Reference

Periodic Table of the Elements

1												13	14	15	16	17	18
1 H 1.01	2																2 He 4.00
3 Li 6.94	4 Be 9.01											5 B 10.81	6 C 12.01	7 N 14.01	8 O 16.00	9 F 19.00	10 Ne 20.18
11 Na 22.99	12 Mg 24.31	3	4	5	6	7	8	9	10	11	12	13 Al 26.98	14 Si 28.09	15 P 30.97	16 S 32.07	17 Cl 35.45	18 Ar 39.95
19 K 39.10	20 Ca 40.08	21 Sc 44.96	22 Ti 47.87	23 V 50.94	24 Cr 51.99	25 Mn 54.94	26 Fe 55.85	27 Co 58.93	28 Ni 58.69	29 Cu 63.55	30 Zn 65.38	31 Ga 69.72	32 Ge 72.63	33 As 74.92	34 Se 78.97	35 Br 79.90	36 Kr 84.80
37 Rb 84.47	38 Sr 87.62	39 Y 88.91	40 Zr 91.22	41 Nb 92.91	42 Mo 95.95	43 Tc 98.91	44 Ru 101.07	45 Rh 102.91	46 Pd 106.42	47 Ag 107.87	48 Cd 112.41	49 In 114.82	50 Sn 118.71	51 Sb 121.76	52 Te 127.6	53 I 126.90	54 Xe 131.25
55 Cs 132.91	56 Ba 137.33	57-71	72 Hf 178.49	73 Ta 180.95	74 W 183.84	75 Re 186.21	76 Os 190.23	77 Ir 192.22	78 Pt 195.09	79 Au 196.97	80 Hg 200.59	81 Tl 204.38	82 Pb 207.2	83 Bi 208.98	84 Po [208.98]	85 At 209.99	86 Rn 222.02
87 Fr 223.02	88 Ra 226.03	89-103	104 Rf [261]	105 Db [262]	106 Sg [266]	107 Bh [264]	108 Hs [269]	109 Mt [268]	110 Ds [269]	111 Rg [272]	112 Cn [277]	113 Nh [286]	114 Fl [289]	115 Mc [289]	116 Lv [298]	117 Ts [294]	118 Og [294]

57 La 138.91	58 Ce 140.12	59 Pr 140.91	60 Nd 144.24	61 Pm 144.91	62 Sm 150.36	63 Eu 151.96	64 Gd 157.25	65 Tb 158.93	66 Dy 162.50	67 Ho 164.93	68 Er 167.26	69 Tm 168.93	70 Yb 173.06	71 Lu 174.97
89 Ac 227.03	90 Th 232.04	91 Pa 231.04	92 U 238.03	93 Np 237.05	94 Pu 244.06	95 Am 243.06	96 Cm 247.07	97 Bk 247.07	98 Cf 251.08	99 Es [254]	100 Fm 257.10	101 Md 258.1	102 No 259.10	103 Lr [262]

Solubility

All compounds containing NO_3^- and $C_2H_3O_2^-$ are Soluble $_{(aq)}$.
All compounds containing an alkali metal cation (Li^+ to Cs^+) or NH_4^+ are Soluble $_{(aq)}$.
All compounds containing Cl^-, Br^-, and I^- are Soluble $_{(aq)}$ except those containing Ag^+, Hg_2^{2+} and Pb^{2+}
All compounds containing OH^- and S^{2-} are Insoluble $_{(s)}$ except those containing an alkali metal cation, NH_4^+, Ca^{2+}, Sr^{2+}, and Ba^{2+}
All compounds containing CO_3^{2-} and PO_4^{3-} are Insoluble $_{(s)}$ except those containing an alkali metal cation and NH_4^+
All compounds containing SO_4^{2-} are Soluble $_{(aq)}$ except those containing Sr^{2+}, Ba^{2+}, Hg_2^{2+}, and Pb^{2+}

Compound	Example	Exceptions	Example
Water Soluble			
Nitrates	$AgNO_3$	None	None
Chlorides, Bromides, Iodides	NaCl	Those containing Ag^+, Pb^+, or Hg_2^{2+}	AgCl
Sulfates	K_2SO_4	Those containing Pb^{2+}, Sr^{2+}, Ba^{2+}, Hg_2^{2+}	$PbSO_4$
Water Insoluble			
Hydroxides	$Mg(OH)_2$	Those containing alkali metal cations, Ca^{2+}, Sr^{2+}, and Ba^{2+}	NaOH
Phosphates	$FePO_3$	Those containing NH_4^+ or alkali metal cations	Li_3PO_4
Carbonates	$PbCO_3$	Those containing NH_4^+ or alkali metal cations	$(NH_4)_2CO_3$

$$\text{parts per million (ppm)} = \frac{\text{g of solute}}{\text{mL of solution}} \times 1\times10^6$$