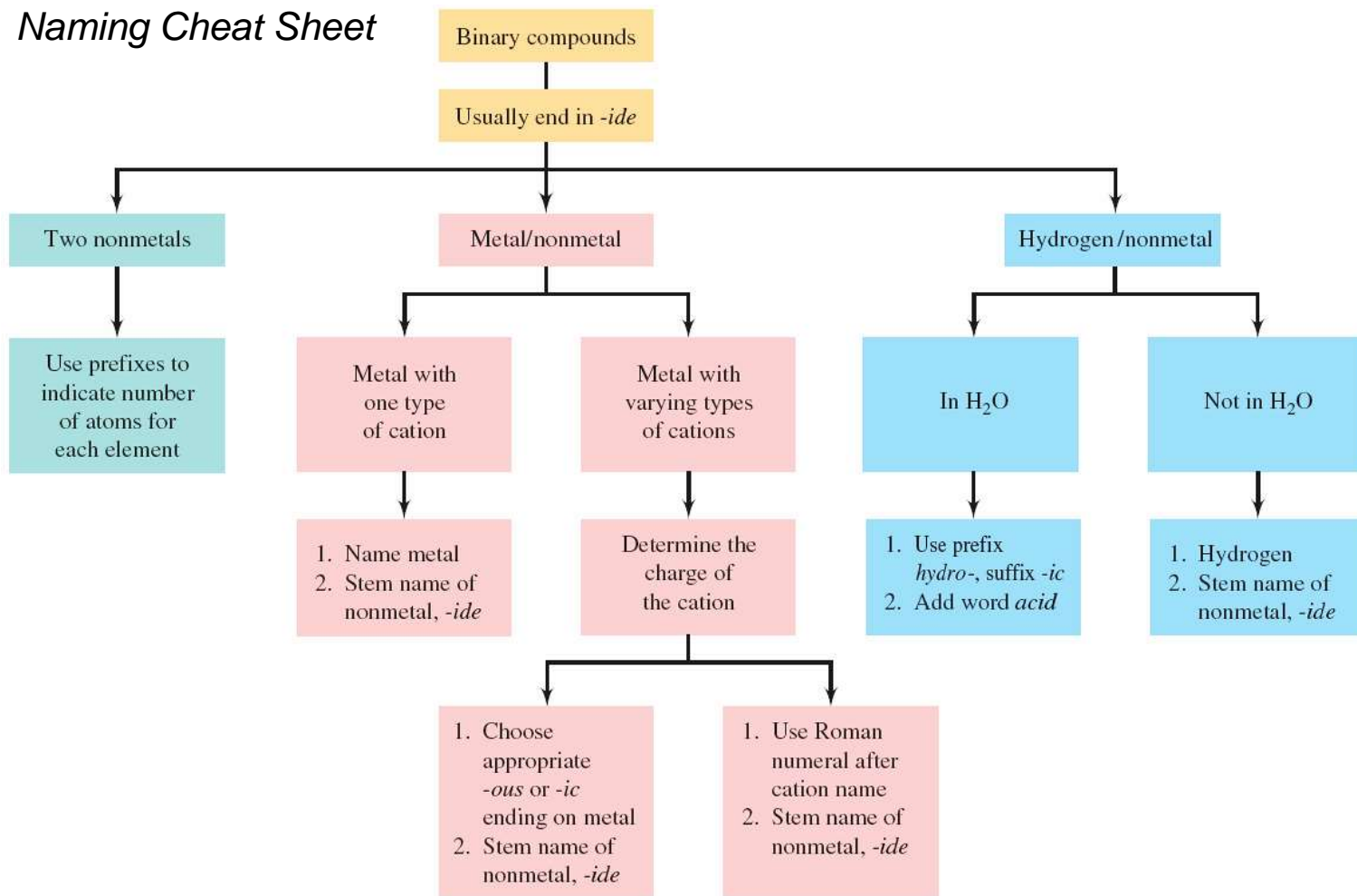


Naming Cheat Sheet



IA																		
H ⁺	2A									3A	4A	5A	6A	7A				
Li ⁺	Be ²⁺											N ³⁻	O ²⁻	F ⁻				
Na ⁺	Mg ²⁺									Al ³⁺		P ³⁻	S ²⁻	Cl ⁻				
K ⁺	Ca ²⁺				Cr ²⁺													Br ⁻
					Cr ³⁺													
Rb ⁺	Sr ²⁺				Transition metals													I ⁻
Cs ⁺	Ba ²⁺																	

Name	Formula	Charge	Name	Formula	Charge
Acetate	C ₂ H ₃ O ₂ ⁻	-1	Cyanide	CN ⁻	-1
Ammonium	NH ₄ ⁺	+1	Dichromate	Cr ₂ O ₇ ²⁻	-2
Arsenate	AsO ₄ ³⁻	-3	Hydroxide	OH ⁻	-1
Hydrogen carbonate	HCO ₃ ⁻	-1	Nitrate	NO ₃ ⁻	-1
Hydrogen sulfate	HSO ₄ ⁻	-1	Nitrite	NO ₂ ⁻	-1
Bromate	BrO ₃ ⁻	-1	Permanganate	MnO ₄ ⁻	-1
Carbonate	CO ₃ ²⁻	-2	Phosphate	PO ₄ ³⁻	-3
Chlorate	ClO ₃ ⁻	-1	Sulfate	SO ₄ ²⁻	-2
Chromate	CrO ₄ ²⁻	-2	Sulfite	SO ₃ ²⁻	-2

Rules for Naming Binary Ionic Compounds of Metal Forming One Type of Cation

1. Write the name of the cation.
2. Write the stem for the anion and add the suffix *-ide*.

Rules for Naming Binary Ionic Compounds of Metal Forming Two or More Types of Cations (Stock System)

1. Write the name of the cation.
2. Write the charge on the cation as a Roman numeral in parentheses.
3. Write the stem of the anion and add the suffix *-ide*.

Rules for Naming Binary Compounds Containing Two Nonmetals

1. Write the name for the first element using a prefix if there is more than one atom of this element.
2. Write the stem of the second element and add the suffix *-ide*. Use a prefix to indicate the number of atoms for the second element.

Rules for Naming Acids Derived from Binary Compounds

1. Write the prefix *hydro-* followed by the stem of the second element and add the suffix *-ic*.
