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Active Concepts has built itself upon three pillars; **innovative technology platforms**, market leading customer support, and products with a purpose. For almost two decades, Active Concepts has diligently embarked on an endeavor to develop complex, active ingredients that provide formulators with unmatched function, in order to meet and exceed the rapidly increasing consumer demand for more effective cosmetic technologies.

Active Concepts prides themselves on their ability to identify market niches. We then design and develop unique, high quality actives through innovative biotechnology for the beauty industry. Utilizing our extensive expertise, in the science of **fermentation**, has led us to innovate active ingredient concepts across our technology platforms. Today, Active Concepts thrives in the rapidly evolving marketing environment by harnessing the latest technological advances to create novel products useful for **brand differentiation**.

At Active Concepts, utilizing our various technology platforms provides products with a purpose. Our actives are supported by biological concepts, clinical studies - *in vitro* and *in vivo* - and comprehensive marketing documentation to support our customers in positioning their products with the highest market impact. As new topics of discussion and development arise within the industry, we meet these research challenges head on to provide exceptional products across all industry platforms and stand behind them with efficient and effective testing methods.

We strive to provide a **competitive edge** in innovation and sustainable business initiatives, providing the personal care and cosmetic industry with value-added raw materials and unmatched customer service. Our mission is to fully support our customers by promoting and providing brand differentiation. We want to help you achieve your vision.
Flexible and dynamic usage of our technology platforms allows for innovative development through modular design. Modular design is an approach that subdivides a system into smaller parts that can be independently created and then used in various arrangements to drive multiple functionalities. Simple modular units can construct complex ingredients to offer the opportunity for customization and sustainability. Lego pieces are a popular example of modular design. Each piece may have a specific function to build a house, but utilizing the individual components a new way can create an airplane. Modular design evolves a concept into a detailed and functional story. For an example in cosmetic applications, imagine a skin-lightening product is developed. To enhance the bioavailability of the material we employ the process of fermentation during the manufacturing process. Our skin-lightening ingredient now has increased hair and skin affinity, but perhaps poor skin penetration. By incorporating the ingredient into a delivery system, such as a liposome, the active will obtain enhanced skin penetration, targeted release, and enhanced stability while also maintaining benefits from the fermentation process. Operating our technology platforms through modular design, offers the opportunity for exceptional diversity and brand identity. With unlimited variation, our portfolio is ever expanding. At Active Concepts, we strive to keep you ahead in the beauty industry as we pave the way through innovation.

We offer customized product development for brand differentiation to provide unique ingredients that are unavailable to others on the market. Our alternate sourcing allows customers to optimize cost and decrease lead times while obtaining customized blends and products with preferred solvents, preservatives, and delivery systems. Our time-tested experience in the skin and hair care industries ensures our ability to provide cutting edge technology and innovative product development.

We aim to provide the tools for brands to tell their story utilizing the latest biotechnology innovations. The brand and consumer relationship may lie in products with brand differentiation, multi-functional benefits, sustainability, or a unique story. We at Active Concepts are ready to provide you the technology, science, efficacy, and marketing to put your brand at the forefront of the industry!
Technology Platforms

- Biofermentation
- Probiotics
- Proteins
- Enzymes
- Functional Actives
- Botanical Extracts
- Complex Actives
- Delivery Systems
Brands such as La Mer, Amore Pacific, Sooryehan, Sulwhasoo, Origins, Tata Harper, Dermalogica, and Tula have driven fermented beauty forward in the industry. Fermented ingredients are gaining a massive following for being more potent, powerful, and super boosting in skin care products. While many brands are harnessing this newfound fermentation technology, we at Active Concepts have perfected the science of biofermentation over the past two decades to offer unique products with strong efficacy and marketability.

Increase the bioavailability of your actives by utilizing modern benefits of fermentation! Ingredients that provide increased skin and hair affinity are taking center stage in the cosmetic industry. At Active Concepts, we have developed a variety of Biofermented products for the cosmetic and personal care applications employing the principles of fermentation, which allows for the isolation and concentration of various phytochemicals.

Fermentation has been regarded as both a traditional art and modern science. It is one of the oldest technologies used by different people and cultures throughout the world for food preservation. Products such as cheese, bread, and wine have been produced for thousands of years using various fermentation techniques. Today, fermented foods are still produced globally on a large scale. They make significant dietary contributions to many cultures and can offer exceptional marketing appeal.

