

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
Preservation of Shampoos
Chelation
Antioxidants
Rancidity
Mechanism of Action
Classification of Antioxidants
Considerations for Use of Antioxidants

6. Antiperspirants and Deodorants

Introduction
Regulations
Mechanism of Sweating
Antiperspirant Active Properties
Basic Aluminum Chloride
Aluminum Zirconium Complexes
Clinical Assessment
Formulatory Considerations
Performance
Cost
Esthetics
Formulations
Roll-on Products
Stick Products
Spray Products
Deodorants
Odor Control
Clinical Assessment
Formulations

7. Cleansing Creams And Lotions

Properties Sought
History
Types of Cleansing Cream
Beeswax-Borax Emulsion Type
Basic Materials
Liquefying Cleansing Creams
Miscellaneous Emulsion Types
Sorbitan Fatty Acid Ester Emulsions
Acid-Containing Cleansing Creams
Detergent Cleansing Creams
Antibacterial Cleansing Preparations
Cleansing Lotions
Cleansing Preparations for Oily Skin
Consideration of Safety
Equipment and Manufacturing

8. Emollient Creams And Lotions

Theoretical Aspects of Emollience
Emollient Materials
Emollient Evaluation

- Emulsion Types
- Penetration
- Formulations
- Emollient Creams
- Raw Materials
- Glyceryl Monostearate (from "Triple-Pressed" Stearic Acid)
- Polyethylene Glycol Fatty Acid Esters
- Stearic Acid
- Beeswax
- Fatty Alcohols
- Lanolin
- Hydrocarbon Waxes
- Manufacturing Procedure
- Emollient Lotions
- Specialized Creams and Lotions
- Eye Creams
- All-Purpose Creams
- Therapeutic Creams

9. Baby Toiletries

- Epidermal Physiology
- Skin Care of the Newborn
- Baby Oils
- Baby Lotions
- Cationic Lotions
- Care of the Diaper Area
- Diaper Rash
- Cationic Ointments
- Baby Oils
- Baby Lotions
- Baby Creams
- Soap
- Baby Powders
- Diaper Laundering
- Disposable Diapers
- Infantile Eczema
- Care of the Hair and Scalp
- Formulation
- Raw Materials
- Baby Oils
- Baby Lotions
- Baby Creams
- Baby Powders
- Literature

10. Face Powders

- Loose Face Powder
- Raw Materials
- Formulations
- Compact Face Powder
- Raw Materials, Binding Agents, and Preservatives
- Binding Agents
- Compression Methods

Face Powder Manufacturing Process
Base Powder Preparation
Color Extenders
Combination: Base Powder and Color Extenders
Mills
Pressing Machines and Pressure Considerations
Packaging
Quality Control and Laboratory Practices
Shade Control and Lighting
Dispersion of Color
Pay off
Pressure Testing
Breakage Test

11. Eye Makeup

Raw Materials
Pigments
Basic Ingredients
Petrolatum
Lanolin
Ceresin
Carnauba
Beeswax
Stearic Acid
Isopropyl Myristate
Propylene Glycol
Gum Tragacanth
Methyl Cellulose
Preservatives
Pearlessences
Perfuming
Formulation and Manufacture
Eyeshadow
Mascara
Eyebrow Pencils
Eye Liners
False Eyelashes
Eye Cover Products
Eye Makeup Removers
Eye Creams and Eye Sticks
Analysis
General Remarks

12. Aerosol Cosmetics

Definitions
Historical Background
Principle and Mechanism
The Package and its Components
Container
Metals
Industry Specifications for Fabricated Aerosol Cans
Glass
Plastics

