

Lipsticks History, Formulations, and Production: A Narrative Review

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Abstract: *A considerable amount of literature has been published on several aspects of lipsticks Production. To date, there is no collation of studies related to lipsticks production that has been published. This review was conducted to examine information about the history of lipsticks; ingredients Used in the preparation of lipsticks, focusing on the natural and chemical ingredients; methods of Preparation for the lipsticks; and the characterization of the lipsticks. A literature search for English Language articles was conducted by searching electronic databases including Web of Science, Scopus, PubMed, and Google Scholar. Overall, the evidence indicates that lipsticks have been used since Ancient times and are among the highest demand cosmetics. The findings of this review summarize Those of earlier studies that explained the use of different types of ingredients in the manufacturing Processes of lipsticks. It highlights the importance of using green technology and ingredients to Fabricate lipsticks to avoid potential side effects such as skin irritation and allergy reaction.*

Keywords: lipsticks; lipstick's formulations; cosmetics; characterization of lipsticks; lipsticks methods of preparation

I. INTRODUCTION

1.1 Definition of lipstick: Lipstick may be basically defined as dispersion of the colouring matter in a base consisting of a suitable blend of oils, fats, and waxes with suitable perfume and flavours moulded in the form of sticks to impart attractive glossy and colour , when applied on lips. Lipsticks provide moist appearance to the lips accentuating them and disgusting their effects.

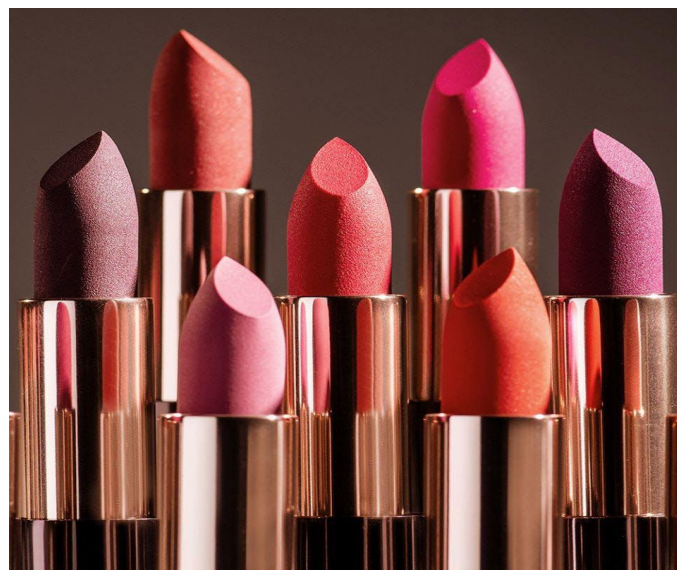


Fig.No.1.1:Lipsticks

Lipsticks are commonly composed of several different components, such as vegetable oils (castor oil, almond oil), mineral derivatives (Vaseline oil, white petrolatum), pigments and waxes, which are not only used for aesthetic purposes but can also act as bioactive agents in extreme weather, e.g., UV protection [4,5]. Lipsticks are one of the most widely used cosmetic products. Social, psychological, and therapeutic benefits can be attained from using lipstick. The beauty and attractiveness of a person are enhanced as lipsticks colour the lips and protect them from the external environment. However, current lip care products not only emphasize aesthetic value but also preferably have added medicinal value to the lip of consumers. This led to the emergence in the market of medicated lipsticks with active medicinal ingredients. The medicated lipsticks may provide protection against infections of bacteria due to the presence of an active medicinal ingredient in the formulation. This function adds on to the existing role of lipsticks, which provide moisture and emollient action to prevent cracking and chapping of the lips

Matte is a flat, stained look with no gloss. This is a long-lasting lipstick but can be drying. Matte lipsticks have more wax than other types of lipstick but fewer emollients. High gloss has a shimmery appearance and helps make lips appear fuller. High gloss lipsticks can be sticky and tend to wear off quickly. Long-lasting lipsticks contain silicone oil. Silicone oil helps to keep the colour on the lips and allows the lipstick to stay on all day long. Only mineral oil takes it off. Most lipsticks have a satin finish. Satin is a combination of gloss and matte. Satin lipstick is creamy, which moisturizes the lips, but is not as greasy as other types of lipstick. Satin lipsticks are preferred by many women today. Frosted lipstick contain pearlized agents. Pearlizing agents are generally bismuth compounds which add lustre to the lipstick. Lipsticks is a cosmetic product used to apply coloration and texture to lips, often made of wax and oil. Different pigment are used to produce colour, and minerals such as silica may be used to provide texture. The use of lipstick dates back to early civilizations such as Sumer and the Indus Valley Civilisation, and was popularized in the western world in the 16th century. Some lipsticks contain traces of toxic materials, such as lead and PFAS, which prompted health concerns and regulation.



