5.3 Organic compounds

Organic compounds contain carbon and usually hydrogen.

"Organic" sounds like the compounds come from living things, but some do, and some do not.

Inorganic compounds are compounds that do not have carbon.

Carbon has four electrons in its valence shell, which allows for more chemical bonding possibilities than any other element.

Long chains of carbons form petroleum and plastics.

Organic molecules always have C before H in their formulas. This differentiates organic compounds from acids, which almost always start with H

A hydrocarbon is an organic compound that contains only carbon and hydrogen.

Hydrocarbons are based on a carbon chain, with hydrogen atoms added on the sides.

The simplest hydrocarbon is methane (CH_4), followed by ethane (C_2H_6), propane (C_3H_8), butane (C_4H_{10}), and pentane (C_5H_{12}).

All hydrocarbons are flammable, and most are liquids are room temperature.

Alcohols are organic compounds with C, H, and O.

The simplest alcohols are methanol (CH_4O), ethanol (C_2H_6O), and isopropyl alcohol (C_3H_8O).

Alcohols are very good solvents (they dissolve other substances) and generally very flammable.