

Naming Acids

Binary:

Hydrogen + highly electronegative element

- 1) Begins with **hydro**
- 2) Add the **root of the other element**
- 3) Add **-ic**
- 4) + **acid**

HBr - Hydrobromic acid

HCl - Hydrochloric acid

HI - Hydroiodic acid

Oxyacids:

Hydrogen + oxygen + a third element

- 1) Begins with **Root of ion**
(not H or O) (sometimes starts with **per-** or **hypo-**)
- 2) Add **-ic, or -ous**
- 3) + **acid**

Names change a little depending on how many oxygens the anion comes with...

Anion ends with **-ate** → change ending to **-ic**

Anion ends with **-ite** → change ending to **-ous**

Anion has **extra O than -ate** → start with **Per-**

Anion has **fewer O than -ite** → start with **Hypo-**

ClO⁻ less O version → **Hypochlorous Acid**

ClO₂⁻ -ic version → **Chlorous Acid**

ClO₃⁻ -ate version → **Chloric Acid**

ClO₄⁻ more O version → **Perchloric Acid**

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7 Strong Acids

- | | |
|----------------------------|---|
| 1) HCl – Hydrochloric Acid | 4) H ₂ SO ₄ – Sulfuric Acid |
| 2) HBr – Hydrobromic Acid | 5) HNO ₃ – Nitric Acid |
| 3) HI – Hydriodic Acid | 6) HClO ₄ – Perchloric Acid |
| | 7) HClO ₃ – Chloric Acid |

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8 Strong Bases

- | | |
|------------------------------|--|
| 1) LiOH – Lithium Hydroxide | 6) Ca(OH) ₂ – Calcium Hydroxide |
| 2) NaOH – Sodium Hydroxide | 7) Sr(OH) ₂ – Strontium Hydroxide |
| 3) KOH – Potassium Hydroxide | 8) Ba(OH) ₂ – Barium Hydroxide |
| 4) RbOH – Rubidium Hydroxide | |
| 5) CsOH – Cesium Hydroxide | |

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