# INTRODUCTION TO LOTION MAKING

## Table of Contents

**INTRODUCTION TO LOTION MAKING**

**THE BASICS OF LOTION MAKING**

**LOTION: AN EXAMPLE RECIPE**

- AN EXAMPLE RECIPE

**WHAT YOU’LL NEED TO MAKE LOTION (EQUIPMENT AND CONCEPTS)**

- EQUIPMENT
- THE DOUBLE BOILER
- THE DIFFERENT PHASES
- BASIC INSTRUCTIONS FOR MAKING A LOTION (THE HEAT & HOLD METHOD)
- GOOD MANUFACTURING PROCESSES
- SOME TIPS ON LOTION MAKING
- SOME TIPS ON BOTTLING YOUR LOTION
- SOME TIPS ON INTERPRETING RECIPES AND INCREASING BATCH SIZE
- INTERPRETING THE INCI NAME OF YOUR INGREDIENTS

**BASIC LOTION RECIPE**

- BASIC LOTION RECIPE
- Oils
- Butters
- Emulsifier
- Water.
- Preservative.
- Thickener
- Fragrance
- Skin loving goodies

**HUMECTANTS ARE A GIRL’S BEST FRIEND**

- MODIFIED BASIC LOTION RECIPE WITH HUMECTANTS

**TWEAKING THE BASIC RECIPES**

- SUNFLOWER & SHEA LOTION
- AVOCADO & MANGO LOTION

**BASIC CREAM RECIPE**

- RECIPE FOR A THICKER FOOT CREAM

**BASIC BODY BUTTER RECIPE**

- BASIC BODY BUTTER RECIPE
- BASIC BODY BUTTER RECIPE MODIFIED TO BE DRIER FEELING

**BASIC LIGHT LOTION RECIPE**

- BASIC LIGHT LOTION RECIPE

**BASIC FACIAL MOISTURIZER RECIPE**

- BASIC FACIAL MOISTURIZER RECIPE
# The Chemistry of Lotions

## Emulsification: What's That Then?
- What Does an Emulsifier Look Like?
- Emulsifying Wax NF
- POLAWAX (non-ionic emulsifier)
- How Much POLAWAX to Use
- INCROQUAT BTMS-50 (cationic emulsifier)

## An Aside: How to Calculate Your Oil Phase

## The Argument for Heating & Holding Our Lotions

## Chemistry: Phase Inversion Temperature (or Pit)

## Chemistry: Solubility

## Chemistry: The Difference Between Soluble and Dispersible

## Chemistry: Weight vs. Volume

## Chemistry: Anionic, Cationic, and Non-Ionic

## Chemistry: pH and Our Skin's Acid Mantle

## Chemistry: Our Skin!

## Chemistry: When Lotions Go Wrong!
- Coalescence
- Sedimentation or Creaming
- Engulfment

## Question: Can I Save a Separated Lotion?

## Chemistry: Emollients, Occlusion, and Humectants
- Emollients
- Humectants
- Occlusion

## Ingredients We Use in Lotions

## Ingredients: Emollients

## Ingredients: Emollients - Carrier Oil Profiles
- Apricot Kernel Oil
- Avocado Oil
- Castor Oil
- Coconut Oil
- Fractionated Coconut Oil
- Making a Light Lotion with Fractionated Coconut Oil
- Grapeseed Oil
- Hazelnut Oil
- Hemp Seed Oil
- Jojoba Oil
- Shaving Lotion with Jojoba Oil
- Macadamia Nut Oil
OLIVE OIL
- FOOT CREAM WITH OLIVE OIL AND BUTTERS
- OLIVE OIL BODY BUTTER
RICE BRAN OIL
- HAND LOTION WITH RICE BRAN OIL
SESAME OIL
- SESAME OIL & SHEA BUTTER LOTION
SOY BEAN OIL
- SOY BEAN OIL IN A BODY BUTTER
SUNFLOWER OIL
SWEET ALMOND OIL
VIRGIN COCONUT OIL
WHEAT GERM OIL

INGREDIENTS: EMOLLIENTS - BUTTER PROFILES
- COCOA BUTTER
- MANGO BUTTER
- MANGO BUTTER AND HAZELNUT LOTION
- SHEA BUTTER

AN ASIDE: CAN I USE GROCERY STORE OILS IN MY PRODUCTS?

AN ASIDE: WHY USE MORE THAN ONE OIL IN A LOTION?

INGREDIENTS: EMOLLIENTS - EXOTIC BUTTERS
- ILLIPE BUTTER
- MOWRAH BUTTER
- KOKUM BUTTER
- SAL BUTTER
- MURUMURU BUTTER
- BABASSU OIL

INGREDIENTS: EMOLLIENTS - EXOTIC OILS
- BORAGE OIL
- CALENDULA OIL
- CAMELLIA OIL
- CARROT TISSUE OIL
- CRANBERRY OIL
- EVENING PRIMROSE OIL
- POMEGRANATE OIL
- PUMPKIN OIL
- ROSEHIP OIL
- SEA BUCKTHORN OIL

AN ASIDE: HOW DO I KNOW WHEN TO ADD INGREDIENTS?