Fermented foods are considered highly nutritious. Often these foods are regarded to be more nutritious than their non-fermented counterparts. Interestingly, these foods have been shown to contain compounds that are not present in the non-fermented version of the same food. The fermentation process not only preserves, but also creates additional beneficial enzymes, fatty acids, probiotics, and vitamins, making products more potent and nutrient-dense than their non-fermented counterparts.

Research continues to become available for skin and health benefits associated with fermented products. One such study depicts specific bioactive peptides that are released during soybean fermentation to offer benefits such as antioxidant and antimicrobial protection that may not be developed or available in non-fermented soybeans. Specific microbial strains, utilized in the fermentation process, contribute to a variety of bioactive peptides that could be produced to offer a range of benefits⁴. An additional study focuses on the enhancement of antioxidant activity, total phenolic and flavonoid content of black soybeans after fermentation¹.

One of the key modern benefits associated with fermented ingredients is that fermentation increases bioavailability, or the ability of our bodies to recognize and efficiently process these ingredients. Biofermented ingredients incorporated into beauty products can provide increased skin and hair affinity. Fermentation breaks down a substance into a simpler substance using microorganisms such as yeast or bacteria. For cosmetics, fermented ingredients are more symbiotic with the skin and support skin functions without disrupting natural processes making the ingredients less likely to cause sensitivity in skin care applications.
Biofermentation

Using microorganisms, such as yeast and bacteria, to ferment plant biomass allows us to produce new and unique natural products. By initiating fermentation, various cosmetic benefits, such as improved bioactive delivery, oxygen uptake, moisturization, and reduction in skin irritation, can be increased and made more readily bioavailable for skin and hair care applications.

<table>
<thead>
<tr>
<th>Product Code &amp; Name</th>
<th>INCI Name</th>
<th>Mechanism</th>
<th>Multifunctional Benefits</th>
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</table>
| 20024 - ACB Wakame Bioferment Advanced | Undaria Pinnatifida Cell Culture Extract | Increases oxygen consumption, while simultaneously reducing the formation of reactive oxygen species to increase overall mitochondrial efficiency. | • Powerful antioxidant  
• Increases collagen synthesis  
• Enhances cellular longevity |
| 20431PF - ACB Tonka Bean Bioferment PF | Lactobacillus/Dipteryx Odorata Seed Ferment Filtrate | Emits visible blue light to counteract dulling effects of other wavelengths and increases luminescence for healthy, revitalized skin. | • Illuminates skin imperfections to even skin tone  
• Antioxidant protection  
• Promotes collagen synthesis  
• Improves moisturization |
| 20228 - ACB Agave HSP | Saccharomyces/Agave Americana Leaf Ferment Filtrate | Result of fermentation of agave with Saccharomyces cerevisiae for enhanced bioavailability to deliver the reparative, protecting, and soothing benefits of Heat Shock Proteins. | • Anti-inflammatory  
• Soothing & calming  
• Simulates collagen production  
• After-sun care |
| 20339PF - ACB Bio-Chelate 5 PF | Water & Saccharomyces/Zinc Ferment & Saccharomyces/Copper Ferment & Saccharomyces/Magnesium Ferment & Saccharomyces/Iron Ferment & Saccharomyces/Silicon Ferment | Nutrient rich, fermented minerals efficaciously enhance barrier function and increase growth factor expression for healthier skin. | • Anti-inflammatory  
• Strengthens and conditions skin  
• Increases cellular energy production  
• Enhances barrier function |
| 20499 - ACB Acerola Bioferment | Lactobacillus/Acerola Cherry Ferment | Acerola fermented with Lactobacillus to enhance antioxidant properties. | • Antioxidant  
• Conditioning  
• Nourishing |
| 16722 - ACB Tomato Bioferment PF | Lactobacillus/Tomato Fruit Ferment Extract | A bi-enzyme complex from tomato to nourish the hair directly with cysteine, providing the building blocks of keratin to maintain hair’s natural integrity. | • Anti-frizz  
• Conditioning  
• Antioxidant |
| 20331PF - ACB Cocoa Bioferment PF | Lactobacillus/Cocoa Fruit Ferment Filtrate | A fermentation of cocoa with Lactobacillus to enhance delivery of phytoactives in a variety of formulations. | • Firming  
• Conditioning  
• Nourishing |
Beneficial, mutualistic bacteria keep skin healthy, calm, and radiant, while a shift in the microbiome balance may allow pathogenic or opportunistic bacteria to wreak havoc on a complexion. A well-balanced microbiome can reduce or prevent skin disorders, inflammation, and even breakouts. We can promote microbiome balance by utilizing the benefits naturally provided by probiotics. Skin, hair care and cosmetic enthusiasts are discovering the abundance of probiotic benefits.

