

How to Manufacture Herbal Soaps & Detergents

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Information

Most of the commercial soaps and detergents contain chemicals that can be harmful to the skin. Using a natural herbal soap and detergents can be a good alternative. Herbal soaps and detergents are made using natural herbs and ingredients that are healthier and beneficial for the skin. Now a day people are very much aware of the ingredients in cosmetics products,

the benefits of plant products and harmful effects of chemical ingredients. The Soap and Detergent industry is profoundly lucrative with splendid market potential as well as bright future scope. In order to meet the requirement of market demand, many more new units are recommended to be established on small and cottage scale.

This handbook provides detailed information on the manufacturing process of herbal soaps and detergents. This book contains numerous formulae, manufacturing process of different type of soaps and detergents which are used in day to day life. The book is a unique compilation and will be very helpful to all its readers, new entrepreneurs, professionals, beauty care products manufacturers, existing units, technical institutions, etc.

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Soaps and Detergents

Soaps

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Colour

Availability of oils for Soapmaking

Saponification Value

Iodine Value

Free fatty acids

Titre

Fatty acids containing-OH and -CO groups, hydroxy and keto-stearic acids

Characteristics of individual Oils

Rice bran oil

Sal
Castor oil
Coconut oil
Linseed oil
Mowrah
Kusum oil
Neem oil
Acid oils
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Rosin

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Introduction

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The Alkalis

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Preparation of Colours

Water Soluble

Oil Soluble

Alcohol Soluble

Milled Soaps

For a batch of 100 kg. soap colour required is

Full-boiled/Semi-boiled/cold-made Soaps

The oil soluble colours recommended are

Soap Bases and Liquid Soaps

Popular shades and the colours used to obtain them are

Washing/Laundry Soaps

Medicated Soaps

Perfumes

(Comprehensive Details)

Essential Oils

Isolates

Synthetic Chemicals

Fixatives (Listed in Table 4)

Important Essentials, Isolates, Synthetic
Odourous
Chemicals and Fixatives
Isolates
Synthetic Odourous Chemicals
Fixatives
Raw Materials : Herbal Products
Acacia arabica
A. indica Benth

Parts Used : Bark, gum, leaves, seeds, pods.

Acalypha Indica

(N.O. - Euphorbiaceae)

ANDROPOGON MURICATUS. Retz. or A.

Squarrosus

Angelica (Angelica archangelica)

Anise (Pimpinella anisum)

Associated Oil

AZADIRACHTA INDICA

Basil (Ocimum basilicum)

BALSAMODENDRON MUKUL, HOOK. or B.
agollocha

Parts Used - Gum

BALSAMODENDRON MYRRHA

(N.O. Burseraceae)

Parts Used : Gum from the bark of the tree

Bay (Laurus nobilis)

Associated Oils

Benzoin (Styrax benzoin)

Associated Oils

Bergamot (*Citrus bergamia*)

Birch (*Betula lenta*)

Associated Oils

Calendula (*Calendula Officinalis*)

Associated Oil

Caraway (*Carum carvi*)

Cardamom (*Elettaria cardamomum*)

CITRUS MEDICA, Linm

(N.O.-Rutaceae)

Carrot Seed (*Daucus carota*)

Caulophyllum Inophyllum

Cedarwood (*Cedrus species*)

Cinnamon (*Cinnamomum zeylanicum*)

Associated Oils

Clary Sage (*Salvia sclarea*)

Associated Oils

Celery (*Apium graveolens*)

Chamomile, German

(*Matricaria recutita*, formerly *M. chamomilla*)

Associated Oils

Coriander (*Coriandrum sativum*)

Curculigo orchioides Gaertn

(N.O.-Amaryllidaceae)

Ayurvedic Properties

CURCUMA LONGA, Linn

(N.O.-Scitaminaceae)

Associated Oil

Cypress (*Cupressus sempervirens*)

Eucalyptus (*Eucalyptus globulus*)

Associated Oils

Fennel (*Foeniculum vulgare*)

Associated Oil

Fir (*Abies alba* and other species)

