

**AP CHEMISTRY IONIC COMPOUNDS FROM PREVIOUS TESTS**

In each blank: a) write the balanced chemical equation for the dissolution in water of this ionic compound (include the formula of the compound as a reactant), b) circle the side that is predominant in a 1 M solution (use solubility rules!)

1.	aluminum oxide	Lithium nitride	27.
2.	zinc iodide	Barium chloride	28.
3.	magnesium nitrate	Zinc hydroxide	29.
4.	lithium hydride	Nickel (II) nitrate	30.
5.	calcium carbonate	Potassium dihydrogen phosphate	31.
6.	Manganese (II) sulfide	Magnesium oxide	32.
7.	Magnesium nitride	Copper (II) sulfate	33.
8.	Potassium phosphate	Lithium oxide	34.
9.	Sodium cyanide	Copper (II) sulfide	35.
10.	Manganese (II) sulfate	Silver chloride	36.
11.	Ammonium sulfide	Barium acetate	37.
12.	Phosphorus (V) oxide	Sodium bromide	38.
13.	Iron (II) chloride	Sodium phosphate	39.
14.	Barium oxide	Calcium chloride	40.
15.	Calcium phosphate	Calcium oxide	41.
16.	Mercury (II) chloride	Strontium nitrate	42.
17.	Calcium hydride	Calcium sulfite	43.
18.	Sodium chromate	Sodium hydrogen carbonate	44.
19.	Aluminum nitrate	Potassium thiocyanate	45.
20.	Potassium bromate	Sodium dichromate	46.
21.	Cesium oxide	Potassium iodate	47.
22.	Cobalt (II) chloride	Calcium fluoride	48.
23.	Zinc sulfide	Sodium fluoride	49.
24.	Iron (II) nitrate	Iron (III) nitrate	50.
25.	Sodium hypochlorite	Lead (II) acetate	51.
26.	Ammonium thiocyanate	aluminum sulfate	52.

53.	Potassium dichromate	iron (II) sulfite	78.
54.	Sodium sulfate	copper (II) oxide	79.
55.	Lithium hydrogen carbonate	sodium hydride	80.
56.	Sodium hydroxide	potassium sulfate	81.
57.	Sodium permanganate	hydrogen chloride	82.
58.	Sodium sulfite	nickel (II) bromide	83.
59.	Iron (III) oxide	strontium chloride	84.
60.	Zinc carbonate	magnesium iodide	85.
61.	Calcium acetate	sodium acetate	86.
62.	Calcium hydroxide	hydrogen iodide	87.
63.	Iron (II) oxide	Potassium carbonate	88.
64.	Nickel (II) chloride	Iron (III) chloride	89.
65.	Cobalt (II) nitrate	Sodium iodide	90.
66.	Ammonium nitrate	Lead (II) nitrate	91.
67.	Lead (II) carbonate	Hydrogen sulfide	92.
68.	Barium nitrate	Potassium hydroxide	93.
69.	Potassium chromate	Silver nitrate	94.
70.	Nickel (II) sulfate	Lithium bromide	95.
71.	Copper (II) chloride	Potassium sulfite	96.
72.	Tin (II) nitrate	Potassium permanganate	97.
73.	Potassium hydrogen carbonate	Ammonium thiocyanate	98.
74.	Strontium oxide	Sodium oxalate	99.
75.	zinc hydroxide	Sodium sulfide	100.
76.	Nickel (II) nitrate	Lithium carbonate	101.
77.	Potassium dihydrogen phosphate	Sodium chloride	102.
	Magnesium oxide	Sodium hydroxide	

103.	Potassium oxide	Sodium permanganate	119.
104.	Copper (II) sulfate	Sodium sulfite	120.
105.	Lithium oxide	Iron (III) oxide	121.
106.	Copper (II) sulfide	Ammonium carbonate	122.
107.	Silver chloride	Barium hydroxide	123.
108.	Magnesium carbonate	Ammonium sulfate	124.
109.	Potassium bromide	Ammonium chloride	125.
110.	Hydrogen peroxide	Potassiumchlorate	126.
111.	Sodium hydrogen carbonate	Manganese (IV) oxide	127.
112.	Potassium thiocyanate	Sodium oxide	128.
113.	Sodium dichromate	Potassium iodide	129.
114.	Potassium iodate	Tin (II) chloride	130.
115.	Calcium fluoride	Aluminum hydroxide	131.
116.	Manganese (IV) oxide	Iron (III) sulfate	132.
117.	Copper (II) nitrate	Zinc nitrate	133.
118.	Sodium chromate		

