



Phoenix Concepts & Innovations

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Biogel® Butters for the Dry Skin Days!



A new season is upon us. A season filled with cold frosty days. Cold weather brings dry scaly skin and chapped lips. Active family households and busy professionals working in centrally heated offices need to have plenty of moisturizers on hand.

Cold weather has arrived but Phoenix Chemical has you covered with our sustainable **BIOGEL®** 100% vegetable butters to help you face those dry skin challenges.

Partially Hydrogenated Soft Pastes

- **BIOGEL® Argan Butter**
(INCI: Hydrogenated Argania Spinosa Kernel Oil)
- **BIOGEL® Canola Butter**
(INCI: Hydrogenated Canola Oil)
- **BIOGEL® Olive Butter**
(INCI: Hydrogenated Olive Oil)
- **BIOGEL® Moringa Butter**
(INCI: Hydrogenated Moringa Oleifera Seed Oil)
- **BIOGEL® Hemp Seed Butter**
(INCI: Hydrogenated Hemp Seed Oil)
- **BIOGEL® Pumpkin Seed Butter**
(INCI: Hydrogenated Pumpkin Seed Oil)
- **BIOGEL® Soy Butter**
(INCI: Hydrogenated Soybean Oil)

BIOGEL® Argan Butter has all the amazing properties of argan oil, which is an oil derived from the kernels of the argan tree. Argan oil helps improve skins' elasticity as it is exceptionally high in oleic acid and linoleic acid lipids and rich in saturated and unsaturated fatty acids, as well as natural tocopherols (vitamin E). Argan Butter is a great winter remedy to help nourish skin.

BIOGEL® Canola Butter is made from the oil derived from rapeseed which is a great source of Omega 3 (linolenic acid-C18:3) and Omega 6 (linoleic acid-C18:2) for healthy looking skin. The butter is most luxurious possessing an elegant silky feel and slip.

BIOGEL® Olive Butter is derived from olives and rich in vitamins and minerals. Olive oil contains the essential fatty acids dry skin needs, including oleic,

palmitic, and linoleic acids. It is an excellent moisturizer and will form a breathable film to help prevent internal moisture loss. The butter has elegant slip and emolliency.

BIOGEL® Moringa Butter is made from the oil derived from the seeds of Moringa oleifera. It is high in oleic acid and contains skin beneficial anti-oxidants. Additionally, it has anti-inflammatory properties. The butter possesses a superior feel to shea butter.

BIOGEL® Hemp Seed Butter is rich in the two essential fatty acids linolenic acid and linoleic acid which work to help reduce both inflammatory conditions and dryness.

BIOGEL® Pumpkin Seed Butter contains skin beneficial, palmitic acid, oleic acid, and linoleic acid as its main fatty acids.

BIOGEL® Soybean Butter is rich in oleic acid and linoleic acid which provide the skin conditioning benefits of smoothing and softening.

BIOGEL® Butters can be liquefied with vegetable based esters such as **Pelemol P-810** (Propanediol Dicaprylate/Caprate) to form liquid 100% vegetable based emollients. They can be emulsified with **Pelemol P-1263** to form w/o emulsions which can invert to o/w as the water phase increases. Other useful emulsifiers to be considered are **Pelemol GMB** (Glyceryl Behenate), and **Pelemol GMR** (Glyceryl Ricinoleate).

Utilize these butters to tackle applications beyond dry skin challenges including:

- Lotions, Ointments and Soaps
- Products Concerned with Scars and Stretch Marks
- Sunscreen Creams
- Lipstick & Lip Products
- Hair Conditioning
- Eye Products
- Mousse

So bring on the dry skin challenges of winter. The rejuvenating properties of **Biogel® Butters** will give you a look which exudes good health!

High Performance Hair Care Products

Healthy Hair starts with using the right products. Whether targeting shine, bolder color or developing multi-functional products to hydrate and strengthen hair, there is much new hair care technology under development.

