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FORMULATION AND EVALUATION OF LIP BALM

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ABSTRACT

Cosmetics are cosmetics that contain biological ingredients that have therapeutic or drug-like properties. Research has been conducted on the design, quality and production of lip balms made from natural ingredients. Important information includes topical application and frequency of use. Lip balm provides a way to maintain and promote healthy lips. Nowadays, cosmetic products are produced using many chemical ingredients that have many side effects. Therefore, in this study, an attempt was made to examine the natural ingredients used in the production of lip balm. Lip products are an important part of daily life. They give color to the lips and protect them from the external environment. The main function of lip balm is to protect and moisturize your lips.

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INTRODUCTION

There are major concerns about the use of organic products due to dangerous synthetic ingredients in cosmetics. There are no sebaceous glands on the lips; Therefore, it is important to provide additional moisture and protection every day. Most lip balms contain petroleum jelly, synthetic waxes, aluminum oxide, parabens, hydrogenated oils, and chemical fragrances and colors. It becomes a big problem for health-conscious people as lip balm is frequently consumed by the user, cosmetics are used wisely and applied directly to people's skin. Although the skin provides protection, some ingredients can penetrate the skin and be absorbed throughout the body. Some cosmetics are applied to mucous membranes, which can increase usability or, in the case of the lips, provide the opportunity for oral intake. Therefore, it is important to evaluate its safety. A safety assessment requires information about the hazards and exposure inherent in the ingredients contained in the product. Because

Difference between lips and normal skin: - Lips are more beautiful than normal skin. Generally, ordinary skin has 15 to 16 layers in its uppermost stratum corneum, and these layers generally play a protective role. The upper stratum corneum of the lips has only 3 to 4 layers, which is very thin compared to the facial skin. There is very little melanin in the skin of the lips. Cells. For this reason, blood vessels can be seen more clearly through the lip skin, resulting in beautiful pink lips. There are no hair follicles or sweat glands on the lip skin. Therefore, the lips do not have sweat and body oil to protect them from the outside world. The lips have a thin layer of skin and are therefore more transparent, indicating redness of the underlying blood vessels. Additionally, the skin on the lips does not have hair follicles, sweat glands, or sebaceous glands that secrete sweat and oil, which are molecules that the skin normally uses to protect itself [13]. Lack of these properties can cause lips to dry and crack in dry weather.

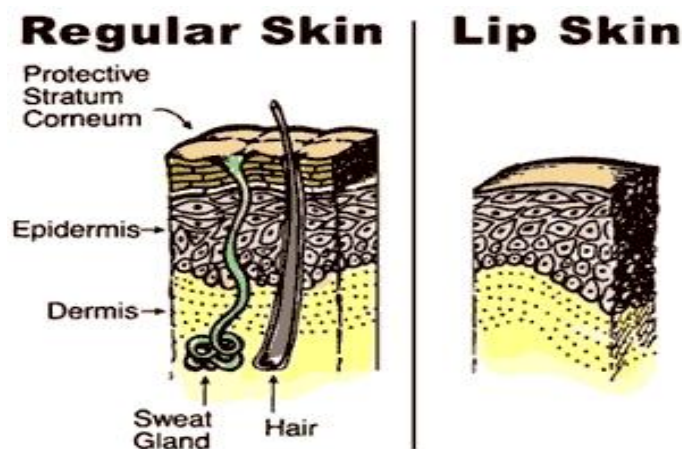


Fig.No.1 Regular Skin And Lip Skin.

ANATOMY OF LIP

The skin on your butt is thin and sensitive, making it easy to get irritated and prone to problems. Many problems can affect the lips if they are not properly cared for.