Transforming the health and wellness industry, probiotic treatments are now trending steadily in both skin and hair care product lines. Recognized mostly for their digestive benefits, recent clinical research indicates that probiotics confer systemic benefits, which extend to the skin. Probiotics are defined by the World Health Organization as live microorganisms that, when administered in adequate amounts, confer a health benefit to the host.5

Within cosmetics, there are restrictions placed on the microbial content of a product as indicated in the US FDA’s Guidelines. In order for probiotics to deliver benefits they must be present in billions of colony forming units (CFU). This level of probiotic incorporated into a cosmetic product would exceed the microbial limit as designated by the FDA creating an adulterated product. The sale of adulterated products is prohibited.

Thus, an innovative approach available associated with probiotics is with bacterial lysates. Bacterial lysates are the product of lysis, a process of inducing a stress and rupturing the cell rendering it non-viable. The ruptured cell releases its valuable intracellular components. Bacterial lysates offer a safe alternative to incorporate pre- and probiotics into cosmetic applications because it is derived from a probiotic organism. The bacterial lysate has all the beneficial active components of live bacteria, without the live bacteria. Through specific techniques, Active Concepts has isolated and extracted the active compounds for powerful probiotic actives! So, no need to cover your face in yogurt just yet. At Active Concepts, we offer probiotic products for marketability, but also ingredients with increased bioavailability, efficacy, and even antimicrobial protection.
Probiotics

Probiotic products are intended to maintain the balance of ‘good’ and ‘bad’ bacteria on the skin and promote healthy skin function. Active Concepts has taken an innovative approach through the use of bacterial lysates for probiotic benefits. The bacterial lysate has all the beneficial active components of live bacteria, without the live bacteria.

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| 20224PF - ACB Yogurt Dermal       | Lactobacillus Ferment Lysate Filtrate               | Heat Shock Proteins are isolated and extracted from probiotic bacteria cells to provide skin protection against stress. | • Soothing  
• Collagen production  
• Cellular energy  
• Anti-irritation  
• Increase in oxygen consumption |
| Respiratory Factor PF             |                                                     |                                                                           |                                                                |
| 16617 - Prorevive Blemish Balm    | Lactobacillus/Salix Alba Bark Ferment Filtrate      | Prebiotic supplemented growth media stimulates synergistically active compounds used to renew and reinvigorate the skin. Bacteria lysis with willow bark provides natural salicylates. | • Moisturization  
• Antioxidant  
• Anti-aging  
• Cellular renewal |
| Complex                           |                                                     |                                                                           |                                                                |
| 20531 - AC Yogurt Hydrolysate SF  | Hydrolyzed Yogurt Protein                           | Yogurt proteins in hydrolyzed form to enhance functional properties and increase efficacy. | • Moisturization  
• Conditioning  
• Nourishing |
| 16618 - Probacillus Revive        | Lactobacillus Ferment Lysate                        | Prebiotic supplemented growth media stimulates synergistically active compounds in Lactobacillus bulgaricus which are used to renew and reinvigorate the skin. | • Moisturization  
• Exfoliation  
• Collagen production  
• Anti-aging |
| 20070 - ACB Yogurt Extract        | Water & Yogurt Extract                              | Yogurt derivative that is standardized for lactic acid to increase moisturization and exfoliation benefits. | • Exfoliation  
• Moisturization  
• Antioxidant |
| 20653SFV - AC Vegan Yogurt        | Cocos Nucifera (Coconut) Fruit Extract & Lactobacillus Ferment | Non-animal derived yogurt proteins in hydrolyzed form to enhance functional properties and increase efficacy. | • Topical probiotic  
• Intense moisturization  
• Redness reduction |
| Hydrolysate SF                    |                                                     |                                                                           |                                                                |
Proteins

Proteins cover every aspect of cosmetic applications from cell messengers to emulsifiers. Proteins are the essential building blocks of skin and hair, but as we age, everything slows down. A lack of protein production can result in wrinkles, thinning hair, and loss of elasticity in the skin. So how can we combat aging if our bodies stop producing proteins?

For decades, proteins have played a dominant role in the personal care industry and are still leading the industry forward. Peptides, enzymes, amino acids, and other proteinaceous materials continue to be used in nearly every aspect of personal care. With efficacy ranging from antimicrobial preservation technology, to structural modifiers for skin and hair, proteins remain a key pillar in this ever-changing space.

