



*High Performance*

**Skin Care Products**

# Phoenix Chemical

## High Performance Skin Care Products

When it comes to skin care, *Phoenix* has you covered with a range of functional specialties proven to unleash some pretty amazing cosmetic alchemy. At *Phoenix*, we refer to this as Phoenache!

Enhanced functionality builds momentum, excitement, and new opportunities. *Phoenix Chemical* continues to produce materials that deliver proven unique performance characteristics for creative cosmetic formulations as featured on the following pages.

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## *Barrier Products*

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*Phoenix* barrier products are designed to provide a strong barrier and/or improve the wear characteristics of cosmetics.

- **Pecosil® FSH-1500** (Perfluoronyl Dimethicone)
- **Pecosil® DB** (Dimethiconal Behenate)
- **Pecosil® AS-26** (Ceretyl Dimethicone)
- **Pecosil® AS-22** (Behenyl Dimethicone)
- **Pelemol® BB** (Behenyl Behenate)
- **Pelemol® SB** (Stearyl Behenate)
- **Pelemol® DP-144B** (Dipentaerythrityl Tetrabehenate/Polyhydroxystearate)

**Applications:** Lotions, make-up, anti-aging, and sunscreens.

**Suggested use level:** 5-10%

## *Conditioning Esters*

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**Pelemol®** conditioning esters are highly effective for fattening the skin and is useful for facilitating skin healing.

- **Pelemol® OL** (Oleyl Lactate)
- **Pelemol® EE** (Octyldodecyl Erucate)
- **Pelemol® ODL** (Octyldodecyl Lactate)
- **Pelemol® OE** (Oleyl Erucate)

**Applications:** Moisturizing treatment, anti-aging, eye cream.

**Suggested Level:** 5-10%

## *Cosmetic Butters*

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The **Pelemol®** cosmetic butter-like esters are valued for their melting point and lubricious virtues. Each buttery ester has its own unique physical and sensory properties that will affect the feel of the formulation.

- **Pelemol® JEC** (Triisostearin (and) Glyceryl Behenate)
- **Pelemol® ISB** (Isostearyl Behenate)
- **Pelemol® ISHS** (Isostearyl Hydroxystearate)
- **Pelemol® TT** (Tribehenin (and) Caprylic / Capric Triglyceride)

**Applications:** Provides body and slip to an array of products including skin lotions, creams, salves and lip products.

**Suggested use level:** 2-10%

## *Cyclomethicone D5 Functional Replacements*

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The **Pelemol® D5** cyclomethicone replacements are designed to mimic the sensory properties of Cyclopentasiloxane D5 to enhance the sensory benefits of cosmetics.

- **Pelemol® D5R-1** (Ethylhexyl Isononanoate (and) Cetyl Dimethicone)
- **Pelemol® D5R-V** (Propanediol Dicaprylate/Caprate (and) Diisostearyl Malate)

**Applications:** Provides cushion and spreadability: useful for moisturizing lotions, and lipsticks.

**Suggested use level:** 2-10%

## *Emulsifier and Emulsion Stabilizers*

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Phenomulse™ and other stabilizing products help to create innovative cosmetic products with a pleasant feel and appearance. Phenomulse™ 100: is the ultimate emulsion aid to help create highly stable and novel Structured Micelle Aggregate (SMA) external phase emulsions, using high shear warm or cold processing.

- **Phenomulse™ 100** (Polyhydroxystearic Acid/Isononyl Isononanoate/Ethylhexyl Isononanoate/Sodium Cocamidopropyl PG-Dimonium Chloride Phosphate)

**Applications:** Lotions, cleansers, fragrances, treatment products.

**Suggested Use Levels:** 30-45%

- **Pelemol® P1263** (Polyglyceryl-6 Polyricinoleate and Polyglyceryl-10 Hexaoleate) water-in-oil
- **Pelemol® GMB** (Glyceryl Behenate) water-in-oil
- **Pelemol® 3G22** (Polyglyceryl-3 Behenate) water-in-oil
- **Phoenoxol® STA-21** (Polyoxyethylene 21 Stearyl Ether) oil-in-water
- **Phoenoxol® PW** (Cetaryl Alcohol/Polysorbate 60) oil-in-water

**Applications:** Lotions, treatment products, sunscreens, anti-aging, make-up.

**Suggested Use Levels:** 2-10%

## *Film Formers*

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**Pecogel®** Cosmetic Ingredients are a family of patented aqueous hydrogels comprised of vinylpyrrolidone polymers or copolymers and hydrophilic polyurethane. These breathable, flexible and pleasant feeling film formers enhance wear characteristics in skin care products.

