

CERTIFICATE

This is to certify that *Mr. Pratyush Mishra* of Class XI 'B' has satisfactorily completed the project on "FOAMING CAPACITY OF SOAP" under the guidance of *Sir Francis Xavier* during the session 2009-2010.

Place: D-22 RDVV UNIVERSITY JABALPUR

Date:

(*Sir Francis Xavier*)

School Stamp

ACKNOWLEDGEMENT

I'd like to express my greatest gratitude to the people who have helped & supported me throughout my project. I'm grateful to Sir Francis Xavier for his continuous support for the project, from initial advice & encouragement to this day.

Special thanks of mine goes to my colleague who helped me in completing the project by giving interesting ideas, thoughts & made this project easy and accurate.

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EXPERIMENT 1

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.
Materials Required:	5 different samples of soap and distilled water
Theory:	<p>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.</p> <p style="padding-left: 40px;">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.</p>
Procedure:	<ul style="list-style-type: none"> ➤ 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.

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.	Soap Sample	Time taken (seconds)
	1.		
	2.		
3.			
4.			
5.			
Conclusions:	The soap for which the time taken for the disappearance of foam is highest has maximum foaming capacity and is the best quality soap among the soaps tested.		

Observation:	Amount of each soap sample taken	= 0.5 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.	Water used	Time taken (seconds)
	1.		
	2.		
	3.		
Conclusions:	Foaming capacity of soap is maximum in distilled water. The foaming capacity of soap increases on the addition of Sodium Carbonate.		

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