

Review on Formulation and Evaluation of Herbal Lip Balm

Awari Shubham¹, Kudnar Amol², Bule Pallavi³, Tarade Akshay⁴, Ms. Gaikwad Rutuja⁵

Department of Pharmaceutics, Samarth Institute of Pharmacy, Belhe, Maharashtra, India
shubhamawari02@gmail.com

Abstract: Cosmetics are incredibly in demand since historical time. These days focus shifted more towards naturally derived cosmetic products. Among all cosmetic products, lip balm formulations are most widely used to enhance the beauty of lips and add glamour touch to the makeup. Lip balms offer a natural way to maintain and promote healthy lips. Current cosmetic lip products are based on use of enormous chemical ingredients with various side effects. Hence in this work, an attempt has made to study natural ingredients used to formulate natural lip balm. This article reviews on the essential ingredients used for natural lip balm along with their merits and limitations. The natural lip balm can be made using naturally occurring base, oils, extract, color and flavoring agents which can be evaluated for their resistance to temperature variations, pleasant flavor, and smoothness during application, adherence and easy intentional removal, etc.

Keywords: Lip Balm

I. INTRODUCTION

Lip balm is a product which is put on lips so they will not dry when a person is outdoors in the sun and wind. Lip balm is usually made from petrolatum. Some types of lip balm also include sunscreen to protect the lips from sunburn. Lip balm comes in tubes and small pots with screw-on lids. Lip balm is often used during the winter, because the cold winter winds can dry out a person's lips so that they are cracked and hurting (this is called having "chapped" lips). Cosmetic plays a significant role in today's life style. Moreover, current trend is going green in almost all industries including cosmetics to adopt more natural way of life. The preferable choices are natural food, herbal medicines and natural curing practices for healthy life and also there is much demand for the organic vegetable products. The usage of herbal cosmetics has been increased to many folds in personal care system [1]. Natural products have been used for folk medicine purposes throughout the world for thousands of years. Many of them have pharmacological properties such as antimicrobial, anti-inflammatory and cytostatic effects.



They have been recognized as useful for human medicine [2]. Herbal extracts are cultivated all over the world and are prime names in the horticulture sector. Cosmetics made up of herbal extracts for skin care and hair-care are very popular for their reliability [3-5]. Herbal cosmetic products include various formulations. The word herbal indicates safety as compared to synthetic products which are having various adverse effects on human health [3-7].

1.1 Nomenclature

Kingdom: Plantae
Clade: Tracheophytes
Clade: Angiosperms
Clade: Eudicots
Order: Caryophyllales
Family: Amaranthaceae
Genus: Beta
Species: B. vulgaris

1.2 Role of Ingredients

A. Beetroot:

The beetroot extracts present in the lip balm moisturize and hydrate your lips to restore balance and good health for your lips. Vitamin-E & essential oils present in the lips form a protective base for your lips to avoid damaged lips.

B. Coconut Oil

The primary benefit of coconut oil is its moisturizing effects. This makes it ideal for chapped lips. Your lips are particularly Sensitive to moisture loss because the skin is thin, and they're exposed to the elements more so than other parts of your skin.

C. Beeswax

Beeswax is perhaps the most essential ingredient in our lip balms. This is because it contains natural moisturizers that lock in Moisture from the air and help keep the skin looking firm and plump.

D. Vitamin E

Vitamin E can also help to close up those painful cracks in the skin that are caused by dryness and cold weather. By applying the Award-winning AM/PM Tinted Lip Balm with Vitamin E, you can seal up these cracks and keep the skin of your lips soft, supple.

E. Cocoa Butter

Cocoa butter is an emollient that is a great source of natural antioxidants. It adds a protective hydrating layer to lips, helping protect them from extreme temperatures and indoor heat that can leave your lips dried out. Vitamin E is known for its restorative skin properties and healing ability.

