Photostability Science

The sun is a shrewd adversary.

As the data mounts about the harmful effects caused by exposure to UVA and UVB rays, buyers of topically applied personal care products are demanding better protection. The HallStar Company has the expertise and product line to help you fulfill those demands and look really good in the process.

No company is more focused on helping you mitigate the sun’s impact on your sun care, skin care, and daily-wear products. With a strong portfolio of high-performing photostabilizers, including the breakthrough SolaStay S, and a commitment to remaining on the cutting-edge of photostability science, HallStar is the partner you can count on to ensure your products can stand up to the sun. The HallStar Company…Pioneering Photostability Science.

Don’t let the sun keep your products from being as effective as possible. Talk to HallStar, the leader in Photostability Science with the patent portfolio to prove it.
Polycrylene® S₁

(Proposed: Polyester-X, where X is an integer.)

The next generation of Polycrylene: Polycrylene S₁ replaces the triplet quenching chromophore of Polycrylene with a singlet state quencher that permits formulators to combine active ingredients that were once considered to be too photo-unstable to be effective. Like Polycrylene, it is also a copolymer that photostabilizes Avobenzone extremely well and is free of patent restrictions.

SolaStay® S₁

(Ethylhexyl Methoxycrylene)

The most powerful and robust photostabilizer on the market today. It improves the photostability of OMC (Octinoxate) and Avobenzone together and works up to 1000x faster than Octocrylene to protect against a loss of absorbance. SolaStay S₁ is the only product that will deliver the highest PFA ratings to help formulators achieve previously unobtainable levels of UVA protection. It has outstanding solvency for crystalline UV filters, is easily emulsified, and is suitable for beach and daily wear. SolaStay S₁ has also been documented to substantially photostabilize Retinol, Retinyl Palmitate, Resveratrol, Cholecalciferol, and Ubiquinone (CoEnzyme Q10), which are widely incorporated in skin care products for their anti-aging and anti-oxidant benefits.

Polycrylene®

(Polyester-8)

A copolymer that is an effective Avobenzone photostabilizer and free of patent restrictions. Polycrylene also improves the substantivity of sunscreen formulations as measured by resistance to wash-off. For example, a sunscreen formulation containing 3% Polycrylene was substantially more water resistant than a similar formulation without Polycrylene after immersion in a water bath for 20 minutes. Polycrylene is a globally approved raw material with an excellent toxicology profile.
**HallBrite® PSF**  
(Undecylenic Dimethicone)

Combines HallStar’s proven photostabilizing technology with the aesthetic benefits of silicone. This multifunctional ingredient delivers an elegant, silky feel to lotions or creams while providing photostabilization for long-lasting broad-spectrum protection. It is ideal for daily wear and other sun care applications. HallBrite PSF provides formulations with superior organic compatibility, anti-whitening and detackification benefits, and enhanced substantivity and water resistance. As an added benefit, it aids in the dispersion of metal oxides for both sun care and makeup applications.

**HallBrite® BHB**  
(Butyloctyl Salicylate)

A light, versatile emollient that greatly improves product aesthetics, imparts an elegant and moisturizing feel to the skin, and photostabilizes Avobenzone. Ideal for broad-spectrum daily wear, sun care, and color cosmetics. Its moderate polarity and low viscosity make it an excellent solvent for sunscreen actives. HallBrite BHB serves as an excellent carrier and dispersant for micronized Titanium Dioxide, Zinc Oxide, and cosmetic colorants. An odorless, colorless, and tasteless liquid with excellent toxicology profile and low potential for irritation, it is suitable for use worldwide.

**Spectrasolv® DMDA**  
(Dimethyl Capramide)

A very polar and vastly superior solvent for sunscreen actives when compared to C12-15 Alkyl Benzoate and Isopropyl Palmitate that also improves the photostability of sunscreen systems. Spectrasolv DMDA has vastly superior solvency for sunscreen actives compared to traditional esters and improves the freeze-thaw stability of emulsions.
With the acquisition of BioChemica and B&T Company in 2011, HallStar quickly emerged as a leader in providing innovative ingredients to meet the growing demand for more and better natural products across a host of personal care categories.

B&T has earned a reputation as a global leader in olive chemistry, having established a robust intellectual property portfolio of successful products that enhance aesthetics and improve performance of a wide array of personal care items.

BioChemica produces exotic butters and oils that deliver improved performance and aesthetics in a wide array of personal care applications, including skin care and after-sun care. The butters and oils in BioChemica’s broad stable not only offer a high level of moisturization to products containing oil phases, but may also aid in cellular regeneration, free radical scavenging, and in the reduction of fine lines and wrinkles by increasing collagen synthesis.

With a growing collection of performance-based butters and oils, you can rely on HallStar to help you deliver the breakthrough products your customers demand.
Olivem® 1000 Crystal Skin™
(Cetearyl Olivate, Sorbitan Olivate)

The first PEG-free self-emulsifying multifunctional ingredient. It 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. ECOCERT validated.

Olivem® 900
(Sorbitan Olivate)

PEG-free co-emulsifier for W/O and W/S systems designed to improve the dispersion of the inorganic UV filters in sun care and powders in decorative formulations, its film-forming benefits allow it to provide water resistance properties. ECOCERT validated.

Olivem® 800
(Ceteareth-6 Olivate)

Primary O/W emulsifier for fluid emulsions. Easy-to-use, fine texture appeal and low-formulation cost. It builds hyper fluids sprayable lotions and has excellent dermatological compatibility.
Olivem® 700
(PEG-4 Olivate)
Stabilizing and structuring agent which enriches the texture and the viscosity of the formulation. It works as co-emulsifier improving stability of O/W emulsions. It is a versatile sensorial modifier providing a unique smooth and soft skin after-feel.

Olivem® 400 - Olivem® 450 - Olivem® 460
(Sodium PEG-7 Olive Oil Carboxylate)
Anionic surfactants designed with 36%, 50% and 60% (preservative-free) of active substance. It possesses mild cleansing properties combined with a high emollient feeling after rinse-off.