Fig.No.1.2: A woman applying red Lipstick

Lipstick has been prominent in several women's fashion trends, often associated with sexuality. The colour of lipstick has aesthetic and cultural significance as different colours carry different connotations. Red lipstick has historically been associated with sensuality or women's independence while black lipstick is worn by both men and women in alternative subcultures, especially punk and goth. Celebrities such as Monroe, Elizabeth Taylor, Madonna, and Taylor Swift have contributed to the popularity and iconic images of lipstick in fashion and mainstream media



Fig.No. 1.3:A Tube of red Lipstick

- Cosmeceuticals combination of cosmetics and drugs has come into picture, which imparts decorative, attractive and eye appealing impressions along with therapeutic activity. These products not only add glamorous touch to an individual but also heal different pathological conditions such as inflammation, cracking, chapping and dryness of the skin. Face is the important part which is exposed to the environment and one must take a great care of it.
- Lips are the most important part in the face. It needs proper nourishment and hydration as it is the only part in our body which lacks pores. Cosmeceuticals like lip balms, lip serum lip rouge, lip oils, lip masks, lip scrubs, lipsticks, and exfoliators have evolved which protects the lip skin from dehydration, hyperpigmentation, inflammation etc. Out of all lipsticks is the integral part of daily make up routine .

1.2 History of Lipstick:

Men began using colours for adornment in approximately 3000 BC in order to attract the animals they wanted to hunt. Generally, the concept and construct of “Cosmeceuticals” was first articulated by Raymond Reed (1961), the founder of the US Society of Cosmetic Chemists. It originated from the Greek term “kosm tikos”, which means “decorating talent. Later, in 1984, Albert Kligman used the word “Cosmeceuticals” referring to the compounds that have both cosmetic and medicinal properties .Many herbs and floras have been used in the manufacture of cosmetics for the purposes of beauty and protection from external influences. The natural chemicals in cosmetics do not harm the human body; instead, they provide it with nutrients and minerals .Lipsticks, in particular, have been used by humans for over 500 years .Lipstick was first discovered as a rough fragment of brick in ancient Mesopotamia .Colouring lips is an ancient tradition that dates to the prehistoric period .Lipstick was first introduced in France in 1869 as a cosmetic product made from animal fat and beeswax .The availability of lipstick in the form of cylindrical metal tubes was introduced in 1915 .Presently lipsticks have become an essential product for many consumers. There is an extensive choice of colour shades and textures. This can be observed from the fact that lipstick is being marketed in hundreds of shades of colours to satisfy the increasing demand .

1.3 Advantage:

- Lipsticks really define a mouth.
- Protect and moisturize your lips.
- Lipsticks make look healthy and well.
- Lipstick make your face look slimmer.
- Keep the lip same even at the time of eating.
- Gives protection to your lips from climatic changes
- Enhances hydration to the lips.
- Keep your lips moisturizing.

- Give you confidence.
- Acts as sunscreen.
- Gets your facial appearance increase and make you gorgeous.

1.4 Disadvantage:

- It does become a habit.
- It is not easy to remove.
- Mistake are costly.
- It can damage your skin.
- You spend good amount on it.
- It may make the lip more sensitive.
- Continuous use of lipstick can result in darkened lips.
- The users may get habituated
- It hides your natural lips
- May cause dry lips and may result in skin diseases at that area.
- Many lipsticks contain ingredient that can dry out the lips, leading to chapping, cracking, and flacking.[1,2,11]

II. AIMS AND OBJECTIVE OF LIPSTICKS

2.1 Aim: To Preparation and Evaluation of Lipstick

2.2 Objective-

1. For the Purpose of beautification of lips.
2. To use in treatment of different lip disease.
3. The medicated lipsticks should be protect lip from dryness & cracking.
4. Lipsticks provide hydration as it in has ingredients like vitamin E.

