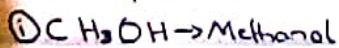


① Classification of Alkanols.

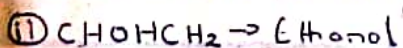
The two major ways of classifying alkanols/alcohols are as follows;

a) The number of hydrogen atoms attached to ~~each~~ the carbon atom carrying the OH.

Examples



This methanol is a primary alcohol because it has 3 hydrogen atoms attached to the carbon atom.

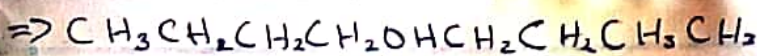
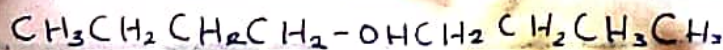
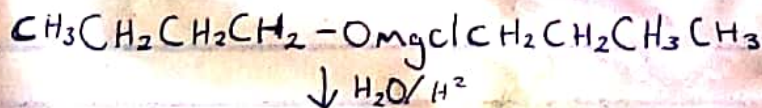
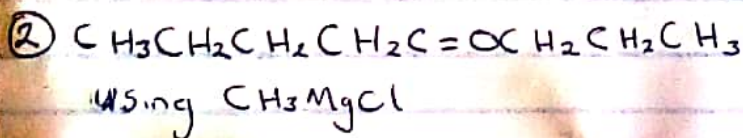


This ethanol is a secondary alcohol because it has only one hydrogen atom attached to the carbon atom carrying the OH.

b) The number of OH functional group(s) present in the equation

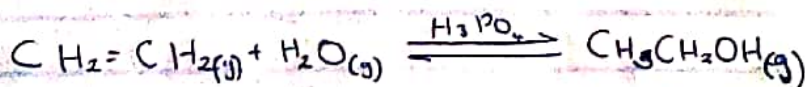
For 1 OH functional group \Rightarrow Monohydric alcohol

For 2 OH functional groups \Rightarrow dihydric/diol/glycolic alcohol

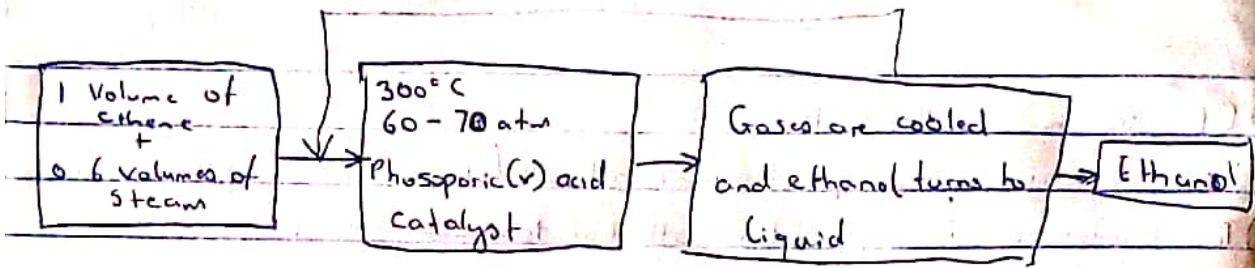


\Rightarrow Octanol.

③ Ethanol is manufactured by reacting ethene with steam. The catalyst used is solid silicon dioxide coated with phosphoric(V) acid. The reaction is reversible.

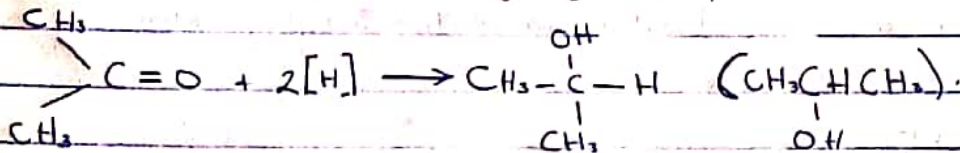


Only 5% of the ethene is converted into ethanol at each pass through the reactor. By removing the ethanol from the equilibrium mixture and recycling the ethene, it is possible to achieve an overall 95% conversion.



(4) The reduction of Alkanones produce secondary alkanols.

Example; With propanone you get propan-2-ol;



The reduction of Alkanals produce primary alkanols.

Example; With ethanal, you get ethanol;

