

## **Product Quality Not Compromise With Quantity Of Some Daily Life Usuable Product**

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### **ABSTRACT**

Present study describes some daily life usable product. From these products which are easily available in the market and cost effective as well as quantitative, they can not work properly. For this problem we experiment two products such as, Sofwash White Pearl Soap and Stericlean floor cleaner (Modi Care Product) with marketable different soaps and floor cleaners. Surface tension study was also done. From this study it may be concluded that Modi care Sofwash soap and Stericlean floor cleaner was better and qualitative in the today's market.

**Key words:** Modi Care, Sofwash soap, Stericlean Floor Cleaner, Qualitative, Quantitative

### **INTRODUCTION**

To continuation our earlier studies [1,2] it has been found that how surface tension and cleansing action shows in different shampoos, washing materials etc. Here we study the quality of some daily life usable products which shown good quality not to compromise its quantity. Average people have to tendency to collect quantitative product with low cost and also along with some free products. But for this type of bad practice we suffer different skin disease problems and health hazards. For long term consumable bad products causes fatal disease also.

Due to these type of problems we try to motivate peoples that if we think better tomorrow then our visualization also changes in different ways. Here we study of some soaps and floor cleaners for our daily life usable materials.

To clear the floor we use floor cleaner to safe and security for us from dirty, slippery and also accident [3]. To remove dust allergens, antibacterial activities also prevent to use floor cleaner. Different floor cleaners [4] are used for this purpose. The treatment patterns are different for different cleaners.

Due to slipping hazards in floor, cleansing method is needed that involve water or other liquid or without liquid [5,6]. Tea leaves are used to collect dirty from carpets and remove odours [7]. Different types of tiles (kitchen, floor, bathroom etc.) were cleared by the floor cleaners and their cleansing actions are different [8,9].

Soap plays an essential role for good skin for all. Different types of soaps were invented in different years. In 1865, William Shepphard patented a liquid version of soap [10]. In 1898, B. J. Johnson introduced a soap derived from palm and olive oils. In the same year, the B. J. Johnson Company introduced 'Palmolive' brand soap [11]. After that the soap company changes their company name [12]. After that in 2013, S. Garzena et al introduces the method of natural soap making. Different types of simple and quick processes are employed in small scale industries all over the world [13].

In 2014, antibacterial soaps were introduced which product might encourage antibiotic resistance in microorganisms [14]. Till today researchers tries to improve quality of different types of manufacture of soaps.

## EXPERIMENTAL

### Materials

Household substances i.e, Vivel, Dove, Sofwash (Modicare Soap), Lizol, TetraClean, Stericlean (Modicare Floor Cleaner) are use to determinethe surface tension in aqueous solution at 20°C.

Betadine Solution (Sastasundar HealthBuddy Ltd), Ujala (Jyothy Laboratories Limited, W.B.)

### Apparatus

a) Stalagmometer fitted with rubber tubing and pinch cock b) Burette stand with clamp c) Burette d) Pipette e) Beaker f) Specific gravity bottle g) Digital Balance

### Preparation of soap solutions and Floor cleaner solutions

One gm of each soap was dissolved in 30 ml. of distilled water. Then shake it rigorously and after that solutions were settled for 30 minutes. In the same way ( 1 ml ) floor cleaner solutions were prepared.

### Surface tension study

Then surface tensions of the above solutions were measured by Stalagmometer at 20°C.

## RESULTS AND DISCUSSIONS

### Easy test of Soap solutions in Home :

For this test we are taking three different soaps. These are Sofwash (Modicare soap), Dove, Vivel. At first, we take three different beaker with 100 ml of distilled water & mixing with 2 ml of **Betadine** in each beaker. Colours were turned into **brown**. Then in beaker-I, Sofwash was dipped in it. In the same way, in beaker-II, Dove soap was dipped and in beaker-III, Vivel soap was dipped. After 5 minutes the brown colour of beaker-I was totally disappear, but there was no colour change in beaker-II & beaker-III. After 30 minutes the brown colour of beaker-II (dipped in Dove soap) was slightly faded. But in beaker-III, there was no significant brown colour changer after 30 minutes. After 1 hour

the brown colour of beaker-III was lightly faded to some extent. Brown colour changes patterns : Sofwash> Dove>Vivel.

