

Conversion Tables and Dew Points

Density (Mass/Volume)

	g/ml	kg/m ³	lb/ft ³	lb/gal	lb/in ³
g/ml		10 ³	6.2428 x 10 ¹	8.3454	3.6127 x 10 ⁻²
kg/m³	10 ⁻³		6.2428 x 10 ⁻²	8.3454 x 10 ⁻³	3.6127 x 10 ⁻⁵
lb/ft³	1.6018 x 10 ⁻²	1.6018 x 10 ¹		1.3368 x 10 ⁻¹	5.7870 x 10 ⁻⁴
lb/gal	1.1983 x 10 ⁻¹	1.1983 x 10 ²	7.4805		4.3290 x 10 ⁻³
lb/in³	2.7680 x 10 ¹	2.7680 x 10 ⁴	1.7280 x 10 ³	2.3100 x 10 ²	

To convert a value from the units listed in the vertical column at the left of the table to the units given in the top row, multiply the left hand value by the conversion factor given at the intersection.

Mass

	g	kg	lb	ton (short)
g		10 ⁻³	2.2046 x 10 ⁻³	1.1023 x 10 ⁻⁶
kg	10 ³		2.2046	1.1023 x 10 ⁻³
lb	4.5359 x 10 ²	4.5359 x 10 ⁻¹		5.0 x 10 ⁻⁴
ton (short)	9.0718 x 10 ⁵	9.0718 x 10 ²	2.0 x 10 ³	

Parts Per Million (ppm) to Percent (%):

1 ppm = 0.0001%
 10 ppm = 0.001%
 100 ppm = 0.01%
 1,000 ppm = 0.1%
 10,000 ppm = 1.0%

Volume

	liter	m ³	cm ³ (ml)	ft ³	US gal
liter		10 ⁻³	10 ³	3.5315 x 10 ⁻²	2.6418 x 10 ⁻¹
m³	10 ³		10 ⁶	3.5315 x 10 ¹	2.6418 x 10 ²
cm³ (ml)	10 ⁻³	10 ⁻⁶		3.5315 x 10 ⁻⁵	2.6418 x 10 ⁻⁴
ft³	2.8317 x 10 ¹	2.8317 x 10 ⁻²	2.8317 x 10 ⁴		7.4801
US gal	3.7854	3.7854 x 10 ⁻³	3.7854 x 10 ³	1.3368 x 10 ⁻¹	

Parts Per Million (ppm) to Parts Per Billion (ppb):

1 ppm = 1,000 ppb
 0.1 ppm = 100 ppb
 0.01 ppm = 10 ppb
 0.001 ppm = 1 ppb

Temperature

	°C	°F	K
°C		1.8 (°C) + 32	°C + 273.15
°F	(°F - 32) ÷ 1.8		(°F + 459.67) ÷ 1.8
K	K - 273.15	1.8 (K) - 459.67	

Pressure

	atm	psi (lb/in ²)	in of Hg (32°F)	mm of Hg (32°F) (torr)	in of H ₂ O (60°F)	kPa	bar
atm		1.4696 x 10 ¹	2.9921 x 10 ¹	7.60 x 10 ²	4.0719 x 10 ²	1.01325 x 10 ²	1.01325
psi (lb/in²)	6.8046 x 10 ⁻²		2.0360	5.1715 x 10 ¹	2.7707 x 10 ¹	6.8948	6.8948 x 10 ⁻²
in of Hg (32°F)	3.3421 x 10 ⁻²	4.9115 x 10 ⁻¹		2.54 x 10 ¹	1.3608 x 10 ¹	3.3864	3.3864 x 10 ⁻²
mm of Hg (32°F) (torr)	1.3158 x 10 ⁻³	1.9337 x 10 ⁻²	3.9370 x 10 ⁻²		5.3576 x 10 ⁻¹	1.3332 x 10 ⁻¹	1.3332 x 10 ⁻³
in of H₂O (60°F)	2.4582 x 10 ⁻³	3.6092 x 10 ⁻²	7.3484 x 10 ⁻²	1.8665		2.4884 x 10 ⁻¹	2.4884 x 10 ⁻³
kPa	9.8692 x 10 ⁻³	1.4504 x 10 ⁻¹	2.9530 x 10 ⁻¹	7.5008	4.0186		10 ⁻²
bar	9.8692 x 10 ⁻¹	1.4504 x 10 ¹	2.9530 x 10 ¹	7.5008 x 10 ²	4.0186 x 10 ²	10 ²	

Dew Point-Water Vapor Content

Dew Point at 1 atm °F (°C)	Water Vapor ppm (vol/vol)
-130 (-90)	0.10
-120 (-84)	0.25
-110 (-79)	0.63
-105 (-76)	1.00
-104 (-76)	1.08
-103 (-75)	1.18
-102 (-74)	1.29
-101 (-74)	1.40
-100 (-73)	1.53
-99 (-73)	1.66
-98 (-72)	1.81
-97 (-72)	1.96
-96 (-71)	2.15
-95 (-71)	2.35
-94 (-70)	2.54
-93 (-69)	2.76
-92 (-69)	3.00
-91 (-68)	3.28
-90 (-68)	3.53
-89 (-67)	3.84
-88 (-67)	4.15

Dew Point at 1 atm °F (°C)	Water Vapor ppm (vol/vol)
-87 (-66)	4.50
-86 (-66)	4.78
-85 (-65)	5.3
-84 (-64)	5.7
-83 (-64)	6.2
-82 (-63)	6.6
-81 (-63)	7.2
-80 (-62)	7.8
-79 (-62)	8.4
-78 (-61)	9.1
-77 (-61)	9.8
-76 (-60)	10.5
-75 (-59)	11.4
-74 (-59)	12.3
-73 (-58)	13.3
-72 (-58)	14.3
-71 (-57)	15.4
-70 (-57)	16.6
-69 (-56)	17.9
-68 (-56)	19.2
-67 (-55)	20.6

Dew Point at 1 atm °F (°C)	Water Vapor ppm (vol/vol)
-66 (-54)	22.1
-65 (-54)	23.6
-64 (-53)	25.6
-63 (-53)	27.5
-62 (-52)	29.4
-61 (-52)	31.7
-60 (-51)	34.0
-59 (-51)	36.5
-58 (-50)	39.0
-57 (-49)	41.8
-56 (-49)	44.6
-55 (-48)	48.0
-54 (-48)	51
-53 (-47)	55
-52 (-47)	59
-51 (-46)	62
-50 (-46)	67
-49 (-45)	72
-48 (-44)	76
-47 (-44)	82
-46 (-43)	87