- Valves
- Valve Specialties
- Actuator Cover Cap
- Powder or Paint Valves
- Foam Valves
- Spray Anyway Valves
- Metering Valves
- Special Applicators
- Codispensing Valves
- Propellants
- Concentrate
- Production
- Cold Filling
- Pressure Filling
- Under-the-Cup Filling
- Formulation
- Hair Products
- Hair Sprays
- Hairsets and Conditioners
- Hairdressing
- Color Rinse and Sprays
- Wave Lotions
- Shampoos
- Skin Products
- Deodorants and Antiperspirants
- Fragrances
- Sunscreen
- Shaving Cream
- Shaving Accessories
- Feminine Deodorant Spray
- Nail Preparations
- Powders
- Face Creams and Lotions
- Oral Products

13. Shaving Preparations: Soaps, Creams, Oils, and Lotions

- Shaving Soaps, Sticks and Powders
- Shaving Soaps
- Shaving Sticks
- Shaving Powders
- Lather Shaving Cream
- Brushless Shaving Cream
- Shaving Oils and Lotions

14. Preshave and Aftershave Preparations

- Preshave Preparations
- Skin Conditioners
- Beard Softeners
- Pre-electric Shave Preparations
- Aftershave Preparations
- Clear Lotions
- Stick Lotions and Gels
- Creams and Emulsified Lotions

Powders
Styptics
Aerosols

15. Hair-Grooming Preparations
Properties of a Good Hairdressing
Types of Hairdressing
Brilliantines
Liquid Brilliantines
Solid Brilliantines
Alcoholic Lotions
Hair Tonics
Two-Layer Lotions
Gum-Base Hairdressings
Oil-in-Water Emulsions
Water-in-Oil Emulsions
Aerosol Hairdressings

16. Hair Straighteners
Morphological Considerations
General Chemical Composition
Keratin
Hair Treatment Reactions
Oxidation
Diffusion of Reagents
D-Cystine Fraction
Measurement of Physical Changes Related to Fibre Treatment
Form-related Compositions
Temporary Straightening
Permanent Straightening
Thioglycolate Compositions
Neutralizers
Manufacturing and Material Specifications
Packaging Considerations
Method of Application
Other Materials
Silicones
Sulfites
Manufacture
Procedure
Neutralization
General Considerations

17. Bleaches, Hair Colorings and Dye Removers
Demands in Hair Coloring
Classes of Coloring Agents
Bleaching Agents
Early Bleaches
Chemical Bleaches
Hydrogen Peroxide
Action of Peroxide on Hair
Bleaching Agents and Treatments
Platinum Bleaching

Blanching of Hair
After Treatment of Bleached Hair
Synthetic Organic Dyes
Range of Shades Required
Special Shades
Temporary Colorings
Coloured Rinses
Rinses for Gray Hair
Importances of Instructions
Color Shampoos
Powders
Crayons
Semi-Permanent Dyes
Nitro Dyes
Self-Oxidizing Dyes
Solvent-Assisted Dyes
Anion-Cation Complexes
Reactive Dyes
Aminoanthraquinone Dyes
Permanent Dyes
(Oxidation Dyes)
Pyrogallol
Introduction of Amino Dyes
Early Commercial Development
Quest for Substitutes; Protective Measures
Research for Improved Products and Processes
Advantages and Disadvantages of Oxidation Dyes
Composition of Modern Oxidation Dyes
Forms of Oxidation Dyes
Regulations Governing Amino Dyes
Research for New Days
Plant Derivatives
Henna
Indigo
Camomile
Wood Extracts
Mixed Wood Dyes
Miscellaneous Plant Products
Use of Mordants
Advantages and Disadvantages of Natural Dyes
Metallic Dyes
Lead Dyes
Silver Dyes
Dyes for Eyebrows and Eyelashes
Copper Dyes
Compound Hennas
Miscellaneous Metallic Dyes
Advantages and Disadvantages of Metallic Dyes
Toxicity of Metallic Hair Dyes

18. Packaging Cosmetic Preparations

Packaging Requirements and Functions

Packaging Materials and Containers

Tins and Jars
Bottles and Flacons
Tubes
Stick Applicators
Spray Cans
Decoration of Cosmetics Packaging
Future Ecological and Economic Challenges

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