### Easy test of Floor Cleaner solutions in Home :

For this test we are taking three different floor cleaners. These are Stericlean (Modicare floor cleaner), Lizol, Tetraclean. At first, we take three different beakers with 100 ml of distilled water & mixing with 0.5 ml of **Ujala** in each beaker. Colours were turned into **blue**. After that in beaker-I, addition of 5 ml Lizol; in beaker-II, addition of 5 ml of Tetraclean and in beaker-III addition of 0.5 ml of Stericlean were made. Then within 1 minute in beaker-III, blue colour changes to white. But in beaker-I and beaker-II, there was no colour changes after 10 minutes. After 20 minutes, it was found that deep blue colour changes to light blue but not in white. Blue colour changes patterns: Stericlean> Lizol>Tetraclean.



**Fig1. How surfactant reduces surface tension of liquid**

Fig 1 shows reduction of surface tension with the help of surface active agents i.e, the surfactant molecules migrate to the surface with their hydrophobic ends through very weak dispersion forces sticking out, effectively creating a new surface. Because hydrocarbons interact only, this new surface has a greatly reduced surface tension.

**Table 1. Temperature, Density and Surface tension of the reference liquid water**

| W | Temperature | Density(gm/cc) | Surface tension(Dyne/cm) |
|---|-------------|----------------|--------------------------|
| A | 20°C        | 0.99823        | 72.75                    |
| T |             |                |                          |
| E |             |                |                          |
| R |             |                |                          |

Table 1 shows the surface tension and density data of water at 20°C.

Using Stalagmometer fitted with rubber tubing and pinch cock we calculate the drops of different soap solutions. Knowing the data of water at 20°C, we can easily calculate the surface tension value of different soap solutions. Density of these soap solutions were measured by Specific gravity bottle method with the help of digital balance. Table 3 shows the density and surface tension of these soap solutions.

**Table 2. Density Vs. Surface tension of different soap solutions**

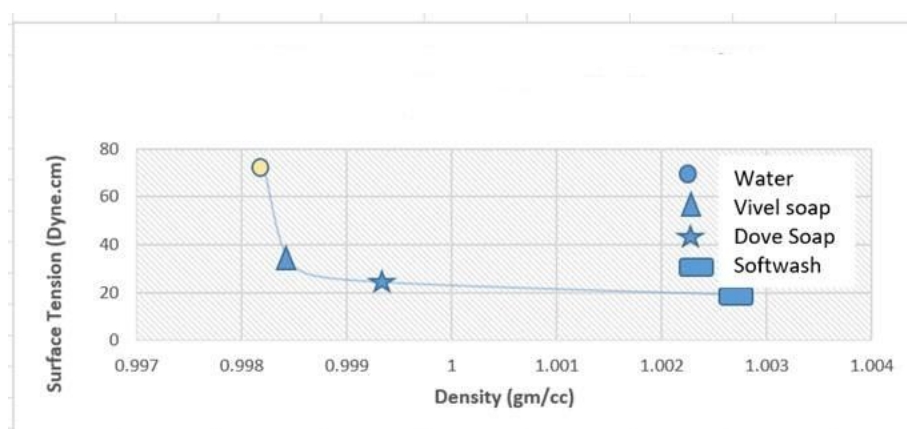
| Substances                 | Density (gm/cc) | Surface tension(Dyne.cm) |
|----------------------------|-----------------|--------------------------|
| 1.Water                    | 0.99823         | 72.75                    |
| 2.Vivel Soap               | 0.9985          | 30.60                    |
| 3.Dove Soap                | 0.9993          | 24.30                    |
| 4. Sofwash (Modicare Soap) | 1.0028          | 18.75                    |

Using same procedure we calculate the density and surface tension of some floor cleaners. Table 4 shows the density and surface tension data of these floor cleaners at 20<sup>0</sup>C.