Olivem® 300
(Olive Oil PEG-7 Esters)
Water and oil soluble functional lipid with sebum recovering activities. An ester with strong emolliency and lubricant properties offering a distinctive skin smoothness and long-term moisturizing effects. Excellent solubilizing aid for essential oils and perfumes. It can also be used as a co-emulsifier for O/W systems.
Sensolene®
(Ethylhexyl Olivate)

Highly functional ingredient endowed with emollient properties. It provides high levels of skin compatibility while providing elegant appearance and texture to the formulation. It stands as a strong quality cosmetic ingredient that has the ability to physiologically become part of the hydrophilic film.

Sensolene® Care DD
(Lauryl Olivate)

Highly functional ingredient with protective effect and excellent spreading properties. The low temperature melting point, near to the skin temperature, gives the product unique sensorial features. ECOCERT validated.

Oliwax® LC
(Cetyl Palmitate, Sorbitan Palmitate, Sorbitan Olivate)

Stabilizing agent and liquid crystal promoter able to re-organize the emulsion structure, recommended in innovative and sophisticated cosmetic products. It can be easily used either in emulsions (in water or oil phase) or anhydrous systems, to which it provides a unique after-feel due to the high water content of the liquid crystalline structure. ECOCERT validated.
**Eurol® BT**

(Olea Europaea (Olive) Leaf Extract, Water)

Multifunctional active ingredient from olive plant leaves. It is a natural blend of diphenolic compounds, one among many is the Oleuropein, able to carry out different functions such as anti-aging, anti-irritating, anti-inflammatory, moisturizing, skin elasticizing, anti-microbial, anti-acne, and skin whitening. Highly concentrated water-soluble ingredient, effective at low dosage. ECOCERT validated.

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**Oliwax®**

(Hydrogenated Olive Oil, Olea Europaea (Olive) Fruit Oil, Olea Europaea (Olive) Oil Unsaponifiable)

Stabilizing agent 100% obtained from ultra-refined pure olive oil with a medium melting point; it performs an antioxidant action due to the unsaponifiable fraction contents. It is the ideal ingredient to improve the stability of the oily phase of the emulsions. ECOCERT validated.
Extract Butters

Extract Butters are a relatively new concept for the personal care industry, originally conceived by BioChemica under the premise that most extracts on the market today are typically watered-down (hydroglycolic), and hence likely ineffective and unstable. BioChemica Extract Butters are produced without solvents using freshly dried botanicals which are infused directly into a butter base, providing maximum transfer of the oil based constituents including the important essential oils which contribute to their natural essence and aroma.

Our line of Extract Butters include: Aloe, Chamomile, Horsetail, Lavender, Matcha Green Tea and Lemon Grass Butters

Citrus Butters

Citrus Butters are another BioChemica first! The concept here was to create natural butters which have the look and natural essence of the original fruit, with functionality that is naturally inherent in the fruit itself. Citrus fruits are loaded with Limonene, a very effective free radical scavenger. This helps to stimulate the circulatory system and reduce inflammation. It also contributes its antioxidant and skin lightening attributes when applied topically. In cosmetic preparations, the clean and refreshing scent of citrus is popular in a myriad of product applications. With BioChemica Citrus Butters, it is possible to go “fragrance free” in your next product formulation!

Our line of Citrus Butters include: Lemon, Lime, Orange and Tangerine Butters

Super Fruit Butters

Super Fruit Butters – an original BioChemica concept! With the popularity and scientific confirmation of the benefits of “Super Fruits” for human health, BioChemica developed this category of Super Fruit Butters for use in personal care applications. The scientific community has long known the benefits of super fruits such as Acai, Blueberry, Cranberry and Pomegranate; these fruits are known for their ability to impart free-radical scavenging, containing antioxidant rich attributes. These Super Fruit Butters not only offer a high level of moisturization, but will aid in cellular regeneration, free radical scavenging, and also aid in the reduction of wrinkles and fine lines by supplying the skin with the nutrients needed to increase collagen synthesis.

Our line of Super Fruit Butters include: Acai, Blueberry, Cranberry and Pomegranate
Cocoa Butter - Ultra Natural™ - Also Available As Certified Organic
(Theobroma Cacao (Cocoa) Seed Butter)

The butter is extracted from the seed kernels and is further refined to yield a tan colored butter with a pleasant cocoa (chocolate-like) odor. Cocoa Butter is a relatively hard butter with a steep melting curve, which is ideal for body care products.

Cocoa Butter - Deodorized
(Theobroma Cacao (Cocoa) Seed Butter)

The butter is extracted from the seed kernels and is further refined and deodorized to yield a tan colored butter with nearly no odor. Cocoa Butter is a relatively hard butter, with a steep melting curve, ideal for body care products, and is used to reduce cutaneous dryness and improve skin elasticity while imparting a natural color and relatively little odor.

Cocoa Butter - Ultra Refined™ (White)
(Theobroma Cacao (Cocoa) Seed Butter)

The butter is extracted from the seed kernels and is highly refined and deodorized to yield a very white butter with no perceptible odor. It is a relatively hard butter with a steep melting curve ideal for body care products and may be used in a variety of high-end cosmetic, toiletry and pharmaceutical applications.
**Cupuaçu Butter - Ultra Refined**
(Theobroma Grandiflorum Seed Butter)

The fruit of Cupuaçu (Theobroma Grandiflorum) is used to produce juices and sorbets in its native Amazon region of Brazil in South America. The seeds contain approximately 48% of a sweet-smelling “butter” which has a high capacity for water absorption and is therefore an excellent emollient for cosmetic formulations.

**Illipe Butter - Ultra Natural™**
(Shorea Stenoptera Seed Butter)

The Illipe Tree (Shorea Stenoptera) grows in the forests of Borneo in the South Pacific. The butter produced from its seed is most renowned for its skin softening quality. Illipe’s chemical composition closely resembles that of cocoa butter, yet with a higher melting point, making it ideal for use in bar soaps, lip balms, lipsticks and other stick type applications where a higher melting point is desired.

**Kokum Butter - Ultra Refined™**
(Garcinia Indica Seed Butter)

Growing in the central east region of India is the Kokum (aka Kokam) tree which is the source of fruit kernels from which a “dry”, white butter is extracted and further processed which has a fairly mild odor, suitable for cosmetics and toiletries. Kokum Butter exhibits excellent emollient properties and high oxidative stability, which can assist emulsion integrity. With its relatively higher melt point, it melts slightly at skin temperatures making it ideal for lipsticks and balms.
Mango Butter - Ultra Refined™
(Mangifera Indica (Mango) Seed Butter)

The Mango Tree (Mangifera Indica) grows in the sub-tropics of India and other parts of the globe. From its seed a firm “butter” is rendered, suitable for soaps, cosmetics, toiletries and pharmaceuticals. Mango Butter exhibits excellent moisturizing properties and good lubricity. It melts readily at skin temperatures making it ideal for sticks, balms and suppositories. It also counters the drying effects of bar soaps and cleansers.

