

Chemical Compounds and Formulas

Goal • Increase your understanding of the names and formulas of binary and polyatomic compounds.

What to Do

Answer each question in the space provided.

1. Identify each compound as ionic or molecular.

- (a) NaNO_3 ionic
 (b) MgSO_4 ionic
 (c) K_2CO_3 ionic
 (d) NaCl ionic
 (e) MgBr_2 ionic
 (f) CO_2 molecular
 (g) H_2O molecular
 (h) CH_4 molecular

2. Name the following compounds.

- (a) MgF_2 magnesium fluoride
 (b) Na_2CO_3 sodium carbonate
 (c) K_2CO_3 potassium carbonate
 (d) NaCl sodium chloride
 (e) MgBr_2 magnesium bromide
 (f) KF potassium fluoride
 (g) BeF_2 beryllium fluoride
 (h) AlO_3 aluminum oxide

3. Write the chemical formula for each compound.

- (a) lead(II) sulfate $\text{Pb}^{2+} \text{SO}_4^{2-}$ $\text{Pb}_2(\text{SO}_4)_2$ PbSO_4
 (b) ferric oxide $\text{Fe}^{3+} \text{O}^{2-}$ Fe_2O_3
 (c) aluminum sulfate $\text{Al}^{3+} \text{SO}_4^{2-}$ $\text{Al}_2(\text{SO}_4)_3$
 (d) potassium iodide $\text{K}^+ \text{I}^-$ KI
 (e) copper(II) sulfate $\text{Cu}^{2+} \text{SO}_4^{2-}$ CuSO_4
 (f) carbon dioxide $\text{C}^{4+} \text{O}^{2-}$ CO_2
 (g) barium nitrate Ba^{2+}