

COMMON GASES CONVERSION TABLE

To Use This Worksheet:

1. Find the name of the compressed gas you want to convert.
2. If you know the quantity in **pounds**, multiply by the number in Column A
3. If you know the quantity in **gallons**, multiply by the number in Column B.
4. The result is the quantity of compressed gas in **cubic feet**.

GAS NAME	CHEMICAL FORMULA	COLUMN A	COLUMN B
Acetylene (Ethyne)	C ₂ H ₂	13.7	43.7
Air	0.8N ₂ -0.2O ₂	12.2	88.9
Allene	C ₃ H ₄	8.8	—
Ammonia	NH ₃	20.9	118.8
Argon	Ar	8.9	103.5
Arsine	AsH ₃	4.6	—
Boron Trichloride	BCl ₃	3.1	—
Boron Trifluoride	BF ₃	5.2	70.7
1,3-Butadiene	C ₄ H ₆	6.3	—
Butane	C ₄ H ₁₀	6.1	29.8
1-Butene	C ₄ H ₈	6.2	—
2-Butene	C ₄ H ₈	6.2	—
Carbon Dioxide	CO ₂	8.1	68.4
Carbon Monoxide	CO	12.7	86.1
Carbon Tetrachloride	CCl ₄	4.1	—
Carbon Tetrafluoride (See Freon-14)	CF ₄	4.1	—
Carbonyl Fluoride	COF ₂	5.2	—
Carbonyl Sulfide	COS	5.9	—
Chlorine	Cl ₂	5.1	61.5
Cyanogen	(CN) ₂	6.8	—
Cyclopropane	C ₃ H ₆	8.5	—
Deuterium	D ₂	88.5	—
Dichlorosilane	SiH ₂ Cl ₂	3.5	—
Dimethylamine	C ₂ H ₇ N	7.9	—
Dimethyl Ether	C ₂ H ₆ O	7.7	—
2,2-Dimethylpropane	C ₅ H ₁₂	4.9	—
Disilane	Si ₂ H ₆	2.6	—
Ethane	C ₂ H ₆	11.8	35.4
Ethyl Chloride	C ₂ H ₅ Cl	5.5	—
Ethylene (Ethene)	C ₂ H ₄	12.7	60.1
Ethylene Oxide	C ₂ H ₄ O	8.1	60.5
Fluoroform (See also Freon 23)	CHF ₃	5.3	—
Fluorine	F ₂	9.4	117.9

Forane 134a (Freon134a)	C2H2F4	3.5	—
Freon-11 (Trichloro-fluoromethane)	CCl3F	2.6	27.9
Freon-12 (Dichloro-difluoromethane)	CCl2F2	2.9	32.5
Freon-13 (Chloro-trifluoromethane)	CClF3	3.4	25.7
Freon-14 (Tetrafluoro-methane)	CF4	4.1	—
Freon-22 (Chloro-difluoromethane)	CHClF2	4.1	41.5
Freon-23 (Trifluoromethane)	CHF3	5.1	—
Freon-41 (Methyl Fluoride)	CH3F	10.5	—
Freon-113 (Trichloro-trifluoroethane)	C2Cl3F3	1.9	21.8
Freon-114 (Dichloro-tetrafluoroethane)	C2Cl2F4	2.1	—
Freon-115 (Chloro-pentafluoroethane)	C2ClF5	2.3	—
Freon-116 (Hexa-fluoroethane)	C2F6	2.6	—
Freon-142b (Chloro-difluoroethane)	C2H3ClF2	3.3	—
Freon-218 (Perfluoro-propane)	C3F8	1.9	—
Freon-C318 (Octafluoro-cyclobutane)	C4F8	1.7	—
Freon-1113 (Chloro-trifluoroethylene)	C2ClF3	3	—
Germane	Ge	4.6	—
Halon-13B1 (Bromo-trifluoromethane)	CBrF3	2.4	—
Helium	He	88.8	92.7
Hexafluoropropylene	C3F6	2.4	—
Hydrogen	H2	176.4	104.4
Hydrogen Bromide	HBr	4.3	—
Hydrogen Chloride	HCl	9.8	96.8
Hydrogen Fluoride	HF	17.7	—
Hydrogen Iodide	HI	2.8	—
Hydrogen Selenide	H2Se	4.4	—
Hydrogen Sulfide	H2S	10.4	79.6
Isobutane	C4H10	5.9	—
Isobutylene	C4H8	6.2	—
Krypton	Kr	4.2	—
Methane	CH4	22.2	78.7
Methyl Bromide	CH3Br	3.7	—
Methyl Chloride	CH3Cl	7	—
Methyl Fluoride	CH3F	10.5	—
Methyl Mercaptan	CH3SH	7.4	—
Monomethylamine	CH5N	11.1	—
Neon	Ne	17.7	—
Nitric Oxide	NO	11.9	—
Nitrogen	N2	12.7	85.7

Nitrogen Dioxide	NO2	4.3	—
Nitrogen Trifluoride	NF3	4.9	—
Nitrous Oxide	N2O	8.1	82.7
Oxygen	O2	11.1	105.8
Perfluoropropane**** (see Freon 218)	C3F8	1.9	—
Phosgene	COCl2	3.6	41.6
Phosphine	PH3	10.4	—
Phosphorus Pentafluoride	PF5	2.9	—
Propane	C3H8	8.1	34.1
Propylene	C3H6	8.3	—
Silane	SiH4	11.1	—
Silicon Tetrachloride	SiCl4	2.1	—
Silicon Tetrafluoride	SiF4	3.4	—
Sulfur Dioxide	SO2	5.6	64.1
Sulfur Hexafluoride	SF6	2.2	—
Sulfur Tetrafluoride	SF4	3.2	—
Trichlorosilane	SiHCl3	2.6	—
Trimethylamine	C3H9N	5.5	—
Tungsten Hexafluoride	WF6	1.1	—
Vinyl Bromide	C2H3Br	3.2	—
Vinyl Methyl Ether	C3H6O	6.1	—
Xenon	Xe	2.6	—
HC-12a (replacement for Freon-12)	(by OZ tech).	6.2	—

If the compressed gas does not appear in this list:

1. Divide 359 by the molecular weight of the gas.
2. Multiply the result by the quantity in pounds to convert to cubic feet.

OTHER USEFUL CONVERSIONS:

To convert:	To:	Do This:	
Liters	Gallons	Divide By	3.8
Quarts	Gallons	Divide By	4
Gallons	Liters	Multiply By	3.8
US Fluid Ounce	Gallons	Divide By	128
Grams	Pounds	Divide By	454
Kilograms	Pounds	Multiply By	2.2