

## WKS 1-5: Stock System; Naming & Formulas of Binary Molecular (Covalent) Compounds

**The Stock System:** formulas & naming of ionic compounds

<u>Name to Formula</u> (Put charges on ions first!!! Then make neutral.)	<u>Formula to Name</u> (Don't forget roman numerals for metals with more than one possible charge.)
21. tin(IV) chromate $\text{Sn}^{4+} \text{CrO}_4^{2-} \rightarrow \text{Sn}(\text{CrO}_4)_2$	22. $\text{PbO}_2$ lead(IV) oxide
23. zinc carbonate $\text{Zn}^{2+} \text{CO}_3^{2-} \rightarrow \text{ZnCO}_3$	24. $\text{FeSO}_4$ iron(II) sulfate
25. mercury (II) chloride $\text{Hg}^{2+} \text{Cl}^- \rightarrow \text{HgCl}_2$	26. $\text{Ni}(\text{NO}_2)_3$ nickel(III) nitrite
27. iron (III) oxide $\text{Fe}^{3+} \text{O}^{2-} \rightarrow \text{Fe}_2\text{O}_3$	28. $\text{CuCl}_2$ copper(II) chloride
29. vanadium(V) hydroxide $\text{V}^{5+} \text{OH}^- \rightarrow \text{V}(\text{OH})_5$	30. $\text{Mo}_2\text{S}_3$ molybdenum(III) sulfide
31. manganese (IV) carbonate $\text{Mn}^{4+} \text{CO}_3^{2-} \rightarrow \text{Mn}(\text{CO}_3)_2$	32. $\text{NbI}_5$ niobium(V) iodide
33. chromium(VI) oxide $\text{Cr}^{6+} \text{O}^{2-} \rightarrow \text{CrO}_3$	34. $\text{Zn}(\text{OH})_2$ zinc hydroxide
35. iridium(IV) phosphate $\text{Ir}^{4+} \text{PO}_4^{3-} \rightarrow \text{Ir}_3(\text{PO}_4)_4$	36. $\text{AgNO}_3$ silver nitrate

### **Naming Binary molecular Compounds (two non-metals, not starting w/H)**

In the table below, determine the formula of the binary covalent compound or acid from its name, or the name of the compound from the formula.

<u>Name to Formula</u>	<u>Formula to Name</u>
37. antimony tribromide $\text{SbBr}_3$	38. $\text{P}_4\text{S}_5$ tetraphosphorous pentasulfide
39. dinitrogen trioxide $\text{N}_2\text{O}_3$	40. $\text{Si}_2\text{Br}_6$ disilicon hexabromide
41. ammonia $\text{NH}_3$	42. $\text{SCl}_4$ sulfur tetrachloride
43. phosphorus triiodide $\text{PI}_3$	44. $\text{CH}_4$ methane
45. carbon monoxide $\text{CO}$	46. $\text{N}_2\text{O}$ dinitrogen monoxide
47. tetraiodine nonoxide $\text{I}_4\text{O}_9$	48. $\text{IF}_7$ iodine heptafluoride
49. bromine trichloride $\text{BrCl}_3$	50. $\text{P}_4\text{O}_{10}$ tetraphosphorous decoxide
51. xenon hexafluoride $\text{XeF}_6$	52. $\text{SeF}_4$ selenium tetrafluoride