



Formulation and Evaluation of Lipstick Containing Herbal Ingredients

Pooja Mishra^{1*} and Sumeet Dwivedi²

¹ALPINE Institute of Technology, Ujjain, (M.P.), India

²Department of Pharmacognosy, Ujjain Institute of Pharmaceutical Sciences, Ujjain, (M.P.), India

* Corresponding author's Email: pmishra0708@gmail.com, herbal0914@rediffmail.com

ABSTRACT: Coloring skin particularly skin of face and lips is an ancient practice going back to prehistoric period. In present days the use of such product has increased and choice of shades of color, texture and luster have been changed and become wider. This can be observed from the fact that lipsticks are marked in hundreds of shades of colors to satisfy the demand of women. The present investigation was done to formulate lipstick containing herbal ingredients, since lipsticks are one of the key cosmetics to be used by the women. Attempt was also made to evaluate the formulated herbal lipsticks. From the present investigation it was found that the HL, F-3 having promising results such as pH 6.89±0.12, melting point 59-62, thixotropy 10.5 etc.

Keywords: Cosmetics, Herbs, Herbal lipstick, Formulation, Evaluation

ORIGINAL ARTICLE

INTRODUCTION

Cosmetics are substances used to enhance the appearance of the human body. Cosmetics include skin-care creams, lotions, powders, perfumes, lipsticks, fingernail and toe nail polish, eye and facial makeup, permanent waves, colored contact lenses, hair colors, hair sprays and gels, deodorants, baby products, bath oils, bubble baths, bath salts, butters and many other types of products are in great demand in both developing and developed countries (Benett, 1983).

The word herbal is a symbol of safety in contrast to the synthetic one which has adverse effects on human health. Herbal preparations viz., herbal tablets, herbal tonics, herbal paste, herbal shampoo, herbal sindur, herbal contraceptives and herbal lipstick has become popular among the consumer herbal medicines represent the fastest growing segment to heal the various ailments. Possibly, herbal user desire to assume control over health care needs. Perhaps the large in personal healthcare system is unpalatable to many and they turn to herbal medicine due to increase side effects of available synthetic preparations (Kaul et al., 2010; Dwivedi et al., 2008).

Herbal cosmetics have growing demand in the world market and are an invaluable gift of nature. There are a wide range of herbal cosmetics products to satisfy your beauty regime, adding herbal in cosmetic is very safe for skin. Human being have been using herbs for different purpose like food, medicine, beautifying with advancement of science & technology use of natural things including plant has been reduced except for food, vegetarian takes

plant & plant only. However there is resurgence of use of herbs both as drug and cosmetics (Chattopadhyay, 2005).

Coloring lips in an ancient practice date back to prehistoric period. In present days the use of product has increased and choice of shades of colors textures, lustrous, have been changed and become wider. This can be observed from the facts that lipstick is marketed in hundreds of shades of colors to satisfy the demand for the women (Chattopadhyay, 2005). Due to various adverse effects of available synthetic preparation the present work was conceived by us to formulate an herbal lipstick having minimal or no side effects which will extensively use by the women of our communities with great surety and satisfaction.

MATERIALS AND METHODS

Following methods were adopted by the authors during the course of present investigation.

Selection of herbs: The various herbs used in the formulation of herbal lipsticks were selected on the basis of literature survey (Dwivedi et al., 2008; Chattopadhyay, 1975). Collection and authentication of herbs of plant material: The different herbs used in formulation of herbal lipstick were collected in the months of August 2012 from the local village farmers of Ujjain district and authenticated by Dr. S.N. Dwivedi, Prof. and Head, Department of Botany, Janata PG College, APS, University, Rewa, M.P.-India and a voucher specimen JC/HR/07/01-08 were deposited in our department.

Formulation of herbal lipstick: The herbal lipstick was formulated as per method described (Sharma, 2005; Jain et al., 2005). The ingredients used in the formulation of herbal lipstick are: Niger oil, Kokum butter, Beeswax Ripe fruit powder of shikakai, Turmeric powder, Strawberry essence, Lemon juice, Vanilla essence.

All the ingredients are taken in definite ratio and 5 formulations [F1 to F5] were prepared.

Evaluation of herbal lipstick :It is very essential to maintain a uniform standard for herbal lipstick, keeping this view in mind the formulated herbal lipsticks was evaluated on the parameters such as melting point, breaking point, thixotropy character, force of application, surface anomalies etc. (Mittal et al., 2003; Dwivedi et al., 2009).

