

2.4 - Acid/Base Nomenclature

Acids

An acid is a substance that can produce a H^+ ion when mixed with water. Therefore, most compounds involving hydrogen and another ion are considered acids. Exception: H_2O

i. Binary Acids

A binary acid is a compound containing only hydrogen and one other element.

The rule: The first word will always start with 'hydro' followed by the *second* elements name. The last syllable of the second element is dropped and 'ic' is added. The second word is always 'acid'.

Ex) HF



ii. Polyatomic 'ate' Acids

These are compounds involving hydrogen and a polyatomic ion that ends with 'ate'.

The rule: We name the polyatomic ion present first, dropping the 'ate' and adding 'ic'. To remember, "I 'ate' something 'icky'". The word 'acid' follows.

Ex) H_2SO_4



iii. Polyatomic 'ite' Acids

These are compounds involving hydrogen and a polyatomic ion that ends with 'ite'.

The rule: The polyatomic ion is named first, dropping the 'ite' and adding 'ous'. The word 'acid' follows.

Ex) H_2SO_3



Bases

A base is any substance that produces an OH^- ion when mixed with water.

The rule: use ionic rules for naming bases.

Ex) NaOH

