

Practice Problems for Naming Inorganic Compounds

Write the name (1-25) or formula (26-50) for each of the following inorganic compounds:

- | | | | |
|---|-------|----------------------------------|-------|
| 1. $\text{Pb}(\text{ClO}_2)_2$ | _____ | 26. barium carbonate | _____ |
| 2. S_2F_{10} | _____ | 27. zinc bromide | _____ |
| 3. CO_2O_3 | _____ | 28. nickel(II) chloride | _____ |
| 4. $\text{Al}(\text{ClO}_4)_3$ | _____ | 29. chromic acid | _____ |
| 5. Na_2CrO_4 | _____ | 30. disilicon hexafluoride | _____ |
| 6. $\text{HC}_2\text{H}_3\text{O}_2(\text{aq})$ | _____ | 31. lithium fluoride | _____ |
| 7. CaF_2 | _____ | 32. carbonic acid | _____ |
| 8. NiCr_2O_7 | _____ | 33. strontium(II) sulfate | _____ |
| 9. $\text{HI}(\text{aq})$ | _____ | 34. mercury(I) sulfide | _____ |
| 10. SnCl_4 | _____ | 35. diiodine pentoxide | _____ |
| 11. P_2O_5 | _____ | 36. tin(II) acetate | _____ |
| 12. NaNO_3 | _____ | 37. cobalt(II) chlorite | _____ |
| 13. AuI_3 | _____ | 38. silver hypochlorite | _____ |
| 14. $\text{Zn}(\text{HCO}_3)_2$ | _____ | 39. sodium phosphate | _____ |
| 15. KMnO_4 | _____ | 40. ammonium hydrogen sulfate | _____ |
| 16. NBr_3 | _____ | 41. iron(II) sulfate | _____ |
| 17. KOH | _____ | 42. magnesium nitrite | _____ |
| 18. Fe_3N_2 | _____ | 43. copper(II) hydroxide | _____ |
| 19. $\text{Hg}_3(\text{PO}_4)_2$ | _____ | 44. hypochlorous acid | _____ |
| 20. $\text{HNO}_2(\text{aq})$ | _____ | 45. lithium chromate | _____ |
| 21. $(\text{NH}_4)_2\text{SO}_3$ | _____ | 46. tetraphosphorus heptasulfide | _____ |
| 22. MgS | _____ | 47. potassium nitrate | _____ |
| 23. AlPO_4 | _____ | 48. silver perchlorate | _____ |
| 24. $\text{Ca}(\text{C}_2\text{H}_3\text{O}_2)_2$ | _____ | 49. ammonium oxide | _____ |
| 25. AgCN | _____ | 50. iron(III) chlorate | _____ |

Write correct formulas of the compounds formed when the positive ions in the vertical column combine with the negative ions listed across the top row. The first two are done for you.

	carbonate	hydroxide	nitrate	oxide	phosphate	sulphite
aluminum	$\text{Al}_2(\text{CO}_3)_3$					
ammonium	$(\text{NH}_4)_2\text{CO}_3$					
barium						
calcium						
cobalt(III)						
copper(I)						
copper(II)						
iron(III)						
lead(II)						
lead(IV)						
magnesium						
manganese(II)						
potassium						
silver						
sodium						
zinc						

ANSWER KEY:

1. $\text{Pb}(\text{ClO}_2)_2$	<u>lead(II) chlorite</u>	26. barium carbonate	<u>BaCO_3</u>
2. S_2F_{10}	<u>disulfur decafluoride</u>	27. zinc bromide	<u>ZnBr_2</u>
3. Co_2O_3	<u>cobalt(III) oxide</u>	28. nickel(II) chloride	<u>NiCl_2</u>
4. $\text{Al}(\text{ClO}_4)_3$	<u>aluminum perchlorate</u>	29. chromic acid	<u>$\text{H}_2\text{CrO}_4(aq)$</u>
5. Na_2CrO_4	<u>sodium chromate</u>	30. disilicon hexafluoride	<u>Si_2F_6</u>
6. $\text{HC}_2\text{H}_3\text{O}_2(aq)$	<u>acetic acid</u>	31. lithium fluoride	<u>LiF</u>
7. CaF_2	<u>calcium fluoride</u>	32. carbonic acid	<u>$\text{H}_2\text{CO}_3(aq)$</u>
8. NiCr_2O_7	<u>nickel(II) dichromate</u>	33. strontium(II) sulfate	<u>SrSO_4</u>
9. $\text{HI}(aq)$	<u>hydroiodic acid</u>	34. mercury(I) sulfide	<u>Hg_2S</u>
10. SnCl_4	<u>tin(IV) chloride</u>	35. diiodine pentoxide	<u>I_2O_5</u>
11. P_2O_5	<u>diphosphorus pentaoxide</u>	36. tin(II) acetate	<u>$\text{Sn}(\text{C}_2\text{H}_3\text{O}_2)_2$</u>
12. NaNO_3	<u>sodium nitrate</u>	37. cobalt(II) chlorite	<u>$\text{Co}(\text{ClO}_2)_2$</u>
13. AuI_3	<u>gold(III) iodide</u>	38. silver hypochlorite	<u>AgClO</u>
14. $\text{Zn}(\text{HCO}_3)_2$	<u>zinc hydrogen carbonate</u>	39. sodium phosphate	<u>Na_3PO_4</u>
15. KMnO_4	<u>potassium permanganate</u>	40. ammonium hydrogen sulfate	<u>NH_4HSO_4</u>
16. NBr_3	<u>nitrogen tribromide</u>	41. iron(II) sulfate	<u>FeSO_4</u>
17. KOH	<u>potassium hydroxide</u>	42. magnesium nitrite	<u>$\text{Mg}(\text{NO}_2)_2$</u>
18. Fe_3N_2	<u>iron(II) nitride</u>	43. copper(II) hydroxide	<u>$\text{Cu}(\text{OH})_2$</u>
19. $\text{Hg}_3(\text{PO}_4)_2$	<u>mercury(II) phosphate</u>	44. hypochlorous acid	<u>$\text{HClO}(aq)$</u>
20. $\text{HNO}_2(aq)$	<u>nitrous acid</u>	45. lithium chromate	<u>Li_2CrO_4</u>
21. $(\text{NH}_4)_2\text{SO}_3$	<u>ammonium sulfite</u>	46. tetraphosphorus heptasulfide	<u>P_4S_7</u>
22. MgS	<u>magnesium sulfide</u>	47. potassium nitrate	<u>KNO_3</u>
23. AlPO_4	<u>aluminum phosphate</u>	48. silver perchlorate	<u>AgClO_4</u>
24. $\text{Ca}(\text{C}_2\text{H}_3\text{O}_2)_2$	<u>calcium acetate</u>	49. ammonium oxide	<u>$(\text{NH}_4)_2\text{O}$</u>
25. AgCN	<u>silver cyanide</u>	50. iron(III) chlorate	<u>$\text{Fe}(\text{ClO}_3)_3$</u>

