

Molecular Compounds

Name: _____

Part 1: For the following molecular compounds, if given the name, write the formula. If given the formula, write the name. Also, determine the polarity of the bonds.

Name	Formula	Bond Polarity	Name	Formula	Bond Polarity
	P ₂ O ₅		Nitrogen trifluoride		
	SiI ₄		Carbon monoxide		
	OF ₂		Dichlorine heptaoxide		
	SbCl ₃		Carbon tetrabromide		
	H ₂ O		Trisilicon octahydride		
	NH ₃		Dinitrogen monosulfide		
	SCl ₆		Diboron trioxide		

Part 2: The following is a mixture of ionic and molecular compounds. If given the name, write the formula. If give the formula, write the name. It may be helpful to use the blank before the number to identify as ionic or molecular.

_____ 1) CS₂

_____ 8) nitrogen trichloride

_____ 2) Ca(NO₃)₂

_____ 9) calcium phosphate

_____ 3) Si₂Br₆

_____ 10) dibromine hexachloride

_____ 4) Na₃N

_____ 11) manganese (V) oxide

_____ 5) Cl₂O

_____ 12) dinitrogen tetraoxide

_____ 6) BrF₄

_____ 13) barium sulfate

_____ 7) (NH₄)₃PO₄

_____ 14) chromium (III) nitrate

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Name	Formula	Bond Polarity	Name	Formula	Bond Polarity
	N ₂ S ₄		Iodine monofluoride		
	CBr ₄		Nitrogen triiodide		
	SF ₂		Chlorine disulfide		
	PCl ₃		Silicon tetrachloride		
	NH ₃		Triphosphorous octaoxide		
	OI ₂		Dinitrogen monosulfide		
	Si ₂ H ₆		Diiodine heptafluoride		

Part 2: The following is a mixture of ionic and molecular compounds. If given the name, write the formula. If give the formula, write the name. It may be helpful to use the blank before the number to identify as ionic or molecular.

_____ 1) CO₂

_____ 8) selenium dichloride

_____ 2) Cs₂MoO₄

_____ 9) dibromine monoxide

_____ 3) GeBr₄

_____ 10) sodium iodide

_____ 4) WF₂

_____ 11) gold (III) thiocyanate

_____ 5) K₂O₂

_____ 12) carbon tetraiodide

_____ 6) P₄O₁₀

_____ 13) magnesium bromate

_____ 7) IF₇

_____ 14) sulfur trioxide