

Development and Comparative Evaluation of Liquid Lipstick with Marketed Liquid Lipstick

Ashitosh Jain¹, Ashwani Mishra¹

¹Department of Pharmacy, Barkatulla University, Bhopal.

Abstract

Lipstick is one of the very widely used cosmetic product and since it has been used to beautify Lips by applying it. Its more important to use natural coloring agent so that if there is any chance of administration of lipstick while eating food or drinking it must not cause any health problem. Other parameter which is staining of lip after applying lipstick. Lip stain rare also part of cosmetic world which are used to stain lips and causes more retention of lipstick color on lips for longer duration of time. In this work an Effort was made to formulate liquid lipstick from naturally extracted coloring agent which has staining property.

Keywords: Lipstick, Color, Stain, Lip.

Introduction

Lipstick is generally dispersions of colouring matter in suitable base containing blend of oils, fats and waxes, perfume, flavoured stickered and finally it is molded in the form of stick and enclosed in a case. The base we use in lipstick gives Emollient along with it helps to give proper spreadibility, texture and strength to the lipstick [2].

There are many types of lipstick available they are Moisturizing lipstick, Satin and sheer lipstick, Matte lipstick, Cream lipstick, Pearl and frosted lipstick, Gloss lipstick and Liquid Lipstick. Liquid lipstick contain the pigment of a lipstick and the glide and sheen of a gloss.

Liquid lipstick can be appear more MATTE by simply blot them with a tissue because without it, It sometimes leave behind candy apple like coating [3]. Some advantages of liquid lipstick- It defines mouth. It also Protects and Moisturizes lips. It also give an impression of Healthy look and makes face look Slimmer.

It has been observed that Herbal cosmetics have growing demand in the world market and its an invaluable gift of nature. There are a wide range of herbal cosmetics products available to satisfy beauty regime in safe way, As long as the safety and protection of skin concerned adding herbal in cosmetic is vital. Herbs are available for different purpose like food, medicine, neutralceuticals, and now as beatifying with technological and Scientific advancement. [4]

This notion of using natural and safe coloring agent with staining property was the reason of formulating liquid lipstick by using natural dye and that is why an attempt was made to formulate it and even compared it with the available marketed preparation

Material and Methods

Isopropyl alcohol, gum acacia, Cetylalcohol, castor oil, lecithin were purchased from Chemical Drug House Delhi.

Natural Dye Extration from Beta Vulgaris

Beetroot has red dye, called “beetroot red”. Betanine. Extraction of pigment is done initially by homogenizing equal ratio of fruit pulp and solvents (1:1 w/v) for that 100 g of the peeled fruit, of watery consistency was chosen and macerated it with 100 ml solvents(aqueous ethanol 50:50) for 15 minutes under ice bath. this aqueous mixture was Centrifuged at 18,000 rpm at 4°C for 20 min, and filtered it immediately through nylon mesh then it was concentrated by using rotary evaporator in vacuum at 35°C, to 3-4 ml and keep the samples in a dark vessel [5].

Preparation of Liquid Lipstick

Take weigh quantity of isopropyl alcohol in a pestle mortar and castor oil in another pestle mortar. Add lecithin in castor oil and stir them to obtain a colorless solution. Add beetroot natural dye in it and stir well, then Add gum acacia in isopropyl alcohol and stir it finally add perfume, preservative, and antioxidant in isopropyl alcohol solution. Then add drop by drop solution of isopropyl alcohol to castor oil solution with constant stirring. Pour in the appropriate container [6].

Table 1. Different component use for the preparation of the liquid lipstick

Ingredients	Quantity
Isopropyl alcohol	4. 58 ml
Gum acacia	0. 25 gm
Cetyl alcohol	0. 25 gm
Castor oil	3. 14 ml
Lecithin	0. 25 gm
Beet root dye	0. 05 gm
Perfume	Qs.
Preservative	Qs.
Antioxidant	Qs.

