

Binary Acids

- consist of hydrogen bonded to a non-metal
- do not exhibit acidic properties unless dissolved in water. To indicate a compound is dissolved in water, (aq) is added to the formula.

Naming Binary Acids

1. do not include the name hydrogen
2. add the prefix **hydro-** and convert the suffix **-ide** to **-ic**.
3. add the word "acid"

e.g. HCl is hydrogen chloride

HCl_(aq) is hydrochloric acid

You must learn the following binary acids:

HF _(aq)	hydrofluoric acid	HI _(aq)	hydroiodic acid
HCl _(aq)	hydrochloric acid	H ₂ S _(aq)	hydrosulphuric acid
HBr _(aq)	hydrobromic acid	HCN _(aq)	hydrocyanic acid

Oxy-Acids

- contain the elements hydrogen, oxygen, and a third element (almost always a non-metal)

Parent Group ("-ic" acids)

HClO ₃ _(aq)	chloric acid
HNO ₃ _(aq)	nitric acid
H ₂ CO ₃ _(aq)	carbonic acid
H ₂ SO ₄ _(aq)	sulphuric acid
H ₃ PO ₄ _(aq)	phosphoric acid

* Other halogens act like chlorine e.g. HFO₃ fluoric acid