



Review on Cosmetics Science

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ABSTRACT:

Cosmetics are constituted mixtures of chemical compounds derived from either natural sources, or synthetically created ones. Cosmetics have various purposes. Those designed for personal care and skin care can be used to cleanse or protect the body or skin. Cosmetics designed to enhance or alter one's appearance (makeup) can be used to conceal blemishes, enhance one's natural features (such as the eyebrows and eyelashes), add colour to a person's face, or change the appearance of the face entirely to resemble a different person, creature or object. Cosmetics can also be designed to add fragrance to the body.

Cosmetics designed for skin care can be used to cleanse, exfoliate and protect the skin, as well as replenishing it, through the use of cleansers, toners, serums, moisturizers, and balms. Cosmetics designed for more general personal care, such as shampoo and body wash, can be used to cleanse the body.

Introduction:

The cosmetic industry describes the industry that manufactures and distributes cosmetic products. These include colour cosmetics, like foundation and mascara, skincare such as moisturizers and cleansers, hair care such as shampoos, conditioners and hair colours, and toiletries such as bubble bath and soap.

The largest cosmetic companies are Johnson & Johnson, L'Oreal, Gillette, Nivea and Chanel.

Drug and Cosmetic Act 1940 and 1945 :

Import, manufacture, sale or distribution of cosmetics were not being regulated in India prior to 1962. In the early sixties, it became necessary to regulate import, manufacture and sale distribution of cosmetics due to prevalence of misbranded or spurious cosmetics. Cosmetics was brought within the purview of the Drugs Act and the name of the Act was changed to the Drugs & Cosmetics Act, 1940.

The Drugs and Cosmetics Act, 1940 is an act of the Parliament of India Which regulates the import, manufacture and distribution of drugs in India. The primary objective of the act is to

ensure that the drugs and cosmetics sold in India are safe, effective and conform to state quality standards.

Under the Act, Cosmetic has been defined as, "Cosmetic" means any article intended to be rubbed, poured, sprinkled or sprayed on, or introduced into, or otherwise applied to, the human body or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the

appearance and includes any article intended for use as a component of cosmetic.

Chapter III of the Drugs & Cosmetics Act deals with import of drugs & cosmetics. Import of certain cosmetics is prohibited under section 10 of the Act and rules 134A, 135, 135A of the Drugs & Cosmetics Rules, 1945. These are:

1. Any cosmetic which is not of standard quality;
2. Any misbranded or spurious cosmetic;
3. Any cosmetic for the import of which a license is prescribed, otherwise than under, and in accordance with, such licence;
4. Any cosmetic containing any ingredient which may render it unsafe or harmful for use under the directions indicated or recommended;
5. Any cosmetic the import of which is prohibited by rule
6. Any cosmetic containing hexachlorophene
7. Any cosmetic in which lead or arsenic compound has been used for colouring purpose;

8. Any cosmetic which contains mercury compounds.

Offences and penalties under Drug and Cosmetic Act :

Sr. No.	Offence	Penalties	
		First conviction	Subsequent conviction
1.	Import of adulterated or spurious drugs or cosmetics or any cosmetic containing any ingredient which may render it unsafe or harmful for the use under directions recommended.	Imprisonment upto 3 years and fine upto ₹ 5000.	Imprisonment upto 5 years or fine upto ₹ 10,000 or both.
2.	Import of drugs or cosmetics other than referred above the import of which is prohibited.	Imprisonment upto 06 months or fine upto ₹ 500 or both.	Imprisonment upto 1 year or fine upto ₹ 1000 or both.
3.	Import of drugs or cosmetics in contravention of any notification issued under section 10-A.	Imprisonment upto 3 years or fine upto ₹ 5000 or both.	

In India, import, manufacturing, sale, and distribution of drug is regulated under **Drugs and Cosmetics Act 1940** and **Drugs and Cosmetic Rules 1945**.

A licence is required under the Drugs & Cosmetics Rules for manufacture of cosmetics for

sale/distribution. This licence is issued by the state regulatory authorities (State Drug Control Department Or State Food and Drug Administration).

How to Obtain Licence :

Application form has been prescribed under the rules. Application is required to be made in Form 31. The application should be accompanied by a licence fee of Rs.2500.00 and inspection fee of Rs.1000.00. Additional fee will be required to be deposited, if the number of items in any category exceeds ten. The categories of cosmetics have been specified under schedule M-II to the rules. The application should be accompanied by the following documents:

1. Layout plan of the factory premises;
2. A list of equipment and machinery installed;
3. A document about the constitution of the firm i.e., an affidavit of proprietorship in case of sole-proprietorship, a copy of partnership deed, in case of partnership firm, a copy of memorandum and articles of association in case of a private limited or public limited company;
4. A document showing possession of the applicant on the proposed premises for factory e.g. Rent agreement/rent receipt etc.

