

Multiply	by	to get	Multiply	by	to get
Acres	.4047	Hectares	Kg	1000	Grams
Acres	43,560	Sq. feet	Kg	2.205	Pounds
Acres	4047	Sq. meters	Kg/meter	.6720	Pounds/foot
Acres	.001562	Sq. miles	Kiloliters	1000	Liters
Atmospheres	1.013	bars	Km	100,000	Centimeters
Atmospheres	76.0	Cm. of mercury	Km	3281	Feet
Atmospheres	33.90	Feet of water	Km	1000	Meters
Atmospheres	29.92	Inches of mercury	Km	.6214	Miles
Atmospheres	101.325	Kilopascals	Km	1094	Yards
Atmospheres	14.70	Pounds/sq. inch	Km/hour	27.78	Centimeters/sec.
B.T.U.	778.3	Foot pounds	Km/hour	54.68	Feet/min.
B.T.U.	252.0	Gram calories	Km/hour	.9113	Feet/sec.
B.T.U.	1054.8	Joules	Km/hour	16.67	Meters/minute
B.T.U.	.0002928	Kilowatt - hours	Km/hour	.6214	Miles/hour
Bars	100	Kilopascals	Kilopascals	.1450	Pounds/sq. inch
Bars	14.50	Pounds/sq. inch	Liters	1000	Cubic centimeters
Calories	.003968	B.T.U.	Liters	.03531	Cubic feet
Calories	3.0880	Foot-pounds	Liters	61.02	Cubic inches
Centimeters	.03281	Feet	Liters	.001	Cubic meters
Centimeters	.3937	Inches	Liters	.2642	Gallons
Centimeters	.01	Meters	Liters	2.113	Pints (liq.)
Centimeters	10	Millimeters	Liters	1.057	Quarts (liq.)
Centimeters	393.7	Mils	Lumens/sq. foot	1	Foot-candles
Centimeters of Mercury	.01316	Atmospheres	Lumens/sq. foot	10.76	Lumens/sq. meter
Centimeters of Mercury	.4461	Feet of water	Lux	.0929	Foot-candles
Centimeters of Mercury	.1934	Pounds/sq. inch	Meters	100	Centimeters
Chains	792	Inches	Meters	3.281	
Chains	20.12	Meters	Meters	39.37	inches
Chains	22	Yards	Meters	.001	Kilometers
Cubic Centimeters	.00003531	Cubic feet	Meters	1000	Millimeters
Cubic Centimeters	.06102	Cubic inches	Meters	1.094	Yards

Multiply	By	To get	Multiply	By	To get
Cubic Centimeters	.000001	Cubic meters	Meters/minute	3.281	Feet/minute
Cubic Centimeters	.001	Liters	Meters/minute	.05468	Feet/second
Cubic Feet	1728	Cubic inches	Meters/minute	.06	Kilometers/hr.
Cubic Feet	.02832	Cubic meters	Meters/minute	.03728	Miles/hr.
Cubic Feet	.03704	Cubic yards	Meters/second	196.8	Feet/minute
Cubic Feet	7.4805	Gallons	Meters/second	3.281	Feet/second
Cubic Feet	28.32	Liters	Meters/second	3.6	Kilometer/hr.
Cubic Feet	59.84	Pints (liq.)	Meters/second	2.237	Miles/hr.
Cubic Feet	29.92	Quarts (liq.)	Microns	.0000394	Inches
			Microns	.000001	Meters
Cubic Feet/Minute	.1247	Gallons/second	Miles	5280	Feet
Cubic Feet/Minute	.4719	Liter/second	Miles	1.609	Kilometers
Cubic Feet/Minute	62.43	Pounds of water/min.	Miles	1,609	Meters
Cubic Feet/Second	448.831	Gallons/min.	Miles	1760	Yards
Cubic inches	16.39	Cubic centimeters	Miles/Hour	44.70	Centimeters/sec.
Cubic inches	.0005787	Cubic feet	Miles/Hour	88	Feet/min.
Cubic inches	.00001639	Cubic meters	Miles/Hour	1.467	Feet/sec.
Cubic inches	.004329	Gallons	Miles/Hour	1.609	Kilometers/hr.
Cubic inches	.01639	Liters	Miles/Hour	26.82	Meters/min.
Cubic inches	.03463	Pints (liq.)	Milligrams	.001	Grams
Cubic inches	.01732	Quarts (liq.)	Milligrams/liter (liq.)	1	Parts/million
Cubic meters	1,000,000	Cubic centimeters	Milliliters	.001	Liters
Cubic meters	35.31	Cubic feet	Millimeters	.1	Centimeters
Cubic meters	61,023	Cubic inches	Millimeters	.003281	Feet
Cubic meters	264.2	Gallons	Millimeters	.03937	Inches
Cubic meters	2113	Pints (liq.)	Mils	.00254	Centimeters

