# HALLSTAR

# FUNCTIONAL NATURALS DVANCED FORMULATED SOLUTIONS

Hallstar offers a broad portfolio of functional natural ingredients and decades of esterification experience. We work collaboratively with companies around the world to enhance next generation products.

The message from consumers is clear: they want beauty and personal care products that are more natural, with shorter labels and familiar ingredients. However, it's not enough to merely claim a product is "natural"—consumers want high performance, too.

Hallstar's functional naturals portfolio applies advanced technology to botanically-derived ingredients from sources such as fruits, nuts and seeds. The fatty acid composition of our functional naturals closely matches that of human skin, allowing for light, nourishing ingredients with exceptional sensoriality. The result is products that can support both natural and functional claims, with benefits backed by rigorous clinical tests.

# Custom formulations to meet changing customer needs

Hallstar is well known for its competency in photostability science, ester chemistry, emulsification, and liquid crystal chemistry. We work closely with customers to solve problems and provide new functionalities for their products. Our broad portfolio includes hundreds of ready-made formulations, but we also offer customers the option to create custom, on-trend formulated solutions. Our state-of-the-art global laboratories have the capability to develop unique formulations to enhance product performance. We also offer on-site in vitro testing and expert regulatory, technical and operational support to help our customers successfully bring new products to market.

### LET'S WORK WONDERS

# EMULSIFIERS

Hallstar's biomimetic emulsifiers generate liquid crystal structures that mimic the stratum corneum organization of the skin, providing deep moisturization with excellent spreadability. Functional bases form fluid (even sprayable) lotions or enhance the texture and viscosity of formulations, improving emulsion stability, sensorial profile and dermatological compatibility.



### Olivem® 1000 (Cetearyl Olivate, Sorbitan Olivate)

The first PEG-free selfemulsifying multifunctional ingredient, Olivem® 1000 is a complex combination of olive oil-derived fatty acids, chemically similar to the lipidic composition of the skin surface. It also has the ability to generate liquid crystal structures that mimic the stratum corneum organization. COSMOS approved.

### Olivem<sup>®</sup> 900 (Sorbitan Olivate)

This PEG-free co-emulsifier for W/O and W/S systems is designed to improve the dispersion of the inorganic UV filters in sun care and powders in decorative formulations. Olivem<sup>®</sup> 900 has the ability to give structure to cosmetic oils, creating a gel network. COSMOS approved.

### Olivem<sup>®</sup> 800 (Ceteareth-6 Olivate)

As the primary O/W emulsifier for fluid emulsions, Olivem® 800 is easy to use, adding a fine textured appearance and low formulation costs. It builds hyperfluid sprayable lotions and offers excellent dermatological compatibility.

### Olivem<sup>®</sup> LV Flex (PEG-8 Stearate, Glyceryl Stearate, Cetearyl Alcohol, Sorbitan Oleate)

This very versatile O/W primary emulsifier is specifically designed for light, hyperfluid and sprayable emulsions while ensuring a pleasant skin feel. Olivem® LV Flex can also emulsify a wide range of oils and shows good compatibility with various rheology modifiers.

### Olivem<sup>®</sup> VS Feel (Cetearyl Alcohol, Cetyl Palmitate, Sorbitan Palmitate, Sorbitan Oleate)

This secondary O/W emulsifier is engineered to increase viscosity and stability while imparting pleasant sensorial benefits to formulations. Olivem® VS Feel greatly reduces the "soaping effect" of emulsions, providing a soft, non-sticky after feel, high spreadability and excellent absorption. COSMOS approved.

### Olivem<sup>®</sup> 700 (PEG-4 Olivate)

Working as a co-emulsifier and structuring agent to enrich the texture and viscosity of formulations, Olivem® 700 improves the stability of O/W emulsions. It is a versatile sensorial modifier, providing a unique, smooth and soft skin after feel.

### WATER-SOLUBLE EMOLLIENTS

Our emollients offer sebum recovering (refatting) activities for distinctive skin smoothness and long-term moisturizing upon rinsing of cleansers.



