



A REVIEW ON COSMETIC PRODUCTS "SHAMPOO"

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ABSTRACT -: Hair is an important part of the body appeal and its look is a health indicator. Accordingly, recent advances in hair science and hair care technologies have been reported in literature claiming Innovations and strategies for hair treatments and cosmetic products. The treatment of hair and scalp, primarily, involved the use of shampoo for an effective, but gentle cleansing; however, for years, the shampoo is considered not only as a cosmetic product having the purifying purpose, but it is also responsible for maintaining the health and the beauty of hair, imparting gloss and improving manageability. For meeting the needs of a multitasking formulation, following also the recent marketing-trend addressed to the "natural world", new challenges for cosmetic technology are aimed towards the research of natural ingredients, as well as new techniques for shampoo formulation. Regarding the recent development of solid shampoos, little information is available about their use, formulation and advantages. This review is largely focused on the description of solid shampoos, mainly based on the use of clays, herbs or flours as washing bases alternative to the traditional ones, consisting of a combination of synthetic surfactants, together with other usual ingredients expected in a shampoo formulation.

INTRODUCTION :-

As far back as ancient time, people use natural extracts and resources for health care and cosmetic purposes. Accordingly, nowadays, consumers' demand for natural ingredients and additives, especially in cosmetic products, as a replacement of synthetic compounds, having possible negative effects on health and the environment, is tremendously increased. Therefore, with the aim to satisfy these requirements, together with the impelling need for reducing the microplastic use, marketing trends are developing towards a cosmetic based on natural ingredients, generally associated with a healthy lifestyle, both in food and cosmetic fields (i.e., hair care) [1,2]. Interestingly, besides the development of products mainly devoted to skin care, several cosmetic industries are focusing on hair care, with the production of safety products and eco-friendly packaging, paying attention to their action. Indeed, for example, in recent literature, the ethnicity appears as an important key factor to take into account in the clinical observation, management, and treatment of skin and hair disorders [3,4].

DEFINITION -: A shampoo is a preparation of a surfactant (i.e. surface active material) in a suitable form – liquid, solid or powder – which when used under the specified conditions will remove surface grease, dirt, and skin debris from the hair shaft and scalp without adversely affecting the user.

• IDEAL PROPERTIES OF A SHAMPOO -:

1. It should effectively and completely remove dust or soil, excessive sebum or other fatty substances and loose corneal cells from the hair.
2. It should produce a good amount of foam to satisfy the psychological requirements of the user.
3. It should be easily removed on rinsing with water.
4. It should leave the hair non -dry, soft, lustrous with good manageability and minimum fly away.
5. It should impart a pleasant fragrance to the hair.
6. It should not cause any side-effects / irritation to skin or eye.
7. It should not make the hand rough and chapped.[5,6]



Figure :- external structure of two' different company shampoo

TYPES OF SHAMPOO:-

Shampoos are of the following types:

Powder Shampoo

Liquid Shampoo

Lotion Shampoo

Cream Shampoo

Jelly Shampoo

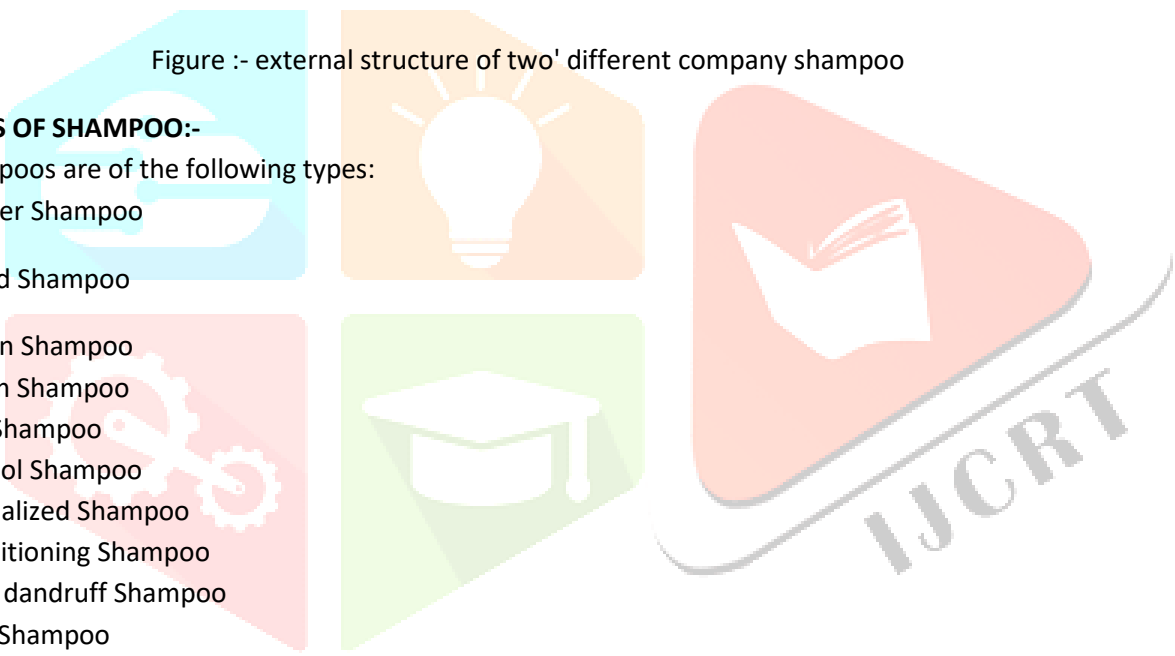
Aerosol Shampoo

Specialized Shampoo

Conditioning Shampoo

Anti- dandruff Shampoo

Baby Shampoo



FORMULATION :-The different types of Shampo have different there' formula of ingredients[7,8]

