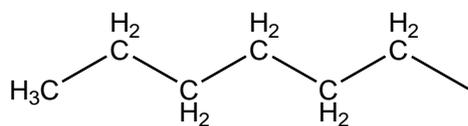
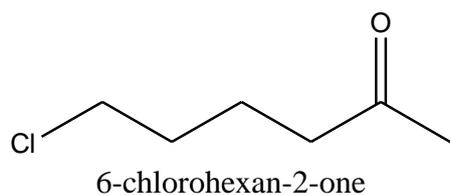


hept-(yl)- Univalent radicals derived from saturated unbranched acyclic hydrocarbons by removal of hydrogen from a terminal carbon atom are named by replacing the ending "-ane" of the name of the hydrocarbon by "-yl". The carbon atom with the free valence is numbered as 1. As a class, these radicals are called normal, or unbranched chain, alkyls.



Unsaturated unbranched acyclic hydrocarbons having one double bond are named by replacing the ending "-ane" of the name of the corresponding saturated hydrocarbon with the ending "-ene". If there are two or more double bonds, the ending will be "-adiene", "-atriene", *etc.* The generic names of these hydrocarbons (branched or unbranched) are "alkene", "alkadiene", "alkatriene", *etc.* The chain is so numbered  as to give the lowest possible numbers to the double bonds. When, in cyclic compounds or their substitution products, the locants of a double bond differ by unity, only the lower locant is cited in the name; when they differ by more than unity, one locant is placed in parentheses after the other

heptan- In order to generate the parent structure from a molecule to be named, various formal operations must be carried out. For example, in naming the structure below,



the parent hydride "heptane" is formally derived by replacing the oxygen and chlorine atoms by the appropriate number of hydrogen atoms. For constructing a name, this formal operation is reversed; the prefix "chloro-" and the suffix "-one" indicating substitution of hydrogen atoms of heptane are attached to the parent hydride name, giving the name 6-chloroheptan-2-one. Prefixes and suffixes can represent a number of different types of formal operations on the parent structure. A

prefix may describe a group which is derived from a parent hydride, for example, heptan-1-yl or heptyl for (from heptane);

hepta - The numerical multiplier (or multiplying affix) in IUPAC nomenclature indicates how many particular atoms or functional groups are attached at a particular point in a molecule. The affixes are derived from both Latin and Greek. Hepta- means seven.