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M/mbss/cos  
Nursing

Thu April 2020

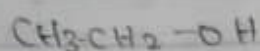
Chem 102

1) There are two major classification of alcohol  
Alcohol is also known as alcohol

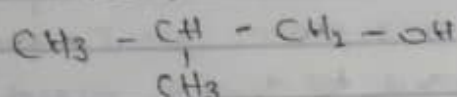
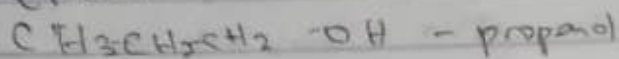
\* Primary Alcohol

\* Secondary Alcohol

i) Primary Alcohol: The carbon which carries the -OH group is only attached to one alkyl group. Some examples of primary alcohol includes:



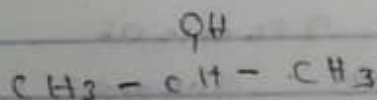
Ethanol



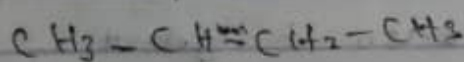
2-methyl propanol

ii) Secondary Alcohol: The carbon with <sup>one</sup> -OH group is attached to joined directly to two alkyl group which may be the same or different.

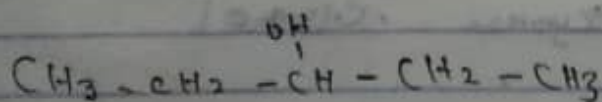
Examples



Propan-2-ol

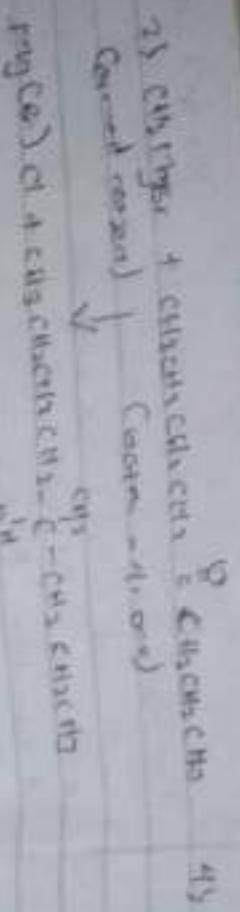


butan-2-ol



pentan-3-ol

or  $\text{CH}_3\text{MgBr}$



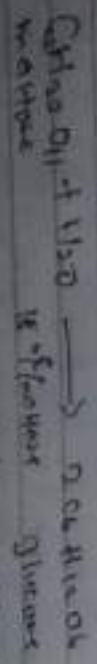
3) Production of Ethanol:

Carbohydrates such as starch or sugar form of natural compounds from raw material to yield ethanol by the industrial process of fermentation. The bacterial enzymes of fermentation also convert glucose molecules into ethanol to give a yield of 95%.

$2C_6H_{12}O_6 \xrightarrow{bacteria} 2C_2H_5OH + 2CO_2$

Carbohydrate      Ethanol

Yeast converts starch into glucose and addition of yeast can be continued. The enzyme matters and min. temp of 15°C



The glucose at constant temperature of 15°C is converted into alcohol by the enzyme Zymase contained in yeast.

$C_6H_{12}O_6 \xrightarrow{Zymase} 2C_2H_5OH + 2CO_2$

Glucose      Ethanol



