

Modern Technology of Soaps, Detergents & Toiletries (with Formulae & Project Profiles) 4th Revised Edition

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There has been consistent rise in Indian toiletries Industry. Novelty in ideas and marketing seems to be the major subject matter of the Indian soap industry. With increasing popularity there has been increase in potential competitors but it still has the opportunity of further exploitation. The soaps, detergent and toiletries product industry is vivacious, varied, creative and tricky, and has the prospective to provide a gratifying career. Since these are basic requirements throughout the world undoubtedly the toiletries industry is one of the fastest growing and most profitable markets in international arena has been for the past many years.

Total quality management has its importance in managing every industry so is its importance and relevance in Oils, Soaps, and Detergents Industries. Featured as one of best seller the book modern technology of soaps, detergent and toiletries is another resourceful book written by P. K. Chattopadhyay. The author is highly experienced consultant to cosmetics and toiletries industries.

The book contains the formulae of diverse types of soaps, detergents (cake, powder and liquid) toiletries, methodical testing method, quality control of complete products, packing criterion of cosmetics and toiletries along with project profiles, machinery photographs and addresses of raw material, plant and machinery suppliers.

The book contains detail chapter on: Principal Groups of Synthetic Detergents Classification, Detergent Bar, Washing Soap: Laundry Soap Formulation, tooth paste, after shave lotion, Hair Shampoo, Fundamentals of Science, Testing of Finished Goods, Finished Product Quality Control Procedures, Natural Essential Oils in India : A Perspective, Essential Oils in India and Trade Summary and Conclusion, etc.

Basic information in entering a market and the opportunities and requirements of the potential sector has been the best way to penetrate in a market. How and what if properly answered can take you to a long way. The first hand information on different types of toiletries product have been properly dealt in the book and can be very useful for those looking for entrepreneurship opportunity in the soap industry.

1. Introduction
Soap Manufacturing Process
BIS Specification for Soap
Properties of Soaps and Detergents

Detergent
Market Potential of Detergents
BIS Specification for Detergents
Toiletries
BIS Specifications for Toiletries
 Quality Control
Branding

2. Packaging Criteria for Cosmetics and Toiletries

Evolution of Packaging
Functional Requirements of Packaging
Technical
Aesthetic
Cost
Chemical Compatibility
Physical Compatibility
Retention of Volatiles
Leak proof caps
Tamper-proof Seal
Transport Hazards
Aesthetic Factors
Presentability/Appearance
Packaging Design
Package Design - Practicability
Cost-effectiveness of Pack
Packaging Materials
Glass
Metal
Plastics
Paper
Product Evaluation
Transit Trials
Products Characteristics and Packaging Materials
Legal Requirements
Closing
Specification for Polycoated Paper
Specification of Gum Tape
Specification of Corrugated Fibreboard Boxes

3. Principal Groups of Synthetic Detergents

Classification
Anionic Detergents
Alkyl Aryl Sulphonates
Long-Chain (Fatty) Alcohol Sulphates
Sulphonated Olefins
Sulphated Monoglycerides
Sulphated Ethers
Sulphosuccinates
Sulphonated Methyl Esters
Alkane Sulphates
Phosphate Esters
Alkyl Isethionates

- Acyl Sarcosides
- Alkyl Taurides
- Fluorosurfactants
- Cationic Detergents
- Non-ionic Detergents
- Fatty Acid Condensates
- Condensation of Ethylene Oxide with an Amine
- Condensation of Ethylene Oxide with an Amide
- Block Polymers
- Sucrose Esters
- Sorbitan Esters
- Alkylolamides
- Fatty Amine Oxides
- Amphoetrics and Zwitterionics
- Biodegradability

4. Application and Formulae of Detergents

- Foam
- Household Cleaning
- Heavy-Duty Laundering
- Foam Control
- General-Purpose Detergents
- Choice of Non-Ionic
- Concentrated Powders
- Cold Water Washing
- Hard-Surface Cleaners
- Machine Dishwashing
- Abrasive-Type Cleaners
- Miscellaneous Household Cleaners
- Commercial Laundering
- Solvent Detergents
- Carpet and Upholstery Cleaners
- Textile Dressing
- Mercerizing
- Food and Dairy Industries
- Detergent Sanitizers
- Metal Cleaners
- Miscellaneous Cleaners
- Lavatory Cleaner
- Hand Cleaners
- Waterless Hand Cleansers

5. General Discussion of Detergents

- Industrial-Detergents - Applications
- Cosmetic Industry on Path of Progress

6. Detergent Bar

- Formulation
- Sequence of Additions
- Note
- Specification
- Type of Defects
- What are the main defects in bar detergent?

