

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.

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

Nomenclature 3 – Writing and Naming Ionic Compounds with Polyatomic ions

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| 1. NaNO ₃ | | 4. K ₃ PO ₄ |
| 2. Ba(CN) ₂ | Section 2 | 5. Cs(C ₂ H ₃ O ₂) |
| 3. Li ₂ SO ₄ | | 6. Mg(NO ₂) ₂ |

7. CaCO_3
8. $\text{Sr}_3(\text{PO}_4)_2$
9. NaHCO_3
10. 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. Ni_2SO_4
20. $\text{Cd}(\text{OH})_2$
21. ZnSO_3
22. 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. NH_4NO_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. PbSO_4
36. NH_4CN
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. MgO
50. $\text{Sr}(\text{NO}_3)_2$
51. $(\text{NH}_4)_2\text{S}$
52. Na_3P
53. Cu_3P

Section 2

54. Cu_3PO_4
55. $\text{Cd}(\text{OH})_2$
56. 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

Section 2

Nomenclature Podcast 4-5 Writing and Naming Molecular Compounds and Acids

1. N_2O_5
2. CO_2
3. C_2O_4
4. P_4O_{10}
5. Cl_4
6. CCl_4

Section 3

7. Carbon tetrabromide
8. Sulfur hexafluoride
9. Selenium disulfide
10. Arsenic triiodide
11. Silicon tetrabromide
12. Nitrogen triiodide
13. Selenium pentafluoride
14. HNO_3
15. HCl
16. H_2CO_3
17. $\text{HC}_2\text{H}_3\text{O}_2$
18. CH_3COOH
19. HBr
20. HNO_2
21. H_3PO_4
22. H_2S
23. 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

Section 3