	carbonate	hydroxide	nitrate	oxide	phosphate	sulfite
aluminum	$\text{Al}_2(\text{CO}_3)_3$	$\text{Al}(\text{OH})_3$	$\text{Al}(\text{NO}_3)_3$	Al_2O_3	AlPO_4	$\text{Al}_2(\text{SO}_3)_3$
ammonium	$(\text{NH}_4)_2\text{CO}_3$	NH_4OH	NH_4NO_3	$(\text{NH}_4)_2\text{O}$	$(\text{NH}_4)_3\text{PO}_4$	$(\text{NH}_4)_2\text{SO}_3$
barium	BaCO_3	$\text{Ba}(\text{OH})_2$	$\text{Ba}(\text{NO}_3)_2$	BaO	$\text{Ba}_3(\text{PO}_4)_2$	BaSO_3
calcium	CaCO_3	$\text{Ca}(\text{OH})_2$	$\text{Ca}(\text{NO}_3)_2$	CaO	$\text{Ca}_3(\text{PO}_4)_2$	CaSO_3
cobalt(III)	$\text{Co}_2(\text{CO}_3)_3$	$\text{Co}(\text{OH})_3$	$\text{Co}(\text{NO}_3)_3$	Co_2O_3	CoPO_4	$\text{Co}_2(\text{SO}_3)_3$
copper(I)	Cu_2CO_3	CuOH	CuNO_3	Cu_2O	Cu_3PO_4	Cu_2SO_3
copper(II)	CuCO_3	$\text{Cu}(\text{OH})_2$	$\text{Cu}(\text{NO}_3)_2$	CuO	$\text{Cu}_3(\text{PO}_4)_2$	CuSO_3
iron(III)	$\text{Fe}_2(\text{CO}_3)_3$	$\text{Fe}(\text{OH})_3$	$\text{Fe}(\text{NO}_3)_3$	Fe_2O_3	FePO_4	$\text{Fe}_2(\text{SO}_3)_3$
lead(II)	PbCO_3	$\text{Pb}(\text{OH})_2$	$\text{Pb}(\text{NO}_3)_2$	PbO	$\text{Fe}_3(\text{PO}_4)_2$	PbSO_3
lead(IV)	$\text{Pb}(\text{CO}_3)_2$	$\text{Pb}(\text{OH})_4$	$\text{Pb}(\text{NO}_3)_4$	PbO_2	$\text{Pb}_3(\text{PO}_4)_4$	$\text{Pb}(\text{SO}_3)_2$
magnesium	MgCO_3	$\text{Mg}(\text{OH})_2$	$\text{Mg}(\text{NO}_3)_2$	MgO	$\text{Mg}_3(\text{PO}_4)_2$	MgSO_3
manganese(II)	MnCO_3	$\text{Mn}(\text{OH})_2$	$\text{Mn}(\text{NO}_3)_2$	MnO	$\text{Mn}_3(\text{PO}_4)_2$	MnSO_3
potassium	K_2CO_3	KOH	KNO_3	K_2O	K_3PO_4	K_2SO_3
silver	Ag_2CO_3	AgOH	AgNO_3	Ag_2O	Ag_3PO_4	Ag_2SO_3
sodium	Na_2CO_3	NaOH	NaNO_3	Na_2O	Na_3PO_4	Na_2SO_3
zinc	ZnCO_3	$\text{Zn}(\text{OH})_2$	$\text{Zn}(\text{NO}_3)_2$	ZnO	$\text{Zn}_3(\text{PO}_4)_2$	ZnSO_3