We offer several types of proteins to provide variance in formulations and applications. **Soluble proteins** are offered to provide film forming and moisturizing benefits. These proteins are used in a range of applications including emulsions, lotions, gels, and powders. **Hydrolysates** offer conditioning benefits as proteins that have been broken down into smaller chains of amino acids. Hydrolyzing a protein enhances both the functional and nutritional properties of the product. **Peptides or amino acids** are proteins that offer targeted activity and enhanced cellular function. Some benefits may include antioxidant protection, anti-pollution defense, and collagen synthesis. **Enzymes** are proteins that act as catalysts to control, maintain, and regulate various metabolic pathways within our cells. Enzyme-based beauty products are utilized for everything from exfoliants to addressing problem skin, as they are known to promote cell growth and renewal.

Proteins are medium to large sized molecules comprised of two or more long chains of amino acids that play essential roles in all living organisms as structural components, catalysts, and even antibodies. **Keratin**, **elastin**, and **collagen** are three types of protein found in the skin that provide flexibility, strength, and structure. Our skin is the first line of protection from harsh effects of aging and the environment. When proteins, on the skin or hair, are damaged by pollution, free radicals, and other factors, the skin and hair can lose texture, develop wrinkles, and become desiccated. Over 80% of hair is composed of protein, but chemical treatments, sunlight, and daily grooming can damage the hair structure. Incorporating proteins into cosmetics can offer recognized protection and nutrition for a healthy, vibrant look.

**Not all proteins are created equal.** Traditional hydrolysis in proteins are well accepted and effective, but they are an overly simplistic method to duplicate normal cellular protein catabolism where cells work to digest proteins into specific sequences. Using proprietary fermentation technology, Active Concepts has harnessed a variety of Non-GMO bacterial species, such as *Lactobacillus bulgaricus*, in order to biodegrade, and naturally process proteins in contingency with methods that are more traditional. This technology has allowed us to create **unique, natural, hydrolyzed protein** derivatives that are significantly more bioavailable. This technology has also been designed to create proteins controlled for molecular weight in order to minimize potential sensitizing effects. Overall structure plays a critical role in the effectiveness of proteinaceous material. Long chain fibrous proteins such as collagen or elastin are important structural proteins for the skin and hair, while enzymes and peptides can perform as catalysts or even antibodies in key molecular pathways. **Non-animal derived** alternative protein ingredients are also available.
Proteins

Proteins are the building blocks of nature. They serve as the structural scaffolding in cells, skin, hair and nails. Through hydrolyzation, smaller proteinaceous material is made more bioavailable for skin and hair. Differentiation of proteins by molecular weight allows for maintaining the same sourcing with key differences in efficacy and functionality of a material. Soluble proteins for film forming and moisturizing, hydrolysates for conditioning, and peptides or amino acids for targeted activity and enhanced cellular function.

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| 20037 - ACB Quinoa Protein   | Hydrolyzed Quinoa                                           | Through fermentation we are able to isolate and concentrate the naturally occurring proteins of the seed and thus standardize the amino acid content.                                                        | • Nourishing  
• Enhances barrier function  
• Noticeably improves hair shine  
• Improves hair hydration |
| 20036 - ACB Kale Protein Blend | Hydrolyzed Kale Protein  
& Hydrolyzed Carrot Protein  
& Hydrolyzed Lemon Protein | Combines the power of kale, carrot, and lemon into one nutrient rich formula designed to condition and moisturize while fighting the signs of aging.                                                              | • Antioxidant  
• Hair volumizing  
• Improves barrier function  
• Enhances hair manageability |
| 20007 - ACB Orange Water Quinoa Protein | Citrus Aurantium Dulcis (Orange)  
Fruit Water & Hydrolyzed Quinoa | Capitalizes on the benefits of natural vitamins and minerals in oranges and quinoa while imparting nourishing benefits for skin and hair.                                                                 | • Conditioning  
• Nourishing  
• Botanical |
| 20342PF - ACB Yerba Santa Glycoprotein PF | Lactobacillus/Eriodictyon Californicum Ferment Extract | Transmits a moisturizing effect via hydrogen bonding of water by its glycoprotein components.                                                                                                           | • Antioxidant  
• Anti-pollution protection  
• Moisturizing |
| 20816 - ABS Sweet Almond Protein G | Glycerin & Prunus Amygdalus Dulcis (Sweet Almond) Protein | Sweet almonds are known to impart intense moisturizing benefits through the protein's natural ability to bind water.                                                                                       | • Nourishing  
• Conditioning  
• Superfood marketability |
| 20584PF - AC Cashmere Protein PF | Hydrolyzed wool                                              | Soluble protein hydrolysates in the 1-3K molecular weight range act as colloids in solution and as such they reduce the damage produced by typical surfactants.                                          | • Great overall conditioning  
• Intense moisturizing benefits  
• Nourishing |
| 20624PF - AC Plant Keratin PF | Hydrolyzed Corn Protein  
& Hydrolyzed Wheat Protein  
& Hydrolyzed Soy Protein | Features hydrolyzed proteins from wheat, corn, and soybeans which combined can enhance moisturization and conditioning properties to leave hair and skin hydrated and healthy.                        | • Moisturizing  
• Conditioning  
• Vegetable derived alternative |
Enzymes

