cl	0.630	0.1926	2.253
Methyl Fluoride	CH <sub>3</sub> F	0.559	0.3221	1.517

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Monomethylamine	CH <sub>3</sub> NH <sub>2</sub>	0.450	0.4343	1.386
Methyltrichlorosilane	CH <sub>3</sub> SiCl <sub>3</sub>	0.250	0.164	6.669
Methane	CH <sub>4</sub>	0.731	0.5223	0.716
Dichloromethylsilane	CH <sub>4</sub> Cl <sub>2</sub> Si	0.250	0.1882	5.758
Methyl Mercaptan	CH <sub>4</sub> S	0.520	0.2459	2.146
Dichlorofluoromethane (Freon-21)	CHCl <sub>2</sub> F	0.417	0.140	4.592
Chlorodifluoromethane (Freon-22)	CHClF <sub>2</sub>	0.456	0.1544	3.858
Fluoroform (Freon-23)	CHF <sub>3</sub>	0.506	0.176	3.127
Chlorine	Cl <sub>2</sub>	0.852	0.1144	3.163
Cyanogen Chloride	ClCN	0.610	0.1739	2.742
Chlorine Trifluoride	ClF <sub>3</sub>	0.403	0.1650	4.125
Perchloryl Fluoride	ClO <sub>3</sub> F	0.390	0.1514	4.571
Carbon Monoxide	CO	1.001	0.2483	1.250
Carbon Dioxide	CO <sub>2</sub>	0.745	0.2016	1.964
Phosgene	COCl <sub>2</sub>	0.440	0.1394	4.418
Carbonyl Fluoride	COF <sub>2</sub>	0.544	0.1710	2.045
Carbonyl Sulfide	COS	0.640	0.1651	2.680
Carbon Disulfide	CS <sub>2</sub>	0.600	0.1428	3.397
Deuterium	D <sub>2</sub>	1.003	1.722	0.1799
Fluorine	F <sub>2</sub>	0.978	0.1873	1.695
Germanium Tetrachloride	GeCl <sub>4</sub>	0.270	0.1071	9.565
Germane	GeH <sub>4</sub>	0.596	0.1404	3.418
Hydrogen	H <sub>2</sub>	1.021	3.3852	0.0899
Hydrogen Sulfide	H <sub>2</sub> S	0.799	0.2397	1.520
Hydrogen Selenide	H <sub>2</sub> Se	0.780	0.1025	3.613
Hydrogen Bromide	HBr	0.985	0.0874	3.610
Hydrogen Chloride	HCl	0.998	0.1912	1.627
Hydrogen Cyanide	HCN	0.760	0.3171	1.206
Helium	He	1.444	1.241	0.1786

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Hydrogen Fluoride	HF	0.997	0.3479	0.893
Hydrogen Iodide	HI	0.999	0.5449	5.707
Iodine Pentafluoride	IF <sub>5</sub>	0.250	0.1108	9.90
Krypton	Kr	1.450	0.0593	3.739
Molybdenum Hexafluoride	MoF <sub>6</sub>	0.210	0.1373	9.366
Nitrogen	N <sub>2</sub>	1.000	0.2485	1.250
Tetrafluorohydrazine	N <sub>2</sub> F <sub>4</sub>	0.320	0.183	4.640
Nitrous Oxide	N <sub>2</sub> O	0.713	0.2088	1.964
Neon	Ne	1.445	0.246	0.900
Nitrogen Trifluoride	NF <sub>3</sub>	0.480	0.1797	3.168
Ammonia	NH <sub>3</sub>	0.730	0.492	0.760
Nitric Oxide	NO	0.997	0.2328	1.339
Nitrogen Dioxide	NO <sub>2</sub>	0.740	0.1933	2.052
Nitrosyl Chloride	NOCl	0.610	0.1632	2.920
Oxygen	O <sub>2</sub>	0.994	0.2190	1.428
Oxygen Difluoride	OF <sub>2</sub>	0.630	0.1917	2.409
Phosphorous Pentafluoride	PF <sub>5</sub>	0.300	0.1610	5.620
Phosphine	PH <sub>3</sub>	0.760	0.2374	1.517
Sulfur Hexafluoride	SF <sub>6</sub>	0.270	0.1592	6.516
Silicon Tetrachloride	SiCl <sub>4</sub>	0.288	0.1270	7.580
Silicon Tetrafluoride	SiF <sub>4</sub>	0.350	0.1691	4.643
Dichlorosilane	SiH <sub>2</sub> Cl <sub>2</sub>	0.400	0.150	4.506
Silane	SiH <sub>4</sub>	0.596	0.3189	1.433
Sulfur Dioxide	SO <sub>2</sub>	0.687	0.1488	2.858
Sulfuryl Fluoride	SO <sub>2</sub> F <sub>2</sub>	0.390	0.1543	4.562
Uranium Hexafluoride	UF <sub>6</sub>	0.200	0.0888	15.70
Tungsten Hexafluoride	WF <sub>6</sub>	0.250	0.0810	13.28
Xenon	Xe	1.410	0.0378	5.858