Murumuru Butter - Ultra Refined™
(Astrocarum Murumuru Seed Butter)

Obtained from the fruit of the Brazilian Amazon tree (Astrocarum Murumuru). The large fruits are edible and valued for their flavor in South America. From the seeds a white butter is obtained which exhibits a natural gloss which brings a desirable shine to dry, damaged hair. Murumuru Butter is solid at room temperature, but melts immediately on contact with the skin.

Palm Butter - Ultra Refined™ - Certified Organic
(Elaeis Guineensis (Palm) Butter)

Developed exclusively by BioChemica for cosmetic use, Palm Butter is actually a natural stearine fraction of palm fat that is a soft solid butter at room temperature with a relatively high melting point. Along with a high content of inherent Tocopherols, there is a large amount of Tocotrienols found in palm butter. Palm Butter may be used to replace petrolatum and other petroleum-derived ingredients in personal care.
Shorea (Sal) Butter - Ultra Refined™
(Shorea Robusta Seed Butter)

Sal Butter (Shorea Robusta Seed Butter) is obtained from the seed of the Sal Tree grown in east central India. From this seed a firm but pliant “butter” is rendered, suitable for soaps, cosmetics and toiletries. It exhibits high oxidative and emulsion stability, and has wonderful skin softening abilities. It melts at skin temperatures making it ideal for sticks and balms.

Shea Butter - Ultra Refined™
- Also Available As Certified Organic

(Butyrospermum Parkii (Shea Butter))

Shea Butter is obtained from the seeds of the Karite Tree (Butyrospermum Parkii) common to West Africa. From these seeds a soft, pliant “butter” is expeller pressed, making it suitable for use in soaps, cosmetics, toiletries and OTC Pharmaceuticals. The Ultra Refined™ grade of Shea Butter is deodorized and filtered using natural clays to render a “butter” which is light in color and odor. Shea Butter melts at skin temperatures, making it ideal for lip and body balms as well as bar soaps, lotions and skin creams.

Shea Butter HMP™
(High Melt Point)

(Butyrospermum Parkii (Shea Butter))

A special grade of shea butter which exhibits a higher-than-normal melting curve. This is achieved via a proprietary fractionation process. Shea Butter HMP™ has a melting point range of 40 - 45° C, making it ideal for applications where a high percentage of shea butter is used in a finished formulation, preventing melting (and inherent crystallization issues) at ambient temperatures (i.e., shipping in hot summer months).
Shea Butter - Unrefined (Ultra Natural™)
(Butyrospermum Parkii (Shea Butter))

This grade of shea butter has been expeller pressed from the fruit seed of the Karite tree grown on the African continent with minimal processing. From its seed, a yellow butter is obtained, which must be further processed and refined for use on the skin, creating a smooth, creamy texture, while retaining much of its natural color and odor. Shea Butter is well known to assist cutaneous dryness, dermatitis, dermatoses, eczema, solar erythema and burns.

Tucuma Butter - Ultra Refined™
(Astro Caryum Tucuma Seed Butter)

Tucuma Butter has been obtained from the fruit of the Brazilian Amazon tree (Astro Caryum Tucuma). The large fruits are edible and valued for their flavor in South America. From its seeds a light colored butter is obtained which has a unique, characteristic odor and silicone-like behavior. The butter’s natural gloss brings a desirable shine to dry, damaged hair and can act as a wonderful skin moisturizer, exhibiting great skin lubricity.
Avocado Butter – Ultra Refined™
(Persea Gratissima (Avocado) Oil, Hydrogenated Vegetable Oil)

Avocado Butter is obtained from the fruit oil of the Avocado tree (Persea Gratissima) which grows in sub-tropical regions of the world. The butter is created from the Avocado fruit oil through a unique hydrogenation blending process which yields a soft, greenish butter with mild odor and excellent melting properties, suitable for skin care use.

Almond Butter – Ultra Refined™
(Prunus Amygdalus Dulcis (Sweet Almond) Oil, Hydrogenated Vegetable Oil)

Almond Butter is derived from sweet almonds (Prunus Amygdalus Dulcis), specifically from the Mediterranean area, and is obtained by cold pressing of selected fruits followed by a full refining process. The natural oil contains essential fatty acids, but also contains unsaponifiables as natural waxes/paraffins which are blended with hydrogenated vegetable oil to render a “butter-like” consistency similar to shea butter.

Brazil Nut Butter
(Bertholletia Excelsa Seed Oil, Hydrogenated Vegetable Oil)

The fruit of the Brazil Nut tree is high in nutritional content, and the seed contains approximately 67% oil (high in phytosterol and naturally rich in vitamins A, B, C and E). We take this nutrient-rich oil and combine it with our proprietary exotic butter base to produce Brazil Nut Butter. This butter delivers the benefits of Brazil Nut oil in a form that will add a luxurious skin feel, body, and emolliency to any anhydrous or emulsion system.
Coffee Butter

(Coffea Arabica (Coffee) Seed Oil, Hydrogenated Vegetable Oil)

Coffee Butter has a pleasant appearance and the mild, fragrant aroma of fresh roasted coffee. Produced from roasted coffee bean oil which contains polyunsaturated linoleic acid along with a high content of palmitic acid. Coffee Butter exhibits excellent spreadability, making it ideal as a body butter or carrier for unique skin treatment products.

Hemp Seed Butter

(Cannabis Sativa Seed Oil, Hydrogenated Vegetable Oil)

This butter is produced from the oil of expeller pressed seeds of the Hemp plant (Cannabis Sativa). Hemp Seed Oil is valued for use in cosmetics and toiletries due to its high content of Essential Fatty Acids. Hemp Seed Butter exhibits a relatively dry feel, yet provides excellent lubricity without being greasy. May be used in cosmetics, toiletries, soaps, massage oils & balms, hair care and sun care preparations.