Imagine for a moment that our cells are factories. In this scenario, enzymes would be the machines working to manufacture products and keep the factory running. Enzymes are proteins that act as catalysts to control, maintain, and regulate various metabolic pathways within our cells. Enzyme-based beauty products are utilized for everything from exfoliants to addressing problem skin.

Enzymes containing cosmetics are one of the industry’s fastest growing trends as consumers move away from synthetic ingredients. As catalysts, enzymes increase specific functions in our cells to improve various activities such as antioxidation, cellular proliferation, or even inflammation. Proteolytic enzymes are used in cosmetics to break down proteins so the skin can better absorb the components and promote cell development and renewal. By enhancing bioavailability, skin and hair affinity are also increased providing higher efficacy ingredients and brand differentiation!

Traditionally, enzymes are isolated in purified form to maximize activity, typically expressed as units/mg. This is misleading as the high level of purification is achieved at the cost of stability in aqueous systems. In biological systems where stability is critical enzymes exist as complexes, shielded from degradation by chaperone proteins. Inspired by nature, Active Concepts isolates the entire enzyme, providing efficacy and stability. Enzymes can be further processed to eliminate residual carbohydrates reducing potential Maillard induced browning. Enhance the beauty of skin and hair with the power of enzymes!
Enzymes

Enzymes are proteins that act as catalysts to control, maintain, and regulate various metabolic pathways within our cells. Enzymes can be used to increase specific functions in our cells to improve various functions such as antioxidation, cellular proliferation, or even inflammation. We aim to isolate the enzyme and chaperone proteins together as an entire system, that work synergistically to deliver high level efficacy while maintaining stability within a cosmetic formulation.

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| 20496 - ACB Modified Pumpkin Enzyme PF | Lactobacillus/Pumpkin Fruit Ferment Filtrate | Using *Lactobacillus* to breakdown this enzyme, we are able to harness highly bioavailable proteolytic enzymes to impart benefits to the skin and hair. | • Exfoliation  
• Great for scalp care applications  
• Nourishing  
• Versatile in formulations |
| 20440PF - ACB Modified Pomegranate Enzyme PF | Lactobacillus/Punica Granatum Fruit Ferment Extract | Extracted from unused residual fruit pulp then fermented to enhance phytochemical availability and promote gentle, effective exfoliation. | • Exfoliation  
• Functional active  
• Hair and skin care formulations |
| 16647PF - ACB Modified Papaya Enzyme PF | Lactobacillus/Papaya Fruit Ferment Extract | Utilizes enzymes to capitalize on the benefits associated with papaya in improving fine lines and wrinkles. | • Skin conditioning  
• Skin nourishing  
• Cellular renewal |
| 10268PF - ABS Pap-Ango Enzyme PF | Carica Papaya (Papaya) Fruit Extract & Mangifera Indica (Mango) Fruit Extract | Papain in papaya and various mango enzymes are attributed with soothing skin irritations and exfoliating dead cells. | • Cellular renewal  
• Good for problem skin  
• Nourishing |
| 20360 - ACB Cranberry Enzyme | Lactobacillus/Vaccinium Macrocarpon Fruit Ferment Filtrate | Fruit enzymes are attributed with soothing skin irritations and exfoliating dead cells, while also capable of retaining proteolytic activity over a wide pH range. | • Cellular renewal  
• Nourishing  
• Enhances sleekness  
• Reduces frizz |
| 20395PF - AC Sebum Control Enzyme PF | Butylene Glycol & Water & Spiraea Ulmaria Extract | Reduces the activity of the sebaceous glands by inhibiting the activity of 5a-reductase. Limits the amount of sebum secretion due to astringent properties. | • Astringent  
• Good for problem skin  
• Sebum control  
• Antioxidant |
| 20355 - ACB Ox-Red SOD | Superoxide Dismutase | An intact enzyme complex comprised of superoxide dismutase as well as the associated chaperone proteins, targets the harmful superoxide anion to neutralize free radicals. | • Beneficial for skin and hair  
• Anti-irritant capabilities  
• Versatile in formulations |
Functional Actives

Combine texture, functionality, and efficacy! Cut down on your ingredient deck with multifunctional and highly effective active ingredients that supply a range of hair and skin care benefits. Functional actives are novel materials that not only contribute to the texture and film forming abilities of formulations, but also deliver activity.

