

Units of Measurement



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Common Unit Prefixes								
<i>Prefix</i>	<i>kilo</i>	<i>centi</i>	<i>milli</i>	<i>micro</i>	<i>nano</i>	<i>pico</i>	<i>femto</i>	<i>atto</i>
<i>Symbol</i>	k	c	m	μ	n	p	f	a
<i>Factor</i>	10 ³	10 ⁻²	10 ⁻³	10 ⁻⁶	10 ⁻⁹	10 ⁻¹²	10 ⁻¹⁵	10 ⁻¹⁸
<i>Equivalence</i>	thousand	hundredth	thousandth	millionth	billionth	trillionth	quadrillionth	quintillionth

Weight to Weight Concentrations					
Name	Symbol	Equivalence			
<i>Parts per thousand *</i>	ppt*	g/kg	mg/g	μg/mg	ng/μg
<i>Parts per million</i>	ppm	mg/kg	μg/g	ng/mg	pg/μg
<i>Parts per billion</i>	ppb	μg/kg	ng/g	pg/mg	fg/μg
<i>Parts per trillion **</i>	ppt**	ng/kg	pg/g	fg/mg	ag/μg

Concentration Conversions					
Unit	Symbol	ppt*	ppm	ppb	ppt**
<i>1 part per thousand *</i>	ppt*	-	1 x 10 ³	1 x 10 ⁶	1 x 10 ⁹
<i>1 part per million</i>	ppm	1 x 10 ⁻³	-	1 x 10 ³	1 x 10 ⁶
<i>1 part per billion</i>	ppb	1 x 10 ⁻⁶	1 x 10 ⁻³	-	1 x 10 ³
<i>1 part per trillion **</i>	ppt**	1 x 10 ⁻⁹	1 x 10 ⁻⁶	1 x 10 ⁻³	-

* ppt = parts per thousand

** ppt = parts per trillion

Weight to Volume Concentrations					
Name	Symbol	Equivalence			
<i>Parts per thousand *</i>	ppt*	g/L	mg/mL	μg/μL	ng/nL
<i>Parts per million</i>	ppm	mg/L	μg/mL	ng/μL	pg/nL
<i>Parts per billion</i>	ppb	μg/L	ng/mL	pg/μL	fg/nL
<i>Parts per trillion **</i>	ppt**	ng/L	pg/mL	fg/μL	ag/nL

Temperature Scale			
Scale	Symbol	Convert To	Formula
<i>Celsius</i>	°C	Fahrenheit	°F = °C x 1.8 + 32
<i>Celsius</i>	°C	Kelvin	°K = °C + 273
<i>Fahrenheit</i>	°F	Celsius	°C = (°F - 32) / 1.8
<i>Fahrenheit</i>	°F	Kelvin	°K = (°F - 32) / 1.8 + 273
<i>Kelvin</i>	°K	Celsius	°C = °K - 273
<i>Kelvin</i>	°K	Fahrenheit	°F = 1.8 (°K - 273) + 32