Hair Detangler

Pecosil FDM-30

(INCI: Perfluorononyl ethyl Carboxydecyl PEG-10 Dimethicone)

Anti-Frizz Treatment

Pecosil FSL-300

(INCI: Pefluorononyl Dimethicone)

Bold Color

Pelemol OL

(INCI: Oleyl Lactate)

Volumizing

Pelemol OL

(INCI: Oleyl Lactate)

Pelemol 354

(INCI: Triolein)

Daily Color Preservation Care

Phenotaine C-35

(INCI: Sodium Cocamidopropyl PG-Dimmonium Chloride Phosphate)

Shine

Pecosil ARS-09

(INCI: Phenylisopropyl Dimethicone)

Pecosil PSQ-418

(INCI: Steardimonium Hydroxypropyl PEG-7 Dimethicone Phosphate Chloride)

Restorative Conditioning

Pecosil PAN-1218Q

(INCI: Steardimonium Hydroxypropyl Panthenyl PEG-7 Dimethicone Phosphate Chloride)

Pearlizing Agent

Phoenate 3DSA

(INCI: PEG-3 Distearate)

Silky, Manageable Hair

Catamol WPC

(INCI: Steapyrium Chloride)

Pecosil CA-1240

(INCI: Silicone Quaternium-12)

Pecosil AD-3640

(INCI: Silicone Quaternium-8)

Pecosil PS-112

(INCI: Dimethicone PEG-7 Phosphate)

Pecosil PAN-12

(INCI: Potassium Dimethicone PEG-7 Panthenyl Phosphate)

Pomade

Catamol HBC-18

(INCI: Hydroxypropyl Bisstearyldimmonium Chloride)

Biogel Hemp Seed Butter

(INCI: Hydrogenated Hemp Seed Oil)

Pecosil DB

(INCI: Dimethiconol Behenate)

Restorative Lipid

Pecosil SO-9

(INCI: PEG-9 Dimethicone (and) PEG-9 Olive Phosphate)

Synergistic Silky Conditioners

Achieving restorative conditioning which leaves hair feeling light, silky and manageable is a key to improving hair's conditioned appearance. Phoenix offers several conditioners that work synergistically to deposit light silky conditioning to hair. Some of these products include: **Pecosil PSQ-418** (Steardimonium Hydroxypropyl PEG-7 Dimethicone Phosphate Chloride), **Pecosil FDM-30** (Perfluorononyl ethyl Carboxydecyl PEG-10 Dimethicone) **Dicopamine PC-35** (Centrimonium Chloride (and) Dimethicone PEG-7 Phosphate) **Pecosil DCF-1818** (PEG/PPG-18/18 Dimethicone). These materials are particularly useful for clear leave-in conditioning serums and sprays.

Synergistic Conditioning

Pecosil PSQ-418 is a silky quaternary conditioner. It has strong affinity for negatively charged substrates such as hair, particularly damaged hair. This property along with its film forming nature provide superb conditioning. **Pecosil PSQ-418** works with the water soluble fluorosilicone, **Pecosil FDM-30** to plate out the fluoro moiety to detangle hair and eliminate frizzy hair formation, while the silicone amine, **Dicopamine PC-35** conditions and also works to bring all these conditioners to the surface of the hair. Lastly, **Pecosil DCF-1818** is an emulsifier which efficiently wets the hair and contributes light conditioning. Synergistic conditioners work to nurture hair's core structure and allow it to emerge with manageability, softness and shine.

Emollients for Healthy Skin

We all want our skin to be unblemished: free of inflammation and youthful. Healthy hydration emollients and treatment products for skin disorders such as acne, eczema, rosacea and psoriasis have never been in stronger demand. Phoenix has two products that are particularly useful for delivering immaculate skin, **Pelemol EHEMP** (Ethyl Cannabis Seedate) and **Pelemol OL** (Oleyl Lactate).

Pelemol EHEMP is composed of the ethyl esters of hemp seed oil acids. This is a light ester with a dry silky feel similar to cyclopentasiloxane, D5. Hemp Seed Oil is highly unsaturated and **Pelemol EHEMP** is rich in the two essential fatty acids **Omega 3** (linolenic acid-18:3) and **Omega 6** (linoleic acid- 18:2). This ester works to reduce both inflammatory conditions and dryness and restore elasticity.

Pelemol OL works quickly to moisturize and hydrate the skin. It has a light powdery feel. **Pelemol OL** restores moisture to skin that has been stripped of fat (oil) by harsh detergents and moisturizes dry skin at the same time. It is postulated that skin's own esterases hydrolyze oleyl lactate to make oleyl alcohol available as a fattening agent and lactic acid functioning as a moisturizer. A recent study showed that **Pelemol OL** improved the dry skin condition by an average of over 97% after only 30 seconds of use.

