

Soaps, Detergents and Disinfectants Technology Handbook (3rd Revised Edition)

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Soaps, Detergents and Disinfectants Technology Handbook (3rd Revised Edition)
(Washing Soap, Laundry Soap, Handmade Soap, Detergent Soap, Liquid Soap , Hand Wash, Liquid Detergent, Detergent Powder , Bar, Phenyl, Floor Cleaner, Toilet Cleaner, Mosquito Coils, Naphthalene Balls, Air Freshener, Hand Sanitizer and Aerosols Insecticide)

Soaps are cleaning agents that are usually made by reacting alkali (e.g., sodium hydroxide) with naturally occurring fat or fatty acids. A soap is a salt of a compound known as a fatty acid. A soap molecule consists of a long hydrocarbon chain (composed of carbons and hydrogens) with a carboxylic acid group on one end which is ionic bonded to a metal ion, usually a sodium or potassium. The hydrocarbon end is nonpolar and is soluble in nonpolar substances (such as fats and oils), and the ionic end (the salt of a carboxylic acid) is soluble in water. Soap is made by combining tallow (or other hard animal fat) or vegetable or fish oil with an alkaline solution. The two most important alkalis in use are caustic soda and caustic potash.

A detergent is an effective cleaning product because it contains one or more surfactants. Because of their chemical makeup, the surfactants used in detergents can be engineered to perform well under a variety of conditions. Such surfactants are less sensitive than soap to the hardness minerals in water and most will not form a film.

Disinfectants are chemical agents applied to non-living objects in order to destroy bacteria, viruses, fungi, mold or mildews living on the objects. Disinfectants are chemical substances used to destroy viruses and microbes (germs), such as bacteria and fungi, as opposed to an antiseptic which can prevent the growth and reproduction of various microorganisms, but does not destroy them. The ideal disinfectant would offer complete sterilization, without harming other forms of life, be inexpensive, and non-corrosive.

The global soap and detergent market is expected to reach USD 207.56 billion by 2025. The industrial soaps & detergents are extensively used by the commercial laundries, hotels, restaurants, and healthcare providers. Increasing demand from healthcare and food industries will continue to drive the market. Aerosol and liquid products are the common disinfectants used in hospitals, although growing number of healthcare facilities are implementing ultraviolet disinfection systems as further measure. Increasing demand for disinfectants from water treatment and healthcare industries is fuelling growth of the global disinfectants market. The major contents of the book are Liquid Soaps and Hand Wash, Liquid Soap and Detergents, Washing Soap: Laundry Soap Formulation, Antiseptic and Germicidal Liquid Soap, Manufacturing Process And Formulations Of Various Soaps, Handmade Soap, Detergent Soap, Liquid Detergent, Detergent Powder, Application and Formulae Of Detergents, Detergent Bar,

Detergents Of Various Types, Formulating Liquid Detergents, Phenyl, Floor Cleaner, Toilet Cleaner, Mosquito Coils, Naphthalene Balls, Air Freshener (Odonil Type), Liquid Hand Wash and Soaps, Hand Sanitizer, Aerosols–Water and Oil Based Insecticide (Flies, Mosquitoes Insect and Cockroach Killer Spray), Ecomark Criteria for Soaps & Detergents, Plant Layout, Process Flow Chart and Diagram, Raw Material Suppliers List and Photographs of Machinery with Supplier's Contact Details.

This book will be a mile stone for its readers who are new to this sector, will also find useful for professionals, entrepreneurs, those studying and researching in this important area.

1. INTRODUCTION

2. LIQUID SOAPS AND HAND WASH

Method of Manufacture

Raw Material Required

3. LIQUID SOAP AND DETERGENTS

Product Introduction

Method of Manufacture

Liquid Detergents

Weight Equivalents of DDBSA

Molecular Weights

Special Procedures for Compounding

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Harding of RBD

Acid Wash for RBHT

Salt Wash for Neem Oil

Blending

Neem Soap Manufacture

Manufacture of Laundry Soap

Step 1: Mixing of Sodium Silicate, China Clay and Salt

Step 2: Cratcher Mixing Operation

Step 3: Spray Drying

Step 4: Cutting

Step 5: Stamping

Step 6: Wrapping

Step 7: Packing

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Process and Raw Material

Product Profile

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 3. Washing Soap Process
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 5. Sunlight Type Washing Soap (Other Formula) Process
 6. Washing Soap Made of Groundnut Oil Residue Process
 7. Washing Soap (from Linseed Oil) Process
 8. Washing Soap (made of Cottonseed Oil) Process
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Process of Manufacturing
9. Other Selected Formulas of Washing Soaps Process

(B) Nerol Washing Soap

Process of Manufacturing

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Selected Formulas for Toilet Soaps

For Toilet Soap Perfumes

(D) Carbolic Soaps

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Process

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Process

Transparent Soap (Another Formula)

Process

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Process

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3. Soft Soap (Other Formula)

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Cocoa and Shea Butter Soap

Column Swirl Soap

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Waterless Hand Cleanser

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Bottle Cleaners

Preparation of Caustic Gluconate Solution

Dairy Equipment Cleaners

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10. Heavy Duty Cleaner

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Direction for Use

Process

Direction for Use

Process

Direction for Use

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Heat Exchanger

Plodder

Centrifuge

Flash Tank

Water Strainer

Cyclone Separator

Vaccum Pump

Hammer Mill

Jacketed Kettle

Condenser

Storage Tank

Steam Heater

Agitator

Soap Packing Machine

Transfer Pump

Hopper

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Pulverizer Machine

Washing Powder Making Machinery

Bath Soap Making Machine

Soaps Wrapping Machine

Detergent Cake Making Machine

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Soap Extruders
Soap Mixer
Soap Presses
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Soap Production Line Machine
Soap Production Line Plant
Soap Making Line Machinery Soap Production Line

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