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1) Based on the number of hydrogen atoms attached to the carbon atom containing the hydroxyl group:

⊕ Primary Alcohol: if the number of hydrogen atoms attached to the carbon atom bearing the hydroxyl group are three or two  
(1°) e.g.  $\text{CH}_3\text{CH}_2\text{OH}$  (Ethanol),  $\text{CH}_3\text{CH}(\text{CH}_3)\text{CH}_2\text{OH}$  (2-methylpropan-1-ol)

⊕ Secondary Alcohol: if it is one hydrogen atoms (2°)  
e.g.  $\text{CH}_3\text{CH}(\text{OH})\text{CH}_3$  (propan-2-ol)

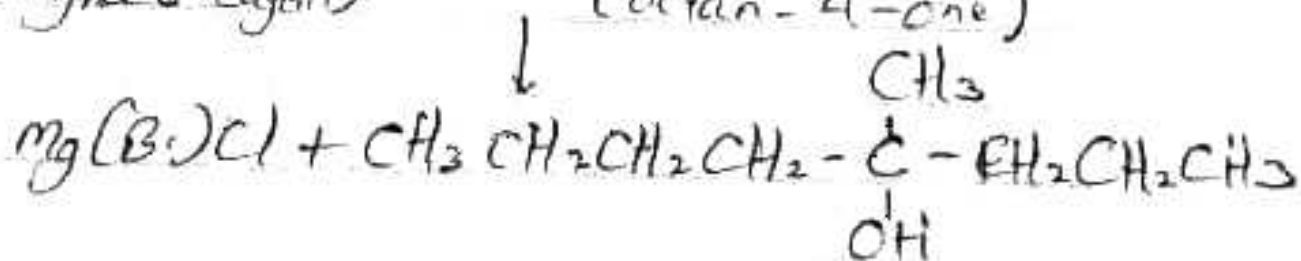
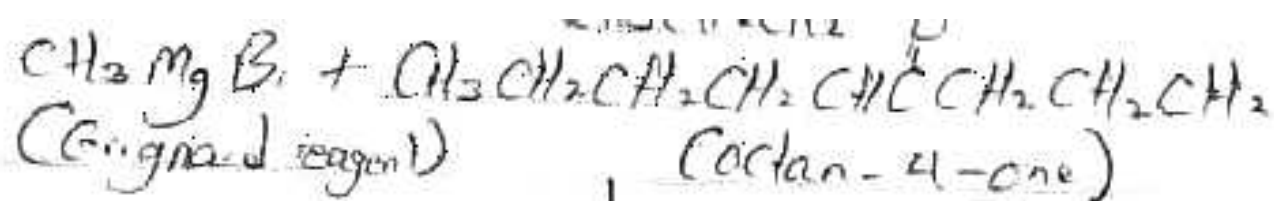
⊕ Tertiary Alcohol: if no hydrogen atoms is attached to the carbon atom bearing the hydroxyl group (3°) e.g.  
 $(\text{CH}_3)_3\text{C-OH}$  (2-methylpropan-2-ol)

1b) Based on the hydroxyl Group present. - This classification is divided into three namely

① Monohydric: monohydric alcohol has one hydroxyl group eg  $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$  propan-1-ol

② Dihydric: This also referred Glycols and it has two hydroxyl groups eg  $\text{HOCH}_2\text{CH}_2\text{OH}$  ethane-1,2-diol

③ Trihydric: it has three hydroxyl groups and also referred as Triols eg  $\text{OHCH}_2\text{CH}(\text{OH})\text{CH}_2\text{OH}$  propane-1,2,3-triol



Tertiary alcohol