Multiply	By	To get	Multiply	By	To get
Cubic meters	1057	Quarts (liq.)	Mils	.001	Inches
Cubic meters/hour	4.4	Gallons/minute	Ounces	28.350	Grams
Cubic yards	764,600	Cubic centimeters	Ounces	29.47	Milliliters
Cubic yards	27	Cubic feet	Ounces	.0625	Pounds
Cubic yards	46,656	Cubic inches	Pints (liq.)	.4732	Liters
Cubic yards	.7646	Cubic meters	Pints (liq.)	16	Ounces
Cubic yards	202.0	Gallons	Pounds	16	Ounces
Cubic yards	764.6	Liters	Pounds/sq. inch	.06804	Atmospheres
Fathoms	6	Feet	Pounds/sq. inch	2.307	Feet of water
Feet	30.48	Centimeters	Pounds/sq. inch	2.036	Inches of mercury
Feet	12	Inches	Pounds/sq. inch	6.897	Kilopascals
Feet	.3048	Meters	Quarts (liq.)	.9463	Liters
Feet	304.8	Millimeters	Quarts (liq.)	32	Ounces
Feet of water	.0295	Atmospheres	Rods	16.5	Feet
Feet of water	.8826	Inches of mercury	Sq. centimeters	.001076	Sq. feet
Feet of water	.4335	Pounds/sq. inch	Sq. centimeters	.1550	Sq. inches
Feet/minute	.5080	Centimeters/sec.	Sq. centimeters	.0001	Sq. meters
Feet/minute	.01667	Feet/sec.	Sq. centimeters	100	Sq. millimeters
Feet/minute	.3048	Meters/min.	Sq. feet	929	Sq. centimeters
Feet/minute	.01136	Miles/hour			
Feet/second	18.29	Meters/min.	Sq. feet	144	Sq. inches
Feet/second	.6818	Miles/hour	Sq. feet	.09290	Sq. meters
Foot Candles	10.764	Lux	Sq. inches	6.452	Sq. centimeters
Gallons	3785	Cubic centimeters	Sq. inches	.006944	Sq. feet
Gallons	.1337	Cubic feet	Sq. inches	645.2	Sq. millimeters
Gallons	231	Cubic inches	Sq. kilometers	10,760,000	Sq. feet
Gallons	.003785	Cubic meters	Sq. kilometers	1,000,000	Sq. meters
Gallons	3.785	Liters	Sq. kilometers	.3861	Sq. miles
Gallons	8	Pints (liq.)	Sq. meters	10.76	Sq. feet
Gallons	4	Quarts (liq.)	Sq. meters	1.196	Sq. yards

Multiply	By	To get	Multiply	By	To get
Gallons of water	8.345	Pounds of water	Sq. miles	640	Acres
Gallons/minutes	8.0208	Cubic feet/hour	Sq. miles	2.590	Sq.
Gallons/minutes	3.785	Liters/minute	Sq. yards	9	Sq. feet
Gallons/minutes	500	Pounds of water/hour	Sq. yards	1,296	Sq. inches
Grams	.001	Kilograms	Ton (long)	1016	Kilograms
Grams	1000	Milligrams	Ton (long)	2240	Pounds
Grams	.03527	Ounces	Ton (long)	1.12	Ton (short)
Hectares	2.471	Acres	Ton (metric)	1000	Kilograms
Inches	2.540	Centimeters	Ton (metric)	2205	Pounds
Inches	.02540	Meters	Ton (short)	907.1848	Kilograms
Inches	25.40	Millimeters	Ton (short)	32,000	Ounces
Inches	1000	Mils	Ton (short)	2000	Pounds
Inches of mercury	.03342	Atmospheres	Ton (short)	.892878	Ton (long)
Inches of mercury	1.133	Feet of water	Ton (short)	.90718	Tons (metric)
Inches of water	.002458	Atmospheres	Yards	91.44	Centimeters
Inches of water	.03613	Pounds/sq. inch	Yards	36	Inches
Joules	.000948	B.T.U.	Yards	.9144	Meters
Joules	.7376	Foot-pounds			
Joules	.0002778	Watts-hour			

**All liquids are in U.S. fluid measurements unless otherwise stated.*

C	F	C	F	C	F	C	F
-40	-40.0	16	60.8	70	158.0	300	572.0
-38	-36.4	17	62.6	75	167.0	305	581.0
-36	-32.8	18	64.4	80	176.0	310	590.0
-34	-29.2	19	66.2	85	185.0	315	599.0
-32	-25.6	20	68.0	90	194.0	320	608.0
-30	-22.0	21	69.8	95	203.0	325	617.0
-28	-18.4	22	71.6	100	212.0	330	626.0
-26	-14.8	23	73.4	105	221.0	335	635.0
-24	-11.2	24	75.2	110	230.0	340	644.0
-22	-7.6	25	77.0	115	239.0	345	653.0

Temperature

Degrees Celsius = 5/9 (degrees Fahrenheit) – 32
 Degrees Celsius = degrees Kelvin - 273.15
 Degrees Fahrenheit = 1.8 (degrees Celsius) + 32
 Degrees Fahrenheit = degrees Rankine - 459.67
 Degrees Kelvin = degrees Celsius + 273.15
 Degrees Rankine = degrees Fahrenheit + 459.67

