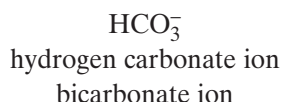




FIGURE 2 Some common laboratory acids. Acids should always be handled with care and according to instructions. They can burn the skin, and they burn holes in clothing.

An ionic compound composed of a cation and the anion from an acid is often referred to as a **salt**. Table salt, NaCl , contains the anion from hydrochloric acid. Calcium sulfate, CaSO_4 , is a salt containing an anion from sulfuric acid. Some salts contain anions in which one or more hydrogen atoms from the acid are retained. Such anions are named by adding the word *hydrogen* or the prefix *bi-* to the anion name. The best known such anion comes from carbonic acid, H_2CO_3 .



SECTION REVIEW

- What is the significance of a chemical formula?
- Write formulas for the compounds formed between the following:
 - aluminum and bromine
 - sodium and oxygen
 - magnesium and iodine
 - Pb^{2+} and O^{2-}
 - Sn^{2+} and I^-
 - Fe^{3+} and S^{2-}
 - Cu^{2+} and NO_3^-
 - NH_4^+ and SO_4^{2-}
- Name the following compounds by using the Stock system:

a. NaI	c. CaO	e. CuBr
b. MgS	d. K_2S	f. FeCl_2
- Write formulas for each of the following compounds:

a. sodium hydroxide	e. carbon diselenide
b. lead(II) nitrate	f. acetic acid
c. iron(II) sulfate	g. chloric acid
d. diphosphorus trioxide	h. sulfurous acid

Critical Thinking

- RELATING IDEAS** Draw the Lewis structure, give the name, and predict VSEPR geometry of SCl_2 .