Lipsticks provide beauty to your face

2.3 Material And Method:

➤ Raw materials used in lipsticks:

1. Waxes
2. Oils
3. Pigment and dyes
4. Alcohol
5. Fragrance
6. Preservation
7. Antioxidant
8. Surfactant
9. Colouring agent

1. Waxes:

Lipsticks contain a variety of waxes, oils, pigments, and emollients. Among the waxes are beeswax, carnauba wax, candelilla wax, etc. The waxes in lipsticks are responsible for ease of application and for holding pigments in place. The waxes in the lipstick are responsible for ease of application. But the main purpose is to give the lipstick shape stability since it must not melt on the lips. A lipstick contains 10 to 15% waxes which increases its melting point to approx. 65 - 85°C.

2. Oils:

Lip oils not only give your lips a beautiful glossy shine, but they also nourish, soften, and protect your lips from dehydration and cracking. So, what is lip oil and how is it used? In essence, it's a hybrid multitasking product that blurs the lines between makeup and skincare.

3. Pigment and dyes:

are made by mixing white titanium dioxide and red shades. Both organic and inorganic pigments are employed. Lipsticks get their colours from a variety of pigments and lake dyes including, but not limited to bromo acid. Pigment refers to the colour, and waxes offer spreadable texture with shape. Oils such as castor oil, mineral oils, lanolin, cocoa powder, jojoba, petrolatum, etc, can be used to add moisture.

4. Alcohol and fragrance:

This fragrance is inspired by the timeless allure of a red lipsticks. Fragrance is defined by the FDA as a combination of chemicals that gives each perfume or cologne (including those used in other products) its distinct scent. Fragrance ingredients may be derived from petroleum or natural raw materials. The alcohol used in cosmetics is denatured alcohol (also called denatured ethanol) to alter the taste and avoid misuse.

5. Preservative:

Parabens and formaldehyde-releasing preservatives are commonly used preservatives in cosmetic and personal care products. Parabens are not water-soluble and can penetrate the skin. Natural preservatives are preservative ingredients formed from naturally occurring substances. There are several natural sources containing ingredients with antimicrobial properties, such as benzoic acid



Fig. No. 3.1: cosmetics

6. Antioxidant:

Antioxidants are substances that may protect your cells against free radicals, which may play a role in heart disease, cancer and other diseases. The inclusion of antioxidants in a formulation is still the main approach to avoiding the oxidation of cosmetic products. Antioxidants fight the free radicals that cause oxidative damage to your ingredients.

7. Surfactant:

Surfactants are a category of chemical compounds that are used in lowering the surface tension (or interfacial tension) between different compounds, such as two liquids or between a gas and a liquid, or it can also be between a liquid and a solid.

eg- sodium alkylbenzene sulfonate, potassium alcohol sulfate .

8. Colouring agents:

Colour additive is any dye, pigment or substance which when added to a food, drug or cosmetic, or to the human body will impart a color.

The lipstick base is made by mixing the oils and waxes in varying proportions in order to obtain a desirable viscosity melting point.

The Colouring Agents : Carmine, dyestuff stain, pigmented stain, lakes etc.[7]

3.1 General formulation of lipsticks:

Ingredients	Quantity taken	Importance of Ingredient
Bees wax	1 gm	Hard wax (Hardness)
Coconut oil	1.5 ml	Hard wax (Hardness)
Olive oil	1ml	Soft wax (Glossy)
Castor oil	1 gm	Blending agent
Edible colouring matter like cinnamon bark powder, coca powder, turmeric powder	2 gm	Coloring agent
Vanilla essence	5-6 drops	Flavoring agent
Rose essence	3 drops	Flavoring agent
Lemon juice	2 ml	Anti-oxidant

Table.No.3.1: General formulation

1. Bees wax:

Synonym: paraffin wax, cranauba

Biological source: It is a product made from the honeycomb of the *honeybees* and other bees.

Family: *Apidae*

Chemical constituents: The main chemical constituent are carbon (73.3%), hydrogen (13.2%), and oxygen (7.5%) .

Uses: It's offer a moisturizer that protect your lip from becoming dry And developing cracks. It is also used in lip balm and lip gloss, etc.

2. Coconut oil:

Synonym: coconut palm oil Biological source-It is the oil expressed from the dried solid part of the EndospermOf *coconut*

Family: *palmae*

Chemical constituents: It is composed of the fatty acid, caprylic acid, capric acid etc.

Uses: It protect skin from UV Ray's.

It relieved irritation. It is used as a moisturizer.

3. Olive oil:

Synonym:vegetables oils

Biological source: It is a liquid fat obtained from olives , a traditional tree crop of the *Mediterranean bassin*, produced by pressing whole olives and extracting the oil.

