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ASSIGNMENT

1. A. Based on the number of hydrogen attached to the carbon carrying the functional group.

a. Primary alcohols: if the number of hydrogen attached to the carbon carrying the -OH is 2 or 3. Eg. CH3CH2OH- ETHANOL

b. Secondary alcohols: if the number of hydrogen attached to the carbon carrying the –OH is just 1. Eg. CH3CHOHCH3- PROPAN-2-OL

c. Tertiary alcohols: if there is no hydrogen atom attached to the carbon carrying the hydroxyl group.Eg. (CH3)3OH- 2METHYL-PROPAN-2OL

B. Based on the number of hydroxyl groups present in the compound.

a. Monohydric alcohols: they are alcohols with just one hydroxyl group. Eg. CH3CH2CH2OH- PROPANOL

b. Dihydric alcohols: they have 2 hydroxyl groups. Eg. CH2(OH)CH2(OH)- ETHAN-1,2-DIOL

c. Trihydric alcohols: they have 3 hydroxyl groups. Eg:PROPAN1,2,3-TRIOL---- CH2(OH)CH(OH)CH2(OH)

2. Alcohols especially those with 3 and less number of carbon atoms in their molecules are soluble in water because they can form hydrogen with water molecules. Also, all monohydric alcohols are soluble in organic solvents.