Associated Oils

Associated Oils

FICUS RELIGIOSA LINN

(N.O. Moraceae)

Parts Used : Bark, Fruit, Root

Ayurvedic Properties

Galbanum (*Ferula galbaniflua*)

Associated Oils

Geranium (*Pelargonium graveolens*)

Associated Oil

Ginger (*Zingiber officinale*)

Associated Oil

Helichrysum (Helichrysum angustifolium)

Hyssop (Hyssopus officinalis)

Associated Oil

Inula, Sweet (Inula graveolens, or I. odorata)

Associated Oil

HEMIDESMUS INDICUS, R. BR.,

Asclepias pseudosarsa, var. latifolia
(N.O. Asclepiadaceae)

Jasmine

(*Jasminum officinale* and *J. grandiflorum*)

Associated Oil

Juniper (*Juniperus communis*)

Associated Oils

Labdanum (*Cistus labdaniferus*)

Associated Oils

Lavender (*Lavandula angustifolia*, previously

L.

vera and *L. Officinale*)

Associated Oils

Lemon (*Citrus limon*)

Associated Oil

Associated Oils

Lemongrass Cochin (*C. flexuosus*)

Grown in India primarily for isolation of citral

Lovage (*Levisticum officinale*)

Marjoram

(*Origanum marjorana* or *Marjorana hortensis*)

Associated Oils

Melissa (*Melissa Officinalis*)

Associated Oil

Mimosa (*Acacia decurrens* var. *dealbata*)

Associated Oil

Myrrh (*Commiphora myrrha*)

Associated Oils

Myrtle (*Myrtus communis*)

Oakmoss (*Evernia prunastri*)

Associated Oil

Orange (*Citrus sinensis*)

Associated Oils

Orange Blossom (Neroli)

(*Citrus aurantium* var. *amara*)

Associated Oils

Patchouli (*Pogostemon cablin*)

Pepper, Black (*Piper nigrum*)

Associated Oils

Cubeb (*Piper cubeba*)-A litsea substitute

Peppermint (*Mentha piperita*)

Associated Oils

PSORALEA CORYLIFOLIA LINN.

(N.O. Papilionaceae, Fabaceae)

Parts Used : Roots, leaves, fruits, seeds

Ayurvedic Properties

Ravensare (*Ravensara aromatica*)

Rose (*Rosa damascena*, *R. gallica*, and others)

Associated Oils

Rosemary (*Rosmarinus officinalis*)

Associated Oils

Rosewood (*Aniba rosaeodora*)

Sage (*Salvia officinalis*)

Sandalwood (*Santalum album*)

Associated Oil

Spikenard (*Nardostachys jatamansi*)

Associated Oils

SMILAX CHINA

(N.O. - Liliaceae)

TERMINALIA CHEBULA RETZ.

(N.O. Combretaceae)

Parts Used : Fruit

Ayurvedic Properties

TERMINALIA BELERICA ROXB

(N.O. Combretaceae)

Parts Used : Fruit (unripe and ripe)

Ayurvedic Properties

Healing Power and Curative Properties

Cough

Stomach Disorders

Sore Throat

Chronic Constipation

Intestinal Worms

Eye Disorders

Other Diseases

Tea Tree (*Melaleuca alternifolia*)

Associated Oils

Thyme (*Thymus vulgaris*)

Associated Oils

Thymus vulgaris has many chemotypes

Tuberose (Polianthes tuberosa)

Vanilla (Vanilla planifolia)

Vetiver (Vetiveria zizanoides)

Violet (Viola odorata)

Associated Oil

Yarrow (Achillea millefolium)

Ylang-Ylang (Cananga odorata)

Associated Oils

Preparation and Properties of Surface
Active Agents from Castor Oil
Manufacture of Turkey Red Oil
Preparation of Esters by Alcoholysis
Sulphation of Esters
Hexane Extraction of the Sulphated Product
Typical Experimental Details
Major raw materials
Method