Family: *oleceae*

Chemical constituents: It is composed mainly of triacylglycerol and contains small quantities of free fatty acid , glycerol, phosphatide, pigment and sterol.

Uses:It is used as superior hydration. Its relief from cracked and chapped lip. It gives natural SPF protection. It helps to keep your lips hydrated. It used to remove dead skin from lips and rejuvenated the skin.

4. Castor oil:

Synonym: Linseed oil

Biological source: It is non- volatile fatty oil obtained from the seed of the *castor bean*.

Family:*spurges*

Chemical constituents: It is mainly composed fatty acid and neutral lipids.

Uses: It is used as laxative. It is used as moisturizer. It may promote the healing of cracked lip. It promote hydration.

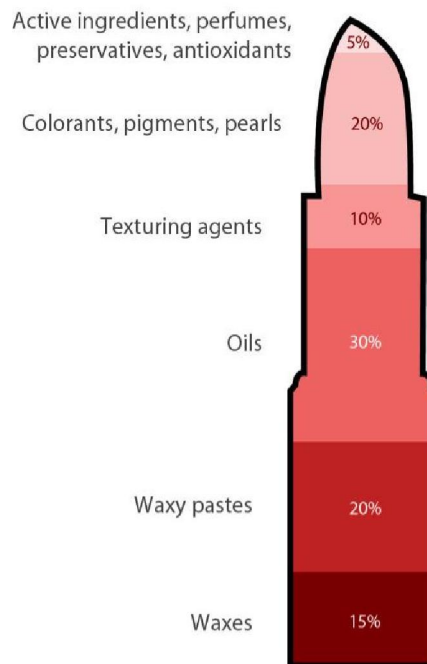


Fig No. 3.2: General formulation

3.2 Method Of Preparation:

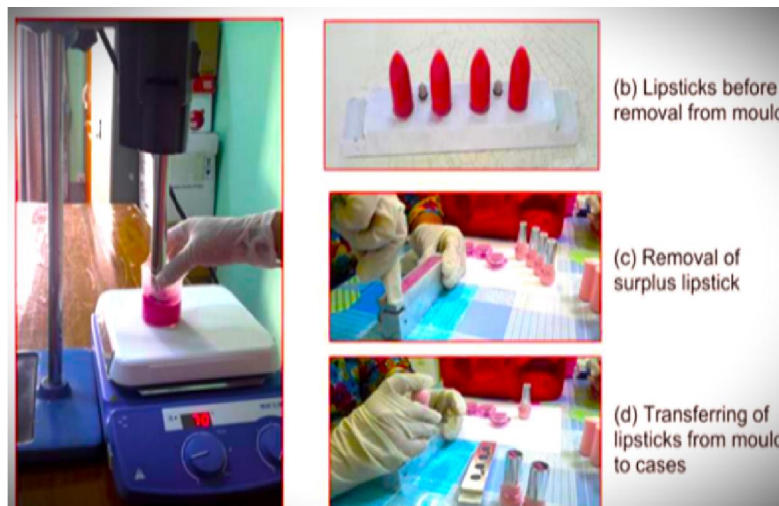


Fig.No.3.3: Method of preparation

- **Method Of Preparation:**

- ✓ If a solvent is used for the dissolution of bromo acid, the solution is first prepared and set aside until required.
- ✓ If commercial colour pastes are not being used, then lake colours are first dispersed by mixing with suitable quantity of castor oil.
- ✓ The colour paste obtained is passed through a triple roller mill until it becomes smooth and free from agglomerates and gritty particles.
- ✓ The colour mixture is then mixed with the bromo acid mixture.
- ✓ All the ingredients of the base are identified and arranged in the increasing order of their melting points. This mixture is remilled until it is perfectly smooth.
- ✓ Preservatives and anti-oxidant are dissolved in remaining oil and are added to the mixture.

