

Handbook on Cosmetics (Processes, Formulae with Testing Methods)

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Cosmetics products are created for application on the body for the purpose of cleansing, beautifying or altering appearance and enhancing attractive features. It is not similar like medicines in addition to it cannot be used to modify the physique function or performance. The cosmetic Industry has witnessed rapid growth over the last couple of decades. Now a day the range of cosmetic and beauty products has widened tremendously. The use of cosmetics has increased exponentially not only among in females but the male population also indulges in their use. A wide range of chemical and natural materials is used in the formulation of cosmetic and toiletry preparations. Cosmetics like creams, gels, face powder, eye makeup, shaving cream, and colognes are used on a daily basis by both women and men. The Indian cosmetic Industry has witnessed rapid growth over the last couple of decades. In that time the range of cosmetic and beauty products in India has widened tremendously. Beauty products manufacturers in India mostly cater to the great demand for cosmetics and toiletries that fall into the low or medium price categories as the greatest demand in India has always been for these economically priced products. Bearing a long glowing heritage of cosmetic and beauty, aesthetic makeup products is being used since olden days and nowadays it appear like a booming economy in India which would be the largest cosmetic consuming country in a next few decades. While the demand of beautifying substances are growing day by day, a large number of local as well as international manufacturers gradually extend their ranges and products in different provinces of India. Industry sources estimate a rapid growth rate of 20% per annum. Some of the fundamentals of the book are regulation of cosmetic products, the relationship of cosmetic products to drugs, preservation of cosmetics, factors affecting preservation, organisms found in cosmetics, antiperspirants and deodorants, cleansing creams and lotions, baby toiletries, face powder manufacturing process, aerosol cosmetics, shaving preparations: soaps, creams, oils, and lotions, advantages and disadvantages of natural dyes, packaging cosmetic preparations, etc.

The book covers formulae, manufacturing processes of various types of cosmetics like antiperspirants and deodorants, cleaning creams, lotions, emollient creams, baby toiletries, face powder, eye makeup and many more along with testing methods. This book will be great asset to new entrepreneurs, existing units, technocrats and technical institutions.

1. Regulation of Cosmetic Products
 - Historical Development
 - Self-regulation
 - Regulation in the United States

1. Federal Regulation of Cosmetics
2. Cosmetic Composition
3. Cosmetic Labeling
4. The Relationship of Cosmetic Products to Drugs
5. Regulation of Cosmetics by Other Federal Agencies
6. Cosmetics and the Consumer Product Safety Commission
7. Regulation of Cosmetics by the States
8. Conclusion

2. Sensitivity Testing

Diagnostic Sensitivity Testing

Technique of Diagnostic Patch Testing

The Interpretation of Patch Test Reactions

• Uncovered versus • Covered Patch-Test Technique

Features of Patch Testing with Paraphenylenediamine

Uncovered Patch-Test Method for PPDA Sensitivity

Covered Patch-Test Technique for PPDA Sensitivity

Evaluation of Patch-Test Reactions to PPDA

Features of Patch Testing with Nail Polish

Patch Testing with Lipstick

Testing with Permanent Wave Solutions

Testing for Sensitivity to Perfumes

Testing for Lanolin Sensitivity

Diagnostic Photosensitivity Testing

Light Sources for Photosensitivity Testing

Testing Cosmetics for Photosensitization

Testing Antimicrobial Agents in Soaps and Cosmetics

Patch Test Table for Specific Ingredients in Cosmetics

Patch Tests with Unlisted Cosmetic Ingredients

Prophetic or Predictive Sensitivity Testing

Predictive Testing for Allergic Contact Sensitization

Predictive Testing for Photosensitizing Capacity

3. Quality Assurance

Quality Control

Raw Material Inspection

Inspection of the Finished Product

Inspection of Containers and Packaging Materials

In-Process Control

Finished Goods Control

Good Laboratory Practice (GLP)

Good Manufacturing Practice (GMP)

Environmental Protection

Quality Promotion

Works Proposal System

Quality Teams

4. Raw Materials

Introduction

Basic Surfactants

Alkyl Ether Sulfates

Alkyl Sulfates

α -Olefin Sulfonates

Other Basic Surfactants
Mild Anionic Surfactants
Sulfosuccinates
Cocoyl Isethionates
Acyl Amides
Alkyl Ether Carboxylates
Magnesium Surfactants
Alkyl Ether Carboxylates
Magnesium Surfactants
Alkyl Phosphates
Amphoteric Surfactants
Alkyl Betaines
Alkylamido Betaines
Acylamphoglycinates and Acylamphopropionates
Amine Oxides
Non-ionic Surfactants
Ethoxylates Products
Alkyl Polyglycosides
Cationic Surfactants
Monoalkyl Quaternaries
Dialkyl Quaternaries
Trialkyl Quaternaries
Benzyl Quaternaries
Ester Quaternaries
Ethoxylated Quaternaries
Shampoo and Bath Additives
Thickeners
Foam Stabilizers
Pearlescent Agents
Conditioning Agents
Emollients
Sequestering Agents
Oil Components
Mineral Oil
Natural Oils
Triglycerides
Jojoba Oil
Synthetic Oils
Isopropyl Esters
Ethylhexyl Esters
Oleic Acid Esters
Caprylic / Capric Acid Esters
Isocetyl Stearate
Octyldodecanal
N-Butyl Stearate
Diisopropyl Adipate
Pentaerythritol Tetraisostearate
Waxes
Natural Waxes
Synthetic Waxes
Silicone Oils
Cream Bases
Fatty Alcohols

Polyol Esters
Fatty Acids
Oil-in-Water (O/W) Emulsifiers
Water-in-oil (W/O) Emulsifiers

5. Preservation of Cosmetics

Factors Affecting Preservation

Organisms Found in Cosmetics

Molds

Yeasts

Bacteria

Factors Influencing the Growth of Microorganisms

Minerals

Growth Factors

Moisture Content

pH

Temperature

Oxygen

Other Ingredients

Factors Affecting the Action of Preservatives in Cosmetics

Concentration

Solubility Relationships

pH

Surface-Active Agents

The Interference of Nonionic Emulsifiers with Preservatives

Suitability of Substrate for Growth of Organisms

Amount of Inoculum

Synergism or Antagonism with Other Compounds

Evaluation of Preservatives for Cosmetics

Methods of Testing Antimicrobial Agents

Choice of Organism

Practical Tests

Preservatives

Organic Acids

Alcohols

Aldehydes

Essential Oils

Phenolic Compounds

Esters of p-Hydroxybenzoic Acid

o-Phenylphenol

Mercury Compounds

Surface-Active Agents

Miscellaneous Nitrogen Compounds

Polyols

Miscellaneous Antimicrobials

Mechanism of Preservative Action

Allergic Response to Preservatives and Antimicrobials

Photosensitization

Manufacturing

Prevention of Microbial Contamination

Deionizer Contamination

Filter Contamination

Raw Material Contamination

Sanitation
Microbial Corrosion
Emulsion Preservation
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Antioxidants
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Mechanism of Action
Classification of Antioxidants
Considerations for Use of Antioxidants

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Liquefying Cleansing Creams
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- Epidermal Physiology
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- Care of the Hair and Scalp
- Formulation
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- Literature

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- Loose Face Powder
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