

Nomenclature Practice 2

Name: Key
Period:

For each of the following pairs identify if the name given correctly matches the formula, if it is not correct explain why it is not correct and correct the name/formula.

Name	Formula	
1) cobalt chloride <i>cobalt(II) chloride</i>	CoCl ₃	<i>name needs to give charge for cobalt</i>
2) sulfur fluoride <i>sulfur hexafluoride</i>	SF ₆	<i>The 6 should be subscripted and we need to say hexa- in the name</i>
3) calcium (II) monoxide <i>calcium oxide</i>	Ca ₂ O	<i>Calcium does not need Roman numerals. No mono-, di-, tri- for ionic compounds. Finally Ca⁺² + O⁻² no subscripts</i>
4) dialuminum trisulfide <i>Aluminum sulfide</i>	Al ₂ S ₃	<i>No mono-, di-, tri- for ionic compounds</i>
5) sodium oxide <i>sodium peroxide</i>	Na ₂ O ₂	<i>O₂⁻² is a peroxide polyatomic ion.</i>
6) manganese diacetate <i>Magnesium acetate</i>	Mg(C ₂ H ₃ O ₂) ₂	<i>Mg is Magnesium not Manganese. No mono-, di-, tri- with ionic compounds.</i>
7) phosphorus sulfide <i>diphosphorus pentasulfide</i>	P ₂ S ₅	<i>Covalent compounds need mono-, di-, tri-</i>
8) pentane <i>butanol</i> or butan-1-ol		<i>4 carbons is a butane, the -OH at the end is an alcohol so we need an -ol ending</i>
9) propanol <i>ethanoic acid</i>		<i>This is a carboxylic acid so the name should end with -oic. There are only 2 carbons so root should be eth-</i>
10) methanol <i>methyl amine</i>	H ₃ CNH ₂	<i>This is an amine compound so should have amine in the name.</i>

Name	Formula	
11) silver (I) nitrate	AgNO_4	Silver does not need a roman numeral. nitrate is NO_3^- not NO_4^-
	AgNO_3	
12) oxide potassium	OK	always write the positive ion first. also K^+ needs a 2 subscript to balance O^{2-}
	K_2O	
13) tin(II) phosphate	Sn_2PO_4	The formula is not correct Sn^{+2} PO_4^{-3} we need 3 Sn and 2 PO_4^{3-}
	$\text{Sn}_3(\text{PO}_4)_2$	
14) lithium hydride	H_2Li	Lithium should come second when it is a hydride and there should be only 1, H^-
	LiH	Penta means 5 chlorides
15) phosphorus pentachloride	PCl_5	