

EXPERIMENT

Aim:

To compare the foaming capacities of five different commercial soaps.

Apparatus:

5 test tubes, 5 conical flasks (100 ml), test tube stand, Bunsen burner and stop watch.

Chemicals Required:

5 different samples of soap and distilled water.

Theory:

- The foaming capacity of a soap sample depends upon the nature of soap and its concentration.
- This can be compared for various samples of soaps by taking the same concentration of solution and shaking them.
- The foam is formed and the time taken for disappearances of foam in all cases is compared.
- The lesser the time taken by a solution for the disappearance of foam, the lower is its foaming capacity.

Procedure:

- Five conical flasks (100 ml each) are taken and numbered 1 to 5.
- In each of these flasks equal amounts (say 5 gm) of the given samples of soap shavings or granules are taken and 50 ml of distilled water is added.
- Each conical flask is heated few minutes to dissolve all the soap completely.
- In a test-tube stand, five big clean and dry test tubes are taken and numbered 1 to 5.
- One ml of the five soap solution is then poured in the test tubes of corresponding number.
- 10 ml. of distilled water is then added to each test tube.
- Test tube no 1 is then shaken vigorously 5 times.
- The foam would be formed in the empty space above the container.
- Stop watch is started immediately and the time taken for the disappearance of foam is noted.
- Similarly the other test tubes are shaken vigorously for equal number of times (i.e., 5 times) with approximately with the same force and the time taken for the disappearance of foam in each case is recorded.
- The lesser the time taken for the disappearance of foam, the lower is the foaming capacity.

Tabulations of the result are given below:

Observation:

Amount of each soap sample taken = 5 gm

Amount of distilled water taken = 50 ml.

Volume of each soap solution taken = 1 ml.

Volume of distilled water added = 10 ml.

S. No.	Name of the Soap	Soap Sample Time taken for the disappearance of foam (in secs)

Result:

The foaming capacities and hence the washing action of different soap samples are in the order :