Jojoba Butter

(Simmondsia Chinensis (Jojoba) Seed Oil, Hydrogenated Vegetable Oil)

This butter is produced from natural golden Jojoba Oil which exhibits high oxidative stability with an exceptional smooth and elegant feeling on the skin. Jojoba Butter contains natural tocopherols to help minimize lipid peroxidation. The resultant “butter” is a beautiful golden yellow color with a slight nutty odor typical of Jojoba Oil.
Macadamia Seed Butter - Ultra Refined™

(Macadamia Ternifolia Seed Oil, Hydrogenated Vegetable Oil)

This butter is obtained by cold pressing of the nuts (seeds) of the Macadamia ternifolia tree followed by a full refining process to render an oil which is light in color and mild in odor; the oil is then blended with hydrogenated vegetable oil to render a “butter-like” consistency suitable for personal care products. Macadamia Seed Butter offers an exceptionally good emolliency and lubricity, while at the same time exhibiting good dermal penetration.

Monoi Butter

(Prunus Amygdalus Dulcis (Sweet Almond) Oil, Hydrogenated Vegetable Oil, Cocos Nucifera (Coconut) Oil, Gardenia Tahitensis Flower, Fragrance)

This is a soft, velvety butter containing the essence of the tropical Tiare flower, famous for its aromatherapy action. The Tiare flower is well known in Polynesia for its exotic tropical essence and use in skin and hair care; It goes on smooth and retains the Tiare essence on the skin. If combined into an emulsion for creams and lotions, Monoi Butter will add moisturizing benefits as well as essential aroma aspects to the finished product.

Olive Butter – Ultra Refined™

(Olea Europaea (Olive) Fruit Oil, Hydrogenated Vegetable Oil)

This butter is derived from olive oil (Olea Europaea), grown specifically in the Mediterranean region, and is obtained by the cold pressing of selected fruits followed by a full refining process. The resultant feel and behavior of Olive Butter is very similar to that of shea butter (Butyrospermum parkii), with slightly higher melting characteristics and better stability. Olive Butter exhibits excellent spreadability on the skin, making it ideal as a massage butter or body balm.
Pistachio Butter - Ultra Refined™
(Pistacia Vera Seed Oil, Hydrogenated Vegetable Oil)
This butter is derived from a seed oil rich in fatty acids that moisturizes and softens the skin. Pistachio Butter exhibits excellent penetrating qualities and good spreadability on the skin, making it ideal as a massage butter or carrier for treatment products. Adds moisturizing attributes to creams, lotions, and bar soaps. It also exhibits low comedogenicity on the skin.

Pumpkin Seed Butter™
(Cucurbita Pepo (Pumpkin) Seed Oil, Hydrogenated Vegetable Oil)
Pumpkin Seed Oil is obtained from the seeds of organically grown Cucurbita Pepo (Pumpkin) using the cold expeller press method. It is known to contain Phytosterols and Omega-3, 6, and 9 fatty acids...all beneficial to good cellular health. This butter delivers the benefits of the oil and puts them into a form that will add luxurious skin feel, body, and emolliency to any anhydrous or emulsion system. May be used in cosmetics, toiletries, bar soaps, hair care, and sun care applications.

Soy Butter - Ultra Refined™
(Hydrogenated Soybean Oil)
This is a soft, butter-like material, which exhibits excellent spreadability on the skin. Soy Butter replenishes the lipid barrier to help hold in the skin’s intrinsic moisture. Soy Butter is also useful in hair conditioning products to add moisture and shine. May be used in cosmetics, toiletries, bar soaps, massage products, hair care, and sun care applications.
Andiroba Oil
(Carapa Guianensis Seed Oil)
This Brazilian Amazon oil exhibits excellent penetrating qualities and exceptional anti-inflammatory activity, making it ideal as a massage oil or as a carrier oil for treatment products.

Argan Oil - Ultra Refined™
(Argania Spinosa Kernel Oil)
This Moroccan Oil offers exceptional anti-inflammatory activity, along with excellent moisture retention properties, making it ideal for use as a massage oil or hair treatment ingredient. Lubricious, yet non-greasy!

Avocado Oil - Also Available As Certified Organic
(Persea Gratissima (Avocado) Oil)
This oil offers low comedogenicity on the skin, while adding moisturizing attributes to creams and lotions and bar soaps. A relatively high omega-3, 6 & 9 profile.

Babassu Oil - Ultra Refined™
(Orbignya Oleifera Seed Oil)
This native Brazilian palm tree renders a clear, stable oil that may be used in personal care applications. The oil becomes a soft solid at room temperatures (below 24°C), but melts readily upon contact with the skin. Fast penetrating!

BioVera™ Oil - Aloe Vera Oil
(Canola Oil, Aloe Barbadensis Leaf Extract)
A liposoluble extract of Aloe Vera (Aloe Barbadensis-Miller variety) suitable for use in a variety of cosmetic, toiletry and OTC pharmaceutical applications. Exhibits good emolliency and substantivity to skin and hair, anywhere the legendary healing benefits of Aloe Vera are desired.

Brazil Nut Oil
(Bertholletia Excelsa Seed Oil)
A caramel, transparent oil with a slight nutty odor. The oil is rich in fatty acids such as oleic and linoleic, with small amounts of myristic and stearic acids, along with phytosterol; it is also naturally rich in vitamins A, B, C and E.

Camelina Oil - (Gold of Pleasure)
(Camelina Sativa Seed Oil)
A unique golden vegetable oil, high in Omega-3 and suitable for a variety of skin care applications. Exhibits outstanding emollient properties, and is rich in ALA (Alpha Linoleic Acid, 18:3 n-3), typically found in fish oils, which is responsible for good cellular health.

Camellia (Tea Seed) Oil - Ultra Refined™
(Camellia Oleifera (Tea) Seed Oil)
A highly restorative and quick-penetrating oil for personal care formulations. Contains natural tocopherols and polyphenols. These chemical profiles are what gives Camellia Seed oil its unique skin feel and rejuvenating properties.

Coconut Oil - Extra Virgin/ Certified Organic
(Cocos Nucifera (Coconut) Oil)
This natural version of coconut oil carries the natural aroma of a freshly split coconut which will surely enhance your formula’s aromatic qualities. Now you can formulate a tropical formula without the addition of fragrance!

