



Cosmetic Product: A Review on Lipstick

Chetan Prakash Singh*, Rakesh Goyal, Gaurav Bhaduka

Mahatma Gandhi College of Pharmaceutical Science, Jaipur-30202

Mail Id: chetansinghrwt4@gmail.com

Abstract Lipsticks formulations are used to the enhancement of the beauty of the lips these are the cosmetic product which contains pigments, oil, waxes, an emollients that apply the color an protection to the lips. This review was conducted to examine information about the history of Lipsticks; ingredients used to in the preparation of Lipsticks methods of preparation for the Lipsticks; and manufacturing of Lipsticks.

Keywords: Formulation of lipstick, Natural coloring matter, Bee wax, olive oil, coconut oil, evaluation of lipstick

Introduction

Lipstick is a cosmetic product that is widely used by women all over the world. It is a beauty essential that adds color and enhances the appearance of the lips. Lipsticks are available in a variety of shades, textures, and finishes to suit different skin tones, preferences, and occasions.

It has been used for centuries and has evolved from simple products made from natural ingredients to more complex formulations that incorporate a range of synthetic compounds. Lipstick is available in a variety of shades and textures, and it has become an essential part of many women's daily makeup routine. In this article, we aim to review the history, formulation, and safety concerns of lipstick.



Figure 1: Lipstick

History of Lipstick

The use of lipstick dates back to ancient times, where it was used by the Egyptians, Greeks, and Romans. The Egyptians used a mixture of crushed beetles and ants to create a deep red color, while the Greeks and Romans used a mixture of red ochre and animal fat. In the 16th century, the use of lipstick became popular among European



women, who used a mixture of beeswax and red stains from plants to create their lipstick. Over time, the formulation of lipstick has evolved, and today, it is available in a variety of shades and textures.

Definition

Lipsticks can be defined as a dispersion of the colouring matter in which a base consisting of a suitable blend of oils, fats and waxes with suitable perfumes and flavours moulded in the form of sticks to impart attractive gloss and colour when applied on lips. Lipsticks impart a moist appearance to the lips by disguising their defects.



Figure 2: Lipsticks

Ideal Characteristics of Lipstick

- It should non-toxic.
- It should be stable both physically and chemically.
- It should not dry on storage.
- It should maintain lip color for longer period after its application.
- It should have pleasant taste, odour and flavor.
- It should not melt or harden within reasonable variation of climatic temperature.
- It should be non – irritant.

Uses of Lipistic

- Adding color to the lips
- Moisturizing the lips
- Protecting the lips
- Defining the shape of lips
- Boosting confidence

Different Types of Lipstick

- Moisturizing lipisticks
- Satin and sheer lipistick
- Mate and lipisticks
- Cream lipisticks
- Pear and frosted lipisticks
- Long wearing and transfer resistant lipisticks

Aim and Objectives

The aim of this review article is to provide an in-depth analysis of lipstick, including its history, formulation, and safety concerns.

The objectives are to:

- Understand the history of lipstick and its evolution over time.
- Discuss the formulation of lipstick, including the ingredients used and their functions.
- Explore the safety concerns associated with the use of lipstick, including the potential health risks.

Materials and Methods

The formulation of lipstick typically involves the following materials and methods. The main ingredients of lipstick are wax, oil, and pigment. Waxes such as beeswax, carnauba wax, and candelilla wax provide structure and consistency to the lipstick. Oils such as castor oil, mineral oil, and lanolin provide hydration and nourishment to the lips. Pigments are added to give color to the lipstick.

Material use in the Formulation of lipstick:

Sr. No	Ingredients	Roles
1	Bees Wax	Thickening Agents
2	White soft paraffin	Base
3	Olive Oil	Moisturizing Agent
4	Pigment	Binder
5	Acacia	Additive
6	Orange juice	Antioxidant
7	Vitamin E	Antioxidant
8	Beetroot juice	Coloring agent
9	Punica-grantum juice	Coloring agent
10	Perfume	Flavouring agent

Formulation of Lipstick

Pigment premilling: The first step involved in the formulation of herbal lipstick is pigment premilling where the agglomerates in the powder are broken down to give the lipstick a homogeneous smoothness and even colour.

Melting and mixing: The next step involved is the melting and mixing stage, since waxes are solid at room temperature and can not be combined with other ingredients to make the waxes melted simple to make this process. Typically, it can be combined with oil, and the pigment and other additives are added and blended to form a homogeneous substance to the melted foundation.

Molding Molding: is the actual phase in which the molten lipstick is poured into metal or plastic mold, the mixture is poured when it is hot so it is helpful to harden and then removed with a slight pressure from the mole.

Flaming: Flaming is the last stage in which the lipstick passes through the flame, is usually held and twisted in the flame for up to a second and then removed to prevent melting and losing shape to achieve a shiny finish and then put in the bottle. Different formulations are made from Test 1 to Test 5 to find the superior lipstick with colorant and oil as variable parameter.