Detergent Bar Cost Calculations

7. Liquid Soap and Detergents

Product Introduction

Method of Manufacture

Liquid Detergents

Weight Equivalents of DDBSA

Molecular Weights

Special Procedures for Compounding

8. Washing Soap: Laundry Soap Formulation

Manufacture of Laundry Neat soap from Oil Blend

Harding of RBD

Acid wash for RBHT

Salt Wash for Neem Oil

Blending

Neem Soap Manufacture

Manufacture of Laundry Soap

Theory

Process and Raw Material

Product Profile

Washing Soaps

Brand Name

9. Deodorant

Zinc Ricinoleate

Deodorant pump Spray

Name of the Manufacturers

Zinc Ricinoleate

Market Size of Deodorant

Growth Barrier

10. Tooth Paste

Introduction

Consumers and Predicted Demand

Production Target and Quality Control

Requirement of Land and Building

Availability of Raw Materials

Machinery and Equipment

Office Equipment

Man Power Required

Raw Materials Per Month

11. After Shave Lotion

Introduction

Uses of After shave Lotion

Market Position

Advertising

Distribution

Formulations with Process

Process

Note

Process

Plant Economics
Land and Building
Plant and Machinery
Raw Material (Annual)
Utilities and Overheads (Annual)
Personnel Requirement (Annual)

12. Hair Shampoo

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Uses and Application
Raw Materials for Shampoos
The Nonionic Detergent Raw Materials
Amphoteric Products
Perfumes
Preservatives
New Shampoo Development
Protein and Egg Shampoo
Herbal Shampoo
Vitamin Shampoos
Antidandruff Shampoos
Market Survey
Present Manufacturers
Formulae
Coconut oil Shampoo
Triethanolamine Shampoo
Liquid Cream Shampoos
Liquid Cream Shampoo
Procedure
Manufacturing Process

13. Antiseptic and Germicidal Liquid Soap

Hexachlorophene Soaps
Control of Clarity
Filtration
Bottling and Packaging

14. Fundamentals of Science

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Measurements
Volume
Units
Measurement
Examples
Density and Specific Gravity
Temperature
Diversión
Pressure and Vacuum
Surface Tension
Viscosity
Flow
Acid, Bases and Neutral Solution
Normal Solutions and Normality

Unloading of Oleum tanker
Process Familiarisation
Raw Materials Characteristics and Storage
Hydrocarbon
Caustic Soda
Other Process Chemicals and Ingredients
Bleach liquor

15. Raw Material Specification

Oils/Fatty Material
Chemicals

16. Testing of Finished Goods

Report for the Central Laboratory (Test of Oil)
Determination of Moisture
Determination F. F. A.
Determination of Iodine value
Colour
Specification Value
Unsap Value
Mineral Oil
Caster oil test
Bleaching of oil
Wesson loss
Test for HCN

17. Finished Product Quality Control Procedures

Oven Volatilise
Scope
Apparatus
Procedure
Calculation
Determination of Total Fatty Matter
Procedure
Alcohol Insoluble matter
Detergent Powder
NSD Manufacture in Brief
Powder
Sulphonation
Neutralisation and Bleaching
Slurry Preparation
Blowing of Slurry
Filling and Packing
NSD-Bar
Mixer
Noodler and Mill
Plodder
Billeting
Weathering

18. Analytical Testing Methods

Aluminium Sulphate

Determination of pH
Determination of Iron
Determination of Aluminium
Purity of Calcite
Moisture Content - Calcite
Matter Soluble in Water
Determination of Alumina
Iron As Fe_2O_3 (Total and Free)
Loss on Drying
Determination of Silica
China Clay - Paste with Glycerine
Loss on Ignition
Matter Soluble in Water
Matter Soluble in Acid
Water Absorption Value
Determination of Calcium and Magnesium In Dolomite
Moisture Content
Matter Insoluble in Acid
Bulk Density of Dolomite
Determination of Available Lime (as Cao)
Solubility of Liquid Paraffin
Reaction of Liquid Paraffin
Readily Carbonisable Substances in Liquid Paraffin
Sulphur Compounds in Liquid Paraffin
Reaction to Acid and Alkali
Solubility in Water
Colour Value
Determination of Matter Insoluble in Water
Volatile Matter Content
Total Alkalinity as Na_2CO_3
Determination of Chlorides
Determination of Sulphates
Iron Content
Determination of Iron (as Fe)
Total Soluble Silicates and $\text{Na}_2\text{O} : \text{SiO}_2$ Ratio
Moisture
Temperature Rise Test
Phosphorus Content
Determination of Tripolyphosphate Content ($\text{Na}_5\text{P}_3\text{O}_{10}$)
Active Detergent Content of Detergent Paste
Total Anionic Detergent: Hyamine titration
Moisture and Volatile Matter of Detergent paste
Colour of Detergent Paste
Available Chlorine
Non-Detergent Organic Matter

19. Natural Essential Oils in India : A Perspective

Introduction

Essential Oils in India and Trade

Summary and Conclusion

Plant Economics

About NIIR

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Our Detailed Project report aims at providing all the critical data required by any entrepreneur vying to venture into Project. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line.

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