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CHM 102.

MBBS

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① The first classification of alcohol is based on the number of hydrogen atoms attached to the carbon atoms ^{containing} the hydroxyl group. If the number of hydrogen atoms is one, it is secondary, if 2 or 3 it is primary and if there is none it is tertiary. eg $\text{-CH}_2\text{OH}$ (primary alcohol)

② 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 2 are present it is dihydric, if 3 it is trihydric. eg $\text{C}_2\text{H}_4(\text{OH})_2$ (Monohydric alcohol)

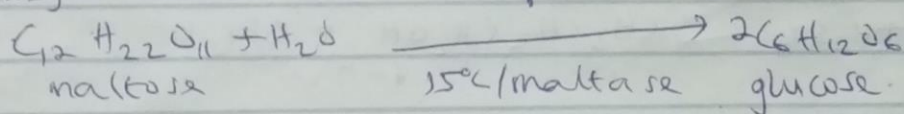
2 Lower alcohols with up to 3 carbon atoms in their molecules are soluble in water because they can form hydrogen bond with water molecules. All monohydric alcohols are soluble in organic solvents.

3 The starch-containing material is warmed with malt to 60°C for a specific period of time and converted to maltose by enzyme diastase

$$2 \text{ (C}_6\text{H}_{10}\text{O}_5)_n + n \text{H}_2\text{O} \xrightarrow{60^\circ\text{C}/\text{diastase}} n \text{C}_{12}\text{H}_{22}\text{O}_{11}$$

Carbohydrate maltose

④ The maltose is broken down into glucose on addition of yeast which contains enzyme maltase and at a temperature of 15°C .



⑤ The glucose at constant temperature of 15°C is then converted into alcohol by enzyme Zymase contained in yeast

