

Writing formulas and naming acids

Recognizing acids

Acids are a special group of ionic compounds where hydrogen acts like a metal. They always follow the form "**HX**," where H is always hydrogen and X is always some nonmetal or polyatomic ion (a "red" element).

Since *all* acids have hydrogen as the first element, it does not need to be used in the name. So, acids are named based on their anions, or nonmetal elements.

The X controls the name.

Here are some examples:

Formula	Category 1 name	Acid name	Rule
HCl	Hydrogen chlor ide	Hydrochloric acid	" -ide " endings turn into " hydro-ic " names
H ₂ S	Hydrogen sulf ide	Hydrosulfuric acid	" -ide " endings turn into " hydro-ic " names
HNO ₃	Hydrogen nitr ate	Nitr ic acid	" -ate " endings turn into " -ic " names
H ₃ PO ₄	Hydrogen phosph ate	Phosphor ic acid	" -ate " endings turn into " -ic " names
H ₂ SO ₂	Hydrogen sulf ite	Sulfur ous acid	" -ite " endings turn in " -ous " names
HClO	Hydrogen hypochlor ite	Hypochlor ous acid	" -ite " endings turn in " -ous " names

If the name of the X element ends with "**-ate**," the acid name ends in "**-ic**."

If the name of the X element ends with "**-ite**," the acid name ends in "**-ous**."

If the name of the X element ends with "**-ide**," the acid name use "**hydro-ic**."

Just remember: -ate to -ic

-ite to -ous

-ide to hydro-ic