- ✓ Finally, the perfume is added and the mass is stirred thoroughly, but gently to avoid entrapment of air. Automatic ejection mould is preferred for the large scale production.
- ✓ The mould is lubricated with liquid paraffin or isopropyl myristate before pouring the mass into the mould.
- ✓ It is important to prevent settling down of the colouring mass when the moulds are chilled. Lubrication facilitates easy removal of sticks.[10]
- ✓ Lipsticks are generally manufactured in small batches. A typical manufacturing process would be as follows:
 - The oil is heated in the process vessel to 175 - 185°F (80 - 85°C). The waxes are melted separately in a hemispherical jacketed vessel (often called a “kettle”) typically fitted with an anchor stirrer/scrapper. Part of the oil may be added to the kettle to aid the process.
 - The wax phase is added to the oil phase.
 - Various types of mixers/dispersers are used to combine the two phases.
 - A “pigment grind” is prepared by dispersing the powdered pigment into part of the oil using a triple roll mill, bead mill or similar conventional mill. Increasingly premicronized pigments are used.
 - These do not require grinding as such but some degree of shear may be required to break down any agglomerated particles.
 - Ready-to-use liquid pigment dispersions are also widely used despite the increased cost. These can be added directly to the oils and waxes without pre-processing.
 - The pigment grind is added to the oil/wax phase and mixed until a homogeneous product has been achieved. This may require passing through a colloid mill or similar. The mixture is cooled slightly before fragrances, preservatives and other ingredients are added.
 - The finished product is held at a lower temperature before being poured into moulds and cooled to solidify.
 - The sticks may be “flamed” to produce a glossy finish to the surface. [6]

3.3 Following process used to the manufacturing of lipstick:

1. Colour grinding
2. Melting
3. Mixing
4. Molding
5. Flaming
6. Finishing
7. Packaging

1. colour grinding: Pigment and dyes are available in amorphous form so we have to convert into powder form. Equipment used for grinding are.....

- Roller mill
- Colloidal mill

Lipstick making equipment involves first a roll mill to create the pigment mass by grinding together oils and solvents with the combination of pigments of your choice. Rolling mills are used to roll hot or cold ferrous or non-ferrous strips, wires and even rods. Depending on the type of mill it could be used for hot or cold breakdown and finishing of bar, sheet or strip. They can also be used for finish rolling of thin gauge stock, embossing or compacting.

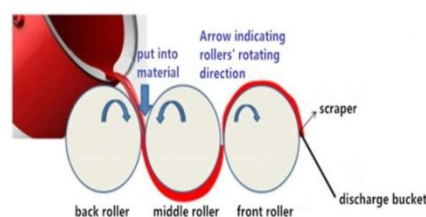


Fig No.3.4: Roller mill

A colloid mill is a machine that is used to reduce the particle size of a solid in suspension in a liquid, or to reduce the droplet size in emulsions. Colloid mills work on the rotor-stator principle: a rotor turns at high speeds (2000–18000 RRP Colloidal processing is a wet method for consolidating particles with a high density and homogeneous microstructure by controlling the interparticle interaction in a suspension.

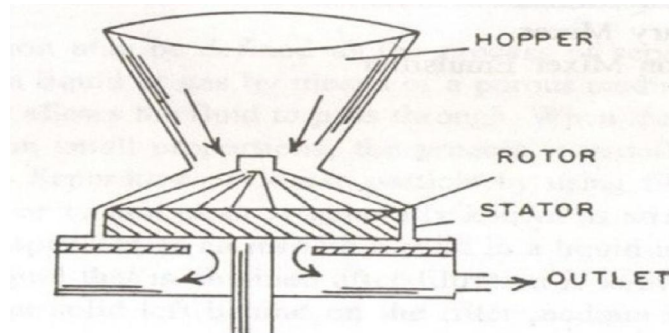


Fig.No.3.5: Colloidal mill

2. Melting and Mixing:

- The raw ingredients for the lipstick are melted and mixed—separately because of the different types of ingredients used. One mixture contains the solvents, a second contains the oils, and a third contains the fats and waxy materials. These are heated in separate stainless steel or ceramic containers.

The solvent solution and liquid oils are then mixed with the colour pigments. The mixture passes through a roller mill, grinding the pigment to avoid a "grainy" feel to the lipstick. This process introduces air into the oil and pigment mixture, so mechanical working of the mixture is required. The mixture is stirred for several hours; at this point some producers use vacuum equipment to withdraw the air

