

IVALLA MUGIZAKA FAVOUR.

MBBS

19/mthso1/212.

CHM101.

Assignment.

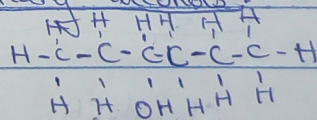
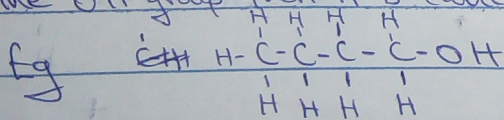
1 Alcohols are very important Compounds. Discuss their classification & examples each.

a The Classification Based on the number of the Hydroxyl groups they Posses :- When an alcohol structure has only one hydroxyl group per molecule, then it is a monohydric alcohol, when there are two hydroxyl groups present in the alcohol structure is called Dihydric alcohols or Glycols while that of three hydroxyl groups present in the structure of alcohol they are called trihydric or triol then when it is more than three they are polyol or polyhydric.

Eg $\text{C}_3\text{H}_7\text{OH}$ - propanol (monohydric alcohol)

$\text{HOCH}_2\text{CH}_2\text{OH}$ - Ethane-1,2-diol (Glycols or Dihydric).

b The Classification Based on the number of hydrogen atoms attached to the carbon carrying the 'OH' functional groups :- If the number of hydrogen atoms attached carbon carrying the 'OH' is 2 or 3, then it is called primary alcohol, then when there are only 1 hydrogen atom ^{attached} to the carbon atom carrying the OH group, then it is a secondary alcohols, then when there are no hydrogen atom attached to the carbon atom, ~~then it~~ carrying the 'OH' group then it is called tertiary alcohols.

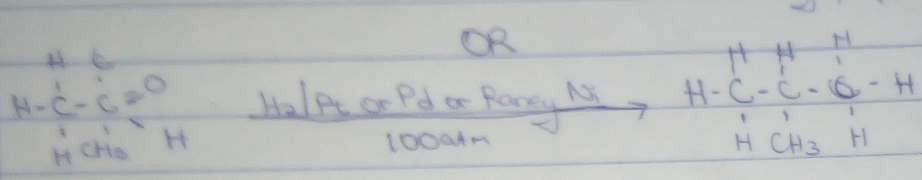
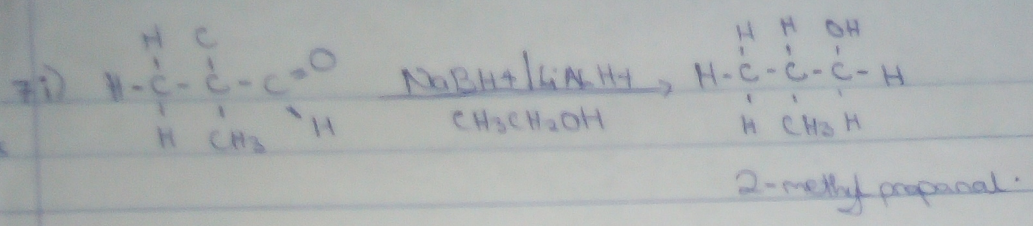


$\text{HOCH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$ - Butanol (Primary alcohol) Hex-3-ol (Secondary alcohol).

2 The Solubility of alcohols in water and organic solvent.

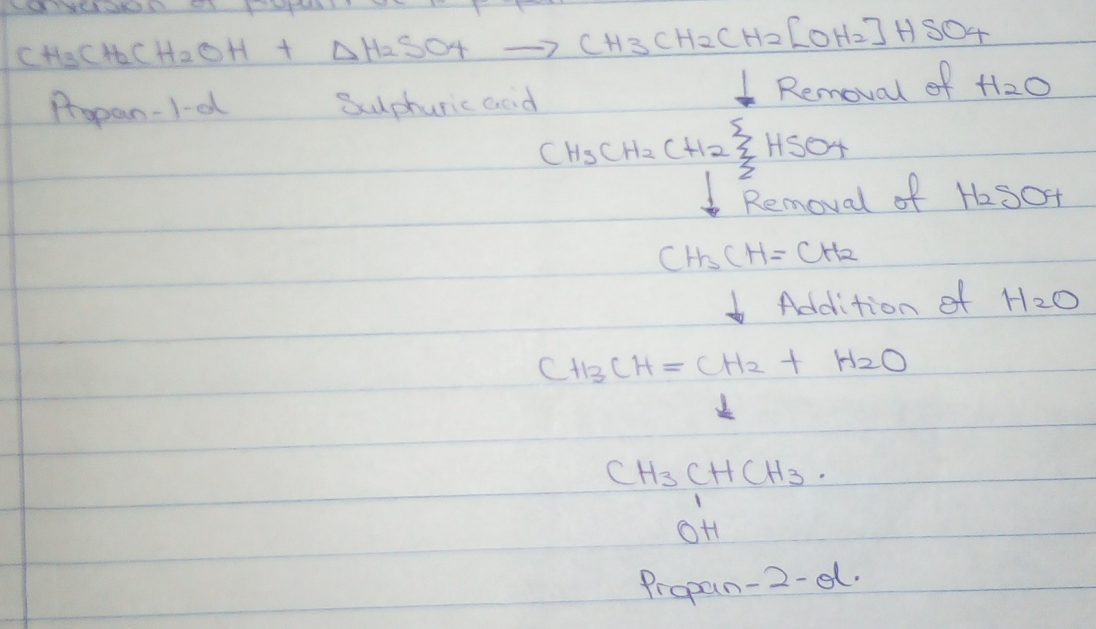
* Solubility of Alcohols in Water :- The solubility of alcohols decreases with relative increase in the molecular mass. The lower alcohols with up to three or two hydrogen and carbon atoms in their molecules are more soluble in water due to the fact that they can form hydrogen bonds easily with water molecules. All monohydric are soluble in water.

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8 Conversion of propan-1-ol to propan-2-ol.



lyme malter

temperature
side -

side - Grignard

