

TABLE 4: Elements & Their Ions

Element Symbol	Element Name	Atomic Number	Change in Number of electrons	Ion Symbol	Name of Ion	Noble Gas with same # of e-
Cl	chlorine	17	gains 1	Cl ⁻	chloride	argon
		13	loses 3			
O						
		20				
					sulfide	
			loses 1			argon
		1				none
H					hydride	helium
Mg						
		3				

TABLE 5: Monoatomic & Polyatomic Ions

Ion	Monoatomic Ion (check)	Polyatomic Ion (check)	Name of Ion
Ag ⁺			
Na ⁺			
PO ₄ ³⁺			
S ²⁺			
O ²⁻			
N ³⁻			
H ₂ PO ₄ ⁻			
OH ⁻			
NO ₃ ⁻			
SO ₄ ²⁻			
SO ₃ ²⁻			
NO ₂ ⁻			

TABLE 6: Ionic Compounds

Cation	Anion	Ionic Compound	Name of Ionic Compound
ie. K^+	Cl^-	KCl	potassium chloride
		$MgCl_2$	
Ag^+	NO_3^-		
			ammonium sulphate
	O^{2-}		aluminum oxide
			magnesium nitrate
		$KMnO_4$	
Na^+	CO_3^{2-}		
K^+			potassium sulphate

TABLE 7: Ionic Compounds with Multiple Charges

Ionic Compound	Cation	Name (Stock System)	Name (Classical system)
$FeO_{(s)}$			ferrous oxide
$Fe_2O_{3(s)}$			ferric oxide
$SnCl_{2(s)}$			stannous chloride
$SnCl_{4(s)}$			stannic chloride
$Pb(NO_3)_{2(s)}$			plumbous nitrate
$Pb(NO_3)_{4(s)}$			plumbic nitrate

TABLE 8: Ionic or molecular

Chemical Formula	Ionic or molecular	IUPAC	Common Name
NH_3			
		dihydrogen monoxide	
		copper(II) sulphate pentahydrate	
			hydrogen peroxide
			limestone
KOH			lye