### Olivem<sup>®</sup> 300 (Olive Oil PEG-7 Esters)

This water-soluble, functional lipid offers sebum recovering activities and is a good solubilizing aid for essential oils and perfumes. Additionally, the ester has strong emolliency and lubrication properties, which provide distinctive skin smoothness and long-term moisturization. Olivem® 300 can also be used as a coemulsifier for O/W systems.

### Florasolvs<sup>®</sup> Sunflower-10 (PEG-10 Sunflower Glycerides)

As an ingredient with exceptionally high oleic content derived from sunflower oil, Florasolvs® Sunflower-10 provides excellent emolliency. Its fatty acid moieties are similar to those of the skin (more so than lauric acid or lower unsaturated fatty acids) and it surpasses the performance of palm or coconut fatty acidderived products by imparting a silicone-like feel to products. It also acts as a conditioning and refatting agent, producing a non-oily feel.

### Florasolvs® Macadamia-16 (PEG-16 Macadamia Glycerides)

A water-soluble ingredient with relatively high oleic content, this is derived from macadamia nut oil—a source well known for its emollient properties. This ingredient offers exceptionally high clarity, and acts as a conditioning agent, refatting agent and solubilizer with good spreadability and a non-oily skin feel. Florasolvs® Macadamia-16 is also a strong solubilizer for other oils and perfumes to support skin and hair cleansers with high perfume content.

### HAIR AESTHETIC ENHANCER

Our multifunctional ingredients act as a smoothing and moisturizing agent, using oils to deliver added aesthetic benefits to hair care formulations for all hair types.

### **Biochemica® Argan Shine**

Developed from rich Moroccan argan tree seed oil, Biochemica® Argan Shine uses the natural benefits of precious oils to deliver luminous shine and enhanced comb-ability to hair while providing added stability to the formulation. Free of silicones, this ingredient helps hair retain softness and shine.

### DERMOLLIENTS

Hallstar's botanically derived dermollients have a fatty acid content that chemically mimics that of the hydrolipidic film of the skin, with exceptional skin compatibility. Our dermollients deliver various effects, which may include an elegant silicone-like or silky touch while improving skin's hydration, elasticity and barrier functions.



### SURFACTANTS

Our mild surfactants act as primary cleansers in facial wipes or as secondary surfactants in foaming skin cleaners for greater skin compatibility.

#### Sensolene® (Ethylhexyl Olivate)

This fast-absorbed dermollient gives a siliconelike texture while enhancing the barrier function of the skin. Sensolene® provides rapid and sustained moisturization, and slippery and natural elasticity restoration.

### Sensolene® Care DD (Lauryl Olivate)

Designed to be an effective natural solution for sensitive skin, Sensolene® Care DD creates a protective layer on the skin, reducing the TEWL caused by external aggression and mechanical stress. This ingredient improves the natural barrier against irritating factors for a calming and soothing effect that has been proven by clinical tests. COSMOS approved.

Olivem® 400 (Sodium PEG-7 Olive Oil Carboxylate) Olivem® 450 (Sodium PEG-7 Olive Oil Carboxylate)

#### Olivem<sup>®</sup> 460 (Sodium PEG-7 Olive Oil Carboxylate)

Anionic surfactants designed with 36 percent, 50 percent and 60 percent (preservativefree) active substance, these Olivem<sup>®</sup> ingredients possess mild cleansing properties combined with a highly emollient feeling after rinse off.

#### Florasolvs<sup>®</sup> Jojoba-80 (Jojoba Wax PEG-80 Esters)

Florasolvs® Jojoba-120 (Jojoba Wax PEG-120 Esters)

Florasolvs® Jojoba-150 (Jojoba Oil PEG-150 Esters)

These water-soluble ingredients are derived from refined jojoba seed oil. All act as excellent film formers/ fixatives and cleansers, offer high clarity, function as secondary emulsifiers and provide viscosity adjustments in hair care formulations. Jojoba-80 and -120 provide excellent fragrance oil solubilization in aqueous solutions and Jojoba-150 is the most water-soluble form of jojoba available. All are highly effective as textural modifiers in facial serums, eye creams and neck-area products.

