

RECENT DEVELOPMENT ON COSMETIC SCIENCE

Gauri Lahane¹, Gayatri Gadge², Pramod Bhosale³, Vitthal G. Kuchake⁴

^{1,2} Student, Ojas College of Pharmacy, Jalna-431203, Maharashtra.

³ Guide & Assistant Professor, Ojas College of Pharmacy, Jalna-431203, Maharashtra.

⁴Principal, Ojas College of Pharmacy, Jalna-431203, Maharashtra.

ABSTRACT:

Cosmetics are constituted mixture of chemical compound. Obtain either natural sources or created synthetically. Cosmetics are used to different type of purposes. Those mainly prepared for personal care and skin care or also used to the purpose of protection of the body or skin.

The main aim of the presence study is to prepare and evaluate the herbal shampoo to determine the physicochemical, efficiency and quality. Different natural sources are used as mixture of cosmetic preparation.

Cosmetic preparation is prepared by using different type of instrument such as spray dryer, freeze dryer etc. on the large scale or small-scale basis the main advantage of herbal cosmetic preparation produces less side effect and safe.

INTRODUCTION

COSMETIC SCIENCE

“Cosmetic means any article intended to be rubbed, pour, sprinkled, or sprayed on, or introduce into, or otherwise applied to, the human body or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance and includes any article intended for use as a component of cosmetic.

Cosmetic are the constitute mixture of chemical compound derive from either natural source "Cosmetic" means any article intended to be rubbed, poured, sprinkled or sprayed on, or introduced or synthetically created ones

Cosmetics have various purpose Those designed for personal care and skin care can be used to cleanse or protect the body or skin.



Figure 01: Cosmetics Preparation

ICH guidelines for stability study:

A stability study should include the following considerations,

- Identify tests that will “accelerate and predict” the effects of normal conditions of

Storage and use. Where relevant, consider stresses, including temperature, that will enable assessment of product integrity under anticipated product exposure conditions.

- Consider evaluation of critical aesthetic properties such as color, fragrance, texture, And flow, particularly after exposure to conditions designed to stress each specific Property.

- Consider variation in process conditions.

- Consider the impact of packaging on the contained product, as well as any effects Which the product might have on the packaging.

TYPE OF HERBAL COSMETIC

Skin care	Hair care	Other
Skin cleansers	Detergents	Colours
Moisturizers	Conditioners	Perfumes
Nourishers	Nourishers	Talcum powders
Antiseptics	Hair colorants	Oral care product
Soothing agent	Hair growth promoters	
Sunscreens	Antidandruff	
Antiwrinkle		

Table 01: Types of Herbal Cosmetics

INSTRUMENTS USED IN COSMETIC SCIENCE

- 1) Brookfield viscometer
- 2) Tablet punching machine
- 3) Capsule filling machine

- 4) Spray dryer
- 5) Freeze dryer
- 6) Homogenizer
- 7) Ultrasonicator
- 8) Colony counter

SPRAY DRYER

PRINCIPLE:

The spray dryer provided large surface for the heat and mass transfer by atomizing the liquid into small droplets. These are sprayed in a stream of hot air that each drop dries to get a solid particle.

CONSTRUCTIONS:

It consists of drying chamber having conical base. It is made of stainless steel. The inlet for hot air is also provided at bottom and another inlet for spray disk atomizer at the top. Atomization may be achieved by means of single fluid or two fluid nozzles. The drying chamber is connected to cyclone separator. The dry product is collected from the bottom cyclone separator.

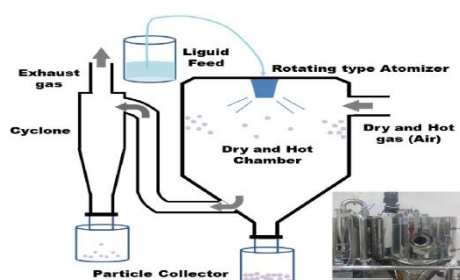


Figure 02: Spray dryer

WORKING:

Spray drying process can divided into 4 sections

1. Atomization of the fluid



2. Mixing of the droplets.



3. Drying



4. Removal and collection of the dry particle.

ADVANTAGES:

1. The process of drying complete within the 3 to 30 sec.
2. Less labour cost.
3. Solution or suspension dried easily.

DISADVANTAGES:

1. Difficult to operate.
2. Expensive.
3. Thermal efficiency is low.

APPLICATIONS:

1. Spray dryer can be used for drying both solution or suspension.
2. Spray drier are very useful for the drying of heat sensitive substance.
3. Milk, Soap, Detergants are also dried by a spray dryer.

FORMULATION AND EVALUATION

HERBAL SHAMPOO

FUNCTION OF HERBAL SHAMPOO:

1. Conditioning
2. Hair Growth
3. Maintenance of Hair Colour
4. Medication

ADVANTAGES:

1. Cleansing properties
2. Improving hair hygiene.
3. Treating scalp conditions
4. Treatment for dry scalp
5. Treatment for hair loss

DISADVANTAGES:

1. less stable, so preservative should be added
2. seasonal variation of plant constituent
3. vary in consistency from batch to batch.

FORMULATION OF HERBAL SHAMPOO

Formulation of the herbal shampoo was done as per the formula. To the gelatin solution 10%, added the herbal extract and mixed by the shaking continuously at the time interval of 20 min. 1 ml of lemon juice was also added with constant stirring. To improve aroma in the formulation, sufficient quantity of essential oil (rose oil) was added and made up the volume to 100 ml with gelatin.

Ingredient	Medicinal use
Neem	Antibacterial agent
Soap nut extract	Foaming agent
Amla extract	Antidandruff agent
Shikakai extract	Detergent

Hibiscus	Conditioning agent
Bhringraj extract	Hair growth
Aloe vera	Moisturizing agent
Gelatin	Gelling agent
Lemon juice	Antimicrobial agent

Table 02: Uses of plant

EVALUATION OF HERBAL SHAMPOO

1. physical appearance
2. PH
3. Solid content
4. Surface tension
5. Wetting time
6. Foaming ability and foaming stability
7. Dirt dispersion test
8. Conditioning performance

Some Marketed Preparation of Herbal shampoo

1. HIMALAYA ANTI HAIR FALL SHAMPOO

Features and review

- Lathers less as it clarifies
- reduce hair fall
- shampoo has soft floral fragrance that is nice and mild



2. INDULEKHA BHRINGHA ANTI HAIR FALL SHAMPOO

Review and feature

- Gives deep conditioning and anti-breakage benefits to your hair
- Good for everyday use
- Leaves your hair stronger



CONCLUSION

We understand the concept of cosmetic, cosmetic science, drug industry, drug and cosmetic act 1940 and 1945, licensing and documentation, After completion of this cosmetic science report. We also gain the knowledge about different type of instrument their working, construction and their handling that commonly used in different type of cosmetic preparation. Herbal cream is the viscous preparation that purely obtain from the natural sources and provide most effective safe result to the hair and minimize the chances of side effect.

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