C	F	C	F	C	F	C	F
-20	-4.0	26	78.8	120	248.0	350	662.0
-19	-2.2	27	80.6	125	257.0	355	671.0
-18	-0.4	28	82.4	130	266.0	360	680.0
-17	+1.4	29	84.2	135	275.0	365	689.0
-16	3.2	30	86.0	140	284.0	370	698.0
-15	5.0	31	87.8	145	293.0	375	707.0
-14	6.8	32	89.6	150	302.0	380	716.0
-13	8.6	33	91.4	155	311.0	385	725.0
-12	10.4	34	93.2	160	320.0	390	734.0
-11	12.2	35	95.0	165	329.0	395	743.0
-10	14.0	36	96.8	170	338.0	400	752.0
-9	15.8	37	98.6	175	347.0	425	797.0
-8	17.6	38	10.4	180	356.0	450	842.0
-7	19.4	39	102.2	185	365.0	475	887.0
-6	21.2	40	104.0	190	374.0	500	932.0
-5	23.0	41	105.8	195	383.0	525	977.0
-4	24.8	42	107.6	200	392.0	550	1022.0
-3	26.6	43	109.4	205	401.0	575	1067.0
-2	28.4	44	111.2	210	410.0	600	1112.0
-1	30.2	45	113.0	215	419.0	625	1157.0
0	32.0	46	114.8	220	428.0	650	1202.0
1	33.8	47	116.6	225	437.0	675	1247.0
2	35.6	48	118.4	230	446.0	700	1292.0
3	37.4	49	120.2	235	455.0	725	1337.0
4	39.2	50	122.0	240	464.0	750	1382.0
5	41.0	51	123.8	245	473.0	775	1427.0
6	42.8	52	125.6	250	482.0	800	1472.0
7	44.6	53	127.4	255	491.0	825	1517.0
8	46.4	54	129.2	260	500.0	850	1562.0
9	48.2	55	131.0	265	509.0	875	1607.0
10	50.0	56	132.8	270	518.0	900	1652.0
11	51.8	57	134.6	275	527.0	925	1697.0
12	53.6	58	136.4	280	536.0	950	1742.0
13	55.4	59	138.2	285	545.0	975	1787.0
14	57.2	60	140.0	290	554.0	1000	1832.0
15	59.0	65	149.0	295	563.0	1050	2732.0

Prefix		Symbol	Scientific notation
Tera	1,000,000,000,000	T	10 ¹²
Giga	1,000,000,000	G	10 ⁹
Mega	1,000,000	M	10 ⁶
Kilo	1000	k	10 ³
Hecto	100	h	10 ²
Deka	10	da	10
	1		
Deci	.1	d	10 ⁻¹
Centi	.01	c	10 ⁻²
Milli	.001	m	10 ⁻³
Micro	.000001	μ	10 ⁻⁶
Nano	.000000001	n	10 ⁻⁹
Pico	.000000000001	p	10 ⁻¹²

Average Absolute Atmospheric Pressure

Altitude above sea level	PSIA	Inches Hg.	mm Hg.
0	14.7	29.9	760.0
500	14.4	29.4	744.6
1,000	14.2	29.8	734.3
1,500	13.9	28.3	718.8
2,000	13.7	27.8	708.4
3,000	13.2	26.8	685.6
4,000	12.7	25.9	656.7
5,000	12.2	24.9	630.9
6,000	11.7	24.0	605.5
7,000	11.3	23.1	584.4

Conversion of TLVs in ppm to mg/m³:

$$\text{TLV in mg/m}^3 = \frac{(\text{TLV in ppm}) (\text{gram molecular weight of substance})}{24.45}$$

$$\text{TLV in ppm} = \frac{(\text{TLV in mg/m}^3)(24.45)}{\text{gram molecular weight of substance}}$$

Volume percent = 10,000 ppm

Volume percent x .0001 = ppm

**All liquids are in U.S. fluid measurements unless otherwise specified*

Fraction Decimals Millimeters

19/32	.59375	15.081
5/8	.625	15.875
21/32	.65625	16.669
11/16	.6875	17.463
23/32	.71875	18.256
3/4	.750	19.050
25/32	.78125	19.844
13/16	.8125	20.638
27/32	.84375	21.431
7/8	.875	22.225
29/32	.90625	23.019
15/16	.9375	23.813
31/32	.96875	24.606
1	1.000	25.400

Fraction Decimals Millimeters

1/32	.03125	.794
1/16	.0625	1.588
3/32	.09375	2.381
1/8	.125	3.175
5/32	.15625	3.969
3/16	.1875	4.763
7/32	.21875	5.556
1/4	.250	6.350
9/32	.28125	7.144
5/16	.3125	7.938
11/32	.34275	8.731
3/8	.375	9.525
13/32	.40625	10.319
7/16	.4275	11.113
15/32	.46875	11.906
1/2	.500	12.700
17/32	.53125	13.494
9/16	.5625	14.288

References

Carr Lane, *Trigonometry Tables and Handy Reference Guide for Engineers, 1992*

CEP Conversion Handbook, Controls for Environmental Pollution Inc.