



Equivalent Measures of Length

1 meter (m)	39.37 inches (in.)
1 centimeter (cm)	0.39 in.
1 millimeter (mm)	0.039 in.
1 yard (yd)	91.44 centimeters (cm)
1 foot (ft)	30.48 cm
1 inch (in.)	2.54 cm

Household Measures (Approximate)

1 drop	1/20 ml
1 teaspoon	5 ml
1 tablespoon	15 ml
1 cup	250 ml

Weight and Apothecaries' Equivalents

1 milligram (mg)	1/65 grain (1/60)
1 gram (g)	15.43 grains (15)
1 kilogram (kg)	2.20 pounds (avoirdupois)
1 pound (avoirdupois)	453.6 grams
1 grain (gr)	0.065 gram (60 mg)
1 ounce (1/16 pound)	28.4 grams

Fluid Equivalents

1 fluid ounce (oz.)	29.57 ml (30)
1 pint (pt.) 16 fl. oz.	473.2 ml (500)
1 pint, In the Imperial system	20 fluid ounces
1 quart (qt.)	946.4 ml (1000)
1 quart, In the Imperial system	40 fluid ounces
1 gallon (gal.)	3785.6 ml (4000)
1 gallon, In the Imperial system	160 fluid ounces

Metric System Weights and Measures

1 kilogram (kg)	1000 grams (10^3)
1 milligram (mg)	0.001 gram (10^{-3})
1 microgram (μg)	0.000001 gram (10^{-6})



1 liter (l)	1000 ml (10^3)
1 milliliter (ml)	0.001 l (10^{-3})
1 microliter (μ l)	0.000001 l (10^{-6})
1 milliliter (ml)	1 cubic centimeter (cc)

Weights and Measurements

Weight - Unit Conversion Factors		
Units Given	Units Wanted	For Conversion Multiply By
lb	g	453.6
lb	kg	0.4536
oz	g	28.35
kg	lb	2.2046
kg	mg	1,000,000
kg	g	1,000
g	mg	1,000
g	μ g	1,000,000
mg	μ g	1,000
mg/g	mg/lb	453.6
mg/kg	mg/lb	0.4536
μ g/kg	μ g/lb	0.4536
Mcal	kcal	1,000
kcal/kg	kcal/lb	0.4536
kcal/lb	kcal/kg	2.2046
ppm	μ g/g	1
ppm	mg/kg	1
ppm	mg/lb	0.4536
mg/kg	%	0.0001
ppm	%	0.0001



mg/g	%	0.1
g/kg	%	0.1

Conversion Formulas

Gallons into Pounds: Multiply the specific gravity of the liquid by 8.33* (weight in pounds of 1 gallon of water); then multiply this result by the number of gallons, to obtain the weight in pounds.

Pounds into Gallons: Multiply the specific gravity of the liquid by 8.33* (weight in pounds of 1 gallon of water); then divide the number of pounds by the result, to obtain the volume in gallons.

Milliliters into Grams: Multiply the specific gravity of the substance by the number of milliliters, to obtain the weight in grams.

Grams into Milliliters: Divide the number of grams by the specific gravity of the substance, to obtain the volume in milliliters.

Milliliters into Pounds: Multiply the number of milliliters by the specific gravity of the substance; then divide the product by 453.59 (equivalent in grams of 1 avoirdupois pound), to obtain the weight in pounds.

Pounds into Milliliters: Multiply the number of pounds by 453.59 (equivalent in grams of 1 avoirdupois pound); then divide the product by the specific gravity of the substance, to obtain the volume in milliliters.



Milliliters into Ounces: Multiply the number of milliliters by the specific gravity of the substance; then divide the product by 28.35 (equivalent in grams of 1 avoirdupois ounce), to obtain the volume in ounces.

Ounces into Milliliters: Multiply the number of ounces by 28.35 (equivalent in grams of 1 avoirdupois ounce); then divide the product by the specific gravity of the substance, to obtain the volume in milliliters.

Grains, Drams, and Ounces into Grams (or mL): 1) Divide the number of grains by 15; or 2) multiply the number of drams by 4; or 3) multiply the number of ounces by 28.35. The result in each case equals the approximated number of grams (or mL).

Kilograms into Pounds: Multiply the number of kilograms by 2.2046, or multiply the number of kilograms by 2 and add 10% to the product.

Pounds into Kilograms: Divide the number of pounds by 2.2046, or multiply by 0.4536

*10 for imperial gallons