| POWDER SHAMPOO | |
|---------------------|-------|
| Henna powder | 5% |
| Soap powder | 50% |
| Sodium carbonate | 22.5% |
| Potassium carbonate | 7.5% |
| Borax | 15% |
| Perfume | q.S |

| LOTION SHAMPOO | |
|------------------------|-----------|
| TLS | 35% |
| Glyceryl monostearate | 2% |
| Magnesium stearate | 1% |
| Water | Upto 100% |
| Color | q.s |
| Perfume, preservatives | q.s |

| LIQUID SHAMPOO | |
|-------------------------------|-----------|
| SLS | 40% |
| NaCl (to desired viscosity) | 2-4% |
| Water | Upto 100% |
| Perfume, color, preservatives | q.s |

| CREAM SHAMPOO | |
|----------------|-----------|
| SLS | 38% |
| Cetyl alcohol | 7% |
| Water | Upto 100% |
| Color, perfume | q.S |
| Preservative | q.s |

| AEROSOL SHAMPOO | |
|------------------------------|----------|
| TLS | 60% |
| Coconut diethanolamide | 2% |
| Water | Upto 90% |
| Propellent | 10% |
| Color, perfume, preservative | q,.s |

| JELLY SHAMPOOS | |
|--------------------------------------|-----------|
| Alkyl dimethyl benzalkonium chloride | 15% |
| TLS (40%) | 28% |
| Coconut ditethanolamide | 7% |
| HPMC | 1% |
| Water | Upto 100% |
| Color, perfume, preservative | q.s |

EVALUATION OF SHAMPOO

- 1- Foam and foam stability
- 2- Detergency and cleaning action
- 3-Effect of water hardness
- 4- Surface Tension and wetting
- 5- Surfactant content and analysis
- 6- Rinsing
- 7-Conditioning action
- 8- Softness

- 9- Luster
- 10-Lubricity
- 11- Body, texture and set retention
- 12- Irritation and toxicity
- 13- Dandruff control
- 14- Microbiological assay
- 14- Eye irritancy test

1. Foam and foam stability:

- The Ross-Miles foam column test is accepted. 200 ml of surfactan solution is dropped into a glass column containing 50ml of the same solution. The height of the foam generated is measured immediately and again after a specified time interval, and is considered proportional to the volume.
- Barnett and Powers developed a latherometer to measure the effect of variables such as water hardness, type of soil and quantity of soil on foam speed, volume and stability.
- Fredell and Read titrated actual standard oiled heads of hair with additive increments of shampoo until a persistent lather end point appeared.

2. Detergency and cleaning action:

- Cleansing power is evaluated by the method of Barnet and Powers
- 5gm sample of soiled human hair is placed at 35°C in 200 cc of water containing of 1 gm of shampoo. The flask is shaken 50 times a minute for 4 minutes. Then washed once again with sufficient amount of water, then after filter the hair dried and weighed.
- The amount of soil is removed under these condition is calculated.

3. Wetting Action:

- Canvas disk sinking test: A mount veron cotton duck # 6 canvas disk inch in diameter, is floated on the surface of a solution, and the time required for it to sink is measured accurately.

4. Rinsing:• Skilled beauticians are employed to make comparisons on the performance of several shampoos.

5. Conditioning Action:

- Conditioning action is a difficult property to assess. This is because it is basically dependent on subjective appraisal.
- No method has been published for measuring conditioning action.

- The degree of conditioning given to hair is ultimately judged by shampoo user who is making the evaluation on the basis of past experience and present expectations[.9,10]

CONCLUSION :-

Shiny hair having a smooth texture and clean-cut ends is generally perceived to be healthy. In recent years, the consumers' demand of product for hair care is increased, especially in the field of natural products. Thus, this review focuses on hair care and technologies known in the cosmetics, highlighting the importance of shampoo in different form and formulations. Information about traditional shampoo, herbal shampoo and solid shampoo are reported. Since there is information available about the liquid and herbal shampoo, more information about the solid shampoo is reported, focusing the attention, among ingredients, on natural clays. Indeed, the general use of natural ingredients is strengthened during the review, bringing out the importance of clay in solid shampoo

formulations. An overview about the clay importance is reported describing the properties and advantages of this mineral ingredient. Solid shampoo as a multitasking product for consumers looking for hair care cosmetics that are ecofriendly and effective in cleansing is described well. Specifically, this cleansing must be "mild", in order to respect the physiology of hair and scalp, leaving a feeling of softness and shine on the hair in order to maintain its well-being. However, this does not mean that clay-based solid shampoos, i.e., containing, for example, Rhassoul clay, are better than other shampoos formulated with

washing herbs or washing flours, but, they should rather be considered as an alternative to traditional products, exhibiting several advantages.

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