Coffee Oil
(Coffea Arabica (Coffee) Seed Oil)
Coffee Oil is produced via a specific cold pressing process of roasted coffee beans (seeds) and contains naturally occurring caffeine, polyunsaturated linolenic acid with a high content of palmitic acid. Coffee Oil offers high oxidation stability with an exceptional aroma.
Eucalyptus Globulus Oil - Ultra Refined™
(Eucalyptus Globulus Leaf Oil)

Because of its ability to kill bacteria, Eucalyptus Oil is an excellent choice for soaps, toners and cleansers, as well as shampoos and body washes. It also has applications in OTC pharmaceuticals for use in inhalants and rubs to help with decongestion.

Grape Seed Oil - Ultra Refined™
(Vitis Vinifera (Grape) Seed Oil)

Grape Seed Oil has excellent skin spreadability and penetrates quickly. It contains the highest amounts of linoleic acid among any oil or food source. May be used in cosmetics, toiletries, bar soaps, massage oils, sun care and of course nutraceutical applications (soft gel encapsulation).

Evening Primrose Oil – Certified Organic
(Oenothera Biennis (Evening Primrose) Oil)

Evening Primrose typically contains a minimum 9% GLA, which contributes to good cellular health. May be used in treatment cosmetics, toiletries, OTC topicals and nutraceuticals to help promote healthy cell regeneration.

Hemp Seed Oil - Ultra Natural™ & Ultra Refined™ - Certified Organic
(Cannabis Sativa Seed Oil)

It is one of the “driest” natural oils available, penetrating quickly! High in Omega-3, 6 & 9. Valued in cosmetics and toiletries due to its high content of Essential Fatty Acids, which helps the action of hydro lipid coat (thereby reducing TEWL).

Jojoba Oil – (Natural/Golden) - Also Available Certified Organic
(Simmondsia Chinensis (Jojoba) Seed Oil)

Jojoba Oil (Natural Golden) is a cold pressed ester from the seeds of the desert shrub Simmondsia Chinensis. The resultant “oil” is a beautiful natural golden color with slight, nutty odor. Jojoba contains natural tocopherols to minimize oxidation and hence rancidity caused by lipid peroxidation.

Macadamia Seed Oil - Ultra Refined™
(Macadamia Ternifolia Seed Oil)

The Macadamia tree is an Australian rainforest evergreen. Its seed renders an oil of exceptional emolliency, while at the same time exhibiting good dermal penetration. Macadamia Seed Oil will not stain clothing, making it an ideal massage oil.
Neem Oil - Natural
(Melia Azadirachta Seed Oil)
A unique cold pressed oil from India which contains natural constituents (including Azadirachtin) that have specific benefits for skin care. Scientific research has confirmed it to be a very effective antiseptic, anti-fungal, antibacterial, antiviral, and may aid in the healing of topical skin disorders such as eczema, psoriasis, rashes, burns and acne. Also known as a natural insect repellent.

Olive Oil - Ultra Refined™ - Also Available As Certified Organic
(Olea Europaea (Olive) Fruit Oil)
After expelling the oil at room temperature, it is filtered and highly refined to a light color and odor suitable for use in a variety of cosmetics, toiletries and soap making applications; exhibits excellent spreadability on the skin. Adds moisturizing attributes to creams, lotions and bar soaps.

Pumpkin Seed Oil - Certified Organic
(Cucurbita Pepo (Pumpkin) Seed Oil)
A highly refined (light color) oil which is obtained from the seeds of organically grown Cucurbita Pepo (Pumpkin). Suitable for cosmetics and toiletries due to its light color and mild odor. It is known to contain Phytosterols and Omega-3, 6 and 9 fatty acids...all beneficial to good cellular health. Due to its emolliency, it also makes a great natural massage oil.

LiquaShea™
(formerly Shea Olein)
(Butyrospermum Parkii (Shea Butter))
Also known as liquid shea butter, it is obtained by cold pressing of shea seeds, followed by a full refining process. During the fractionation of shea butter, the liquid oleins are separated from the crystallized stearines. The result is a liquid fraction which is then homogenized, making the use of shea butter possible for less viscous product applications.

Sesame Oil - Certified Organic
(Sesamum Indicum (Sesame) Seed Oil)
Sesame exhibits exceptional antiseptic properties; hence its effectiveness in treating sensitive skin conditions such as atopic eczema and psoriasis. With an unusually high level of Oleic and Linoleic fatty acids and above average level of inherent antioxidants, Sesame Oil is very stable with a unique skin feel.

Sweet Almond Oil - Ultra Refined™
(Prunus Amygdalus Dulcis (Sweet Almond) Oil)
Obtained from the dried kernel of sweet almonds, this oil has been traditionally used by massage therapists to lubricate the skin and is an effective emollient. This particular grade of oil offers superb clarity and light color, desirable attributes for today’s high-end formulations.

Rose Hip Seed Oil - Ultra Refined™
(Rosa Moschata Seed Oil)
Exhibits excellent penetrating qualities and good spreadability on the skin, making it ideal as a massage or carrier oil for cosmetics and treatment products. Rose Hip Seed Oil contains natural Vitamin C which is beneficial to skin, and to formulations because of its ability to act as a free radical scavenger and anti-oxidant.
Sunflower Seed Oil
(Helianthus Annuus (Sunflower) Seed Oil)
Sunflower Seed Oil exhibits excellent penetrating qualities and good spreadability on the skin, making it ideal as a massage or carrier oil for cosmetics and treatment products. Adds moisturizing attributes to creams and lotions and bar soaps. Exhibits low comedogenicity on the skin.

Tea Tree Oil - Ultra Refined™
(Melaleuca Alternifolia (Tea Tree) Leaf Oil)
An essential oil produced via steam distillation from the leaves of the Melaleuca alternifolia, a native Australian tree. Tea Tree Oil has excellent antiseptic qualities and may be used in a wide array of product applications where natural anti-bacterial properties are desired.

Walnut Oil - Ultra Refined™
(Juglans Regia (Walnut) Seed Oil)
Walnut Oil is an exquisite carrier oil that exhibits excellent penetrating qualities and easy spreadability on the skin. Because of its high content of Vitamin C, this oil will also aid in the reduction of wrinkles and fine lines by supplying the skin with the nutrients needed to increase collagen synthesis. Walnut oil has been valued for its inherent anti-inflammatory properties as well.