- **Pecogel® H-12/PF** (VP/Polycarbamyl Polyglycol Ester)
- **Pecogel® S-1120** (VP/Dimethiconyl Acrylate/Polycarbamyl Polyglycol Ester)

The **Giovarez® Water Soluble Film Former** is a unique solvent free 35% polyurethane emulsion, which forms a tough and flexible film.

- **Giovarez® P-0580** (Polyurethane-21)

The **Giovarez® Oil Soluble Film Formers** are a family of acrylic polymers in a 50% solution of Isododecane. They are clear and dry to a water-insoluble and flexible film.

- **Giovarez® BTB-50** ( Behenyl Methacrylate/t-Butyl Methacrylate Copolymer)
- **Giovarez® AC-5099M** (Isododecane (and) Acrylates Copolymer)
- **Giovarez® AC34M** (Acrylic Acid/Isobornyl Methacrylate/Isobutyl Methacrylate Copolymer(and) Isododecane)

**Applications:** Breathable films to enhance wear characteristics, skin firming, and water resistance.

**Suggested use level:** 5-10%

## *Humectancy and Hydration*

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Our bi-functional humectants, provide both occlusive humectancy and external moisturization at the same time.

- **Pecogel® H-12/PF** (VP/ Polycarbamyl Polyglycol Ester)

- **Pelemol® DP-144B** (Dipentaerythrityl Tetrabenenate/Polyhydroxystearate)
- **Pecosil® PAN-1218Q** (Steardimonium Hydroxypropyl Panthenyl PEG-7 Dimethicone Phosphate Chloride)

**Applications:** Moisturizing lotions, skin treatments.

**Suggested Use Level:** 5-10%

## *Panthenol Hydraters*

The panthenol hydraters are silicone phosphates to which we have covalently bound panthenol to deliver moisturizing benefits. In skin care, panthenol is effective as a moisturizer helping to reduce the scaling and cracking associated with dry skin. Also designed to offer panthenol penetration into the hair shaft providing silkiness and body to the hair.

- **Pecosil® SPP-50** (Potassium Dimethicone PEG-7 Panthenyl Phosphate) - Pro-vitamin B5 Dimethicone Copolyol Phosphate with 4 panthenol groups covalently bonded to dimethicone PEG-7.
- **Pecosil® PAN-418** (Steardimonium Hydroxypropyl Panthenyl PEG-7 Dimethicone Phosphate Chloride) - a quaternized (cationic) version of Pecosil® SPP-50
- **Pecosil® PAN-400** (Dimethicone PEG-7 Panthenyl Phosphate) - functions like Pecosil SPP-50, is suitable for anhydrous applications.
- **Pecosil® PAN-12** (Potassium Dimethicone PEG-7 Panthenyl Phosphate) - 12 panthenol groups covalently bonded to dimethicone PEG-7.
- **Pecosil® PAN 1218Q** (Steardimonium Hydroxypropyl Panthenyl PEG-7 Dimethicone Phosphate Chloride) – quaternized (cationic) version of Pecosil® PAN-12, an extremely mild silicone-panthenol derivative.

**Applications:** Moisturizing lotions, skin treatments.

**Suggested Use Level:** 5-10%

## *Lubricious Massage Esters*

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The **Pelemol®** massage esters are designed to be lubricious and have ultra long playtime during rub-in.

- **Pelemol® TMPO** (Trimethylolpropane Triethylhexanoate)
- **Pelemol® TGC** (Trioctyldodecyl Citrate)
- **Pelemol® P-49** (Pentaerythrityl Tetraisononanoate)

**Applications:** Massage oils, creams, and lotions.

**Suggested Use Level:** 5-10%

## *Luxurious Satin Silicone Gels*

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### *Pecosil® G Series*

**Pecosil® G** series of silicone gels have been formulated to deliver a luxurious satin feel and impart a feather light satin softness to an array of cosmetic compositions.

- **Pecosil® G** (Dimethicone/Cyclomethicone/Phenyltrimethicone/Trimethylsiloxysilicate)
- **Pecosil® G-5** (Dimethicone/Phenyl Methicone/ Poly C30-45 Olefin)
- **Pecosil® G-10** (Dimethicone (and) Isododecane (and) Trimethoxysilicate (and) Ethylhexyl Hydroxystearate (and) C30-45 Polyolefin)

**Applications:** Useful to improve the sensory benefits of cosmetic applications including: fragrant lotion, moisturizer, facial moisturizer/treatment, make-up, foundation, concealer, blush and long-wear lip products.

