**Naming Acids Worksheet**

**Binary Acids:**

hydro- \_\_(anion root)\_-ic acid

**Polyatomic Acids Containing Oxygen (-ate anion):**

"-ate" anion ----> \_\_(anion root)\_\_\_-ic acid

"per-" anion ----> per\_ (anion root)\_\_-ic acid (**one** **more** oxygen than "-ate" ion)

"-ite " anion ----> \_\_ (anion root)\_\_-ous acid (**one** **less** oxygen than "-ate" ion)

"hypo-" anion---> hypo­­­­­­­­\_ (anion root)\_-ous acid (**two less** oxygen than "-ate" ion)

Refer to page 192 of text book for list of common polyatomic ions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Polyatomic Ion** | **Anion Formula** | **Acid Formula** | **Acid Name** | **Compound name when not in solution** |
| Borate | BO3 3- | H3BO3 | Boric Acid |  |
| Bromate | BrO3 - |  |  |  |
| Chlorite |  |  |  |  |
| Chlorate |  |  |  |  |
| Perchlorate |  |  |  |  |
| hypochlorite |  |  |  |  |
| Nitrite |  |  |  |  |
|  | NO3 - |  |  |  |
|  |  |  | sulfuric acid |  |
|  |  | H2CO3 |  |  |
|  |  | HCl |  | Hydrogen chloride |
|  | SO3 2- |  |  |  |

Nitrous Acid - H NO2-

Hypochlorous Acid - H ClO-

Chlorous Acid - H ClO2-

Chloric Acid - H ClO3-

Perchloric Acid - H ClO4-

Sulfuric Acid - H SO4 -2

Sulfurous Acid - H2 SO3 -2

Phosphoric Acid - H3 PO4

Phosphorous Acid - H3PO3

Carbonic Acid - H2CO3

Acetic Acid - HC2H3O2

Oxalic Acid - H2C2O4

Boric Acid - H3BO3

Silicic Acid - H2SiO3

HNO Hyponitrous Acid

HNO3 Nitric Acid Nitrate

HNO2 Nitrous Acid Nitrite

HIO2 Iodous Acid Iodite

HIO3 Iodic Acid Iodate

HIO4 Periodic Acid Periodate

HI Hydroiodic Acid Hydroiodate

HFO2 Fluorous Acid

H2CO3 hydrogen carbonate

H2CO3(aq) carbonic acid

H2SO3 Hydrogen sulfite

H2SO3 (aq) Sulfurous acid