

Part A: Chemical Name to Chemical Formula.

Classify each compound as ionic or molecular and write the correct chemical formula.

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|-----|------------------------------|-----------------------------|--|--------------------------------|------------------------|
| 1. | silver chloride | | | | |
| 2. | copper (II) iodide | cupric iodide | | iron metal | nitric acid |
| 3. | zinc sulfate | | | hydrogen nitrate | |
| 4. | nitrogen trihydride | | | nitrogen gas | |
| 5. | strontium fluoride | | | magnesium hydrogen sulfate | |
| 6. | potassium cyanide | | | cobalt (II) permanganate | |
| 7. | aluminum nitrate | | | | cobaltous permanganate |
| 8. | mercury (I) sulfide | mercurous sulfide | | mercury (II) chloride | mercuric chloride |
| 9. | manganese (IV) oxide | | | silicon dioxide | |
| 10. | potassium chromate | | | sodium chlorite | |
| 11. | potassium nitrite | | | hydrogen sulfate | sulphuric acid |
| 12. | silver hydroxide | | | fluorine gas | |
| 13. | lead (II) nitrate | plumbous nitrate | | sodium monohydrogen phosphate | |
| 14. | iron (III) hydroxide | ferric hydroxide | | aluminum sulfide | |
| 15. | oxygen gas | | | chromium (III) oxalate | chromic oxalate |
| 16. | sulfur trioxide | | | rubidium nitrate | |
| 17. | hydrogen chloride | hydrochloric acid | | niobium (V) sulfate | |
| 18. | aluminum nitrite | | | ammonium hydrogen sulfite | |
| 19. | sodium hydride | | | | ammonium bisulfite |
| 20. | tin (II) hydrogen carbonate | stannous hydrogen carbonate | | beryllium bromite | |
| 21. | iron (III) sulfate | ferric sulfate | | hydrogen iodide | hydriodic acid |
| 22. | sodium thiocyanate | | | xenon gas | |
| 23. | cesium perborate | | | carbon tetraiodide | |
| 24. | hydrogen phosphate | phosphoric acid | | lithium hydrogen carbonate | |
| 25. | sodium carbonate decahydrate | | | | lithium bicarbonate |
| 26. | barium hydrogen carbonate | | | dihydrogen oxide | hydrogen hydroxide |
| 27. | tin (IV) sulfate | stannic sulfate | | calcium acetate | |
| 28. | strontium bromate | | | copper (I) thiocyanate | cuprous thiocyanate |
| 29. | dihydrogen dioxide | hydrogen peroxide | | mercury (I) acetate | mercurous acetate |
| 30. | nitrogen dioxide | | | silver thiocyanate | |
| 31. | aluminum hydrogen sulfite | | | zinc chloride hexahydrate | |
| 32. | hydrogen nitrite | nitrous acid | | iron (III) carbonate | ferric carbonate |
| 33. | potassium chlorite | | | potassium hydrogen oxalate | |
| 34. | zinc phosphate | | | magnesium hydride | |
| 35. | lead (IV) iodite | plumbic iodite | | gold (III) nitrate | |
| 36. | ammonium perchlorate | | | lithium dihydrogen phosphate | |
| 37. | chromium (II) oxide | chromous oxide | | iron (III) oxalate | ferric oxalate |
| 38. | mercury (I) cyanide | mercurous cyanide | | iron (II) hydroxide | ferrous hydroxide |
| 39. | calcium hypobromite | | | helium gas | |
| 40. | bromine gas | | | hydrogen sulfide | hydrosulfuric acid |
| 41. | tin (VI) permanganate | stannic permanganate | | cadmium (II) acetate | |
| 42. | aluminum oxide | | | magnesium sulfate heptahydrate | |
| 43. | calcium sulfide | | | uranium (IV) fluoride | |
| 44. | iron (III) iodide | | | hydrogen carbonate | carbonic acid |
| 45. | magnesium hydroxide | | | boron trihydroxide | |
| 46. | sodium hypiodite | | | manganese (II) iodate | |
| 47. | potassium peroxide | | | strontium sulfite | |
| 48. | hydrogen bromide | hydrobromic acid | | neon gas | |
| 49. | magnesium cyanide | | | iron (II) cyanide | ferric cyanide |
| 50. | sodium metal | | | lithium hydride | |
| 51. | sodium dichromate | | | ammonium carbonate | |
| | | | | xenon hexafluoride | |
| | | | | barium phosphate | |

Part C: Chemical Formula to Chemical Name

Classify each compound as ionic or molecular, write the correct chemical names and for acids include the correct acid name.