**Suggested use level:** 10-90%

## *Rheological Modifier*

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The **Pelemol**<sup>®</sup> castor derived thixotrope is an efficient thickening agent and rheology modifier. For use in oils or the oil phase of a cosmetic formula.

- **Pelemol**<sup>®</sup> GTHS (Trihydroxystearin)

**Applications:** Lotions, make-up, sunscreens and creams.

**Suggested Use Level:** 5-10%

## *Self Foaming Cleansing Active*

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**PhenoMulse**<sup>™</sup> **CE-2A** is a volatile perfluoroalkane loaded micellar emulsion derived from **PhenoMulse**<sup>™</sup> **100**. Its function is to facilitate the rapid development of products which require the addition of volatile perfluoroalkanes.

“Foam Burst Technology” offers continuous and self foaming products contained in a non-pressurized traditional package and produced with traditional manufacturing equipment. These products and **PhenoMulse**<sup>™</sup> **CE-2A** are non-flammable and zero VOC.

- **Phenomulse**<sup>™</sup> **CE-2A** (Polyhydroxystearic acid (and) Isononyl Isononanoate (and) Ethylhexyl Isononanoate (and) Sodium Cocamidopropyl PG-Dimonium Chloride Phosphate (and) Perfluorohexane (and) Butylene Glycol)

**Applications:** Shower gels, facial cleansers, shaving preparations, and shampoo.

**Suggested Use Level:** 10-25%

## *Silky Light Esters*

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### *Pelemols*<sup>®</sup>

The **Pelemol**<sup>®</sup> silky, light, esters achieve an innovative light skin feel. They also offer the ability to solubilize an array of lipophilic cosmetic materials, decrease tack, and improve spreadability.

- **Pelemol**<sup>®</sup> **899** (Isononyl Isononanoate / Ethylhexyl Isononanoate)
- **Pelemol**<sup>®</sup> **C25EH** (C12-15 Alkyl Ethylhexanoate)
- **Pelemol**<sup>®</sup> **P-810** (Propanediol Dicaprylate/Caprate)-100% Plant Derived
- **Pelemol**<sup>®</sup> **IN-2** (Isononyl Isononanoate)
- **Pelemol**<sup>®</sup> **89** (Ethylhexyl Isononanoate)
- **Pelemol**<sup>®</sup> **EE** (Octyldodecyl Erucate)-100% Plant Derived
- **Pelemol**<sup>®</sup> **NGDO** (Neopentyl Glycol Diethylhexanoate)
- **Pelemol**<sup>®</sup> **DO** (Decyl Oleate)-100% Plant Derived
- **Pelemol**<sup>®</sup> **P-49** (Pentaerythritol Tetraisononanoate)

**Applications:** Useful to enhance the after-feel and characteristics of an array of applications including: make-up remover, eye cream, moisturizer, facial moisturizer/treatment, foundation, sunscreen, make-up, anti-aging, concealer, and fragrant lotion.

**Suggested use level:** 2-10%

## *Silky Skin Softening Agent*

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**Catamol**<sup>®</sup> is a cationic conditioning agent that is rich in silky conditioning. This substantive quaternary imparts an intensely silky touch and leaves skin or hair with a very soft feel.

- **Catamol**<sup>®</sup> **WPC** (Steapyrium Chloride)

**Applications:** Creams, lotions, hair conditioning, and hair grooming aids.

**Suggested use level:** 2-5%

## *Skin Treatment Solvents*

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Coupling solvents are excellent for water based actives while also being completely soluble in castor oil.

- **Coscap**<sup>®</sup> **G7-MC** (Glycereth-7 Trimethyl Ether)
- **Pelemol**<sup>®</sup> **G7-A** (Glycereth-7 Triacetate)
- **Phoenoxol**<sup>®</sup> **BD-10P** (PPG-10 Butanediol)

**Applications:** Cosmeceuticals, skin care, treatments.

**Suggested use level:** 5-10%

## *SPF Enhancement*

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The **Pecosil**<sup>®</sup> **PS** series are anionic silicone phosphate esters that delivers superior emulsifier efficiency. They also have excellent wetting characteristics to provide SPF enhancement, and act as a counter-irritant. **Pecogel**<sup>®</sup> **S-1120** is a nonionic silicone based film former.

- **Pecosil**<sup>®</sup> **PS-112** (Dimethicone PEG-7 Phosphate)
- **Pecosil**<sup>®</sup> **PS-100** (Dimethicone PEG-7 Phosphate)
- **Pecogel**<sup>®</sup> **S-1120** (VP Dimethiconylacrylate/ Polycarbamyl Polyglycol Ester)

**Applications:** All products with SPF's, moisturizers, creams, and lotions.

**Suggested Use Level:** 5-10%



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