

ABEBAYO - 030 PHYSICIAN CLAMIBO

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MEDICINE AND SURGERY

CHEM 1021 ASSIGNMENT I

1. Discuss the two major classification of Alcohols. Give two examples each for each class

⇒ Alcohols otherwise called alcohols are a homologous series of organic compounds with the general formula $C_nH_{2n+1}OH$ or simply $R-OH$. Their molecules consist of a functional group, the hydroxyl group ($-OH$) joined to an alkyl group (Alkyl groups are not hydrocarbons as, in addition to carbon and hydrogen atoms, they contain oxygen atoms). Alcohols can further be classified into:

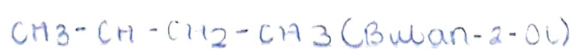
⇒ Primary Alcohols

⇒ Secondary Alcohols

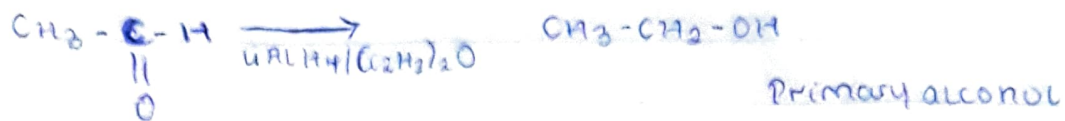
PRIMARY ALCOHOL: A primary alcohol has only one alkyl or aryl group attached to the carbon bearing the $-OH$. It has the hydroxyl group which is bonded to a primary carbon atom. It can also be defined as a molecule containing a " $-CH_2OH$ " group. Examples of primary alcohol include:



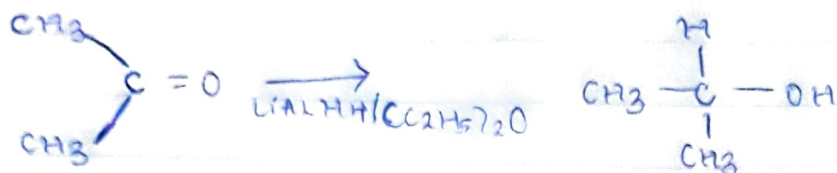
SECONDARY ALCOHOL: A secondary alcohol has two alkyl or aryl groups attached to the carbon bearing the $-OH$. They are those where the carbon atom of the hydroxyl group is attached to two alkyl groups present may be either structurally identical or even different. Some of the examples of secondary alcohols are:



4. The reaction of Aldehyde or alkanol



Reduction of ketone or Alkanone



The reduction of Alkanone leads to a secondary alcohol and the reduction of alkanol leads to a primary alcohol.