Evaluation of Prepared Liquid Lipstick

PH

Formulation was taken in a beaker and pH was checked using pH meter (pH Systronics digital pH meter).

Viscosity

The viscosity was measured using a Brookfield Synchroelectric visco meter (RVT model) in the small volume adapter. The viscosity measured at 20 rpm was used for purposes of comparative evaluation.

Spreadability

Spreadability of the prepared liquid formulation was determined by using Spreadability apparatus in which liquid lipstick was subjected on the base glass plate of the spreadability apparatus and then it was sandwiched between the upper glass plate and then the reading obtained from it was used to calculate spreadability of the liquid lipstick formulation

Skin Irritation Test

Apply the lipstick on the skin for 10 min and observe the sign of irritation and recorded in lip arbitrary scale.

Result and Discussion

The liquid lipstick formulation were prepared and it was subjected for different evaluations like pH, Viscosity, Spreadability and Irritation testing, The pH observed was 7. 2 and the viscosity which was determined using Brookfield viscometer was 1150 cps similarly there was no irritation observed and spreadability was also found to be good. After that prepared liquid lipstick was compared with the marketed liquid lipstick formulation and there were no major change in the results were obtained in any evaluation the pH of marketed formulation was observed 7. 4 and the viscosity was 1200 cps which showed the similar consistency and pH of the Liquid lipstick prepared. When it comes to spreadability and irritation study, both were found to be good so on the basis of these parameters prepared liquid lipstick proved its efficiency.

Table 2. The different evaluation performed for preparation of liquid lipstick

S. No	Parameter	Result
1.	pH	7. 2
2.	Viscosity	1150 (cps)
3.	Spreadability	Good
5.	Skin irritation test	Non Irritating

Table 3. Comparative evolution of liquid lipstick with marketed liquid lipstick

S. No	Parameter	Marketed Liquid Lipstick	Prepared Liquid Lipstick
1.	pH	7. 4	7. 2
2.	Viscosity	1200	1150 (cps)
3.	Spreadability	good	Good
4.	Skin Irritation test	Non Irritating	Non Irritating

Conclusion

On the basis of the result obtained from the comparative evaluation of the Liquid lipstick with the with the marketed liquid lipstick on the ground of Viscosity, Spreadibility, skin irritation testing and pH. It can be concluded that lipstick having natural die can be a safe and best option of conventional lipstick available in the market and if its staining property potentiate then this will become the most promising cosmetic formulation.

References

1. Deshmukh S, M Chavan, Sutar M, Singh S. Preparation and evaluation of natural Lipsticks from bixaorellana seeds. *International Journal of Pharma and Biosciences*. 2013; 4(3):139-44.
2. AzwanidaN, Hui M S, AfandiA, Mohamed S, Zulhisyam A K, AyobA, Rusli N, RasatM S M, Mohamed M. Colour stability evaluation of pigment extracted from hylocereus polyrhizus, clitoreaternatae and pandanusa maryllfolius as cosmetic colorants and premarket survey on customer acceptance on natural cosmetic product. *Journal of Tropical Resources and Sustainable Sciences*. 2015; 3:61-67.
3. Sainath M, Kumar K S, Babu K A. Formulation and evaluation of herbal lipstick. *International Journal of Advanced Research In Medical & Pharmaceutical Sciences*. 2016; 1(1):14-19.
4. Kruthika S V, Ram S S, Ahmed S A, Shaik S, Mallick SD. Formulation and Evaluation of Natural Lipstick from Coloured Pigments of Beta vulgaris Taproot and T R Shree. *Research & Reviews in Pharmacy and Pharmaceutical Sciences*, 2014. 3:3; 65-71.
5. Kasture D, Gokhale S B, Parakh S R, Hasan S A. *Textbook of practical pharmaceutics*. 16thed. Pune (India): Nirali Prakashan; 2008. p. 33-35.
6. Mishra P, DwivediS. Formulation and evaluation of lipstick containing herbal ingredients. *Asian Journal of Medical and Pharmaceutical Researches*. 2012; 2(3):58-60.