

Solubility Rules

All salts and/or compounds of...	Are...	Except for those of...
Alkali Metals	SOLUBLE	
NH_4^+	SOLUBLE	
NO_3^- , ClO_3^- , ClO_4^- , CH_3COO^-	SOLUBLE	
Cl^- , Br^- , and I^-	SOLUBLE	Ag^+ , Pb^{2+} , and Hg_2^{2+}
F^-	SOLUBLE	Ca^{2+} , Sr^{2+} , Ba^{2+} , Pb^{2+} , Mg^{2+}
SO_4^{2-}	SOLUBLE	Ca^{2+} , Sr^{2+} , Ba^{2+} , Pb^{2+}
OH^-	INSOLUBLE	Alkali Metals, Ba^{2+} , Ca^{2+} , and Sr^{2+}
S^{2-}	INSOLUBLE	Alkali Metals, Alkaline Earth Metals, NH_4^+
CO_3^{2-} , PO_4^{3-} , SO_3^{2-} , CrO_4^{2-}	INSOLUBLE	Alkali Metals, NH_4^+

SI Prefixes

Prefix	Symbol	Value
giga	G	$\cdot 10^9$
mega	M	$\cdot 10^6$
kilo	k	$\cdot 10^3$
hecto	h	$\cdot 10^2$
deca	da	$\cdot 10^1$
deci	d	$\cdot 10^{-1}$
centi	c	$\cdot 10^{-2}$
milli	m	$\cdot 10^{-3}$
micro	μ	$\cdot 10^{-6}$
nano	n	$\cdot 10^{-9}$
angstrom	Å	$\cdot 10^{-10}$
pico	p	$\cdot 10^{-12}$
femto	f	$\cdot 10^{-15}$

Naming Prefixes

Prefix	Number
mono-	1
di-	2
tri-	3
tetra-	4
penta-	5
hexa-	6
hepta-	7
octa-	8
nona-	9
deca-	10

SI Measurements

Measurement	Unit
mass	gram (g)
length	meter (m)
time	second (s)
temperature	Kelvin (K)
volume	liter (L)
energy	joule (J)
speed	meters/sec

Misc

Diatomic Molecules	H, O, N, F, Cl, Br, I
Cation (+)	Anion (-)
Covalent Bond	2 non-metals
Ionic Bond	metal-nonmetal

Significant Figures

- Non-zeros are significant.
 - Zeros between non-zeros are significant
 - Zeros after non-zeros are significant if a decimal point is written.
 - Exact numbers have infinite significant figures.
- Add/Sub: Lowest # of significant decimal places.
- Mult/Div: Lowest # of total significant figures.