Using biotechnology, Active Concepts works to create botanical replacements to animal or petrochemical derived cosmetic raw materials such as gelatin, lanolin, and petrolatum. These natural alternatives bring texture, viscosity, slip, or stabilizing functions to a formulation, while enhancing aesthetic appeal and value. Simultaneously, these functional materials can also deliver activity on the skin or hair providing multifunctional benefits and claims.

Sensory ingredients are enticing functional actives that provide cooling and warming sensations for consumers to experience the integrity of a product. Silky, soft, velvety, and even physically exfoliating ingredients can provide an engaging experience and create a foundation for strong brand differentiation. In addition, various characterized activities are available and supported by in-vitro/in-vivo efficacy data to provide ingredients with multifunctional benefits including moisturization, wound healing, antioxidant protection, and improved barrier function to lock in hydration.
## Functional Actives

Aesthetic modifiers with innovative cosmetic benefits! The use of biotechnology allows the creation of unique actives for multifunctional benefits in cosmetic applications. For aesthetic appeal and value, these actives can provide texture, viscosity, slip, and stabilizing functions in formulations. We offer botanical replacements to animal and petrochemical derived cosmetic raw ingredients to enhance activity, benefits, and efficacy claims for products.

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<tbody>
<tr>
<td>10414 - ABS Acai Sterols EFA</td>
<td>Euterpe Oleracea Sterols &amp; Linoleic Acid &amp; Oleic Acid &amp; Linolenic Acid</td>
<td>Acai derived essential fatty acids complement the skin's natural oil barrier to seal in hydration.</td>
<td>• Botanical replacement for lanolin and petrolatum • Standardized for essential fatty acids • Improves barrier function • Benefits for hair and skin care</td>
</tr>
<tr>
<td>10350 - ABS Rice Lipids Plus</td>
<td>Oryza Sativa (Rice) Lipids</td>
<td>Functional and aesthetic properties within a natural and understandable medium that utilizes natural forming lipids to offer color cosmetic binding abilities, moisturization, and film forming benefits.</td>
<td>• Moisturization • Improves barrier function • Binding agent • Delivers ease of spread-ability in cosmetic applications</td>
</tr>
<tr>
<td>20742 - AcquaSeal® Coconut</td>
<td>Cocos Nucifera (Coconut) Fruit Extract</td>
<td>Fractionated coconut lipids seal in moisture and transform the skin into a luxuriously soft, hydrated surface.</td>
<td>• Improves barrier function • Antioxidant protection • Enhances aesthetics of final formulations • Intense moisturization</td>
</tr>
<tr>
<td>10247 - ABS Pomegranate Sterols</td>
<td>Punica Granatum Sterols</td>
<td>Sterols obtained from fractionated oil work to increase barrier formation on the skin while improving hydration.</td>
<td>• Adds smooth shine to hair • Natural product replacement for lanolin • Moisturizing</td>
</tr>
<tr>
<td>16586 - Phytofuse Renew®</td>
<td>Selaginella Lepidophylla Extract</td>
<td>Moisture Retentive Complex delivers a protective film to the skin and allows for powerful, long-term moisturization.</td>
<td>• Anti-pollution • Moisturizing • Antioxidant • Wound healing</td>
</tr>
<tr>
<td>22045 - Active.Lite® Hair</td>
<td>Polyquaternium-80 &amp; Water &amp; Hydrolyzed Pea Protein &amp; Selaginella Lepidophylla Extract</td>
<td>Ionzically binds to hair cuticles offering long-term protection from harsh hair bleaching processes.</td>
<td>• Chemically resilient material • Utilizes matrix-style scaffolding • Strengthens hair • Moisturizing</td>
</tr>
<tr>
<td>20419PF - AC Southernwood Plump BG PF</td>
<td>Butylene Glycol &amp; Artemisia Abrotanum Extract &amp; Water</td>
<td>Provide skin firming and potential for the stimulation of adipogenesis to bring about long lasting facial contours and firmness.</td>
<td>• Skin smoothing • Reduces wrinkles • Improves skin tone and elasticity • Versatile in formulations</td>
</tr>
</tbody>
</table>
Botanical Extracts

Cosmetic marketing relies heavily on flowers, fruits, herbs, and vegetables for brand image and label claims. As demand for exclusive hair and skin care products increase, there is a growing requirement for extracts of specific origin, species, and sourcing. This level of provenance could include a country, community, or even farm level sourcing to offer brand distinction and the ability to promote uniqueness, and transparency.

