

Acid Naming

1. acid containing no oxygen

| Chemical Formula | Name of the pure substance | Reference acid (aqueous solution) |
|------------------|----------------------------|-----------------------------------|
| HF | Hydrogen Fluoride | Hydrofluoric acid |
| HCl | Hydrogen chloride | Hydrochloric acid |
| HBr | Hydrogen bromide | Hydrobromic acid |
| HI | Hydrogen iodide | Hydroiodic acid |
| H ₂ S | Hydrogen sulfide | Hydrosulfuric acid |
| HCN | Hydrogen cyanide | Hydrocyanic acid |

2. Acid containing oxygen

| Symbol of oxoanion | Name of oxoanion | Reference acid (aqueous solution) | Chemical formula |
|---|--------------------------|-----------------------------------|------------------|
| CO ₃ ²⁻ | Carbonate ion | Carbonic acid | |
| HCO ₃ ⁻ | Hydrogen carbonate ion | Carbonic acid | |
| SO ₃ ²⁻ | Sulfite ion | Sulfurous acid | |
| SO ₄ ²⁻ | Sulfate ion | Sulfuric acid | |
| HSO ₄ ⁻ | Hydrogen sulfate ion | Sulfuric acid | |
| NO ₂ ⁻ | Nitrite ion | Nitrous acid | |
| NO ₃ ⁻ | Nitrate ion | Nitric acid | |
| ClO ⁻ | Hypochlorite ion | Hypochlorous acid | |
| ClO ₂ ⁻ | Chlorite ion | Chlorous acid | |
| ClO ₃ ⁻ | Chlorate ion | Chloric acid | |
| ClO ₄ ⁻ | Perchlorate ion | Perchloric acid | |
| BrO ⁻ | Hypobromite ion | Hypobromous acid | |
| BrO ₂ ⁻ | Bromite ion | Bromous acid | |
| BrO ₃ ⁻ | Bromate ion | Bromic acid | |
| BrO ₄ ⁻ | Perbromate ion | Perbromic acid | |
| IO ₃ ⁻ | Iodate ion | Iodic acid | |
| PO ₄ ³⁻ | Phosphate ion | Phosphoric acid | |
| HPO ₄ ²⁻ | Hydrogen phosphate ion | Phosphoric acid | |
| H ₂ PO ₄ ⁻ | Dihydrogen phosphate ion | Phosphoric acid | |

PO₃³⁻ phosphite ion Phosphorous acid

Naming hydrated compounds

Ionic compound + #water

| Chemical formula | Name |
|---|----------------------------------|
| CuSO ₄ ·5H ₂ O | Copper (II) sulfate pentahydrate |
| CaCl ₂ ·4H ₂ O | Calcium chloride tetrahydrate |
| Na ₂ CO ₃ ·10H ₂ O | Sodium carbonate decahydrate |
| FeSO ₄ ·7H ₂ O | Iron (II) sulfate heptahydrate |