

SC2.e. Ask questions about chemical names to identify patterns in IUPAC nomenclature in order to predict chemical names for ionic (binary and ternary), acidic, and inorganic covalent compounds.

1. NiCl<sub>2</sub>
2. NiCl<sub>3</sub>
3. CoCl<sub>2</sub>
4. CrN
5. Cr<sub>2</sub>O<sub>3</sub>
6. Ag<sub>2</sub>O
7. FeCl<sub>3</sub>
8. FeCl<sub>2</sub>
9. HgO
10. CdS
11. Cd<sub>3</sub>P<sub>2</sub>
12. WF<sub>5</sub>
13. W<sub>2</sub>O<sub>5</sub>
14. Iron(II) bromide
15. Copper(I) oxide
16. Copper(II) oxide
17. Zinc iodide
18. Lead(IV) sulfide
19. Tin(II) nitride
20. Tin(IV) nitride
21. Gold(I) sulfide
22. Tungsten(V) iodide
23. Zirconium(IV) fluoride
24. Scandium(III) nitride
25. Scandium(III) bromide
26. Cs<sub>2</sub>S
27. SrBr<sub>2</sub>
28. VCl<sub>2</sub>
29. FeO
30. Fe<sub>2</sub>O<sub>3</sub>
31. NiO
32. Ni<sub>2</sub>O
33. MgS
34. Platinum(IV) sulfide
35. Potassium bromide
36. Copper(II) phosphide
37. Chromium(III) iodide
38. Strontium fluoride
39. Iron(II) phosphide
40. Cobalt(II) iodide

### Nomenclature 2 – Writing and Naming Ionic Compounds with Polyatomic ions

1. NaNO<sub>3</sub>
2. Ba(CN)<sub>2</sub>
3. Li<sub>2</sub>SO<sub>4</sub>
4. K<sub>3</sub>PO<sub>4</sub>
5. Cs(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)
6. Mg(NO<sub>2</sub>)<sub>2</sub>

7.  $\text{CaCO}_3$
8.  $\text{Sr}_3(\text{PO}_4)_2$
9.  $\text{NaHCO}_3$
10.  $\text{KOH}$
11. Barium chlorate
12. Magnesium acetate
13. Barium sulfate
14. Potassium chlorite
15. Sodium hydroxide
16. Magnesium hydroxide
17. Calcium phosphate
18. Aluminum phosphite
19.  $\text{Ni}_2\text{SO}_4$
20.  $\text{Cd}(\text{OH})_2$
21.  $\text{ZnSO}_3$
22.  $\text{ScPO}_4$
23.  $\text{Pb}(\text{CN})_4$
24.  $\text{Cr}_2(\text{CO}_3)_3$
25.  $\text{Sn}(\text{CH}_3\text{COO})_4$
26.  $\text{NH}_4\text{NO}_3$
27.  $(\text{NH}_4)_2\text{O}$
- 27'. Iron(III) chlorate
28. Titanium(IV) sulfate
29. Lead(II) carbonate
30. Lead(IV) carbonate
31. Silver phosphate
32. Tungsten(V) phosphite
33.  $\text{Co}(\text{NO}_3)_2$
34.  $\text{Ca}(\text{NO}_3)_2$
35.  $\text{PbSO}_4$
36.  $\text{NH}_4\text{CN}$
37.  $(\text{NH}_4)_3\text{PO}_4$
38.  $\text{Hg}(\text{OH})_2$
39.  $\text{Bi}_2(\text{SO}_4)_3$
40. Potassium nitrate
41. Iron(II) sulfate
42. Iron(III) sulfate
43. Strontium phosphate
44. Aluminum chlorate
45. Copper(I) carbonate
46. Lead(II) nitrate
47. Lead(IV) nitrate
48. Sodium acetate
49.  $\text{MgO}$
50.  $\text{Sr}(\text{NO}_3)_2$
51.  $(\text{NH}_4)_2\text{S}$
52.  $\text{Na}_3\text{P}$
53.  $\text{Cu}_3\text{P}$

54.  $\text{Cu}_3\text{PO}_4$
55.  $\text{Cd}(\text{OH})_2$
56.  $\text{BaCO}_3$
- 56'. Potassium iodate
57. Sodium carbonate
58. Cobalt(II) nitrite
59. Ammonium sulfide
60. Ammonium phosphate
61. Ammonium hydroxide
62. Iron(III) chloride
63. Magnesium oxide
64. Potassium perchlorate
65. Zinc chlorite
66. Scandium III nitrite
67. Barium bicarbonate
68. Lead(II) oxide
69. Lead(II) hydroxide
70. Lead(IV) oxide
71. Lead(II) iodate

**Nomenclature Podcast 3- Writing and Naming Molecular Compounds and Acids**

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|---------------------------|------------------------------|
| 1. $\text{N}_2\text{O}_5$ | 4. $\text{P}_4\text{O}_{10}$ |
| 2. $\text{CO}_2$          | 5. $\text{Cl}_4$             |
| 3. $\text{C}_2\text{O}_4$ | 6. $\text{CCl}_4$            |

7. Carbon tetrabromide
8. Sulfur hexafluoride
9. Selenium disulfide
10. Arsenic triiodide
11. Silicon tetrabromide
12. Nitrogen triiodide
13. Selenium pentafluoride
14.  $\text{HNO}_3$
15.  $\text{HCl}$
16.  $\text{H}_2\text{CO}_3$
17.  $\text{HC}_2\text{H}_3\text{O}_2$
18.  $\text{CH}_3\text{COOH}$
19.  $\text{HBr}$
20.  $\text{HNO}_2$
21.  $\text{H}_3\text{PO}_4$
22.  $\text{H}_2\text{S}$
23.  $\text{HClO}_4$
24. nitric acid
25. hydrochloric acid
26. acetic acid
27. hydrofluoric acid
28. phosphorous acid
29. carbonic acid
30. nitrous acid
31. phosphoric acid
32. hydrosulfuric acid
33. sulfuric acid
34. oxalic acid
35. hydroiodic acid