

Name _____ Date _____ Period _____

Writing Formulas from Names with Polyatomic Ions

To write the formula for a compound containing a **polyatomic ion** follow these rules. Look up the metal charge and write the symbol and its oxidation number. If it is a metal with multiple oxidation numbers, the Roman numeral is the oxidation number. Look up the formula for the polyatomic ion and treat it as a single ion. Put the polyatomic ion in parenthesis if a subscript of 2 or 3 is added.

Examples:	Calcium nitrate	Ca^{2+} and NO_3^{1-} is $\text{Ca}(\text{NO}_3)_2$
	Ammonium chloride	NH_4^{1+} and Cl^{1-} is NH_4Cl
	Magnesium hydroxide	Mg^{2+} and OH^{1-} is $\text{Mg}(\text{OH})_2$
	Lead (II) sulfate	Pb^{2+} and SO_4^{2-} is PbSO_4

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| 1. Copper (II) nitrate _____ | 19. Ammonium oxide _____ |
| 2. Copper(II) sulfate _____ | 20. Strontium chromate _____ |
| 3. Iron(II) nitrate _____ | 21. Aluminum hydroxide _____ |
| 4. Iron(III) hydroxide _____ | 22. Sodium bicarbonate _____ |
| 5. Copper (II) phosphate _____ | 23. Potassium phosphate _____ |
| 6. Tin(II) permanganate _____ | 24. Magnesium sulfate _____ |
| 7. Copper (I) acetate _____ | 25. Barium hydroxide _____ |
| 8. Lead(IV) cyanide _____ | 26. Calcium carbonate _____ |
| 9. Iron(III) nitrate _____ | 27. Cadmium nitrate _____ |
| 10. Tin (IV) nitrate _____ | 28. Zinc acetate _____ |
| 11. Iron (III) sulfate _____ | 29. Silver phosphate _____ |
| 12. Lead (II) nitrate _____ | 30. Cesium sulfate _____ |
| 13. Copper (II) hydroxide _____ | 31. Strontium hydroxide _____ |
| 14. Iron (II) chromate _____ | 32. Aluminum chlorate _____ |
| 15. Lead (II) hydroxide _____ | 33. Magnesium hydroxide _____ |
| 16. Tin (II) phosphate _____ | 34. Sodium permanganate _____ |
| 17. Copper (I) phosphate _____ | 35. Silver nitrate _____ |
| 18. Lead (IV) phosphate _____ | 36. Zinc sulfate _____ |