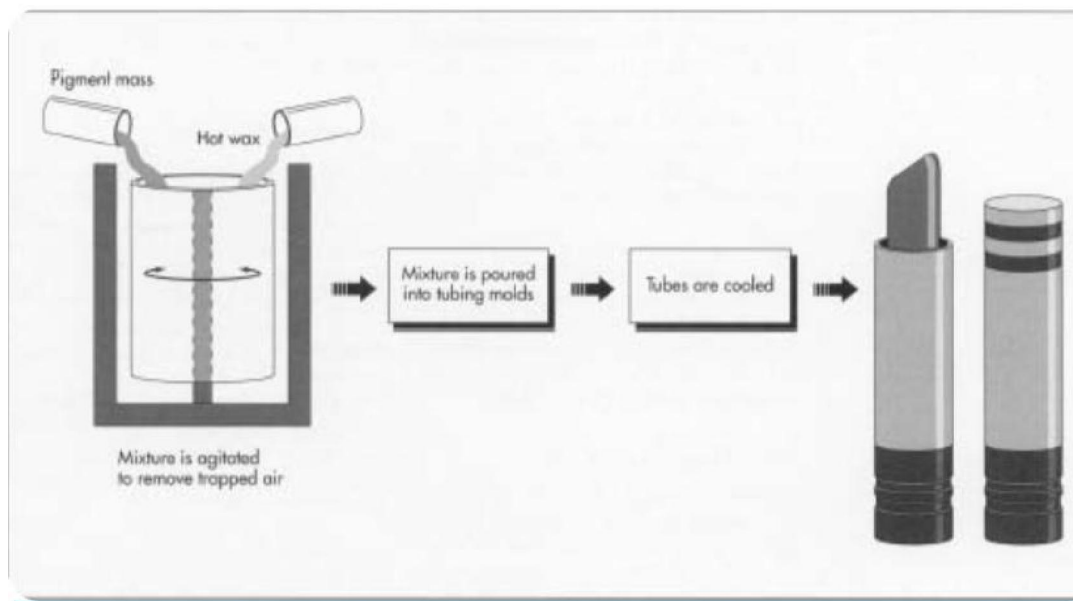


Fig.No.3.6: Melting and mixing

- After the pigment mass is prepared, it is mixed with the hot wax. The mixture is agitated to free it of any air bubbles. Next, the mixture is poured into tubing molds, cooled, and separated from the molds. After final touch-up and visual inspection, the lipstick is ready for packaging.
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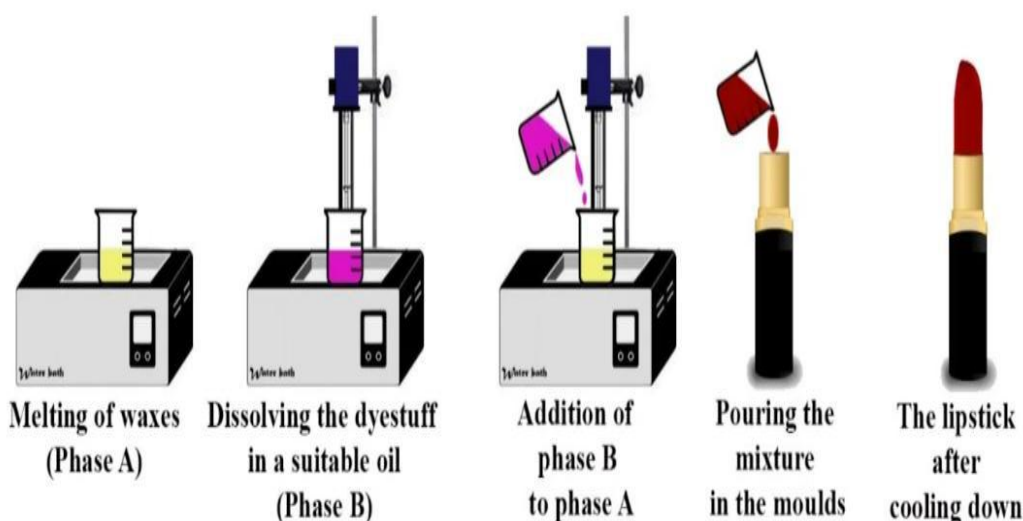
- After the pigment mass is ground and mixed, it is added to the hot wax mass until a uniform color and consistency is obtained. The fluid lipstick can then be strained and molded, or it may be poured into pans and stored for future molding.
- If the fluid lipstick is to be used immediately, the melt is maintained at temperature, with agitation, so that trapped air escapes. If the lipstick mass is stored, before it is used it must be reheated, checked for color consistency, and adjusted to specifications, then maintained at the melt temperature (with agitation) until it can be poured.
- As expected, lipsticks are always prepared in batches because of the different color pigments that can be used. The size of the batch, and the number of tubes of lipstick produced at one time, will depend on the popularity of the particular shade being produced. This will determine the manufacturing technique (automated or manual) that is used. Lipstick may be produced in highly automated processes, at rates of up to 2,400 tubes an hour, or in essentially manual operations, at rates around 150 tubes per hour. The steps in the process basically differ only in the volume produced

