

## Ch. 9.2 chemical name / formula: (binary) covalent compounds

- \* non-metal & non-metal
- \*  $\Delta$  EN = small; i.e. "close" together in the periodic table; excludes metals

background: prefixes

Table 9-1

Prefixes in Covalent Compounds			
Number of atoms	Prefix	Number of atoms	Prefix
1	mono-	6	hexa-
2	di-	7	hepta-
3	tri-	8	octa-
4	tetra-	9	nona-
5	penta-	10	deca-

source: <https://documents.site/glencoe-chemistry-matter-and-change.html>

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Chemical formula  $\rightarrow$  chemical name

chemical name (of a covalent compound)  
= name of 1<sup>st</sup> atom + name of 2<sup>nd</sup> atom as an anion

and use prefixes to identify the subscripts,  
except don't use "mono-" if the 1<sup>st</sup> atom's subscript = 1

examples:

CO = carbon monoxide

CO<sub>2</sub> = carbon dioxideSCl<sub>4</sub> = sulfur tetrachlorideN<sub>2</sub>Br<sub>6</sub> = dinitrogen hexabromide

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Chemical name  $\rightarrow$  chemical formula

recall: chemical name (of a covalent compound)

= name of 1<sup>st</sup> atom + name of 2<sup>nd</sup> atom as an anion  
and use prefixes to identify subscripts  
except don't use mono- if the 1<sup>st</sup> atom's subscript is 1

likewise,

chemical symbol (i.e. formula of a covalent compound)

= symbol of 1<sup>st</sup> atom + symbol of 2<sup>nd</sup> atom  
and use subscripts to reflect prefixes



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Chemical name  $\rightarrow$  chemical formula

examples:

carbon monoxide = CO

carbon dioxide = CO<sub>2</sub>sulfur tetrachloride = SCl<sub>4</sub>dinitrogen hexabromide = N<sub>2</sub>Br<sub>6</sub>

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