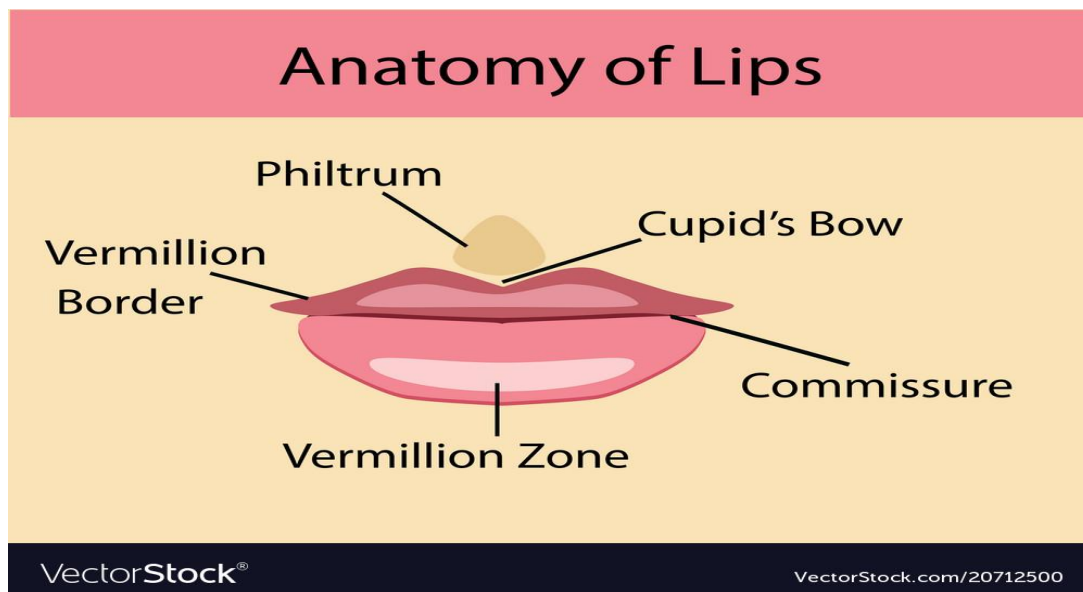


Fig.No.3 Anatomy of Lips.

APPLICATION OF LIP BALM

Lip balm is a formula used to prevent lips from drying out and protect them from the negative environment. There are many derived lip balms on the market today from companies like The Body, Nivea, Himalaya, Blistes and more. About lip application as it is a form of cosmetic similar to a lip balm. This similarity continues to include aspects such as temperature resistance, pleasant taste, non-toxicity, smoothness in use, adhesion and ease of intentional removal, and stability [14]. Lip balm should not resemble lip gloss, which is a product that men and women can use. [15]. Many people look for weekly facials, daily toothpaste, sunscreen and many other products to have healthy and glowing skin.

ADVANTAGES AND DISADVANTAGES OF NATURAL LIP BALM

Advantages of natural lip balm

- Lip balms help protect the natural health and beauty of the lips
- Sunscreen lip balms have been proven to prevent damage to the lips from ultraviolet radiation.
- These are not gender specific products and can be used by both men and women.
- Lip balms help protect lips affected by cold sores, chapping and dryness.

Disadvantages of natural lip balm

- Lip balms made with poor quality ingredients can seriously damage your lips. Such lip balms can dry out your lips instead of moisturizing them.
- Addiction to lip balm is another disadvantage that usually occurs when using them.
- Compared to commercially prepared lip balms, homemade lip balms tend to stay on the lips for a shorter period of time. Therefore, it is necessary to repeat the application often. Some companies make lip balms with only consideration
- The aspect of beauty, ignoring the health benefits and delicate nature of the skin. Such products will gradually damage the natural color, softness and shine of the lips.

MATERIALS AND METHOD

Sr. no	Ingredients	Quantity	Uses
1	Bees wax	12%	Impart Glossiness and hardness
2	Beetroot	11%	Colouring Agent
3	Almond oil	5%	Moisturizing agent
4	Aloe-vera	4%	Antioxidant, anti-inflammatory
5	Vitamin-E	1.5%	Antioxidant, maintain the stability
6	Rose water	2%	Flavouring agent
7	Glycerol	2 to 10%	Glossy effect
8	Honey	2%	Hydrate the skin