Table 1. Ingredients with their prescribed quantity in the formulation of herbal lipstick

| S/No. | Ingredients | Importance | Quantity (gm) | | | | |
|-------|------------------------|---------------------|---------------|-----|-----|-----|-----|
| | | | F1 | F2 | F3 | F4 | F5 |
| 1. | Niger oil | Blending properties | 54 | 50 | 51 | 52 | 53 |
| 2. | Kokum butter | Glossy & hardness | 15 | 16 | 13 | 13 | 14 |
| 3. | Bees wax | Glossy & hardness | 12 | 13 | 14 | 12 | 11 |
| 4. | Ripe fruit of shikakai | Surfactant | 6.5 | 7.5 | 8.5 | 9.5 | 8.0 |
| 5. | Turmeric powder | Coloring agent | 10 | 11 | 12 | 11 | 10 |
| 6. | Strawberry essence | Flavoring agent | 1.5 | 1.5 | 1.0 | 02 | 2.5 |
| 7. | Lemon juice | Anti-oxidant | 01 | 01 | 0.5 | 0.5 | 0.5 |
| 8. | Vanilla essence | Preservative | q.s | q.s | q.s | q.s | q.s |

Abbr.: q.s. = quantity sufficient

Melting point: Determination of melting point is important as it is an indication of the limit of safe storage. The melting point of formulated lipstick was determined by capillary tube method the capillary was filled, keep in the capillary apparatus and firstly observed the product was slowly-slowly melted. After sometimes was observed the product was completely melted. The above procedure was done in 3 times and the melting point ratio was observed in different-different formulation.

Breaking point: Breaking point is done to determine the strength of lipstick. The lipstick is held horizontally in a socket ½ inch away from the edge of support. The weight is gradually increased by a specific value (10 gm) at specific interval of 30 second and weight at which breaks is considered as the breaking point.

Thixotropy character: It is indication of thixotropic quality and is done by using penetrometer. A standard needle of specific diameter is allowed to penetrate for 5 seconds under a 50 gm load at 25oC. The depth of penetration is a measurement of the thixotropic structure of lipstick.

Force of application: It is test for comparative measurement of the force to be applied for application. A piece of coarse brown paper can be kept on a shadow graph balance and lipstick can be applied at 45o angle to cover a 1 sq. inch area until fully covered. The pressure reading is an indication of force of application.

Surface anomalies: This is studied by the surface defects, such as no formation crystals on surfaces, no contamination by moulds, fungi etc.

Aging stability: The product was stored in 40o C at 1 hrs. Various parameters such as bleeding, crystallization of on surface and ease of application were observed.

Solubility test: The formulation herbal lipstick was dissolved in various solvents to observe the solubility.

pH parameter: The pH of formulated herbal lipstick was determined using pH meter.

Skin irritation test: It is carried out by applying product on the skin for 10 min.

Perfume stability: The formulation herbal lipstick was tested after 30 days, to record the fragrance.

RESULTS

The prepared formulation (Table 1) was evaluated (Table 2) and it was found that the HL, F-3 (Fig. 2) was best among the five formulations. Hence, from present investigation it was concluded that this formulated herbal lipsticks has better option to women with minimal side effects though a detailed clinical trials may be done to access the formulation for better efficacy.

DISCUSSION

In last few decades there has been tremendous boost in use of cosmetics by women. However, the hazards cause by these chemicals has come into limelight very recently. The present work formulation and evaluation of herbal lipsticks was aimed to formulate a lipstick using herbal ingredients with a hope to minimize the side effects as produced by the available synthetic ones.

Table 2. Evaluation of formulated herbal lipsticks (F1 to F5)

| S/ No. | Evaluation parameter | Inference | | | | |
|--------|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | F1 | F2 | F3 | F4 | F5 |
| 1. | Color | Brownish yellow |
| 2. | pH | 6.43±0.30 | 6.71±0.22 | 6.89±0.12 | 6.72±0.13 | 6.66±0.21 |
| 3. | Skin irritation test | No | No | No | No | No |
| 4. | Melting point | 60-61 | 61-63 | 59-62 | 60-61 | 63-63 |
| 5. | Breaking point | 31 | 30 | 30 | 31 | 32 |
| 6. | Thixotropy character | 9 | 10.2 | 10.5 | 9.8 | 9 |
| 7. | Force of application | Good | Good | Easy | Easy | Poor |
| 8. | Perfume stability | +++ | ++ | + | +++ | ++ |
| 9. | Surface anomalies | No defect |
| 10. | Aging stability | Smooth | Smooth | Smooth | smooth | Smooth |
| 11. | Solubility test | Chloroform | chloroform | chloroform | chloroform | chloroform |

**Fig. 1** Different batches of formulated herbal lipsticks (F1 to F5)**Fig. 1** Formulated herbal lipsticks (F3)

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