# STABILIZING AGENTS

Hallstar stabilizing agents, derived from natural olive chemistry, can solve compatibility issues and are suitable for use in a variety of beauty and personal care applications. They appear as flaked wax, but have different chemical structures that satisfy diverse formulating needs.

### Oliwax<sup>®</sup> LC (Cetyl Palmitate, Sorbitan Palmitate, Sorbitan Olivate)

This complex ingredient is a natural derived mix of esters with co-emulsifying and stabilizing properties, thanks to its composition, and can also be used in the water phase. Oliwax<sup>®</sup> LC works as a liquid crystals promoter providing a unique after-feel due to the high water content of the liquid crystals' structures.

#### Oliwax<sup>®</sup> (Hydrogenated Olive Oil, Olea Europaea [Olive] Fruit Oil, Olea Europaea [Olive] Oil Unsaponifiables)

A stabilizing agent derived from olive oil, Oliwax<sup>®</sup> is a perfect gellifying agent for the oil phase in O/W and W/O emulsions. Its composition makes it ideal for anhydrous systems and make-up formulations. Oliwax<sup>®</sup> creates a network with the components of the oil phase protecting them from oxidation.

# ACTIVE INGREDIENTS

Hallstar's water-soluble, multifunctional active ingredients deliver a range of benefits, including anti-aging, anti-irritating, anti-inflammatory, moisturizing, skin elasticizing, anti-microbial, anti-acne and skin lightening effects. These ingredients can also act as free-radical quenchers at low levels of use.



### Eurol® BT (Olea Europaea [Olive] Leaf Extract, Water)

This product is a nature-based and completely preservativefree blend of diphenolic compounds derived from olive leaves. The multifunctional active ingredients promote skin elasticity and moisturization, while guarding against skin irritation, acne, inflammation and signs of aging. Eurol® BT is also highly concentrated, anti-microbial, water-soluble and effective at low dosage. COSMOS approved.

### Eurol® WHT (Glycerin, Water, Olea Europaea [Olive] Leaf Extract, Arctostaphylos Uva Ursi Leaf Extract)

This 100 percent natural ingredient combines the antioxidant and anti-tyrosinase phytocomplex of olive tree and bearberry leaves' extracts to create a skin whitening natural active. Eurol® WHT cares for skin while combatting skin pigmentation and avoiding irritation. COSMOS approved.

# NATURAL BUTTERS

Obtained through a patented cold extraction process, Hallstar's natural butters maintain the original properties of the raw materials from which they are derived, including antioxidants and natural fragrances. A select group of our products offer a range of functional benefits, including moisturizing, anti-aging, protective, anti-inflammatory, soothing, calming and more.



### Biochemica® Matcha Green Tea Butter

Produced from the microfine powder of ground matcha green tea leaves, matcha is valued for use in cosmetics and toiletries due to its high content of polyphenols, epigallocatechin gallate (EGCG) and xanthines. Matcha green tea may protect the skin from damaging UVB rays by quenching free radicals and reducing inflammation. Xanthines present in matcha, such as caffeine and theobromine, bring natural anti-inflammatory, anti-cellulite and anti-irritancy effects to formulations.

### Biochemica® Blueberry Butter

This butter contains lyophilized (freeze-dried), certified organic whole blueberries micronized into a fine particle dispersion. This dispersion is combined with a proprietary blend of other USDA NOP organic ingredients to form a luxurious, soft and spreadable version of the fruit in anhydrous form. Blueberry butter adds the nutrient and antioxidant rich attributes of this fruit to innovative formulas.

### Biochemica® Lemon Butter

Lemon butter is obtained by cold pressing lemon peel, followed by a full refining process. The natural oil contains limonene, a highly effective free radical scavenger. Lemon peel also contains a high level of bioflavonoids (polyphenols) that offer anti-cellulite, anti-inflammatory and many other protective benefits for skin. In cosmetic preparations, lemon butter's sweet, stimulating scent and excellent spreadability on the skin make it ideal as a massage butter or carrier for treatment products.



Learn more about Hallstar's areas of expertise and formulated solutions or use our unique online tool to create your own custom formula at **www.hallstar.com.** 



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