Wheat Germ Oil - Ultra Refined™
(Triticum Vulgare (Wheat) Germ Oil)
Wheat Germ is rich in octacosanol—a potent source of energy prized by athletes; it is also rich in naturally occurring antioxidants including vitamin E and beta carotene, and also contains naturally occurring phosphatides and phytosterols which assist in the digestion of fats.
BioVera Powder
(Aloe Barbadensis Leaf Juice)

BioVera Powder is a lyophilized (Freeze Dried) crystalline powder produced from the gel of the Aloe Vera Barbadensis-Miller plant which has been organically grown. During processing, the powder is blended with maltodextrin to avoid clumping, due to Aloe powder’s hygroscopic nature. BioVera Powder is water miscible, and may be used in cosmetics, toiletries, pharmaceuticals, health foods and beverages.

BioVera 10X Concentrate
(Decolorized)
(Aloe Barbadensis Leaf Juice)

BioVera 10X is a decolorized liquid concentrate produced from pure gel of the Aloe Vera Barbadensis-Miller plant which has been organically grown. The resultant product is a 10X concentrate of the liquid gel which may be reconstituted with deionized water in a ratio of 1:9 (concentrate to water). BioVera 10X may be used both in cosmetics topical applications and internally.

BioVera 200X - Certified Organic
(Aloe Barbadensis Leaf Juice)

BioVera 200X is a lyophilized (Freeze Dried) crystalline powder produced from the gel of the Aloe Vera Barbadensis-Miller plant that has been organically grown. The resultant product is a powdered concentrate of the liquid Aloe gel that may be reconstituted with deionized water, typically at a reconstitution ratio of 1:199. May be used in cosmetics, toiletries, pharmaceuticals, health foods and beverages.

Lanolin - Anhydrous - Ultra Refined™
(Lanolin)

Lanolin exhibits excellent moisture binding and humectant properties, making it an ideal ingredient for creams, lotions, bar soaps and treatment products where enhanced moisture retention is desired. Well suited for high-end cosmetics; it exhibits a relatively lighter color and lower odor than most lanolin grades.

Vitamin E – Natural (d-alpha tocopherol)
(Tocopherol)

Vitamin E – Natural (d-alpha tocopherol form) is extracted by a specific process from vegetable oils, mainly from soy oil (GMO-free). Vitamin E – Natural is an “active” cosmetic ingredient, which is a highly efficient moisturizing component and mainly acts as an anti-oxidizing agent, helping to minimize lipid peroxidation. May also be used to stabilize oils to prevent their oxidation.
Providing the right chemistry and positive solutions, enabling you to develop innovative, next-generation products. At HallStar, it’s our singular focus. Our products do very specific things extremely well, meaning that you can formulate with confidence, knowing your products will always perform at high levels.
CoChem™ SCS
Cetearyl Alcohol, PEG-40 Castor Oil, Stearalkonium Chloride (simple, economical, effective hair conditioner concentrate)

CoSolv™ CPW
C11-15 Pareth-12, PEG-40 Hydrogenated Castor Oil (very efficient fragrance and essential oils solubilizer)

CoVera™
Aloe Barbadensis Leaf Juice [inner leaf fillet 1:1 liquid] (moisturization)

CoVera™ 10X
Aloe Barbadensis Leaf Juice [inner leaf fillet 10:1 liquid] (moisturization)

CoVera™ Dry & CoVera™ ETD
Aloe Barbadensis Leaf Juice [inner leaf 200:1 fine & coarse powders, respectively] (moisturization)

CoVera™ WL
Aloe Barbadensis Leaf Juice [whole leaf 1:1 liquid] (moisturization)

HallGreen® PS
Glycine Soja (Soybean) Sterols (Ideal for skin repair creams)

HallStar® DIPA
Diisopropyl Adipate (plasticizer, nonoily emollient, hydroalcoholic coupler)

HallStar® NCD-20
Cetearyl Alcohol, Ceteareth-20 (O/W emulsion base & stabilizer)

RTD™ Alpha-Bisabolol Natural
Bisabolol (natural source; anti-inflammatory, antimicrobial)

RTD™ Coco Sulfate
Sodium Coco-Sulfate (anionic surfactant, primary foamer in topical personal cleansing products)

RTD™ HC-40
PEG-40 Hydrogenated Castor Oil (HLB 13 soft solid solubilizer, co-emulsifier)

