

# Saved Photos

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Pharmacy

a)

Classification based on the number of atoms attached to the carbon atoms concerning the hydroxyl group: if the number of hydrogen atoms attached to the carbon atoms bearing the hydroxyl group are two or three they are called the primary alcohol. If there is one, it's called the secondary alcohol and if there is none it is called the tertiary alcohol. Eg

$\text{CH}_3\text{OH}$   $\longrightarrow$  methanol

$\text{CH}_3\text{CH}(\text{OH})\text{CH}_3$   $\longrightarrow$  propan-2-ol

b)

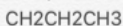
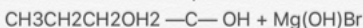
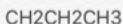
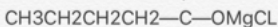
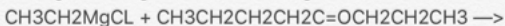
Classification based on the the number of hydroxyl groups they possess. Monohydric alcohols have one hydroxyl group present in its alcohol structure, dihydric alcohols have two present and trihydric have three present. Eg

$\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$   $\longrightarrow$  propanol

(monohydric)

$\text{HOCH}_2\text{CH}_2\text{OH}$   $\longrightarrow$  Ethan-1,2-diol(dihydric)

2) Grignard reagent  $\Rightarrow$   $\text{CH}_3\text{CH}_2\text{MgCl}$

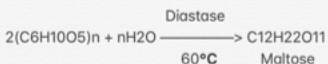


### 3). Manufacturing ethanol

Carbohydrates can be made to yield ethanol by fermentation.

The enzymes found in yeast break down the carbohydrates into ethanol to give a yield. The starch containing materials are warmed with malt to  $60^\circ\text{C}$  and are converted into maltose by enzymes.

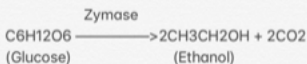
#### Diastase



Maltose is broken down into glucose by addition of yeast which contains which contains the enzyme Maltase at  $15^\circ\text{C}$ .

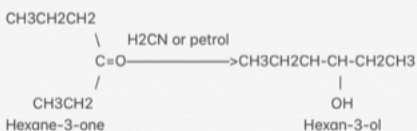


The glucose at constant temperature of  $15^\circ\text{C}$  is then converted to alcohol by the enzyme zymase.



4). Using Meerwein-Ponndorf's reaction :

Alkanone



Alkanol

