

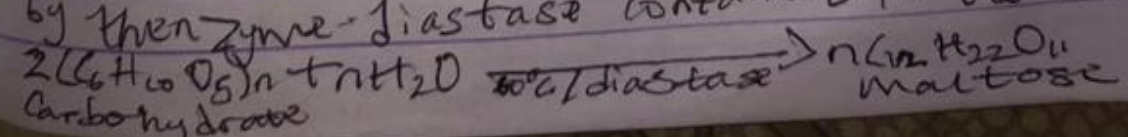
Udaybala Ebose Lulu Miracle
19/MTS11/140
Pharmacy
CHM102

1a) The first classification of alcohol is based on the number of hydrogen atom attached to the carbon atoms containing the hydroxyl group. If the number of hydrogen atoms are three or two it is a primary alcohol and if the number of hydrogen atom is attached, it is a tertiary alcohol e.g. $\text{C}_2\text{H}_5\text{OH}$ (Primary alcohol), $\text{C}_2\text{H}_5\text{CH}(\text{OH})\text{C}_2\text{H}_5$ (Secondary alcohol), $(\text{C}_2\text{H}_5)_3\text{C-OH}$ (Tertiary alcohol)

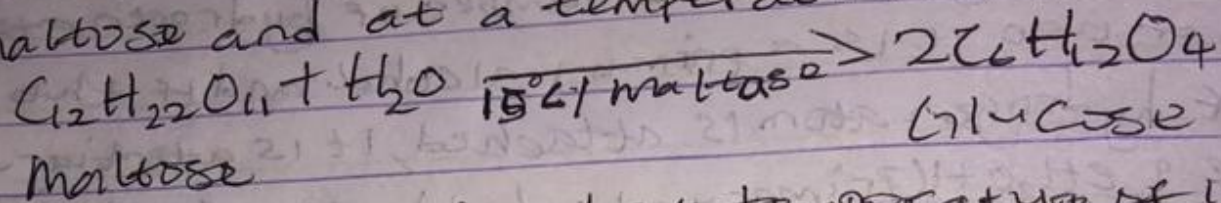
b) The second classification of alcohol is based on the number of hydroxyl groups they possess. If one hydroxyl group is present, it is monohydric alcohol. If two hydroxyl groups are present, it is a dihydric alcohol and if it's three hydroxyl groups it is a trihydric alcohol. Polyhydric alcohols have more than three hydroxyl groups. $\text{C}_2\text{H}_5\text{CH}_2\text{CH}_2\text{OH}$ (Monohydric), $\text{HOCH}_2\text{CH}_2\text{OH}$ (Dihydric), $\text{OHCH}_2\text{CH}(\text{OH})\text{CH}_2\text{OH}$ (Trihydric alcohol)

2) Stability: Lower alcohols with up to three carbon atoms in their molecules are soluble in water because these lower alcohols can form hydrogen bond with water molecules. The water solubility of alcohols decreases with increasing relative molecular mass. All monohydric alcohols are soluble in organic solvents.

3) The starch containing materials is warmed with malt at 60°C for a period of time and converted into maltose by the enzyme diastase contained in the malt.



The maltose is broken down into a glucose on addition of yeast which contains the enzyme maltase and at a temperature of 15°C .



The glucose at a constant temperature of 15°C is then converted into alcohol by the enzyme ~~the~~ zymase also in yeast.