## ACIDS

1.	hydrofluoric acid	
2.	nitric acid	
3.	formic acid	
4.	acetic acid	
5.	phosphoric acid	
6.	hydrobromic acid	
7.	nitrous acid	
8.	hydrochloric acid	
9.	sulfuric acid	
10.	oxalic acid	
11.	nitric acid	
12.	hydroiodic acid	

## MOLECULAR COMPOUNDS

1.	phosphorus trihydride	
2.	boron trifluoride	
3.	sulfur dioxide	
4.	sulfur trioxide	
5.	ammonia	
6.	dinitrogen pentoxide	
7.	carbon disulfide	
8.	carbon dioxide	
9.	phosphorus pentachloride	
10.	dinitrogen trioxide	
11.	boron trichloride	
12.	carbon monoxide	

## AP CHEMISTRY NAMING OF ACIDS, MOLECULAR COMPOUNDS, AND ORGANIC COMPOUNDS FROM PREVIOUS TESTS

Directions: In the blank provided, write the formula. For compounds labeled "Molecular Compounds", also record their complete Lewis structure.

## ORGANIC COMPOUNDS

1.	ethanoic acid	
2.	ethanol	
3.	methanoic acid	
4.	propanone	
5.	butanol	
6.	propane	
7.	1-propanol	
8.	ethanol	
9.	propanol	
10.	ethene	
11.	methane	
12.	propene	
13.	benzene	
14.	propanoic acid	
15.	dimethyl ether	
16.	ethyne (acetylene)	

# AP CHEMISTRY NAMING AND STRONG/WEAK FOR ACIDS FROM PREVIOUS TESTS

Directions: In the blanks provided, write the name of the acid, "S" or "W" for strong or weak, and how it's written in solution.

Acid	Name	How written in 1.0 M	strong/ weak?
1. HF	hydrofluoric acid	HF (aq)	W
2. HCl	hydrochloric acid	H <sup>+</sup> (aq) + Cl <sup>-</sup> (aq)	S
3. HBr			
4. H <sub>2</sub> S			
5. HClO <sub>4</sub>			
6. HClO <sub>3</sub>			
7. HClO <sub>2</sub>			
8. HClO			
9. HNO <sub>3</sub>			
10. HNO <sub>2</sub>			
11. H <sub>2</sub> SO <sub>4</sub>			
12. H <sub>2</sub> SO <sub>3</sub>			
13. H <sub>2</sub> CO <sub>3</sub>			
14. H <sub>3</sub> PO <sub>4</sub>			
15. H <sub>2</sub> C <sub>2</sub> O <sub>4</sub>			
16. CH <sub>3</sub> COOH			

## AP CHEMISTRY PRECIPITATION REACTIONS FROM PREVIOUS TESTS

Directions: Balance and indicate phases (s,aq). Do so in 2 ways:

a) molecular equation for each

b) net ionic equation for each

1. A solution of sodium sulfide is added to a solution of zinc nitrate. (86)
2. Solutions of zinc sulfate and sodium phosphate are mixed. (89)
3. Solutions of silver nitrate and lithium bromide are mixed. (89)
4. Solutions of sodium iodide and lead (II) nitrate are mixed. (90)
5. Solutions of silver nitrate and sodium chromate are mixed. (90)
6. A solution of copper (II) sulfate is added to a solution of barium hydroxide. (91)
7. Sodium hydroxide solution is added to a solution of magnesium nitrate.(92)
8. Solutions of potassium phosphate and zinc nitrate are mixed. (93)
9. Solutions of manganese (II) sulfate and ammonium sulfide are mixed. (94)
10. A solution of nickel chloride is added to a solution of sodium sulfide. (97)
11. Solutions of cobalt (II) nitrate and sodium hydroxide are mixed. (98)
12. A solution of copper (II) chloride is added to a solution of sodium sulfide. (00)
13. Solutions of strontium nitrate and sodium sulfate are mixed. (01)
14. Solutions of sodium chromate and lead (II) nitrate are mixed. (02B)
15. A solution of sodium iodide is added to a solution of lead (II) acetate. (02)
16. Solutions of lead (II) nitrate and potassium sulfate are mixed. (03B)
17. A solution of potassium phosphate is mixed with a solution of calcium acetate. (03)
18. A solution of sodium phosphate is added to a solution of aluminum nitrate.(04)
19. Solutions of silver nitrate and sodium chloride are combined. (04B)