RTD™ HCO-60
PEG-60 Hydrogenated Castor Oil (HLB 16 free-flowing paste solubilizer, co-emulsifier)
<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HallStar® 653</strong></td>
<td>Cetyl Palmitate (flaked spermaceti substitute; emollient, oil phase thickener, base or firming agent for wax-based stick products)</td>
</tr>
<tr>
<td><strong>HallStar® BES</strong></td>
<td>Butoxyethyl Stearate (for industrial applications: liquid mold release, resin and rubber plasticizer, lubricant)</td>
</tr>
<tr>
<td><strong>HallStar® BST-COS</strong></td>
<td>Butyl Stearate (liquid pigment wetter, emollient, lubricant, fragrance solubilizer)</td>
</tr>
<tr>
<td><strong>HallStar® DGMS</strong></td>
<td>PEG-2 Stearate (HLB 4.3 flaked emulsifier, opacifier, emollient)</td>
</tr>
<tr>
<td><strong>HallStar® EGAS</strong></td>
<td>Glycol Stearate, Stearamide AMP (flaked pearlizing agent, bodying agent, emulsion stabilizer and emollient)</td>
</tr>
<tr>
<td><strong>HallStar® EGDS</strong></td>
<td>Glycol Distearate (flaked pearlizing agent (aqueous systems), opacifier, and viscosity booster (nonaqueous systems)</td>
</tr>
<tr>
<td><strong>HallStar® EGMS</strong></td>
<td>Glycol Stearate (pearlizing agent, emulsion stabilizer, bodying agent, emollient- 40+% monoester)</td>
</tr>
<tr>
<td><strong>HallStar® EGMS 70</strong></td>
<td>Glycol Stearate (pearlizing agent, emulsion stabilizer, bodying agent, emollient- 60+% monoester)</td>
</tr>
<tr>
<td><strong>HallStar® GDL</strong></td>
<td>Glycerol Dilaureate (HLB 4.0 solid nonionic emulsifier)</td>
</tr>
<tr>
<td><strong>HallStar® GDS</strong></td>
<td>Glycerol Distearate (low HLB flaked emulsifier and emollient, pearlizing agent, all vegetal)</td>
</tr>
<tr>
<td><strong>HallStar® GMO</strong></td>
<td>Glycerol Oleate (HLB 3.8 liquid emulsifier, pigment dispersant, spreading agent, and lubricant that imparts slip)</td>
</tr>
<tr>
<td><strong>HallStar® GMS PURE</strong></td>
<td>Glycerol Stearate (HLB 3.8 flaked emulsifier made with triple-pressed grade stearic acid; emollient, bodifying agent, opacifier)</td>
</tr>
<tr>
<td><strong>HallStar® GMS SE</strong></td>
<td>Glycerol Stearate SE (flaked primary emulsifier for oil-in-water (O/W) emulsions; has anionic character; suitable from pH 5 to 9)</td>
</tr>
<tr>
<td><strong>HallStar® GMS SE/AS</strong></td>
<td>Glycerol Stearate, PEG-100 Stearate (HLB 11.2 flaked nonionic self-emulsifying O/W base; good electrolyte stability; suitable from pH 4 to 12)</td>
</tr>
<tr>
<td><strong>HallStar® IPM</strong></td>
<td>Isopropyl Myristate (liquid light nonoily emollient, spreading agent, penetrant, solvent for oil-soluble solid active ingredients)</td>
</tr>
<tr>
<td><strong>HallStar® IPM-NF</strong></td>
<td>Isopropyl Myristate (liquid light nonoily emollient, spreading agent, penetrant, solvent for oil-soluble solid active ingredients; NF grade)</td>
</tr>
<tr>
<td><strong>HallStar® IPP</strong></td>
<td>Isopropyl Palmitate (liquid light nonoily emollient, spreading agent, penetrant, solvent for oil-soluble solid active ingredients)</td>
</tr>
<tr>
<td><strong>HallStar® IPP-NF</strong></td>
<td>Isopropyl Palmitate (liquid light nonoily emollient, spreading agent, penetrant, solvent for oil-soluble solid active ingredients; NF grade)</td>
</tr>
<tr>
<td><strong>HallStar® Octyl Isononanoate</strong></td>
<td>Ethylhexyl Isononanoate (clear liquid, light, dry nonoily emollient, resin plasticizer, tack reducer, and so feel enhancer; very low freeze point)</td>
</tr>
<tr>
<td><strong>HallStar® OP</strong></td>
<td>Ethylhexyl Palmitate (clear liquid, light nonoily emollient, gloss enhancer, pigment binder)</td>
</tr>
<tr>
<td><strong>HallStar® PEG 400 DL</strong></td>
<td>PEG-8 Dilaurate (HLB 9.7 liquid oil-soluble and water-dispersible emulsifier, emollient, lubricant and spreading agent)</td>
</tr>
</tbody>
</table>
HallStar® PEG 400 DO
PEG-8 Dioleate (HLB 8.3 liquid oil-soluble and water-dispersible emulsifier, emollient and lubricant; liquid to lower temperature than PEG 400 DL)

HallStar® PEG 400 DS
PEG-8 Distearate (HLB 8.5 solid oil-soluble and water-dispersible emulsifier, emollient, opacifying agent & conditioning agent)

HallStar® PEG 400 ML
PEG-8 Laurate (HLB 13 liquid water-soluble emulsifier, lubricant and emollient; micro-emulsion component)

HallStar® PEG 400 MO
PEG-8 Oleate (HLB 11.6 liquid water-dispersible emulsifier, emollient and lubricant; microemulsion component)

HallStar® PEG 600 DL
PEG-12 Dilaurate (HLB 11.7 soft solid vegetable oil-soluble and water-dispersible emulsifier and emollient)

HallStar® PEG 600 DS
PEG-12 Distearate (HLB 10.7 soft solid oil-soluble and water-dispersible emulsifier, emollient and conditioning agent)

HallStar® PEG 600 ML
PEG-12 Laurate (HLB 14.6 liquid water-soluble emulsifier, emollient)

HallStar® PEG 6000 DO
PEG-150 Dilaurate (HLB 18.4 flaked aqueous thickener and auxiliary emulsifier; widely used to thicken baby shampoos & related products)

HallStar® PEG 6000 DS C
PEG-150 Distearate (HLB 18.4 flaked aqueous thickener and auxiliary emulsifier; ideal for thickening in high clarity systems)

HallStar® PEG 6000 ML
PEG-150 Laurate (HLB 14.6 liquid water-soluble emulsifier, emollient)

HallStar® PEG 6000 MS
PEG-150 Stearate (HLB 19.1 flaked aqueous thickener, auxiliary emulsifier for creams & lotions, cleansing agent for shampoos & bath products)

HallStar® PGMS Pure
Propylene Glycol Stearate (HLB 3.4 flaked oil-soluble emulsifier, emollient and opacifier for make-up, creams & lotions)

HallStar® TAB-2V Special
Diestearyl Phthalic Acid Amide (Vegetable based, flaked suspending agent for particulate actives, emulsifying agent for diverse organic and silicone oils, opacifier)

HallStar® DCA
Diisoctyl Adipate (natural 2-Octanol based) (light emollient, extensive use in bath oils)

HallStar® DIDA
Diisodecyl Adipate (emollient)

HallStar® DIOA
Diisooctyl Adipate (synthetic Isooctanol based) (light emollient)

HallStar® DOA
Diethyhexyl Adipate (hydroalcoholic coupler, pigment wetter, emollient)

HallStar® DOM
Diethyhexyl Maleate (light, nonoily emollient)

HallStar® DOS
Diethyhexyl Sebacate (nonoily emollient, lubricant, plasticizer, sunscreen solubilizer)