Conditions of License :

- Licensed cosmetics manufacturers have to comply with certain conditions. These conditions in brief are:
- Manufacturer should continue to provide and maintain the premises, equipment and staff as at the time of grant of licence.
- Manufacturers should test each batch or lot of raw materials before its use in the manufacture of cosmetics.
- Manufacturer should test each batch of finished cosmetics. Cosmetics appearing under Schedule S should conform to the Indian Standards framed by the Bureau of Indian Standards (BIS).
- Manufacturers should maintain records of raw materials, manufacture of each batch of cosmetic(s) and their testing. In the raw material and manufacturing records, at least the particulars given under Schedule U(I) to the Drugs and Cosmetics Rules should be shown. For convenience of the readers Schedule U(I) is reproduced here.

Documentation :

- **Manufacturing batch Record for Cosmetics –**

Particular to be shown in the manufacturing record :

1. Serial number.
2. Name of the product.
3. Lot or Batch size.
4. Lot or Batch number.
5. Date of commencement of manufacture and date when manufacture was completed.
6. Names of all ingredients, quantities required for the lot/batch size, quantities actually used.
7. Control reference numbers in respect of raw materials used in formulation.
8. Reference to analytical report numbers or unique code.
9. Actual production and packing particulars indicating the size and quantity of finished packing..
10. Date of release of finished packing for distribution or sale.
11. Signature of the expert staff responsible for the manufacture.

Records of raw materials:

Records in respect of each raw material shall be maintained indicating the quantity received,

control reference number, the quantity issued from time to time, the names and batch numbers of the products for the manufacture of which the said quantity of raw material has been issued and the particulars relating to the proper disposal of the stocks.

- **Master Formula Record :**

RMaster formula record (MFR) is a master document for any pharmaceutical product. It contains all information about the manufacturing process for the product. MFR is prepared by the research and development team of the company and all other documents like BMR and BPR are prepared using MFR by the manufacturing units.

MFR includes -

1. Product Details:
2. Name, logo and address of the manufacturing company.
3. Dosage form name.
4. Brand name.
5. Generic name.
6. Product code
7. Label claim of all ingredients
8. Product description Batch size
9. Pack size and packing style
10. Shelf life
11. Storage conditions
12. MFR number and date
13. Supersede MFR number and date
14. Effective batch number
15. Authorization by the production and quality assurance head.

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- Flow Chart: Steps of the manufacturing process to be monitored. Flowchart of the material movement from dispensing to the final product to stores.
 - Equipment: Create a list of all required equipment and machines required in the manufacturing process with their capacity.
 - Special instructions: Write down the precautions special instructions to follow during the product manufacturing and packing and these should also be added in the batch manufacturing formula.
 - Calculations: Include the calculation steps of all active materials to get the 100% of the active material. The calculation shall be done using water or LOD to get 100% potency.
 - Manufacturing Process: Write all steps in all stages of the manufacturing process. All process steps like shifting, milling, lubricating, granulation, compression and coating should be written in detail including the process time and yield.
 - It also includes atmospheric conditions as temperature, humidity, and storage conditions for every step.
 - Packing Process: List of all packing materials with their quantity is written. Line clearance, reconciliation of printed and unprinted packing materials should be included in details.
 - Yield: Include the theoretical, actual yield and acceptance limit of the batch.

Conclusion :

After the completion of the report on cosmetic science and preparation and evaluation of cold

cream, we understood the concept of cosmetic, cosmetic industries, Drug and cosmetic Act 1940 and 1945, licensing and documentation of cosmetics, and different types of problems related to

skin, hair, nail, oral cavity and body cavity.

We also get knowledge about cleansing and care needs for face, eyelid, gum, dental cavities, hair, lip, hand, feet, nail, neck, scalp, body and under arm.

We also understand the basic concept of preparation of SOP of different equipment, instruments and machineries and also get knowledge about different types of equipment and machineries required for manufacturing and quality control of different cosmetic products.

Cold cream is an emulsion of water and certain fats, usually including bee wax and various scent agents, designed to smooth skin and remove makeup.

Cold cream is an emulsion of water in a larger amount of oil, unlike the oil in water emulsion of vanishing cream, so-called because it

seems to disappear when applied on skin. The name "cold cream" derives from the cooling feeling that the cream leaves on the skin.

Cold cream is mainly used for skin treatment, due to its moisturizing properties. It can also be used to remove makeup.

Cold cream is prepared and evaluate and stored in air tight container