

CHEMISTRY DATA SHEET

1 mole of any element contains 6.02×10^{23} molecules

FORMULAE OF COMMON IONS	
Positive	Negative
Ag ⁺	Br ⁻
Al ³⁺	Cl ⁻
Ca ²⁺	CO ₃ ²⁻
Cu ²⁺	HCO ₃ ⁻
Fe ²⁺	HSO ₄ ⁻
Fe ³⁺	I ⁻
H ⁺	NO ₃ ⁻
K ⁺	O ²⁻
Li ⁺	OH ⁻
Mg ²⁺	S ²⁻
Na ⁺	SO ₃ ²⁻
NH ₄ ⁺	SO ₄ ²⁻
Pb ²⁺	PO ₄ ³⁻
Zn ²⁺	HPO ₄ ³⁻
Ba ²⁺	H ₂ PO ₄ ⁴⁻

REACTIVITY SERIES	
Elements	Reactivity
Potassium	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 20px;"><i>Most reactive</i></div> <div style="margin-bottom: 20px;">↓</div> <div style="margin-bottom: 20px;"><i>Decrease in</i></div> <div style="margin-bottom: 20px;"><i>Reactivity</i></div> <div style="margin-bottom: 20px;">↓</div> <div><i>Least reactive</i></div> </div>
Sodium	
Lithium	
Calcium	
Magnesium	
Aluminium	
(Carbon)	
Zinc	
Iron	
Tin	
Lead	
(Hydrogen)	
Copper	
Silver	
Gold	
Platinum	

SOLUBILITY OF SALTS AND HYDROXIDES IN COLD WATER

Soluble	Insoluble
All sodium, potassium and ammonium salts	
All nitrates	
Most bromides, chlorides & iodides	Bromides, chlorides & iodides of silver & lead*
Most sulphates	Sulphates of barium, calcium & lead*
Carbonates & hydroxides of sodium, potassium & ammonium	Most other carbonates & hydroxides
Calcium hydroxide is only slightly soluble	*lead salts are more soluble in hot water

Chemistry Data Sheet

The Periodic Table of Elements

I	II											III	IV	V	VI	VII	VIII	
1 <i>H</i>		← atomic number																2 <i>He</i>
1 7	4 9																	4 10
3 7	4 9																	10 20
11 23	12 24																	18 40
19 39	20 40	21 45	22 48	23 51	24 52	25 55	26 56	27 59	28 59	29 64	30 65	31 70	32 73	33 75	34 79	35 80	36 84	36 84
37 85	38 88	39 89	40 91	41 93	42 96	43 (98)	44 101	45 103	46 106	47 108	48 112	49 115	50 119	51 122	52 128	53 127	54 131	54 131
55 133	56 137		72 178	73 181	74 184	75 186	76 190	77 192	78 195	79 197	80 201	81 204	82 207	83 209	84 (209)	85 (210)	86 (222)	86 (222)
87 223	88 226		104 (261)	105 (262)	106 (266)	107 (264)	108 (277)	109 (268)	110 (281)	111 (272)	112 (285)	113 (284)	114 (289)	115 (288)	116 (292)	117 (291)	118 (294)	118 (294)
Lanthanum Series		57 139	58 140	59 141	60 144	61 (145)	62 150	63 152	64 157	65 159	66 163	67 165	68 167	69 169	70 173	71 175	71 175	
Actinium Series		89 (227)	90 232	91 231	92 238	93 (237)	94 (244)	95 (243)	96 (247)	97 (247)	98 (251)	99 (252)	100 (257)	101 (258)	102 (259)	103 (262)	103 (262)	

† mass number relates to the commonest isotope.
 For all calculations assume relative atomic mass = mass number, except for CHLORINE.
 For chlorine, relative atomic mass = 35.5