Liquid Soap

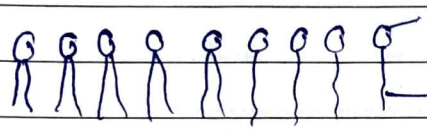
Chemical formula:

$C_{17}H_{35}COO^-$ + Metal Cation → Na^+ or K^+

→ final molecule is called as sodium or potassium stearate.

→ Depending on the metal cation, soaps are either potassium salts or sodium salts arranged as long chain carboxylic acids.

→ A soap molecule does two things - it bonds to both water and debris

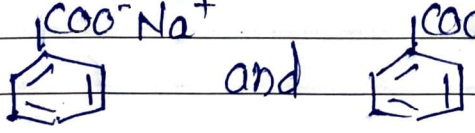


→ The head of the molecules is attracted and dissolves in water while the hydrocarbon tail is attracted to dirt and grease and repelled by water.

→ Soap is also a surfactant - it reduces the surface tension of water

Chemicals in Liquid Soap

1. Sodium Benzoate and Benzoic acid:



Role preservative.

2. Sodium Laureth Sulphate: (SLES)

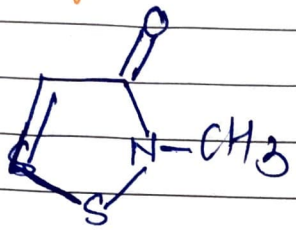
$CH_3(CH_2)_{10}CH_2(OCH_2CH_2)_nOSO_3Na$

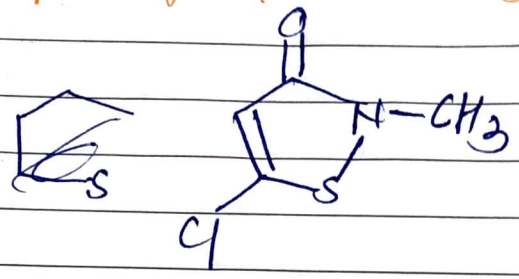
Anionic

→ Also known as sodium dodecyl sulphate

→ Role: surfactant and emulsifier.

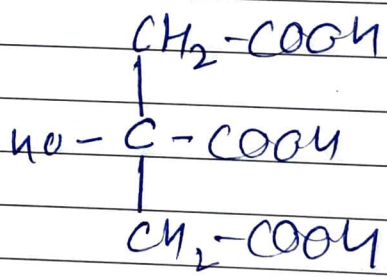
3. Methylisothiazolinone and Methylchloroisothiazolinone





→ Preservatives
→ Powerful biocides.

4. Cocamidopropyl Betaine:
→ Surfactant
→ It helps water clean effectively.
→ Act as thickening agent.
5. Fragrance
6. pH adjuster:
citric acid



→ NaCl
7. Dye: