

Elements and Compounds in the Home : Notes/W.S.-150

There are many elements found in the home. A few are mentioned below.

- air is a mixture of N_2 and O_2
- some frying pans are made of Fe
- water pipes are made of Cu
- pop cans are made of Al
- jewelry often contains Ag and Au
- thermometers contain Hg
- charcoal for barbecues is made of C
- disinfectants may contain I_2 or Cl_2
- a coating on iron which prevents rusting is Zn
- light bulb filaments are made of W

There are also many important compounds in the home. A few are given below.

- Water, the universal solvent, is H_2O . We can't live without it.
- NaCl is common table salt
- vinegar (an acid) is $HC_2H_3O_2$
- glucose, a type of sugar, is $C_6H_{12}O_6$
- baking soda is $NaHCO_3$
- one type of soap is $NaC_{18}H_{35}O_2$

- drain cleaner is NaOH
- ammonia cleaner is NH_3
- hydrochloric acid, HCl, cleans concrete
- methanol, CH_3OH , is used to clean paint brushes and remove oil and grease stains from clothing
- propane, C_3H_8 , is burned in heaters

Questions:

1) Where in the home, would you find these elements:

- | | |
|-------------------|-------------------|
| a) copper _____ | b) aluminum _____ |
| c) gold _____ | d) mercury _____ |
| e) tungsten _____ | f) carbon _____ |

2) Answer the following questions about common compounds found in the home.

- a) What is the formula for table salt? _____
- b) What is C_3H_8 used for? _____
- c) Name an compound that is used to clean concrete.

- d) A common drain cleaner is NaOH. Name this compound.

- e) What is the formula for ammonia? _____
- f) Which cleaner is used to remove oil stains from clothes?

- g) What is the common name for the compound, $\text{HC}_2\text{H}_3\text{O}_2$?

- h) Which compound is the "Universal Solvent"? _____

Answers: 1)a) water pipes, b) pop cans, c) jewelry, d) thermometers, e) light bulb filaments, f) charcoal, 2)a) NaCl, b) heating, c) hydrochloric acid, d) sodium hydroxide, e) NH_3 , f) methanol, g) vinegar, h) water.