3. Molding :

The lipstick mass is mixed and free of air, it is ready to be poured into the tube. A variety of machine setups are used, depending on the equipment that the manufacturer has, but

- high volume batches are generally run through a melter that agitates the lipstick mass and maintains it as a liquid. For smaller, manually run batches, the mass is maintained at the desired mix temperature, with agitation, in a melter controlled by an operator.
- The melted mass is dispensed into a mold, which consists of the bottom portion of the metal or plastic tube and a shaping portion that fits snugly with the tube. Lipstick is poured "up-side down" so that the bottom of the tube is at the top of the mold. Any excess is scraped from the mold.
- The lipstick is cooled (automated molds are kept cold; manually produced molds are transferred to a refrigeration unit) and separated from the mold, and the bottom of the tube is sealed. The lipstick then passes through a flaming cabinet (or is flamed by hand) to seal pinholes and improve the finish.
- The lipstick is visually inspected for air holes, mold separation lines, or blemishes, and is reworked if necessary.
- For obvious reasons, rework of the lipstick must be limited, demonstrating the importance of the early steps in removing air from the lipstick mass.

Lipstick is reworked by hand with a spatula. This can be done in-line, or the tube can be removed from the manufacturing process and reworked



4. Labelling And Packaging:

After the lipstick is retracted and the tube is capped, the lipstick is ready for labelling and packaging. Labels identify the batch and are applied as part of the automated operation. While there is a great deal of emphasis on quality and appearance of the finished lipstick product, less emphasis is placed on the appearance of lip balms.

Lip balms are always produced in an automated process (except for experimental or test batches). The heated liquid is poured into the tube in the retracted position; the tube is then capped by machine a far less laborious process.

The final step in the manufacturing process is the packaging of the lipstick tube. There are a variety of packaging options available, ranging from bulk packs to individual packs, and including packaging as a component in a makeup kit or special promotional offering.

Lip balms are packaged in bulk, generally with minimum protection to prevent shipping damage.

Packaging for lipsticks varies, depending on what will happen at the point of sale in the retail outlet.[9]



Fig.No.3.8: Steps of preparation of lipstick

3.4 Defects:

✓ Formulation Related problems:

1. **Sweating-**
Caused due to high oil content or inferior oil binding.

Bleeding-

Separation of coloured liquids from waxy bases.

2. **Blooming-**
Due to higher percentage of cetyl alcohol.

3. **Streaking-**
Expected to be caused due to titanium dioxide.

✓ Moulding Related Problems:

1. **Laddering-**

Lipsticks does not look smooth or homogenous.

2. **Deformation-**
Noticeable in softer formulae.
3. **Catering-**
Shows up flaring when sticks developed dimples. [3,4]

3.5 Evaluations of Lipstick:

Evaluation test means as written test on general information you should have retained during each period of your apprenticeship.

The consistency of the finished product. The evaluation tests for the lipsticks are as follows:

1. Melting point determination test
2. Breaking load point test
3. Determination of thixotropic characters
4. Microbiological test
5. Test for Rancidity
6. Test for the application force
7. Storage stability
8. Stability to oxidation
9. Determination of surface characteristics.
10. Determination of coloured dispersion.

1. Melting Point Determination Test:

The determination of melting point is done in order to determine the storage characteristics of the product. The inciting point of lipstick base should be between 60 to 65°C in order to avoid the sensati on of friction or dryness during application. The method of determination is known as capillary tube method:

- a. In this method, about 50 mg of lipstick is taken and is inserted into a glass capillary tube open at both ends.
- b. The capillary tube is ice cooled for about hrs and then placed in a beaker containing hot water and a magnetic stirrer.
- c. The temperature at which material starts moving through the capillary is said to be the melting point temperature.
- d. Another important parameter is the droop point which determines the temperature at which the product starts oozing out the oil and becomes flattened out.
- e. The melting point should be higher than the droop point which determines the safe handling and storage of finished product.