**Table 3. Density Vs. Surface tension of different floor cleaner solutions**

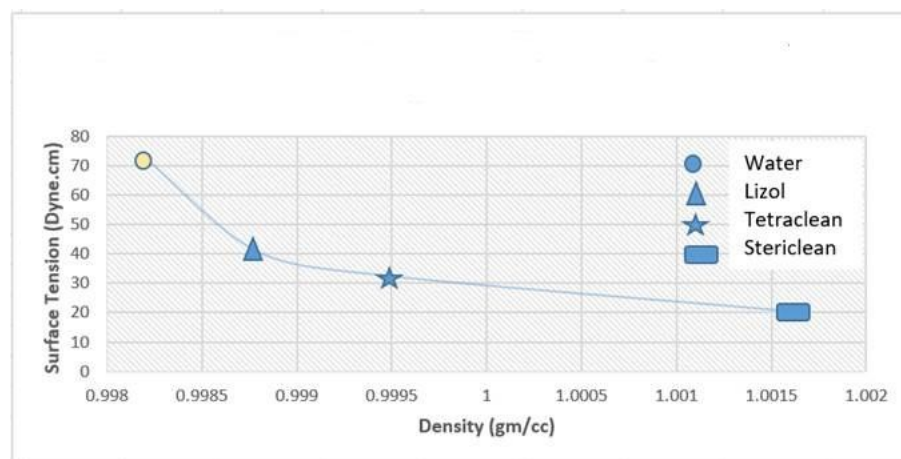
| Substances                             | Density (gm/cc) | Surface tension(Dyne.cm) |
|----------------------------------------|-----------------|--------------------------|
| 1.Water                                | 0.99823         | 72.75                    |
| 2.Lizol                                | 0.9988          | 40.45                    |
| 3.TetraClean                           | 0.9995          | 32.25                    |
| 4. SteriClean (Modicare Floor Cleaner) | 1.0056          | 20.35                    |

Table 2 and Table 3 show the data of Density vs Surface tension of soap and floor cleaner respectively. From these tables it has been noted that low surface tension of Sofwash and Stericlean. These two Modi Care Products are act as good surface active agents.



**Fig 2. Plot of Density vs. Surface tension of different soap solutions at 20<sup>0</sup>C.**

From surface tension study it has been found that density (measured by sp. Gravity bottle method) of Softwash soap is greater than the others. As well as surface tension of Softwash is also low. It was reflected in the Fig 2.



**Fig3. Plot of Density vs. Surface tension of different floor cleaner solutions at 20°C.**

Also from Fig 3. The density vs. Surface tension plot, Stericlean (Modicare floor cleaner) shows low surface tension (acts as good surface active agents) than the others.

This experiment was further carried out by (22ml water+5ml Bengene+0.02ml soaps) this solution. Here we observed that the trend of the densities of these soaps were same as above. Same experiment was carried for floor cleaners, tendency of densities were same.

We test the additivity rule for these solutions to check the densities of the soaps. Here we also found that the density patterns of the soaps are same as above. So, additivity rule helps us to determine the density of these soaps as well as floor cleaners.

From the above study we see that Modi care soap (Softwash) and floor cleaner (Stericlean) show better surface active agent in our daily life. Small amount shows better performance. Modi care products (near about different types of 1000 products in the market) are to some extent costly but it is qualitative product and to safe our skin, health as well as our life.

## CONCLUSIONS

Our aim for concern human health to use proper healthy product not only low cost quantitative product but also qualitative product. For this study we attempt different marketable soap and floor cleaners. From this study it has been noted that small amount cause large changes. It is the beauty of this study due to they act as good surface active agents. Out of 1000 different Modi Care Products these two products show better result as well as our health friendly. In every product it was written by Modicare that “100% satisfaction guarantee”.

So, from this study it may be mentioned that in today’s market Modi care products are health friendly and quality product in our daily life. If we change our vision at low cost quantitative product then we damage our health day by day without consciousness.

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