2. Add the word *acid*.

Rules for Naming Alkanes

1. Select the longest continuous chain of carbon atoms as the parent compound, and consider all alkyl groups attached to it as branch chains or substituents that have replaced hydrogen atoms of the parent hydrocarbon. If two chains of equal length are found, use the chain that has the larger number of substituents attached to it as the parent compound. The alkane's name consists of the parent compound's name prefixed by the names of the alkyl groups attached to it.
2. Number the carbon atoms in the parent carbon chain starting from the end closest to the first carbon atom that has an alkyl or other group substituted for a hydrogen atom. If the first substituent from each end is on the same-numbered carbon, go to the next substituent to determine which end of the chain to start numbering.
3. Name each alkyl group and designate its position on the parent carbon chain by a number (e.g., 2-methyl means a methyl group attached to C-2).
4. When the same alkyl-group branch chain occurs more than once, indicate this repetition by a prefix (*di-*, *tri-*, *tetra-*, and so forth) written in front of the alkyl-group name (e.g., *dimethyl* indicates two methyl groups). The numbers indicating the alkyl-group positions are separated by a comma and followed by a hyphen and are placed in front of the name (e.g., 2,3-dimethyl).
5. When several different alkyl groups are attached to the parent compound, list them in alphabetical order (e.g., ethyl before methyl in 3-ethyl-4-methyloctane). Prefixes are not included in alphabetical ordering (ethyl comes before dimethyl).