DETERMINATION OF MELTING POINT:

- The lipstick base should have a M.P. between 55 – 75°C

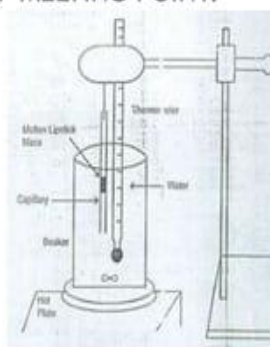


Fig.No. 3.9:Determination of melting point

2. Breaking Load Point Test:

This test is done in order to determine the strength and hardness of the lipstick. In this method, the lipstick is placed horizontal position 1 inch from the base and weights with increasing loads are attached to it. the weight at which the lipstick starts breaking, known as the breaking load point. The test shall be carried out in specific condition and at about 25 ° C temperatures. This test is done in order to determine the strength and hardness of the lipstick. In this method, the lipstick is placed horizontal position 1 inch from the base and weights with increasing loads are attached to it. the weight at which the lipstick starts breaking, known as the breaking load point.

3. Determination Of Thixotropic Character:

The thixotropy test is used to determine the uniformity in the viscosity of a base. It is important to identify lipstick with good texture, which may ease application by consumers. Jain and Sumeet Dwivedi (2017) used a penetrometer to determine the thixotropic properties of lipstick . The authors briefly described the process by penetrating a needle under a 50-g load at 25 ° C for 5 s. The thixotropic character was observed by the depth of penetration. This method was also used in several studies . The thixotropy of lipstick ranged from 9 to 10.5 . Based on the reviewed data, there is no single study that mentioned a comparison of the thixotropic results to the reference guidelines. This could suggest that no guidelines for this test have been developed.

4. Microbiological Tests:

- The test is carried out in order to determine the extent of contamination either from the raw materials or mould.
- The test involves the plating of known mass of sample on two different culture media for the growth of microorganism and incubating them for a specific period of time.
- The extent of contamination can be estimated by counting the number of colonies. Contamination from raw material , moulds, storage kettles or lipstick container can lead to microbial growth.
- The test consist of plating a know mass of the sample on two selected culture media specifically suitable for the growth of bacteria fungi incubating them for a specified period to permit the development of visual colonies for counting.

5. Test For Rancidity:

The oxidation of oil such as castor oil and many other ingredients may result in bad odour and taste and also result in a sticky product

- The test for rancidity can be done by using hydrogen peroxide and determining its peroxide number.
- Rancidification is the decomposition of fats, oils and other lipids by hydrolysis or oxidation.
- It leads to obnoxious odour , bad taste and sticky product and sometimes change of colour of the product. Testing of rancidity can be done by determining its peroxide number.

6. Test for the Application Force:

- force of application test is used to evaluate the force required for lipstick application on the lips . The method was described by Panda et al. (2018) .
- The test was carried out by placing a piece of coarse brown paper on a shadow graph balance Then the lipstick was applied at a 45-degree angle to cover a 1 square inch area until fully covered . The resulting force of application was shown by a pressure reading. The same method was used by Sainath et al. (2016)
- This test was described in the reviewed data, and the results were based on the authors' experience and comparison with other published data.
- To our knowledge, there are no specific guidelines on how this test is to be followed or how it is to be used as a standard reference.

7. Storage Stability:

- Solubility tests can suggest the polarity of the compound in lipsticks in order to characterize the solvent selectivity .The method described by Maru and Lahoti (2018) involved adding a few drops of lipstick sample to different solvents

methanol, ethanol, chloroform, and petroleum ether—in different test tubes, and the solubility was observed. This method was also used in several studies. The lipstick was soluble in chloroform and ethanol.

- Lipstick containing castor oil is soluble in alcohol and has limited solubility in petroleum solvents due to the hydroxyl group in ricinoleic acid. Nonetheless, no research article has focused on the solubility significance of a lipstick formulation.

8. Stability to Oxidation:

The oxidation characteristics of the finished product are determined in order to check the stability of the product to oxidation. The extent of oxidation can be determined by peroxide number of product after exposure or substance to oxygen for a specific period of time.

9. Determination of Surface Characteristics:

The study of surface property of the product is carried out in order to check the formation crystal on the surface or the contamination by microorganism or formation of wrinkles and the exudation of liquid.

10. Determination Of Colour Dispersion:

- The test is done in order to determine the uniform dispersion of colour particle.
- The size of the particle is determined by the microscopic studies and it should not be more than 50 μ .
- 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.[5,3]

IV. CONCLUSION

Study concluded that natural lipsticks can be successfully formulated using natural ingredients such as white bees wax, butter, Castrol oil, coconut oil, olive oil, vanilla and rose essence, cinnamon bark extract, turmeric powder, coca powder and lemon will be better option for synthetic colouring agents which may arise different side effects. Consumers can take safe & effective advantages of this natural lipsticks after through clinical trials.

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