Products

Cottonseed Oil for Soapstock

Genesis of Investigation

Novel Features and Method of Utilisation of the Process

Refining of three oils of different types

Refining of a highly colour-fixed sample of solvent extracted cottonseed oil

Likely scope of its application

The stage to which the laboratory investigations have been conducted

The scale and duration of pilot-plant working

Availability of Raw Materials

Estimates of the cost of utilisation of the method

Capital outlay required

Flow Sheet

Points requiring specific emphasis

Development and Application of
New Herbal Functional Surfactants

Introduction

New Trend of Surfactants

Narrow distribution ethoxylate ('Peaked'
ethoxylates)
and its derivatives

Biodegradable surfactants

Surfactants arising from natural materials

Reactive Surfactants

Effect of TREM LF-40 concentration (2.03 mM initiator)

on the particle size of poly (vinyl acetate) latex particles

Herbal based Soaps & Shampoos

Formulations for Herbal Washing Soaps

Hard Fats are

Soft Fats are

Some Suggested Formulations for Washing Soaps

Good Quality

Cheaper Quality

A Typical Batch for Herbal Based Toilet Soap

Oriental type

Perfume mixture as formulated below

Perfumes as formulated below

Perfume Mixtur

Formulation of fancy Soap Type

Perfume Mixture

Himalayan Boquet Type

Perfume Mixture

Rose Soap Type

Perfume Mixture

Transparent Soap - No. 1.

(glycerine soap of market)

A suggested formulation

Transparent Soap-No.2

(by special milling method)

Mottled Soap

Carboli Acid Soap

Suggested Formulation

Procedure

Medicated Soaps

Castile Soap

CASTILE SOAP BY BOILING PROCESS

Process Description

Some Suggested Formulations for Castile Soap

Translucent Coconut Oil Soap

Some Suggested Formulations for Disinfectant

Liquid Antiseptic Soap

Deodorant Soaps

Combination in Soap No. 1.

Combination in Soap No. 2

VARIOUS INDUSTRIAL SOAPS

Textile Soaps

Some of the uses are

Textile Bleaching-Washing Soap Powder

Laundry Soap Formulations

More Formulations

Laundry Washing Aids

More Laundry Wash Mixtures

(Soap and Sodium Metasilicate Solution)

A Fabric Cleaning Compound

Cotton Scouring Soap

Dry Cleaner's Soap

A suggested Formulation of Dry Cleaner's Soap

WATER SOFTNER

(Chemicals which may be used for prevention of soap curds)

JELLY SOAP/ SOFT SOAP

AUTOMOBILE SOAP

WIRE DRAWING SOAP

SCOURING SOAP

PREPARATION OF WASHING SOAP POWDER

Simplified Method

SHAVING SOAPS

Procedure

A Typical Charge
Shaving Cream

A Typical Charge
Other Formulation

Brushless/Latherless Shaving Cream

LIQUID SHAVING CREAM

Basic Combination

Thicker Cream

Aerosol Package

Liquid Soaps/Shampoos

Process of Manufacture

EQUIPMENTS

LIQUID TOILET SOAP CONCENTRATES

Some suggested Formulations

For Office use

For Workshop use

Soap Bubble Liquid

LIQUID WASHING SOAP CONCENTRATE SHAMPOOS

Classification

Physical States

Characteristics

Various Additives of Shampoos Imparting

Special Properties

Solubilizer

Opacifiers

Thickeners for Body or Viscosity

Foam Stabilizers
Conditioning Agents
Agents for Resistance of Hard-Water
Germicidal Agents
Preservatives
SOAP SHAMPOOS
Older Methods
Modern Methods
Some Typical Formulations

SHAMPOOS BASED ON SYNTHETIC HERBAL SURFACTANTS

GENERAL FORMULATIONS

Liquid Cream Shampoos and Paste Cream

A General Formulation

Foamless oil Shampoos

A Formulation

Baby Shampoos

Medicated Dandruff Shampoos

Other miscellaneous shampoos

Aerosol Shampoos (Pressure Dispersed)

HERBAL TOILET SOAPS

To Prevent Pimples

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