



# Technical Note #105

## Units of Measurement

*The following units of measurement and their equivalents are often used in the industries Nextteq serves.*

### Concentration

#### Key

mg/m<sup>3</sup> = milligram(s) per cubic meter air  
 ppm = parts per million  
 ppb = parts per billion  
 ppt = parts per trillion

#### Equivalents

1 ppm = mg/kg  
 1 ppb = µg/kg  
 1 ppt = ng/kg

### Exponentials

#### Key

10<sup>2</sup>, 10<sup>3</sup>, 10<sup>6</sup> = superscripts refer to the number of times "10" is multiplied by itself.

#### Equivalents

10<sup>2</sup> = 10 x 10 = 100  
 10<sup>3</sup> = 10 x 10 x 10 = 1000

### Length

#### Key

cm = centimeter(s)  
 km = kilometer(s)  
 m = meter(s)  
 mm = millimeter(s)

#### Equivalents

100 cm = 1 m  
 1 km = 0.6 mile  
 1 m = 3.3 ft  
 1mm = 1/1000 m, 10-3 m

### Temperature

#### Key

°C = degree(s) Celsius  
 °F = degree(s) Fahrenheit

#### Equivalents

°C = (°F - 32) X 5/9  
 °F = (°C x 9/5) + 32

### Volume

#### Key

cc = cubic centimeter(s)  
 cm<sup>3</sup> = cubic centimeter(s)  
 ft<sup>3</sup> = cubic foot (feet)  
 gal = gallon(s) (US)  
 l or L = liter(s)  
 m<sup>3</sup> = cubic meter(s)  
 ml (or mL) = milliliter(s)

#### Equivalents

1 cc = approximately 1 mL  
 1 cm<sup>3</sup> = approximately 1 mL  
 1 ft<sup>3</sup> = 0.0028 m<sup>3</sup>  
 1 gal = 3.8 L  
 1 L = 1.05 liquid quarts  
 1 m<sup>3</sup> = 35 cubic feet  
 1 mL = 10-3 L



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### Weight/Mass

#### Key

g	=	grams
kg	=	kilograms
lb	=	pound
mg	=	milligrams
Mg	=	megagrams
µg	=	micrograms
mol	=	1 mole of atoms
oz	=	ounce(s)

#### Equivalents

1 g	=	0.3035 oz
1 kg	=	2.2 lb
1 lb	=	0.45 kg
1 mg	=	1/1000 g / 10 <sup>-3</sup> g
1 Mg	=	2205 lb, 106 g
1 µg	=	10 <sup>-6</sup> g
1 mol	=	6.02 X 10 <sup>23</sup> atoms
1 oz *	=	28.3 g

\*(avoirdupois)