

CONVERSION FACTORS

CONVERSION FROM	MULTIPLY BY	TO OBTAIN
TEMPERATURE		
°Fahrenheit (F) + 459.72	1	°F Absolute, or Rankins
°Fahrenheit (F) -32	5/9	°Celsius (C)
°Celsius (C) +273.16	1	°C Absolute, or Kelvin (K)
°Celsius (C) + 17.78	1.8	°Fahrenheit (F)
°Rankine ® - 459.72	1	°Fahrenheit (F)
°Kelvin (K) – 273.16	1	°Celsius (C)
DENSITY		
Grams per cubic Centimetres	62.428	Pounds per cubic feet
	0.03613	Pounds per cubic inch
	8.345	Pounds per U.S. Gallon
Gram-moles of ideal gas at OOC, and 760 mm Hg	22.4140	Litres
Pounds per cubic inch	1728	Pounds per cubic foot
	27.68	Grams per cubic centimetre
Pounds-moles of ideal gas at OOC, and 760 mm Hg	359.05	Cubic feet
VOLUME		
Barrels	42	Gallons (oil)
	31.5	Gallons
Cubic centimetres	10 ⁻³	Litres
	0.0610	Cubic inches
Cubic feet	28317	Cubic centimetres
	1728	Cubic inches
	0.03704	Cubic yards
	7.481	Gallons
	28.32	Litres
Cubic inches	16.387	Cubic centimetres
	0.01639	Litres
	4.329 X 10 ⁻³	Gallons
	0.01732	Quarts (liquid)
Gallons (Imperial)	277.4	Cubic inches
	1201	US Gallons
	4546	Litres
Gallons, US (liquid)	231	Cubic inches
	0.1337	Cubic feet
	3.785	Litres
	0.8327	Imperial gallons
	126	Fluid ounces

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Ounces, Fluid	29.57	Cubic centimetres
	1.805	Cubic inches
Litres	0.2642	Gallons
	0.0353	Cubic feet
	1.0567	Quarts
	61.025	Cubic inches
	0.0334	Cubic feet
Quarts, US (liquid)	57.749	Cubic inches
	0.9463	Litres
WEIGHT		
Milligrams	2.2046×10^{-6}	Pounds (avoirdupois)
	3.5274×10^{-5}	Ounces (avoirdupois)
	0.01543	Grains
	1×10^{-6}	Kilograms
Micrograms	1×10^{-6}	Grams
Grams	0.0020	Pounds (avoirdupois)
	0.03527	Ounces (avoirdupois)
	15.432	Grains
	1×10^{-6}	Micrograms
Kilograms	0.00110	Tons (short)
	2.2046	Pounds (avoirdupois)
	35.274	Ounces (avoirdupois)
	1.5432×10^4	Grains
Grains	1.4286×10^{-4}	Pounds (avoirdupois)
	0.00229	Ounces (avoirdupois)
	0.06480	Grains
	64.799	Micrograms
Ounces (avoirdupois)	3.1250×10^{-5}	Tons (short)
	0.06250	Pounds (avoirdupois)
	437.50	Grains
	28.350	Grams
Pounds (avoirdupois)	5×10^{-4}	Tons (short)
	16	Ounces (avoirdupois)
	7000	Grains
	453.59	Grams
	0.45359	Kilograms
Tons (short, US)	2000	Pounds (avoirdupois)
	3200×10^4	Ounces (avoirdupois)
	907.19	Kilograms
Tons (long)	2240	Pounds (avoirdupois)
	1016	Kilograms
Tons (metric)	1000	Kilograms
	2205	Pounds (avoirdupois)
	1.102	Tons (short)

CONVERSION FROM	MULTIPLY BY	TO OBTAIN
VELOCITY		
Feet per minute	0.01136	Miles per hour
	0.01829	Kilometres per hour
	0.5080	Centimetres per second
	0.01667	Feet per second
Feet per second	0.6818	Miles per hour
	1.097	Kilometres per hour
	30.48	Centimetres per second
	0.3048	Meters per second
	0.5921	Knots
Knots	1.0	Nautical miles per hour
	1.6889	Feet per second
	1.1515	Miles per hour
	1.8532	Kilometres per hour
	0.5148	Meters per second
Meters per second	3.281	Feet per second
	2.237	Miles per hour
	3.600	Kilometres per hour
Miles per hour	1.467	Feet per second
	0.4470	Meters per second
	1.609	Kilometres per hour
	0.8684	Knots
AREA		
Square millimetres	0.00155	Square inches
	1×10^{-6}	Square meters
	0.01	Square Centimetres
	1.2732	Circular millimetres
Square Centimetres	1.1960×10^{-4}	Square yards
	0.00108	Square feet
	0.15500	Square inches
	1×10^{-4}	Square meters
	100	Square millimetres
Square kilometres	0.38610	Square miles (US)
	1.1960×10^6	Square yards
	1.0764×10^7	Square feet
	1×10^6	Square meters
	247.10	Acres (US)
Square inches (US)	0.00694	Square feet
	0.00077	Square yards
	6.4516×10^{-4}	Square meters
	6.4516	Square Centimetres
	645.16	Square millimetres