1.	$\text{Cd}(\text{NO}_3)_2 \cdot 4 \text{H}_2\text{O}$	35.	NaClO_3	69.	$(\text{NH}_3)_2\text{SO}_4$
2.	CCl_4	36.	$\text{Fe}(\text{OH})_2$	70.	CsHCO_3
3.	CuSO_4	37.	NaBrO	71.	$\text{Ca}(\text{ClO}_4)_2$
4.	MgO	38.	HNO_2	72.	NH_4ClO_2
5.	NaCN	39.	V_2S_5	73.	CrO
6.	PCl_5	40.	$\text{Fe}(\text{ClO})_2$	74.	CsCN
7.	$\text{Fe}(\text{NO}_3)_2$	41.	SnF_2	75.	HF
8.	$(\text{NH}_4)_2\text{SO}_4$	42.	HBr	76.	HNO_3
9.	SO_2	43.	$\text{Zn}(\text{NO}_2)_2$	77.	MnO
10.	Cu_2SO_4	44.	$\text{Ag}_2\text{C}_2\text{O}_4$	78.	$\text{Ca}(\text{OH})_2$
11.	$\text{Fe}(\text{NO}_3)_3$	45.	KCH_3COO	79.	CoCl_2
12.	$\text{Na}_2\text{S}_2\text{O}_3 \cdot 5 \text{H}_2\text{O}$	46.	NH_4OH	80.	$\text{Zn}(\text{IO}_2)_2$
13.	$\text{K}_2\text{C}_2\text{O}_4$	47.	H_2SO_4	81.	PtCl_4
14.	RbSCN	48.	Cu_2S	82.	$\text{Hg}_2(\text{NO}_2)_2$
15.	AlPO_4	49.	HgCr_2O_7	83.	HCl
16.	K_2CO_3	50.	RbI	84.	Cr_2O_3
17.	Na_3PO_4	51.	NH_4IO	85.	$\text{Al}(\text{OH})_3$
18.	$\text{Sn}(\text{SO}_4)_2$	52.	MoCl_5	86.	NH_4BrO_3
19.	Na_2CrO_4	53.	NaHS	87.	HClO_4
20.	$\text{Pb}(\text{NO}_3)_2$	54.	CsH_2PO_4	88.	KrF_4
21.	$\text{Sn}(\text{SO}_4)_2$	55.	NaOH	89.	BaCr_2O_7
22.	WF_6	56.	$\text{Ni}(\text{SCN})_2$	90.	$\text{Sr}_3(\text{PO}_4)_2$
23.	SO_3	57.	$\text{Pb}(\text{HSO}_4)_4$	91.	Fe_2O_3
24.	$\text{K}_2\text{Cr}_2\text{O}_7$	58.	$\text{Hg}(\text{NO}_3)_2$	92.	$(\text{NH}_4)_2\text{HPO}_4$
25.	$\text{Pb}(\text{C}_2\text{O}_4)_2$	59.	Na_2O_2	93.	NaCH_3COO
26.	Na_2HPO_4	60.	RbH	94.	HI
27.	$\text{Sn}(\text{CO}_3)_2$	61.	H_3PO_4	95.	PbCO_3
28.	$\text{Au}(\text{CN})_3$	62.	Ni_3	96.	$\text{Be}(\text{BrO}_2)_2$
29.	KMnO_4	63.	MnS_2	97.	XeO_2
30.	SrH_2	64.	Li_2CrO_4	98.	$\text{Hg}_2(\text{NO}_3)_2$
31.	KHCO_3	65.	$\text{Ba}(\text{OH})_2 \cdot 8 \text{H}_2\text{O}$	99.	$\text{Fe}(\text{C}_2\text{H}_3\text{O}_2)_3$
32.	Al_2S_3	66.	Na_2SO_3	100.	$\text{HC}_{17}\text{H}_{35}\text{C}$
33.	$\text{Cu}(\text{C}_2\text{H}_3\text{O}_2)_2$	67.	$\text{Zn}(\text{C}_2\text{H}_3\text{O}_2)_2$		
34.	$\text{Ba}(\text{SCN})_2$	68.	H_2S		