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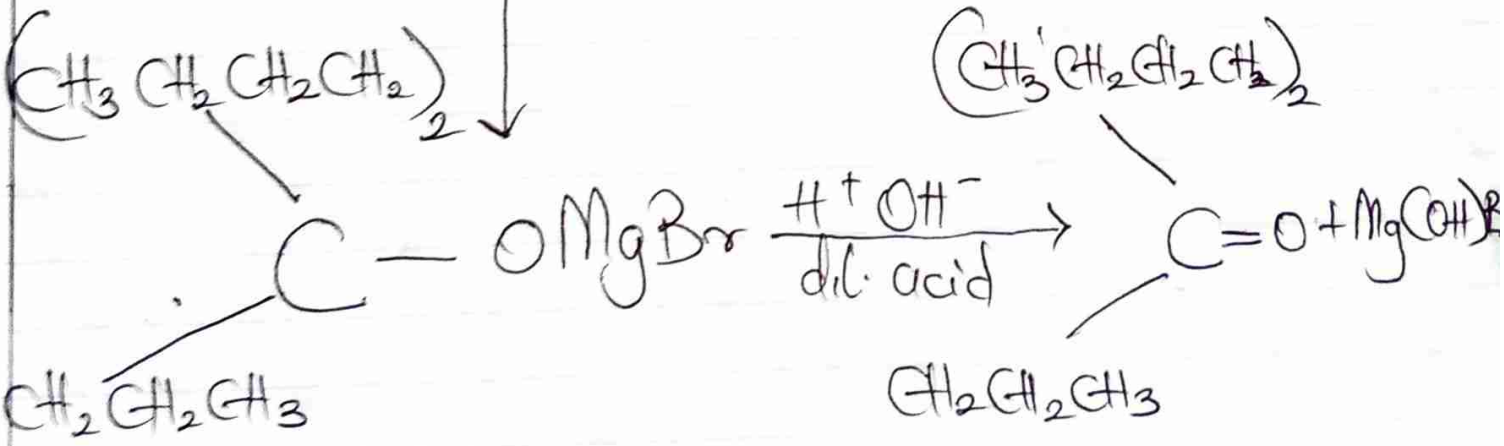
1 This is based on the number of hydrogen atoms attached to the Carbon atom containing the hydroxyl group.
Example;
CH_3OH - Methanol (1°)
$CH_3CH(OH)CH_3$ - Propan-2-ol (3°)

b This is based on the number of hydroxyl group they Possess.
Monohydric Alcohols have one hydroxyl group present in the alcohol Structure.
Dihydric alcohol have two hydroxyl grop present in their alcohol structure
Trihydric alcohol have three hydroxyl group present in their alcohol structure.
Polyhydric alcohol have more than three hydroxyl group.
Example;
$CH_3CH_2CH_2OH$ - Propanol (Monohydric alcohol)
$CH_3CH(OH)CH(OH)CH(OH)CH(OH)CH(OH)CH_3$ - Heptane-2,3,4,5,6 pentaol (Polyhydric alcohol).

2 Named Grignard Reagent: Butyl Magnesium bromide ($CH_3CH_2CH_2CH_2MgBr$)

$CH_3CH_2CH_2CH_2MgBr + CH_3CH_2CH_2CH_2C=OCH_2CH_2CH_3$

↓ Forms an alkoxide.



3 Starch containing materials and on warming with malt to 60°C for a specific period of time are converted into mattose by the enzyme diastase contained in malt

$$2C(C_6H_{10}O_5)_n + nH_2O \xrightarrow[\text{diastase}]{60^\circ C} nC_{12}H_{22}O_{11}$$

Carbohydrate → mattose

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

$$C_{12}H_{22}O_{11} + H_2O \xrightarrow[\text{mattase}]{15^\circ C} 2C_6H_{12}O_6$$

mattose → glucose

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

$$C_6H_{12}O_6 \xrightarrow[\text{zymase}]{15^\circ C} 2CH_3CH_2OH + 2CO_2$$

glucose → Ethanol

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$$\begin{matrix} R \\ R \end{matrix}\!\!>\!C=O \xrightarrow[\text{or } LiAlH_4]{H_2(Ni \text{ or } Pt)Cat} RCH_2OH$$

Primary alcohol

$$\begin{matrix} R \\ R' \end{matrix}\!\!>\!C=O \xrightarrow[\text{or } LiAlH_4]{H_2(Ni \text{ or } Pt)Cat} RCH(OH)-R'$$

Secondary alcohol