

Molecular Formula: Actual number of different atoms in molecule

Empirical Formula: Smallest whole number ratio of atoms in molecule

Structural Formula: Molecular formula written to designate molecule's orientation in space

<u>Compound</u>	<u>Molecular</u>	<u>Empirical</u>	<u>Structural</u>
Water	H ₂ O	H ₂ O	HOH
Hydrogen Peroxide	H ₂ O ₂	HO	HOOH
Ethylene	C ₂ H ₄	CH ₂	H ₂ CCH ₂
Ethane	C ₂ H ₆	CH ₃	H ₃ CCH ₃
Ethanol	C ₂ H ₆ O	C ₂ H ₆ O	H ₃ CCH ₂ OH
Dimethyl ether	C ₂ H ₆ O	C ₂ H ₆ O	H ₃ COCH ₃