

Formulation and Evaluation of Herbal Face Toner

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Abstract: *Natural remedies have lesser side effects, secure and also acceptable than chemical ones. In the world market, formulations with natural ingredients have more accessible. For delivering the drug immediately to the site of action, which gives prolonged action is the benefits of topical drug delivery system. Skin is the main path of delivery of drug in TDDS. The ingredients are easily available which are being used. They are not only easily available but also has nutritional value from topical point of view and more economical. To formulate and evaluate the formulation is the motive of this project. It is natural and safe herbal preparation which gives calming, soothing and astringent effect on the face. The natural ingredients like aloe vera, cucumber also the peppermint, lemongrass and rose water used in the formulation. It having ability to reduce the facial irritation as well as to enhance beauty. We can use it in our daily busy schedule. Face toner is estimated for its physicochemical properties, surface tension, pH and stability. Most popular advantages of herbal cosmetics are, they are non toxic in nature and they having tendency to reduce allergic reactions. The main reason behind this study, we found good properties of the face toner.*

Keywords: Toner, Aloe vera, Cucumber, Pimper mint, Lemmon grass

I. INTRODUCTION

Cosmetics: Cosmetics may be defined as the substance which is derived from synthetic and naturally occurring chemical constituents used to maintain the human body appearance. The skin is protected by the various cosmetics and it keep the skin in good condition. Cosmetics are the substance which are used to enhance and beautify the appearance of human body.

Herbal cosmetics: Because of less side effects the herbal products having more demand and they are easily available. In these days, In cosmetic preparations the use of herbal ingredient was increased because they are less toxic and have more effective than synthetic. In these days, looking attractive, good- looking and beautiful than original age, is directly influenced on the demand of cosmeceuticals in the market.

Herbal face toner: Toner is water based totally liquid which contains energetic components to cleanse the skin, keeping skin pH stable, shrink pores and grant an immediately glow. Before washing your face, it removes the dirt and impurities which are stuck on pores of skin. When brought to daily routine of skin treatment and used regularly, it having major positive impact on the appearance and ageing skin. It has an antioxidant property which hydrates the skin.

Effect of toner on the skin: After cleansing of the face the leftover makeup was eliminate by the toner, act as a secondary cleansing agent, which prepare th skin for nourishment. Alcohol-based and non-alcohol based are two category of toner, it is used for oily, sensitive and combination type of skin.

1.1 Types of Toner:

1. **Skin fresheners or bracers:** It is moderate form of the toner. The toner having water and glycerine (humectant). Humectant moisturize the skin surface. Rosewater is the popular example of it. It is most suitable for normal, dehydrated and sensitive skin.
2. **Skin tonics:** Skin tonics are normally stronger and having small amount of alcohol (up to 20%), water and a humectant ingredient. Good example of a skin tonic is orange flower water. Skin tonics are acceptable for use on the oily skin.
3. **Acid toner:** These are a strong form of toner that typically contains alpha hydroxy acid and or beta hydroxy acid. Glycolic, Lactic, and Mandelic acids are the most commonly used alpha hydroxy acids, best suited to

exfoliate the surface of the skin. Salicylic acid is the most commonly used beta hydroxy acid best for exfoliating into the deeper layers of the skin.

4. **Astringents:** Astringents are the strongest form of toner and they contain a high amount of alcohol (20–60%), water, antiseptic ingredients and a humectant ingredient. These can be damaging and irritating to the skin, because they can remove excess protective lipids in the skin, when they uses high amount of alcohol.

1.2 Advantages of Skin Toner

1. Toners get rid of such remaining impurities to supply your face an additional and complete cleanse.
2. The appearance of pores can minimize by regular use of the toner.
3. Toners are helpful to reinstate the pH balance of the skin.
4. Toner has a tendency to soak quickly into the skin, giving it an instant boost of hydration.

They are good humectants since they contain substances like glycerin. It means they aid in the absorption of moisture through the skin. They prepare the skin so that it can absorb the serums and creams that will be used in the future.

