

Naming Acids

Name _____

Refer to your list of polyatomic ions and a periodic table.

- Binary acids (When the anion does NOT contain oxygen):
Use the prefix *hydro* + **root of the anion's name** – *ic* + the word acid
Examples: HCl - **hydrochloric acid**
- Ternary acids (When the anion contains oxygen):
The name will depend on the name of the polyatomic anion. DO NOT use the prefix hydro.

Examples: H₂SO₄ the anion is sulf**ate**, therefore the acid name will end in **ic** :

Sulfuric acid.

H₂SO₃ the anion is sulf**ite**, therefore the name of the acid will end in **ous**:

Sulfurous acid.

ATE → IC
ITE → OUS

Write the formula for each of the acids listed below:

1.	Acetic acid
2.	Chlorous acid
3.	Hydrofluoric acid
4.	Citric acid
5.	Nitric acid
6.	Phosphorous acid

Name each of the following acids:

7.	HNO _{2(aq)}
8.	HClO _{3(aq)}
9.	H ₃ BO _{3(aq)}
10.	H ₃ PO _{4(aq)}
11.	H ₂ S (aq)
12.	H ₂ CO _{3(aq)}

Note the (aq) symbol...we only name these substances as acids when dissolved in water! As pure substances, they are gases and we name them as ionic compounds.