The rejuvenating properties of the naturally derived **Pelemol EHEMP** and **Pelemol OL** will improve the characteristics of personal care products and provide skin with a look which exudes good health.

The Amazing Alchemy of Pelemol TEC

So why use **Pelemol TEC** (Triethyl Citrate) you ask? Well, this ester has quite the can-do attitude and cosmetic formulators are becoming increasingly aware of its versatility.

Let's review its cosmetic alchemy. **Pelemol TEC** is the triester formed by the esterification of citric acid and ethanol.

Features

- Low Viscosity
- Colorless, Clear and Odorless
- Natural Deodorant Active
- Superb Emollience
- Formulator Friendly Solubility

Pelemol TEC is a multi-functional ester due to its effective solvency (solvent for fragrance), broad solubility (oil and alcohol) emolliency (elegant silkiness with cushion that eventually rubs to dryness) and deodorant nature (its citric acid moiety works as an active agent for deodorants to lower the pH of the armpit to inhibit the development of bacteria and body odor).

Pelemol TEC is a truly unique ester that finds application in wetting/ dispersing/ binding of pigments, fragrance products, bath products, lotions, creams and balms, sun care creams, and anti-aging creams, make-up, hairdressings, hair products and deodorants. Additionally, it is regularly used in cosmetic sprays for hair care, deodorants and fragrances.

Paris Pelemol's Beauty Forum



Hello Friends,

My focus has always been on hydration beauty. My friends at Phoenix Chemical and I have developed a moisturizing cuticle balm that really stands out. This potent formula is fast acting, and thoroughly hydrates cuticles and nails. The formula is easily absorbed into the skin due to **Pelemol OL** (Oleyl Lactate) which works immediately to soothe, deeply moisturize and restore fat to the overall area to help prevent brittle nails. Further, the use of **Pelemol D3GP** provides the balm with soft butter like texture and cushion while functioning as a highly effective occlusive agent. It is a 100% vegetable derived functional equivalent to animal based mixed alkyl cholesterol and lanosterol based esters. **Pelemol GTIS** (Triisostearin) imparts cushion while **Pelemol BB** (Behenyl Behenate) and **Phoenix HSA** (Hydroxystearic Acid) work to impart a rich feel and **Pecosil FSH-300** (Perfluorononyl Dimethicone) delivers elegant slip.

This is an important product to immediately provide you with improved cuticles and maintain the healthiest looking nails.

Thank you for the privilege of sharing my experience.

With Love and Beauty,

Paris Pelemol
Paris Pelemol

Moisturizing Cuticle Balm ARL-24-35-1

| Trade Name | INCI Name | Company | % W/W |
|----------------------------------|--|------------------------------|---------------|
| A Pelemol BB | Behenyl Behenate | Phoenix Chemical Inc. | 5.90 |
| A Biogel Hemp Seed Butter | Hydrogenated Hemp Seed Oil | Phoenix Chemical Inc. | 1.80 |
| A Carnauba Wax SP-63 | Copernicia Cerifera (Carnauba) Wax | Strahl & Pitsch LLC | 2.10 |
| A Pelemol D3GP | Dimer Dilinoleyl Dimer Dilinoleate (and) Propanediol Dicaprylate/Caprate (and) Polyglyceryl-3 Behenate | Phoenix Chemical Inc. | 23.20 |
| A Phoenix HSA | Hydroxystearic Acid | Phoenix Chemical Inc. | 4.60 |
| A Pelemol PHS-8 | Polyhydroxystearic Acid | Phoenix Chemical Inc. | 4.70 |
| A Castor Oil | Ricinus Communis (Castor) Seed Oil | House | 10.70 |
| A Pelemol GTIS | Triisostearin | Phoenix Chemical Inc. | 24.50 |
| A Pelemol OL | Oleyl Lactate | Phoenix Chemical Inc. | 11.45 |
| A Pecosil FSH-300 | Perfluorononyl Dimethicone | Phoenix Chemical Inc. | 11.05 |
| | | | 100.00 |

