



## SNS COLLEGE OF TECHNOLOGY

## HARDNESS OF WATER

## Hardness

The property of water which prevents it from lathering.

## Hard water &Soft water

Water which does not produce lather with soap solution but produces white precipitate is called hard water and which produces lather readily with soap solution are called soft water.

 $2C_{17}H_{35}COONa + CaCl_2 \longrightarrow (C17H35COO)_2Ca \downarrow + 2NaCl$ 

 $2C_{17}H_{35}COONa + MgSO_4 \longrightarrow (C_{17}H_{35}COO)_2Mg \downarrow + Na_2SO_4$