3. INDUSTRIAL PREPARATION OF ETHANOL

2(C6 H10 O5)n + 2H2O Diastase C12H22O11

Starch 600C Maltose

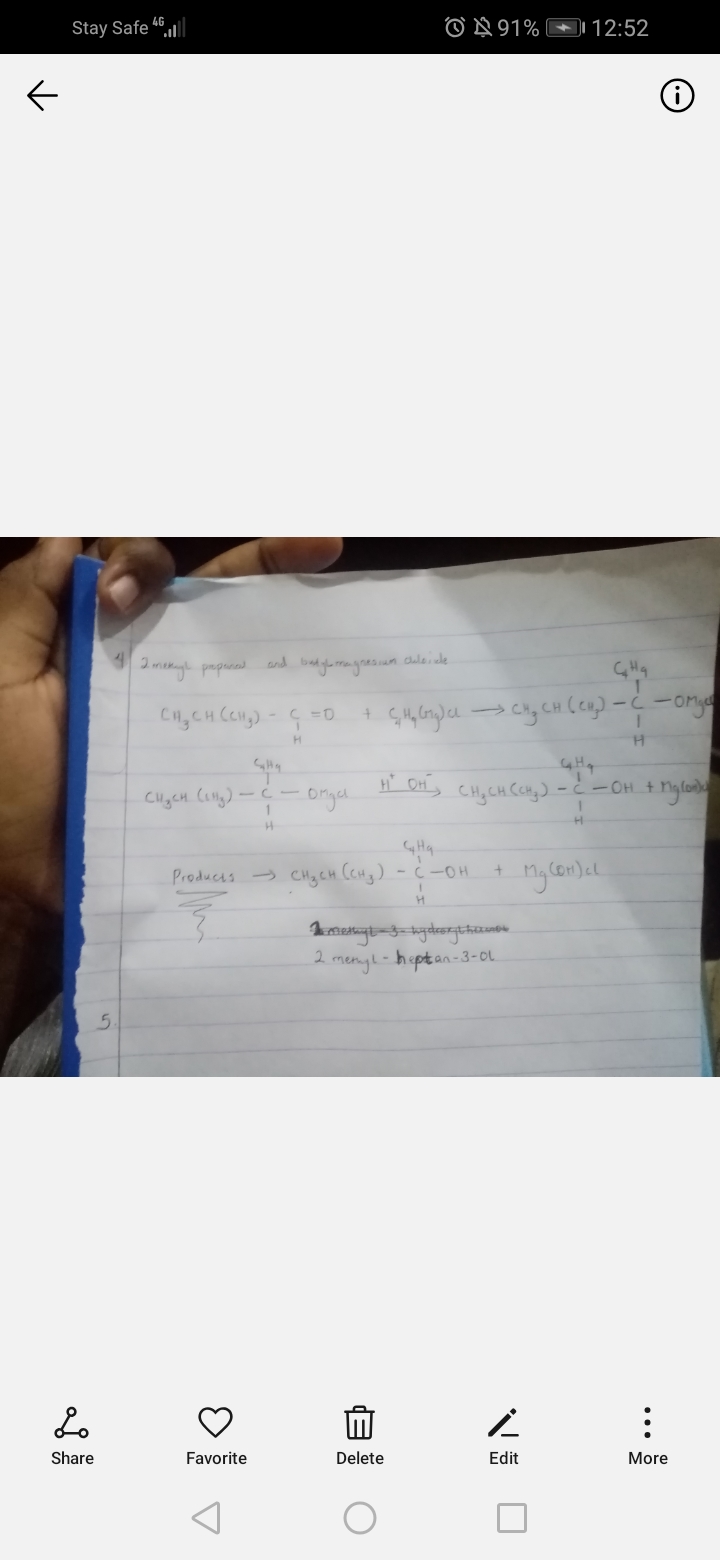
C12H22O11. + H2O Maltase. 2C6H12O6

Maltose 150c. Glucose

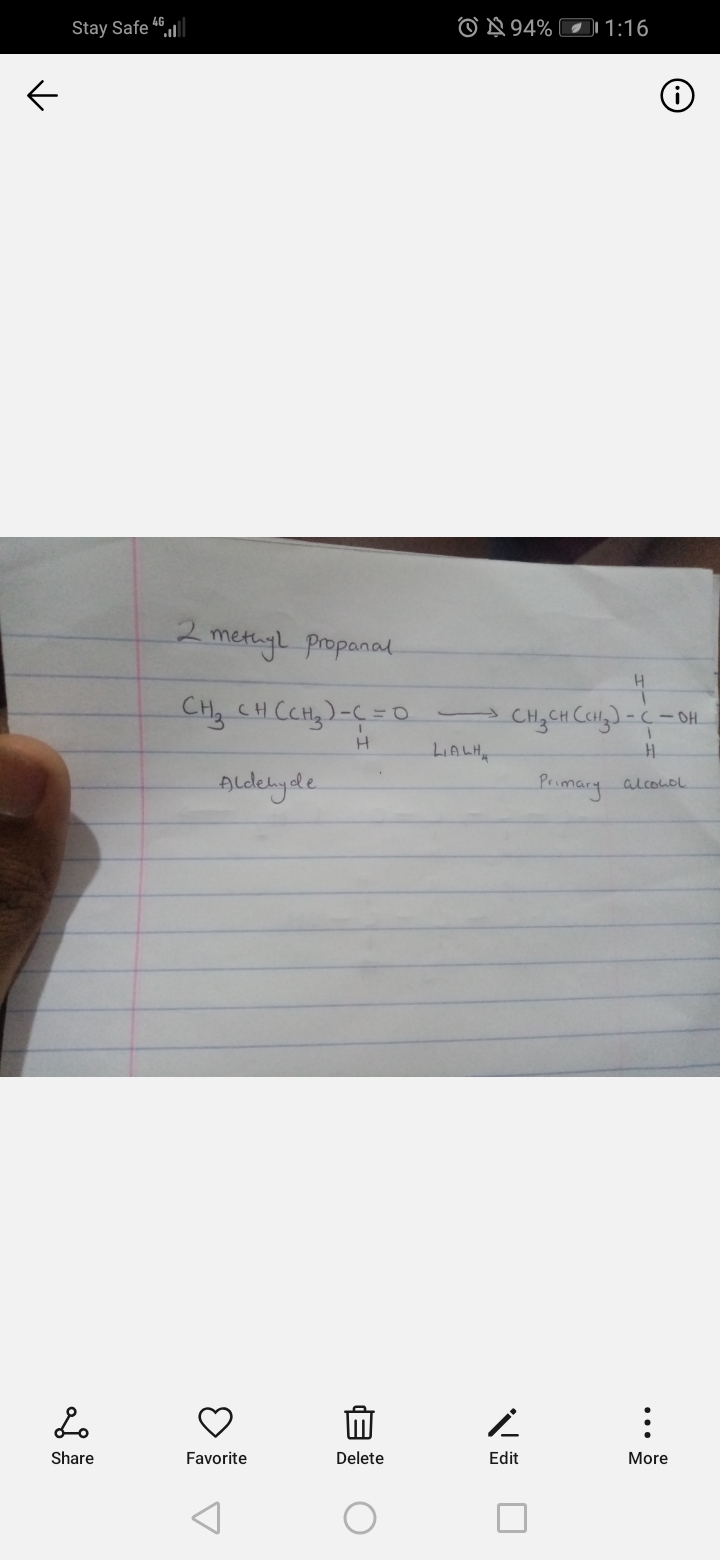
C6H12O6 Zymase. 2C2H5OH + 2CO2

Glucose. 150c. Ethanol. Carbon(IV)oxide

4. 2- Methyl propanal and butylmagnesiumchloride



7. reduction of 2 methyl propanal

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8.coversion of propan-1-ol to propan-2-ol