Baker

CHAPTER 7 REVIEW

Write a chemical formula for each substance.

1. $NaCl$ sodium chloride
2. N_2O_5 dinitrogen pentoxide
5. H_2SO_3 sulfurous acid
6. $AgC_2H_3O_2$ silver acetate
8. SO_3 sulfur trioxide
9. N_2O_4 dinitrogen tetroxide
10. $Ca(OH)_2$ calcium hydroxide
11. Li_2S lithium sulfide
12. H_3PO_3 phosphorous acid
13. N_2O dinitrogen monoxide
14. Fe_2O_3 Iron (III) oxide
15. $PbClO_3$ lead(II) chlorate
17. $ZnCl_2$ zinc chloride
18. $Ca_3(PO_4)_2$ calcium phosphate
19. OF_2 oxygen difluoride
20. $NaNO_2$ sodium nitrite
21. $Fe_2(SO_4)_3$ iron(III) sulfate
22. HBr hydrobromic acid
23. Cr_2O_3 chromium(III) oxide
24. $(NH_4)_2CO_3$ ammonium carbonate

Name each of the following substances:

26. gold (III) bromide $AuBr_3$
27. carbon monoxide CO
28. potassium carbonate K_2CO_3
29. chlorous acid $HClO_2$
31. nickel permanganate $Ni(MnO_4)_2$
32. aluminum sulfate $Al_2(SO_4)_3$
33. carbonic acid H_2CO_3
34. barium acetate $Ba(C_2H_3O_2)_2$
35. manganese (III) hydroxide $Mn(OH)_3$
36. potassium dihydrogen phosphate KH_2PO_4
38. aluminum bromate $Al(BrO_3)_3$
40. sulfur trioxide SO_3
41. potassium cyanide KCN
42. lead nitrate $Pb(NO_3)_2$
44. iron (III) chloride $FeCl_3$
45. sulfur hexafluoride SF_6
46. calcium nitride Ca_3N_2
47. copper (I) iodide CuI
48. silicon dioxide SiO_2
49. tin (IV) acetate $Sn(C_2H_3O_2)_4$

1. Calculate the molar mass:
   a. $Al_2(SO_4)_3$ 342 g/mol
   b. $(NH_4)_3P$ 85 g/mol
   c. silicon tetrafluoride 104 g/mol
   d. phosphoric acid 98 g/mol
2. How many moles are contained in 18.0 grams of NaCl?

   0.3 mol NaCl
3. What is the mass in grams of 0.33 moles of $CuSO_4$?

   53 g $CuSO_4$
4. What is the mass in grams of 4.7×10^{22} molecules of CaS?

   5.6 g CaS
5. Calculate the number of moles contained in 25.0 grams of iron (II) chloride.

   0.2 mol $FeCl_2$
6. Calculate the percent composition for the following compounds:
   a. $MgCO_3$ 28.6% Mg 14.3% C 57.1% O
   b. $Ca(OH)_2$ 54% Ca 43.2% O 2.7% H
   c. aluminum hypochlorite

   14.9% Al 58.7% Cl 26.4% O