

Appendix G Units of Measurement

Weight/Mass

g	gram(s)	1 g = 0.3035 oz (avoirdupois)
kg	kilogram(s)	1 kg = 2.2 lb
lb	pound(s)	1 lb = 0.45 kg
mg	milligram(s)	1 mg = 1/1,000 g; 10^{-3} g
Mg	megagram(s), metric ton(s)	1 Mg = 10^6 g or 2,205 lb
µg	microgram(s)	1 µg = 10^{-6} g
mol	mole, molecular weight	1 mol = (mol. wt.) in grams
ng	nanogram(s)	1 ng = 10^{-9} g
oz	ounce(s) (avoirdupois)	1 oz = 28.3 g

Volume

cc or cm^3	cubic centimeter(s)	1 cc = approximately 1 mL
gal	gallon(s) (U.S.)	1 gal = 3.8 L
l or L	liter(s)	1 L = 1.05 liquid quarts
m^3	cubic meter(s)	1 m^3 = 35 cubic feet
ml or mL	milliliter(s)	1 mL = 10^{-3} L
ft^3	cubic foot (feet)	1 ft^3 = 0.028 m^3

Length

cm	centimeter(s)	100 cm = 1 m
km	kilometer(s)	1 km = 0.6 mile
m	meter(s)	1 m = 3.3 feet
mm	millimeter(s)	1 mm = 1/1,000 m; 10^{-3} m

Concentration

mg/m^3	milligram(s) per cubic meter air
mppcf	millions of particles per cubic foot of contaminated air based on impinger samples counted by light-field techniques; $\text{mppcf} \times 35.3$ = millions of particles per cubic meter.
ppm	parts per million; when referring to dosing in a feeding study, ppm may be used to express the concentration of the substance in the feed; or may be used to refer to air concentrations 1 ppm = mg/kg
ppb	parts per billion 1 ppb = µg/kg
ppt	parts per trillion 1 ppt = ng/kg
mg/kg	when referring to dosing, it means milligrams (mg) of chemical administered per kilogram (kg) body weight of the dosed animal.

Temperature

°C	degree(s) Celsius	°C = $(°F - 32) \times 5/9$
°F	degree(s) Fahrenheit	°F = $(°C \times 9/5) + 32$

Radiation

Bq	becquerel(s)	1 Bq = 1 disintegration per sec
Ci	curie	1 Ci = 3.7×10^{10} disintegrations per sec
Gy	gray	1 Gy = 1 J per kg
pCi	picocurie(s)	
Sv	sievert	1 Sv = 1 J/kg

Energy/Power

eV	electron volt(s)	1 eV = 1.6×10^{-12} erg
	erg	1 erg = 10^{-7} J
J	joule(s)	1 J = 10^7 erg
mW	milliwatt(s)	1 mW = 10^4 erg/sec

Exponentials

10^2 , 10^3 , 10^6 , etc.: superscripts refer to the number of times "10" is multiplied by itself, e.g., $10^2 = 10 \times 10 = 100$; $10^3 = 10 \times 10 \times 10 = 1,000$.