Botanical extracts are obtained or derived from plants and are used to support the integrity, health, and texture of skin and hair in cosmetic and personal care applications. Since ancient times, plant extracts utilizing seeds, berries, roots, leaves, bark, and flowers have provided benefits in herbal medicine. Today, these methods are still used to offer label claim extracts and simple extractions. At Active Concepts, we build on these methods to carry out very specific extractions providing targeted activity.

Plants contain unique cellular components or machinery that influence their survival and functionality. Some plants utilize secondary metabolites, a complex of enzymes and stress response elements that work synergistically to prevent significant damage to the plant. Through extraction techniques, we harness these abilities to provide ingredients with a range of efficacious activity and unique origin stories. We offer a variety of solvents and produce ingredients preservative-free while also taking into consideration the importance of sourcing and sustainability when developing and producing our natural botanical extracts.

Our botanical extracts can range from label claim extracts, to extracts with specific attributes such as antioxidant protection, intense moisturization, and wound healing. Our technologies and extraction processes grant us the ability to develop materials that meet specific customer demands, from simple hydro-glycolic extracts to extractions standardized with specific phytochemical contents. From ancient holistic remedies to tomorrow’s facemask, botanical extracts are here to stay in cosmetics and personal care.
Botanical Extracts

Simple extractions to propriety processes, botanical extracts can complement the activity of a wide variety of personal care products and add value to a formulation. Utilizing the benefits of flowers, fruits, herbs, and vegetables, unique concepts of traditional medicinal use and history can be created. At Active Concepts, we offer extracts in a variety of solvents as well as preservative-free. We also take into consideration the importance of provenance, sourcing, and sustainability of our natural Botanical Extracts.

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| 10201PF - ABS Lady's Mantle Extract PF | Water & Alchemilla Vulgaris Extract | Powerful botanical polyphenols calm and soothe skin while reducing the appearance of pores to clean and refresh skin. | • Moisturizing  
• Antioxidant  
• Minimize the appearance of pores |
| 10346PF - ABS Viola Tricolor Extract PF | Hdrolyzed Viola Tricolor Extract | Increases the concentration of hyaluronic acid within the epidermis to enhance the skin's water binding properties; increases the synthesis of the CD44 membrane receptors to bind hyaluronic acid in skin. | • Hydrating  
• Hyaluronic acid synthesis  
• Reduces wrinkles |
| 15002 - AC Flax Seed Oil | Linum Usitatissimum (Linseed) Seed Oil | Consists of oil isolated from flax seeds that contain conjugated linoleic acid to create a product useful for hair and skin care. | • Conditioning  
• Enhances hair shine  
• Nourishing |
| 10229 - ABS White Willow Bark Extract Powder | Salix Alba (Willow) Bark Extract | Antimicrobial power of natural salicylates reduce erythema and inflammation to promote clear, smooth skin. | • Standardized for 53.0-65.0% salicylates  
• Antimicrobial benefits  
• Antioxidant properties  
• Exfoliation |
| 15009 - AC Olive Oil Clear | Olea Europaea (Olive) Fruit Oil | Olive oil is known to provide protection, hydrating, and conditioning benefits for skin and hair care. | • Great for hair and skin  
• Skin nourishing  
• Trendy Mediterranean story |
| 10452PF - ABS Aloe Extract PG PF | Propylene Glycol & Water & Aloe Barbadensis Leaf Extract | Capitalizes on the natural hydrating capabilities of aloe to provide intense moisturizing benefits to the skin and hair. | • Nourishing  
• Botanical  
• Great for skin and hair |
| 10208PF - ABS Chamomile Extract PF | Propylene Glycol & Water & Chamomilla Recutita (Matricaria) Flower/Leaf Extract | Capitalizes on the beneficial properties naturally found in chamomile that are known to provide anti-irritation and anti-inflammatory benefits. | • Botanical  
• Conditioning  
• Revitalizing |
Complex Actives

Result-driven products and scientifically advanced mechanisms of action deliver the perfect ingredients for characterized activity to establish brand identity. Industry demands urge brands to find the latest innovative ingredients. Complex actives offer functionality, efficacy, and unique stories to maximize brand potential!

