

*Key*

Name	Formula	Lewis Dot Structure	Molecular Shape VSEPR Shape	Bond Polarity Use EN differences to calculate	Molecule Type polar or nonpolar based on molecule symmetry	Intermolecular Attractions London dispersion, dipole, hydrogen bonding?
Nitrogen trichloride	$\text{NCl}_3$		Trigonal pyramidal	3.0-3.0 = 0 nonpolar covalent	non polar	London dispersion
Carbon monoxide	$\text{CO}$		Linear	3.5-2.5 = 1 polar covalent	polar	London dispersion dipole
Ammonium	$\text{NH}_4^+$		Tetrahedral	3.0-2.1 = 0.9 polar covalent	non polar	London dispersion
nitrate	$\text{NO}_3^-$		Trigonal planar	3.5-3.0 = 0.5 polar covalent	non polar	London dispersion
Fluorine gas	$\text{F}_2$		Linear	4.0-4.0 nonpolar covalent	non polar	London Dispersion
N/A	$\text{COBr}_2$		Trigonal planar	$\text{CO} \Rightarrow 3.5-2.5 = 1.0$ $\text{CBr} \Rightarrow 2.8-2.5 = 0.3$ polar cov. np. cov.	polar	London dispersion dipole
Water	$\text{H}_2\text{O}$		Bent	3.5-2.1 = 1.4 polar covalent	polar	London dispersion dipole hydrogen bonding
Sulfur hexafluoride	$\text{SF}_6$		octahedral	4.0-2.5 = 1.5 polar covalent	non polar	London dispersion