

HYDROCARBONS



Hydrocarbon Compounds

Hydrocarbon compounds are compounds that consist only of carbon and hydrogen atoms. Hydrocarbons can be divided into 2, namely:

a. Saturated Hydrocarbons: single bonds

including saturated hydrocarbons :

- Alkane : open chain (C_nH_{2n+2})
- Cycloalkane : closed chain (C_nH_{2n})

b. Unsaturated Hydrocarbons: double bonds

- Alkene : double bond (C_nH_{2n})
- Alkyne : triple bond (C_nH_{2n-2})
- Alkadiene : two double bonds (C_nH_{2n-2})



Nomenclature of Alkanes

The nomenclature of alkanes is the basis for the nomenclature of other carbon compounds. Therefore the nomenclature of alkanes must be thoroughly understood.

Here are the names of alkanes from C_1 - C_{10} :

Formula	Name	Formula	Name
CH_4	methane	C_6H_{14}	hexane
C_2H_6	ethane	C_7H_{16}	heptane
C_3H_8	propane	C_8H_{18}	octane
C_4H_{10}	butane	C_9H_{20}	nonane
C_5H_{12}	pentane	$C_{10}H_{22}$	decane

Alkene names :

C_2H_4 = ethylene

C_3H_6 = propene

Hydrocarbon Study Guide

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