INGREDIENTS: HUMECTANTS
- GLYCERIN
- SODIUM LACTATE
- SODIUM PCA (salt of pyrrolidone carboxylic acid)
- HYDROVANCE
- ALOE VERA

INGREDIENTS: THICKENING AGENTS
STEARIC ACID  
CETYL ALCOHOL  
AN ASIDE: CETYL ALCOHOL VS. STEARIC ACID  
CETEARYL ALCOHOL  
CETYL ESTERS  

INGREDIENTS: EXTRACTS  
ALANTOIN  
CHRYSANTHEMUM OR FEVERFEW EXTRACT  
COMFREY ROOT  
CUCUMBER EXTRACT  
GINSENG EXTRACT  
GRAPESEED EXTRACT  
GREEN TEA EXTRACT  
SHAVING LOTION MODIFIED TO INCLUDE GREEN TEA EXTRACT  
HONEYSUCKLE EXTRACT  
HORSETAIL EXTRACT  
LIQUORICE EXTRACT  
ORCHID EXTRACT  
PAPAYA EXTRACT  
ROSEMARY EXTRACT  
ST. JOHN’S WORT  
STRAWBERRY EXTRACT  
WHITE WILLOW BARK  
WITCH HAZEL  

INGREDIENTS: HYDROSOLS  
Chamomile hydrosol  
Clary sage hydrosol  
Honeysuckle hydrosol  
Lavender hydrosol  
Melissa hydrosol  
Orange flower or orange blossom (neroli) hydrosol  
Peppermint hydrosol  
Rose hydrosol  
Rosemary hydrosol  

INGREDIENTS: SALICYLIC ACID (or BHAs)  

INGREDIENTS: ALPHA HYDROXY ACIDS (AHAs)  

INGREDIENTS: HYDROLYZED PROTEINS  
HYDROLYZED OAT PROTEIN  
HYDROLYZED SILK PROTEIN  
PHYTOKERATIN  

USING HYDROLYZED PROTEINS IN YOUR LOTIONS & CREAMS  
SHAVING LOTION  
SHAVING LOTION WITH HYDROLYZED PROTEINS  
USING HYDROLYZED PROTEINS IN BODY BUTTERS  
BASIC BODY BUTTER WITH OAT PROTEIN RECIPE  

INGREDIENTS: PANTHENOL  

LIGHT, SPRAYABLE LOTION OR BODY MILKS 221
  LIGHT SPRAYABLE LOTION 221
  LIGHT SPRAYABLE SUMMER LOTION 222
  MODIFIED LIGHT SPRAYABLE LOTION FOR THE SUMMER 222

FACIAL MOISTURIZERS - GENERAL 224
  LIGHT FACIAL MOISTURIZER 224
  FACIAL MOISTURIZER RECIPE 224
  WINTER TIME MOISTURIZER 225
  FACIAL MOISTURIZER WITH HEMP SEED AND MACADAMIA NUT OIL 226
  FACIAL MOISTURIZER FOR DRY SKIN 227
  MODIFIED FACIAL MOISTURIZER FOR DRY SKIN 229
  MOISTURIZER FOR DRY, WRINKLED SKIN 230
  MODIFIED MOISTURIZER FOR DRY, WRINKLED SKIN 231
  SILICONE BASED MOISTURIZER 232
  SILICONE BASED MOISTURIZER FOR DRY, WRINKLED SKIN 233
  MOISTURIZERS FOR OILY SKINNED GIRLS 233
  MODIFIED CATIONIC OIL-FREE FACIAL MOISTURIZER FOR OILY, RESISTANT SKIN 235
  MODIFIED CATIONIC OIL-FREE MOISTURIZER FOR ACNE PRONE OR ROSACEA TYPE SKIN 235
  MODIFIED CATIONIC OIL-FREE MOISTURIZER FOR OILY, AGING OR WRINKLED SKIN 236
  OIL FREE MOISTURIZER 236
  CATIONIC OIL FREE FACIAL MOISTURIZER 238

SHAVING LOTIONS 240
  SHAVING LOTION 240
  USING EXTRACTS IN A SHAVING LOTION 241
  MODIFIED SHAVING LOTION WITH BOTANICAL EXTRACTS 242
  AFTER SHAVE LOTIONS 242
  AFTER SHAVE LOTION (for men & women) 243
  BASIC MOISTURIZING AFTER SHAVE RECIPE OR MEN’S MOISTURIZER 245

MODIFYING LOTIONS 246
  FOOT CREAM WITH AVOCADO OIL AND BUTTERS 246

AN ASIDE: CAN I MAKE UP BATCHES OF PRODUCT AND SCENT IT LATER? 247

KEEPING YOUR LOTIONS SAFE: ANTI-OXIDANTS AND PRESERVATIVES 249

CHEMISTRY: RANCIDITY: A PRIMER 250

CHEMISTRY: MECHANISMS OF RANCIDITY 250
  OXIDATIVE RANCIDITY 250
  PHOTO-OXIDATION 250
  AUTO-OXIDATION 250
  HYDROLYTIC RANCIDITY 251
  MICROBIAL RANCIDITY 251

CHEMISTRY: ANTI-OXIDANTS 252
  VITAMIN E 252
  VITAMIN C 252

AN ASIDE: IS THERE ANY VALUE IN COMBINING ANTI-OXIDANTS? 253
APPENDIX – HYDROGENATION, FATTY ACID SHAPES, AND TRANS FATS

HYDROGENATION 293
FATTY ACID SHAPES 293
CIS AND TRANS FATS 294

APPENDIX – FATTY ACIDS YOU MIGHT FIND IN OILS

PALMITIC ACID 295
STEARIC ACID 295
LINOLEIC ACID 295
OLEIC ACID 297
GAMMA LINOLEIC ACID 298
CONJUGATED LINOLEIC ACID AND CONJUGATED LINOLENIC ACID 299

APPENDIX - OTHER THINGS YOU MIGHT FIND IN OILS AND BUTTERS

VITAMIN E – TOCOPHEROLS AND TOCOTRIENOLS 301
POLYPHENOLS 301
PHYTOSTEROLS 303

A LITTLE INFORMATION ON MY YOUTH GROUPS AND YOUR CONTRIBUTIONS 305