

Formulae to learn**1. All pure metals have element formulae**

Li = Lithium
Na = Sodium
K = Potassium
Mg = Magnesium

Ca = Calcium
Al = Aluminium
Pb = Lead
Sn = Tin

Fe = Iron
Zn = Zinc
Ag = Silver
Cu = Copper

2. All Noble gases (Group 0) have element formulae

He = Helium

Ne = Neon

Ar = Argon

3. Other substances that have element formulae are

C = Diamond

C = Graphite

S = Sulphur

4. Some simple diatomic element molecules are

H₂ = Hydrogen

O₂ = Oxygen

Br₂ = Bromine

N₂ = Nitrogen

Cl₂ = Chlorine

I₂ = Iodine

5. Some simple compounds are

CO = Carbon monoxide

SO₂ = Sulphur dioxide

NO = Nitrogen monoxide

CO₂ = Carbon dioxide

SO₃ = Sulphur trioxide

NO₂ = Nitrogen dioxide

H₂O = Water

H₂O₂ = Hydrogen peroxide

6. Some acids are

H₂SO₄ = Sulphuric acid

H₂SO₃ = Sulphurous acid

CH₃COOH = Ethanoic acid

H₂CO₃ = Carbonic acid

HCl = Hydrochloric acid

H₃PO₄ = Phosphoric acid

HNO₃ = Nitric acid

7. Some bases/alkalis are

NaOH = Sodium hydroxide

CuO = Copper (II) oxide

NH₃ = Ammonia

Ca(OH)₂ = Calcium hydroxide

CaO = Calcium oxide

8. Some salts are

NaCl = Sodium chloride

CaCO₃ = Calcium carbonate

CuSO₄ = Copper (II) sulphate

(NH₄)₂SO₄ = Ammonium sulphate

9. Some amphoteric oxides are

Al₂O₃ = Aluminium oxide

ZnO = Zinc oxide

10. Some oxidising agents are

KMnO₄ = Potassium manganate (VII)

Na₂Cr₂O₇ = Sodium dichromate (VI)

11. Some molecular (polyatomic) ions are

OH⁻ = Hydroxide ion

CO₃²⁻ = Carbonate ion

NH₄⁺ = Ammonium ion

NO₃⁻ = Nitrate ion

NO₂⁻ = Nitrite ion

PO₄³⁻ = Phosphate ion

SO₄²⁻ = Sulphate ion

CH₃COO⁻ = Ethanoate ion

MnO₄⁻ = Manganate ion

12. Some organic substances are

CH₄ = Methane

C₂H₄ = Ethene

C₂H₆ = Ethane

CH₃CH₂OH = Ethanol

C₃H₈ = Propane

CH₃COOH = Ethanoic acid

C₄H₁₀ = Butane

CH₃CH₂OOCCH₃ = Ethyl ethanoate