

Rules for Naming Binary Ionic Compounds

Examples

NaCl – sodium chloride
BaF₂ – barium fluoride
NH₄OH – ammonium hydroxide

1. The full name of the cation is listed first.
 2. The root of the anion name is listed second and is followed by the suffix “ide.”
 3. If the compound contains a transition metal, a Roman numeral is included after the metal name to indicate the oxidation number of the metal.
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Rules for Naming Binary Covalent Compounds

Examples

CO₂ – carbon dioxide
CO – carbon monoxide
H₂O – dihydrogen oxide (or water)

- 1) The element with the smaller group number is the first word in the name (exception: oxygen-halogen compounds).
- 2) If both elements are in the same group, the one with the larger period number is listed first.
- 3) The second element is named by its root and a suffix “ide.”
- 4) A Greek numerical prefix is added to both names to indicate the number of atoms of each element (exception: mono is usually not included in the 1st element name).

Table 1.6 (p.35 of textbook)

Greek Prefix	Number of Atoms
mono	1
di	2
tri	3
tetra	4
penta	5