1. Toners can make your skin feel instantly refreshed.
2. Toners are water-based liquids with calming and anti-inflammatory characteristics that can help prevent infections and breakouts. They are crucial in the prevention of skin infections.
3. A toner adds a layer of protection to your skin. It works as a barrier against dirt, dust, pollution, and the sun, among other environmental stressors.
4. Toners are made up of a number of substances that are used to treat a variety of skin problems.
5. Toners are a boon for oily or acne-prone skin.

Disadvantages of skin toner:

1. Toners containing alcohol cause the skin to become dry and flaky.
2. When used in excess, it might irritate the skin. i.e. edema and redness

II. MATERIALS AND METHODS

Table 1: Materials required for formulation of face toner

Sr. no.	Name of Ingredients	Scientific name	Quantity(50ml)
1	Aloe vera	Aloe barbadensis miller	1gm
2	Cucumber juice	Cucumis sativus	14ml
3	Pipper mint	Mentha piperita	22ml
4	Rose water	Rosa damascena	6.6ml
5	Lemmon grass	Cymbopogon Citratus	2ml
6	Distilled water	-	Q.S.

III. METHOD OF PREPARATION

44ml of mint and 24ml cucumber juice take in a beaker and stir it.

↓

Add the 13.2ml rose water in above mixture.

↓

Then add the 4ml of lemon grass and the 2 gm aloe vera gel.

↓

Makeup the volume with distilled water and stir the mixture.



Fig. 1 Prepared herbal face toner

IV. EVALUATION OF FACE TONER

1. **pH:** The 25 mL formulation was placed in a beaker with graduations, and the calibrated pH metre was placed in the formulation for a period of time, and the measurement was taken.
2. **Surface tension:** The formulation was transferred in the stalagmometer and the surface tension was recorded.
3. **Temperature variation:** The formulation was exposed to different temperatures at 45° C and -10 ° C for 3 months to check the stability.
4. **Light exposure testing:** The product is placed in its actual packaging at direct sunlight/in light chamber for 48hrs to check any discoloration of the product.
5. **Skin irritation:** Small amount of the mist toner was sprayed on left hand dorsal skin and kept for some time, result was found non-irritant on the skin.
6. **Stickiness:** The mist particles were not found to be much sticky in nature.
7. **Skin conditioning:** The appearance of the skin after application of the mist was seen to be smooth, hydrated and supple.

V. RESULT AND DISCUSSION

5.1 Organoleptic Characteristics

Table 2: Organoleptic evaluation of toner

Sr. No.	Parameter	Result
1	Description	Liquid
2	Color	Brown
3	Odour	Pleasant
4	Consistency	Good

1. **pH:** The pH of Face toner was found to be 5.08. Which is uniformly stable and in the range of skin pH.
2. **Surface tension:** The surface tension of the toner was found to be 60.52 dyne/cm². Which is uniform.

5.2 Physical Evaluation

Table 3: Physical evaluation of toner

Sr. No.	Parameter	Result
1	Skin irritation	Non-irritable
2	Skin conditioning	Skin was moisturised
3	Removable	Easily removable
4	Stickiness	Not much sticky

5.3 Stability Study

A. Temperature Variation

Product is stable at extreme temperature with room temperature.

B. Light Exposure Testing:

There will be no any discolouration of toner will be observed.



Fig 2: Formulation before keeping in sunlight



Fig 3: Formulation after exposure of sun light(48hr)

VI. CONCLUSION

It proved that from that study, the herbal face toner was prepared is effective for the smoothing, calming and astringent effect on the skin. The herbal formulation have certain advantages like easy application and no any side effect and its mostly preferred. The results from the spray tonner formulation were very satisfactory. All the ingredients were procured fresh from the local market and they were economical as well as useful top. The formulated herbal face toner has pH in the range of pH of skin. The liquid form of the herbal toner can be used topically for the improving health and rejuvenation of dried skin. It was also found that the lemongrass and mint gave the best result for the antioxidant and astringent activity. Result obtained from evaluation study of toner are well defined. It is suggested that the prepared formulation is physiochemically stable, and possessed characteristics of a standard cosmeceutical's formulation for skincare.

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