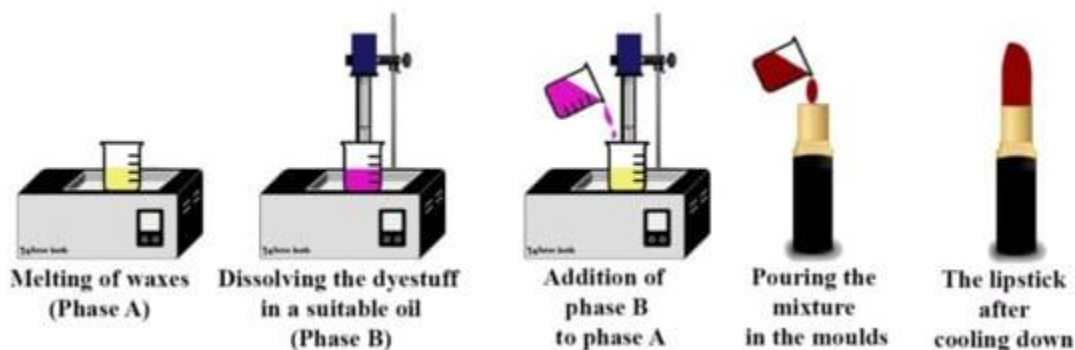


Figure 3: The general method of preparation for lipsticks

Evaluation of Lipstick

It is very essential to maintain uniform standard for lipstick, keeping this view in mind the lipstick was evaluated on the parameter such as melting point, breaking point force of application surface anatomy etc.

Melting Point

Determination of melting point is important as it is unindication of the limit of safe storage. The melting point formulated lipstick was determine by capillary tube method, the capillary was filled and keep in the capillary apparatus and firstly observed the product was slowly slowly milted. After some time observed product was completely melted. The above procedure was done in 3 times and melting point ratio was observed in all formulation

Breaking Point

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

Force of Application

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

Surface Anomalies

This was studied for the surface defects, such as no formation crystals on surface, no contamination by molds, fungi etc.

Aging Stability

The product was stored in 40°C for 1 hrs. Various parameters such as bleeding, crystallization of on surface and ease of application were observed.

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 fragrance

Safety Concerns

- There are several safety concerns associated with the use of lipstick. One of the main concerns is the presence of heavy metals in some lipstick formulations. Heavy metals such as lead, cadmium, and chromium have been found in some lipstick products, and they can pose a health risk if ingested or absorbed through the skin. Exposure to these metals can cause a range of health problems, including developmental delays, reproductive issues, and cancer.

- Another safety concern associated with the use of lipstick is the presence of harmful chemicals. Some of the chemicals that have been found in lipstick products include phthalates, parabens, and formaldehyde. These chemicals can cause a range of health problems, including hormonal disruptions, allergies, and cancer.

Reference

- [1]. Egan, R.R.; Hoffman, B.J. Fatty glycols and isostearyl alcohol as lipstick components. *J. Am. Oil Chem. Soc.* 1968, 45, 726–728.
- [2]. Sharma P.P. *Cosmetics- formulation and Quality Control*, 3rd ed. Vandana Publication. 2005:35-54.
- [3]. Dalavi Pooja S, Nanaware Rutuja H, Shah Rutuja R, Adnaik Rahul S, Formulation and Evaluation of Herbal Lipsticks, *International Journal of Pharmacy and Pharmaceutical Research*, 180- 184.
- [4]. Lwin, T.; Myint, C.; Win, H.; Oo, W.; Chit, K. Formulation and evaluation of lipstick with betacyanin pigment of *hylocereus polyrhizus* (Red Dragon Fruit). *J. Cosmet. Dermatol. Sci. Appl.* 2020, 10, 212.
- [5]. B.M. Mitral, R.N. Saga, *A Handbook of Cosmetics*, first ed., Vallabha Prakashan: New Delhi, India, 2000. Ragas, M.C.; Kozłowski, K. *Read My Lips: A Cultural History of Lipstick*; Chronicle Books LLC: San Francisco, CA, USA, 1998.
- [6]. D.N. Utilization of virgin coconut oil (VCO) for base and purple sweet potatoes (*Ipomea batatas*L.) extract for natural coloring in lipstick formulation. *Bungong Jeumpa J. Pharm. Sci.* 2020, 1, 1–6.
- [7]. Kumar Sumit, Swarankar Vivek, Sharma Sujata, Baldi Ashish, *Herbal Cosmetics: Used for Skin and Hair* December, *Inventi Rapid: Cosmeceuticals*, 4, 2012, 1-8. 2. Nanda S, Nanda A, Khar RK, *Cosmetic technology*, 1st edition, Birla Publication Pvt. Ltd New Delhi (India), 2007, 330-53. 3.
- [8]. Larsson SC, Bergkvist L, Näslund I, Rutegård J, Wolk A, Vitamin A, retinol, and carotenoids and the risk of gastric cancer: a prospective cohort study, *American journal of clinical nutrition* 85, no. 2 (2007): 497-503.