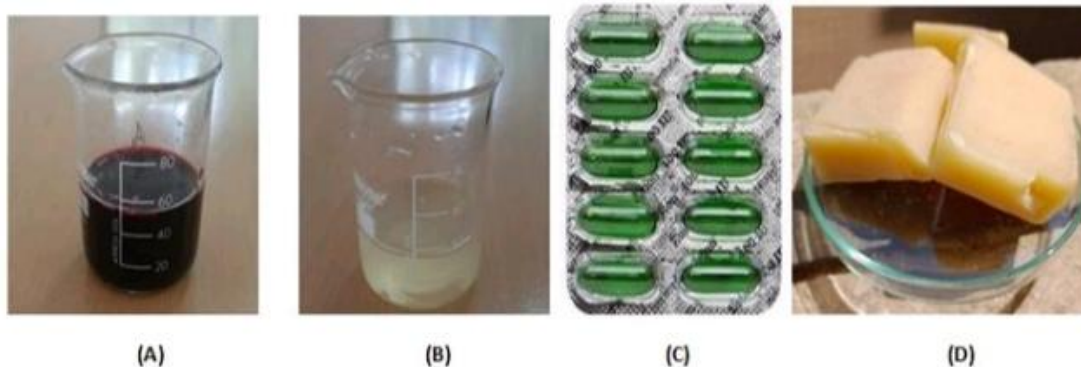


Figure 2:(A)-Beetroot Juice; (B)-Aloe vera Extract; (C) Cap. Evion® 400; (D)Bees Wax Pure White

LIST OF MATERIALS

The list of materials used as key formulation ingredients for natural lip balm given in the Table as described below Material and Methods-

Bees wax pure white was purchased from LobaChemie Pvt. Ltd., Almond oil (Bajaj Almond drops), Aloe vera juice organically extracted from Aloe barbadensis, Beetroot was procured from the local market, Rosé powder from Marc Flavours, Glycerol (98% extra pure) from LobaChemie Pvt. Ltd., Cap. Vitamin E (Evion 400).

Preparation of the ingredients:

1. Aloe vera gel- The leaves of Aloe vera were collected, washed with water the thick epidermis was selectively removed and the inner gel-like pulp in the center of the leaf was separated with a spoon, minced, and homogenized in a mixer. [12]
2. Beet root extract- Washed beet roots were peeled and chopped. The chopped beets were blended well and further filtered through a clean muslin cloth. The extracted beetroot juice was used, (13)
3. Rose water- Two grams of Rose powder from Marc Flavours was taken and diluted with 100ml of distilled water to make 2% solution of rose water (14)

METHOD OF PREPARATION OF LIP BALM:

All the above materials were weighed accurately on a digital balance nearest accuracy to 0.1 gm. Preparation method opted for the preparation of herbal lip balm stick was of heating solid raw ingredients at consistent. Temperature with indirect flame bees wax was crude and grinded into small uniform size and was melted in 50 ml beaker in indirect flame with an highest temperature of 90°C and all other ingredients like vitamin e beetroot juice rose essence almond oil were mixed vigorously and add to the mixture and mixture was stirred continuously till homogenous mixture was obtained and was poured into balm stick moulds just before pouring glycerine was applied over the mould with cotton and the moulds were kept in ice bath aside for about an hour in cool and dry place indirect to sunlight till it solidifies and was used after 48 hours after Keeping at room temperature for stability and analytical testing.(15)

RESULT AND DISCUSSION

The aim of the current research work was to prepare lip balm using maximum natural ingredients. Beetroot extract, rose water, vitamins E capsule, and almond oil were used as agents.

Sr.no	Ingredient	Observed value
1.	Organoleptic property	-
2.1.	Colour	Pink
2.2.	Odour	Pleasant
2.3.	Appearance	Smooth
3.	Test of spread ability	-
4.	pH measurements	6.0
5.	Skin irritation	No

CONCLUSION

Due to the presence of hazardous synthetic excipients in cosmetics, there has been a great public concern regarding the use of organic sources. Lips do not have any oil glands; thus, it is really important to provide that extra moisture and protection throughout the day. Conventional lip balm often contains petrolatum, synthetic waxes, alumina, paraben, hydrogenated oils and artificial fragrances and colours which are toxic. Often lip balm is eaten by the user, thus it becomes major issue for health regulator, cosmetic products are widely used and are directly applied to human skin. While the skin provides a protective barrier.

The aim of current research work was to prepare lip balm by using maximum possible natural ingredients. Mainly beetroot extract chosen as a agent, rose water used as a flavouring agent, vitamin E capsule used as an antioxidant, almond oil was used as moisturizing agent.