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Square feet (US)	3.5870×10^{-8}	Square miles
	0.11111	Square yards
	144	Square inches
	0.09290	Square meters
	929.03	Square Centimetres
	2.2957×10^{-5}	Acres
Square miles	640	Acres
	3.0967×10^6	Square yards
	2.7878×10^7	Square feet
	2.5900	Square kilometres
	2.5900×10^8	Square meters
LENGTH		
Angstrom units	1×10^{-10}	Meters
	3.9370×10^{-9}	Inches
	1×10^{-4}	Microns
	1×10^{-8}	Centimetres
	0.1	Millimicrons
Millimicrons	1×10^{-9}	Meters
	1×10^{-7}	Centimetres
	10	Angstrom units
Microns (um)	3.9370×10^{-5}	Inches
	1×10^{-6}	Meters
	1×10^{-4}	Centimetres
	1×10^4	Angstrom units
Millimetres	0.03937	Inches (US)
	1000	Microns
Centimetres	0.39370	Inches (US)
	1×10^4	Microns (um)
	1×10^7	Millimicrons
	1×10^8	Angstrom units
Meters	6.2137×10^{-4}	Miles (statute)
	1.0936	Yards (US)
	39.370	Inches (US)
	1×10^9	Millimicrons
	1×10^{10}	Angstrom units
Kilometres	0.53961	Miles (nautical)
	0.62137	Miles (statute)
	1093.6	Yards
	2280.8	Feet
Inches (US)	0.02778	Yards
	2.5400	Centimetres
	2.5400×10^8	Angstrom units
Feet (US)	0.30480	Meters
	30.480	Centimetres

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Yards (US)	5.6818 x 10 ⁻⁴	Miles
	0.91440	Meters
	91.440	Centimetres
Miles (nautical)	1.1516	Statute miles
	2026.8	Yards
	1.8533	Kilometres
Miles (US statute)	320	Rods
	0.86836	Nautical miles
	1.6094	Kilometres
	1609.4	Meters
THERMAL CONDUCTIVITY		
BTU/(hr)(ft ²) (°F/ft)	0.00413	Cal/sec (cm ²)(°C/cm)
	12	BTU/(hr)(ft ²)(°F/in)
	0.0173	Watts/(cm ²)(°C/cm)
PRESSURE		
Atmospheres	760	Millimetres of mercury
	29.921	Inches of mercury
	33.93	Feet of water
	10332	Kg/m ²
	14.696	Lb/sq in (psi)
	2216.2	l/sq ft
	1.0133	Bars
	1.0332	Kg/cm ²
Feet of water	0.02947	Atmospheres
	0.4335	Lb/sq in (psi)
	62.378	Lb/sq ft
Inches of mercury	0.03342	Atmospheres
	13.60	Inches of water
	1.133	Feet of water
	0.4912	Lb/sq in (psi)
	70.727	Lb/sq ft
	345.32	Kg/m ²
Pounds per square inch (psi)	70.31	g/cm ²
	2.036	Inches of mercury
	2.3611	Feet of water
	6.8948	Kilopascals
Inches of water	0.03609	Lb/sq in (psi)
	5.1981	Lb/sq ft
	25.38	Kg/m ²
FLOW		
Barrels per hour	0.0936	Cubic feet per minute
	5.615	Cubic feet per hour
	0.700	Gallons (US) per minute
	42.00	Gallons (US) per hour

CONVERSION FROM	MULTIPLY BY	TO OBTAIN
Barrels per hour (cont.)	2.650	Litres per minute
	158.984	Litres per hour
Cubic Centimetres per second	0.001	Litres per second
	0.060	Litres per minute
	0.00212	Cubic feet per minute
Cubic feet per minute	471.70	Cubic Centimetres/second
	1.699	Cubic meters per hour
	0.000472	Cubic meters per second
	0.12468	Gallons (US) per second
	0.4719	Litres per second
	28.316	Litres per minute
Litres per minute	2.119	Cubic feet per hour
	0.0600	Cubic meters per hour
	0.2642	Gallons (US) per minute
Cubic meters per hour	0.5886	Cubic feet per minute
	16.666	Litres per minute
	4.404	Gallons (US) per minute
Gallons (US) per minutes	1.4286	Barrels per hour
	0.0631	Litres per second
	0.2271	Cubic meters per hour
	0.1337	Cubic feet per minute
CONVERSION FACTORS CONCENTRATIONS		
1,000,000 ppm	=	100.0%
100,000 ppm	=	10.0%
10,000 ppm	=	1.0%
1,000 ppm	=	0.1%
100 ppm	=	0.01%
10 ppm	=	0.001%
1 ppm	=	0.0001%