1.3 Method of Preparation

1. Fresh fruit was washed and peeled and cut into small pieces.
2. 50 gm of fruit was weighed and mix with 50ml ethanol in distillation flask.
3. Heat is given to mixture at 400C temperature for 4 hours by indirect Flame. 4)Mixture was filtered after cooling the mixture to separate the betaline.[8]

1.4 Formulation of Lip Balm

1. Beeswax and cocoa butter was heated by double boiling process at temperature 800C.
2. Virgin coconut oil, olive oil and honey were added after above mixture was melted with stirring.
3. Betalain extract and Vit E capsule was added and heated. (Stirring was continued until proper dispersion was achieved)
4. Mixture was poured into container and refrigerate at 50C for 1 hour.[9]

1.5 Composition of herbal Lip Balm

Sr. No	Name of Ingredients	Scientific name	Quantity
1	Beeswax	Cera alba	2.5 gm
2	Cocoa Butter	Theobroma oil	2.5 gm
3	Olive oil	Olea europaea	2.5 gm
4	Coconut oil	Cocos nucifera	2.5 gm
5	Honey	Genus apes	2.5 gm
6	Vitamin E	Tocopherol	13 mg
7	Betalain	Beta vulgaris	2.5 gm

II. EVALUATION OF HERBAL LIP BALM

2.1 Organoleptic Evaluation

It refers to the evaluation of herbal lip balm by its colour, texture and odour, etc. The external Characters of the formulation were examined visually.

2.2 Physicochemical Evaluation:

A. pH

The pH of formulated herbal lip balm was determined by using pH meter. 1 gm of formulation Was dissolved in 100 ml of water and its pH was measured

B. Moisture Analysis

Weigh about 1 gm of the formulated lip balm into a porcelain dish and dry it in an oven at 70°C For 1 hr. Cool it in desiccator and weigh the loss in weight is usually recorded as moisture.

C. Physical Evaluation

Physical Evaluation

Melting point of the formulation were determined by using thiele tube apparatus. The material was filled into the capillary and the capillary was coupled to a system with thermometer. This is immersed in a tube filled with liquid paraffin and heat is given. The temperature at which Melting of the sample were observed was consider as melting point of prepared formulation.

Stability Study

Stability testing of the prepared formulation was conducted by storing the formulation at Different temperature conditions for 30 days. The formulation was evaluated under the Condition of room temperature 25°C and refrigerator condition at temperature 5°C. The Appearance was assessed on 3rd, 7th, 15th and 30th days.

C. Microbial Study

Microbial assay of lip balm was performed to determine whether the product is sterile or not. In this method the agar solution was prepared in the Schott bottle and the mixture was Autoclaved and warm sterile solution up to 15-20 min. The solution was poured into the Petry Plate and left to solidify it. After the solidification the lip balm was spreaded on the surface of Agar with help of plastic spreader and was incubated in an inverted position for 24 hrs. at 30°C. Growth of the microorganism on the agar surface after 24 hours says that the product is not Sterile

REFERENCES

- [1]. V.P. Kapoor, Herbal cosmetics for skin and hair care, Natural Product Radiance. 4 (2005) 306-314.
- [2]. 2. B. J.Kukreja, V. Dodwad, Herbal mouthwashes-A gift of Nature, International Journal of Pharma and Bio Sciences. 3 (2012) 46-52.
- [3]. P. L. Kole, H. R. Jadhav, P. Thakurdesai, A. N. Nagappa, Cosmetic products of herbal extracts, Natural Product Radiance. 4 (2005) 4.

- [4]. S.K. Gediya, R.B. Mistry, U.K. Patel, M. Blessy, H.N. Jain, Herbal plants: Used as a cosmetics, J. Nat. Prod. Plant Resour. 1 (2011) 24-32.
- [5]. S. Pandey, N. Meshya, D. Viral, Herbs play an important Role in the field of cosmetics, International Journal of PharmTech Research. 2 (2010) 632-639
- [6]. S. Kaul, S. Dwivedi, Indigenous ayurvedic knowledge of Some species in the treatment of human disease and Disorders, International Journal of Pharmaceutical and Life Science. 1 (2010) 44-49.
- [7]. S. Dwivedi, Folklore uses of some plants by the tribal are Of Madhya Pradesh with Special reference to their Conservation, Ethno botanical Leaflets. 12 (2008) 741-743.
- [8]. Rym Mansour, Natural Dyes and Pigments: Extraction and Applications, Handbook of Renewable Materials for Coloration and Finishing, Article – September 2018, <https://www.researchgate.net/publication/327805712>