REFERENCE

1. Christopoulos A, Mouth anatomy <https://emedicine.medscape.com/article/1899122-overview> Sep 11, 2018.
2. B.H. Ali, N.A. Wabel, G. Blunden, Phytochemical, pharmacological and toxicological aspects of Hibiscus sabdariffa L.: a review. *Phytother Res.* 19 (2005) 369-375.
3. 12. M.S. Balsam, E. Sagarin, *Cosmetics science and technology*, Second ed. Wiley Interscience Publication, NY, USA, 2008, 3, pp. 209-512.
4. Fernandes AR, Dario MF, Stability evaluation of organic lip balm. *Brazilian Journal of Pharmaceutical Sciences*, 2013; 49; 293-300.
5. Kadu M. Singh V. Review on natural lip balm *International Journal of Research in Cosmetic Science* 2015; (1): 1-7.
6. Mayuri Kadu, Suruchi Vishwasrao, and Dr Sonia Singh, A Review on Natural Lip Balm. *International Journal of Research in Cosmetic Science.* 03 August 2014. ISSN 2277-7172.
7. A.R. Fernandes, M.F. Dario, C.A.S.O. Pinto, T.M. Kaneko, A.R. Baby, M.V.R. Velasco, Stability Evaluation of organic Lip Balm, *Braz. J. Pharm. Sci.* 2 (2013) 49.
8. Savalkar M.B. et al. Formulation & Evaluation of Herbal lipstick using *Amaranthus dubius*, *J.Pharm. Res.*, 2018, 7(6), 96-98.
9. P. L. Kole, H. R. Jadhav, P. Thakurdesai, A. N. Nagappa, *Cosmetic products of herbal extracts*, *Natural Product Radiance.* 4 (2005) 4.

10. Grindlay D. Reynolds T. The Aloe vera phenomenon: A review of the properties and modern uses of the leaf parenchyma gel. *J Ethnopharmacol.* 1986; 16:117-51.
11. Kokate CK, Purohit AP, Gokhale SB. *Textbook of Pharmacognosy.* 49th ed. Pune: Nirali Prakashan, 2014.
12. Abdul Wadood Khan, SabnaKotta, Shahid Hussain Ansari, Rakesh Kumar Sharma, Amit Kumar and Javed Ali, Formulation development, optimization and evaluation of aloe vera gel for woundHealing. *Pharmacogn Mag.* 2013 Oct-Dec; 9(Suppl 1): S6-\$10. Doi: 10.4103/09731296.117849
13. Mona Patel, Ojash Patel, formulation and evaluation of herbal lipstick using beta vulgaris extract. *International ayurvedic medical journal.* June 2021.
14. S. Deshmukh, M. Chavan, M. Sutar, S. Singh, Preparation and evaluation bixaorellana seeds, *Int J Pharm Bio Sci.* 4 (2013) 139-144. Of natural lipsticks from
15. GOUVEA, M.C.B.L.F. Desenvolvimento de base de batons. *Cosmet. Toiletries (Portuguese edition),* v.5, n.2, p.49-56, 1993.
16. Sharma PP, cosmetics- Formulation, manufacturing and quality control, Edn 5. Vandana publications, Delhi, 2008, 297-313.
17. H. Ratih, H. Titta, C.P. Ratna, Formulation of Cananga Oil Lip Balm as Emolient". *Prosiding Simposium Penelitian Bahan Obat Alami (SPBOA) XIV dan Muktamar XII PERHIPBA 2014.* Yogyakarta: Leutikaprio, p. 3, 2014.
18. P.P. Sharma, *Cosmetics Formulation, manufacturing and quality control,* fourth ed. Vandana Publications Pvt.Lad., India, 2008.
19. B.M. Mittal, R.N. Saha, *A Handbook of cosmetics,* firstEd., VallabhPrakashan: New Delhi, India, 2000.
20. M.A. Mundo, O.I. Padilla-Zakour, R.W. Worobo, Growth inhibition of foodborne pathogens and food spoilage organisms by select raw honeys, *International Journal of Food Microbiology,* 97 (2004) 1-8.



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