MADUBUKO KEREN-HAPPUCH AMARACHI

19/MHS09/014

GENERAL CHEMISTRY II ASSIGNMENT

1. (a) Classification of alcohols based on the number of hydrogen atoms attached to the carbon atom containing the hydroxyl group. It includes the primary, secondary and tertiary alcohols depending on the attachment of the hydrogen atom to the carbon atom. Examples are methanol (primary alcohol) and propan-2-ol (secondary alcohol).

(b) Classification based on the number of hydroxyl groups they possess. It includes monohydric, Dihydric, Glycols, trihydric and polyhydric alcohols. Examples are propanol and Ethane-1,2-diol.

2. CH3CH2CH2CH2C=OH2CH2CH3 + CH3MgCl → CH3CH3CH2CH2CH2COMgCl→CH3CH3CH2CH2H2C-OH + Mg(OH)Cl

3. Starch containing materials on warming with malt at 60◦C for a specific period of time are converted into maltose by the enzyme diastase contained in the malt.

2(C6H10O5)n + nH2O → nC12H22O11

It is then broken down into glucose on addition of yeast which contains the enzyme maltase and at a temperature of 15◦C

 C12H22O11 + H2O → 2C6H12O6

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

C6H12O6 → 2CH3CH2OH +2CO2

4. CH3CH2C=OH → CH3CH2CH2OH + H2O