HallTress® DIBA Special
Diisobutyl Adipate (plasticizer, very light emollient, solid sunscreen solvent)
<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Stearate</td>
<td></td>
</tr>
<tr>
<td><strong>OP™-100</strong></td>
<td>Sodium Stearate (personal care grade; powder, mainly C16-C18; stick deodorants &amp; emulsions)</td>
</tr>
<tr>
<td><strong>OP™-100 V</strong></td>
<td>Sodium Stearate (personal care grade, vegetal-based; alcohol-based and/or softer stick deodorants- gellant, emulsifier)</td>
</tr>
<tr>
<td><strong>OP™-100 NF</strong></td>
<td>Sodium Stearate (NF grade; pharma &amp; personal care)</td>
</tr>
<tr>
<td><strong>OP™-100 TG</strong></td>
<td>Sodium Stearate (lower moisture, standard particle size, with free fatty acids, technical grade)</td>
</tr>
<tr>
<td><strong>OP™-100 TG-HM</strong></td>
<td>Sodium Stearate (low dusting, higher moisture, larger particle size, with free alkali, technical grade)</td>
</tr>
<tr>
<td><strong>OP™-200</strong></td>
<td>Sodium Stearate (personal care grade, mainly C16-C22; for firmer and glycolic stick deodorants)</td>
</tr>
<tr>
<td><strong>OP™-200V</strong></td>
<td>Sodium Stearate (personal care grade, vegetable-based; glycol and/or firmer stick deodorants- gellant, emulsifier)</td>
</tr>
<tr>
<td><strong>OP™-200HM</strong></td>
<td>Sodium Stearate (pc grade, low dusting, higher moisture, larger particle size; deodorant stick)</td>
</tr>
<tr>
<td><strong>OP™-200K</strong></td>
<td>Potassium Oleate (Kosher; emulsifier)</td>
</tr>
<tr>
<td><strong>OPK-181</strong></td>
<td>Potassium Oleate (technical grade, tallow or vegetal based)</td>
</tr>
<tr>
<td><strong>OPK™-181</strong></td>
<td>Potassium Oleate (Kosher; lubricant &amp; antistat)</td>
</tr>
<tr>
<td><strong>OP™-518 10% &amp; OP™-618</strong></td>
<td>Sodium Oleate (10% &amp; 19% aqueous amber/brown solutions; industrial detergents &amp; cleaners)</td>
</tr>
</tbody>
</table>
HallStar® CO-1695
Cetyl Alcohol NF
Cetyl Alcohol (95.0% minimum)

HallStar® TA-1618
Cetearyl Alcohol
Cetearyl Alcohol (60% minimum C18)

HallStar® CO-1895
Stearyl Alcohol NF
Stearyl Alcohol (95.0% minimum)

FA 18/96-U- Stearyl Alcohol Deo Grade
Stearyl Alcohol (96%) – Deodorant Grade

HallStar® FA-1495
Myristyl Alcohol
Myristyl Alcohol (96.0% minimum)

RTD™ FA-26 Lauryl Myristyl Alcohol
Lauryl Alcohol (70%), Myristyl Alcohol (25%), Cetyl Alcohol (5%)
C-108 Coconut Fatty Acid
Coconut Acid (low iodine value and color; whole cut, partially hydrogenated)

C-110 Coconut Fatty Acid
Coconut Acid (standard iodine value and color; whole cut, unhydrogenated)

RTD™ C-180 Coconut Fatty Acid
Coconut Acid (standard iodine value & color; C8 - C14 fraction)

C-1218DH Coconut Fatty Acid Stripped
Coconut Acid (less C8-10 content for lower odor)

C-899 Fatty Acid
Caprylic Acid [high purity]

C-1299 Lauric Acid
Lauric Acid [high purity, low color]

Oleic Acid OL-700
Oleic Acid [standard color].

RTD™ C-1495 Myristic Acid
Myristic Acid [high purity, low color]

S-205 Sunflower Fatty Acid
Sunflower Seed Acid (C16:0/C18:0/C18:1/C18:2/C18:3 = 8/3/20/68/1)

S-210 Soya Fatty Acid

HallStar® T-1 Stearic Acid
Stearic Acid (tallow-derived (C16/C18 ~ 30/53), low iodine value & low color; co-emulsifier; emulsion stabilizer in neutralized form)

HallStar® T-11 Stearic Acid
Stearic Acid (tallow-based, lowest iodine value = very low color)

HallStar® T-18 Stearic Acid
Stearic Acid (tallow-based, low iodine value = moderate color)

HallStar® T-22 Stearic Acid
Stearic Acid (tallow-based, standard iodine value = high color)

HallStar® T-1655 Stearic Acid
Stearic Acid (triple pressed grade, tallow-derived, C16/C18 ~ 50/45; co-emulsifier; emulsion stabilizer in neutralized form)

HallStar® V-1655 Stearic Acid
Stearic Acid: vegetal-based, C16/C18 ~ 53/47)

HallStar® T-1855 DP Stearic Acid
Double pressed – Tallow derived -stearic acid. (C16/C18 ~ 43/53). Co-emulsifier; emulsion stabilizer in neutralized form.

HallStar® V-1855 Stearic Acid
Stearic Acid (vegetal-based, C16/C18 ~ 46 / 53)

HallStar® V-1890 Veg. Stearic Acid
Stearic Acid (vegetal, 87% minimum C18); high purity grade; co-emulsifier; emulsion stabilizer in neutralized form)
CE-1095 Methyl Ester
Methyl Caprate

CE-1897 Methyl Oleate
Methyl Oleate (70% C18:1 & 97% total C18s, min)

RTD™ CE-1295 Methyl Laurate
Methyl Laurate

RTD™ Methyl Myristate 1495
Methyl Myristate (96.0% minimum)

RTD™ Methyl Oleate 70%
Methyl Oleate (70% minimum; total C18 = 97.0% minimum)

RTD™ Methyl Palmitate 1695
Methyl Palmitate (95% minimum)

RTD™ Methyl Soyate
Methyl Soyate
CoSept™ 200
Quaternium-15 (bactericide)

CoSept™ B
Butylparaben (NF grade) (fungicide)

CoSept™ E
Ethylparaben (NF grade) (fungicide)

CoSept™ IB
Isobutylparaben (fungicide)

CoSept™ M
Methylparaben (NF, FCC grade) (fungicide)

CoSept™ P
Propylparaben (NF, FCC grade) (fungicide)

CoSept™ PEP
Phenoxyethanol, Methylparaben, Ethylparaben, Butylparaben, Propylparaben, Isobutylparaben (broad spectrum)
Cennamide™ CER015
Triticum Vulgare (Wheat) Flour Lipids
(15% ceramide in wheat oil)

Cennamide™ CERP50
Triticum Vulgare (Wheat) Flour Lipids (powder) (Glycosphingolipids, Digalactosyldiglycerides)

Cennamide™ CERW05
Triticum Vulgare (Wheat) Flour Lipids
(5% ceramide dispersion in water)