Procedure: Combine all ingredients and heat while mixing to 80^o-85^o C until batch is completely homogenous and clear. Pour into small containers.

| Ingredient: | Function: |
|---------------------------------|--|
| PELEMOL® BB | Builds viscosity, imparts richness and emollience |
| BIOGEL® HEMP SEED BUTTER | Exhibits moisturizing properties, adds slip and emollience |
| PELEMOL® D3GP | 100% vegetable equivalent to animal-based cholesterol/lanoesterol esters |
| PELEMOL® HSA | Builds viscosity and adds body |
| PELEMOL® PSH-8 | Substantive to skin, moisturizing |
| PELEMOL® GTIS | Adds cushion and emollience |
| PELEMOL® OL | Adds silky, silicone-like feel and is excellent moisturizer |
| PECOSIL® FSH-300 | Promotes slip and skin conditioning |

Chef's Corner Chili

*There are different ways to make chili.
Here is a Chili I would call "Rafferty" style.*

Ingredients

- 1 green bell pepper and 2 yellow bell peppers, diced
- 2 large yellow onions, diced
- 6 garlic cloves, diced
- ½ cup olive oil
- 1 cup loosely packed chopped Italian flat parsley
- 1- 5 lb. ground sirloin
- 2 x 16 oz. cans red kidney beans
- 1 x 12 oz. bottle chili sauce
- 1 x 28 oz. can plum tomatoes
- 1 heaping tblsp. cumin chili powder
- 1 heaping tblsp. oregano

Add oil, peppers, onions, garlic and parsley to an 8 qt. pot and simmer uncovered until peppers are soft. Add ground beef (broken up) and brown. Next add beans (entire can contents), plum tomatoes, chili sauce, chili powder, oregano. Stir and simmer for 45 minutes.

Serve with a sprinkle of shredded sharp cheddar cheese. Can also be served with a sprinkling of chopped red onion.

Who is Paris Pelemol?

Paris Pelemol, energetic cosmetic formulator and cosmetic guru believes that beauty is an attitude and beauty starts with quality. When it comes to seeking quality, Paris is all business. She is a woman who lives for beauty and refinement. Her clientele are known for having "the best". She desires quality because quality speaks for itself. Her formulations consist of cutting edge technology and are frequently sighted as the benchmark for elegance. Paris is brimming over with knowledge regarding which cosmetic materials will deliver a blue print for imparting elegance to beauty products. Paris will guide you every step of the way to identifying the key ingredients that will enable you to achieve your dream formulations and help your clients look their absolute best! Beauty is within reach, with a little help from Paris.

CHEMISTRY CLASS

Group Opposites

The concept of hydrophobic and hydrophilic is relatively easily understood by the formulating chemist. Simply put things that are hydrophobic are water hating materials. This simple definition works well with oil and water systems. Oils are hydrophobic (water hating), water soluble materials are hydrophilic (water loving). The other side of the coin is that oils are oleophilic (oil loving) and water soluble materials are oleophobic (oil hating).

As is normally the case, the world is more complicated. Silicone is neither oil soluble, nor water soluble. Silicone oil is in fact hydrophobic (water hating) and oleophobic (oil hating). Defining a phase by what its incompatibilities are is not technically appealing. Silicone oil is siliphilic (silicone loving).

The Group Opposites are:

- **Hydrophilic** (water loving)
- **Oleophilic** (oil loving)
- **Siliphilic** (silicone loving)
- **Hydrophobic** (water hating)
- **Oleophobic** (oil hating)
- **Siliphobic** (silicone hating)

Hydrophobic (water hating) materials can be either oleophilic or siliphilic. Oleophobic (oil hating) materials may be either oleophilic or hydrophilic. Does this have any practical implications? Absolutely! Consider a hydrophobic carpet fiber. It could be treated with silicone or with hydrocarbon. If treated with silicone, the fiber will also be oleophobic. If treated with oil, the fiber will be siliphobic. For application in waterproofing carpet fibers, selection of the proper molecule is critical. Since most people have cooking oil in their homes, and it will stain a hydrocarbon treated fiber, silicone coatings are preferred. Improper selection will result in unacceptable oil staining.

What does this mean in cosmetics? Next time you work with a treated pigment, ask yourself should my oil phase be siliphilic or oleophilic?