By optimizing methods of manufacture and combining various technologies, Active Concepts continues to create innovative and sustainable Complex Actives. These materials have a targeted action for specific cosmetic claims such as wound repair, cellular renewal, antioxidant and pollution protection, all of which can be used across an array of different personal care products. With a well characterized activity supported by in-vitro/in-vivo efficacy data these claims can be substantiated while simultaneously allowing for a unique brand identity and story. From plant-derived, stem cell ingredients to products containing natural alpha-hydroxy acids, we offer a variety of raw materials that utilize cutting edge technology to keep our customers ahead of the latest innovations!
## Complex Actives

These materials offer characterized activity and targeted action for specific cosmetic claims which can be used across an array of various personal care applications. Marketing claims and benefits of characterized activity can be substantiated by supporting *in-vitro* and *in-vivo* efficacy data while providing our customers a unique brand identity and story.

<table>
<thead>
<tr>
<th>Product Code &amp; Name</th>
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| 16587 - Phyto-Biotics Acai® | Euterpe Oleracea Fruit Extract | Capitalizes on the specific activity provided by Ferulic Acid to impart anti-aging, and antioxidant benefits while enhancing ATP synthesis and cellular metabolism. | • Anti-inflammatory capabilities  
• Antioxidant protection  
• Enhances cellular metabolism |
| 16882 - Phytofuse Rejuvenate® | Salvia Hispanica Seed Extract | Isolated polysaccharides from Chia create a synthetic scaffolding that promotes wound healing and aid in cellular proliferation. | • Anti-inflammatory  
• Promotes wound healing  
• Intense antioxidant  
• Protects from environmental stress |
| 20219PF - AC Dermal Respiratory Factor Advanced PF | Water & Saccharomyces Lysate Extract | Increases cellular oxygenation, wound healing, and reduces inflammation while promoting collagen and elastin synthesis. | • Relieves and repairs skin  
• Stimulates collagen and elastin production  
• Increases cellular respiration |
| 16634 - AC Griffonia Lysate Advanced | Griffonia Simplicifolia Seed Extract | Utilizes 5-HTP content in griffonia seeds to provide a neuro-cosmetic material that delivers immediately perceivable results and long-term benefits for anti-aging skin care products. | • Antioxidant benefits  
• Tightens and lifts skin  
• Immediately perceivable results |
| 16671 - Revital-Eyes | Water & Lactobacillus Ferment Lysate & Camellia Sinensis Leaf Extract & Punica Granatum Extract & Caffeine | Unique complex of probiotics, green tea, pomegranate, and caffeine that help erase the signs of aging around the eyes, toning the surrounding skin and rejuvenating the complexion. | • Antioxidant benefits  
• Lifts and tones the skin  
• Diminishes appearance of dark circles  
• De-puffs tired, baggy eyes |
| 20852 - AcquaSeal® Algae | Chlamydomonas Reinhardtii Extract | An oil soluble active containing algal lipid fractions, derived from green algae, that activate nuclear transcription factors resulting in stimulation of epidermal and dermal cell proliferation. | • Defends against skin aging  
• Cellular renewal  
• Anti-inflammation  
• Cellular proliferation |
| 2075PF - AC CytoPure PF | Cryptocodinium Cohnii Extract | Activates the power of glutathione to reduce the accumulation of reactive oxygen species to contribute to cellular longevity. | • Antioxidant benefits  
• Anti-pollution active  
• Cellular detoxification  
• Wound healing |
Delivery Systems

Maximize skin penetration, improve response time, and target release utilizing encapsulation technology. Delivery systems also stabilize sensitive actives, to protect the integrity of the encapsulate or allow the formulator to incorporate an active with poor solubility in the desired carrier.

The skin’s impermeability is advantageous as a defense mechanism, but this presents challenges when delivering actives into the skin. Most actives encounter difficulty effectively crossing the stratum corneum. Delivery systems protect sensitive ingredients from degradation as they carry the ingredients to the target destination therefore maximizing the purpose and effects of the active. At Active Concepts, we offer several delivery systems for various applications such as liposomes for anhydrous applications and microvectors or microvesicular systems for hydrous applications.

**Liposomes** are microscopic, spherical, self-enclosed capsules in which a phospholipid bilayer sequesters hydrophilic materials. This system allows for encapsulation of both lipophilic and hydrophilic components. When non-encapsulated materials are placed on the skin a range of factors determine the fate of the material. Stability, solubility, lipophilicity, and size are all obstacles the active must overcome to cross the epidermal barrier. Liposomes, which resemble the basic structures of cellular membranes, create a more beneficial interaction with skin cells. The structure and amphiphilic nature allow the liposomes to penetrate the epidermal barrier and travel deeper than free material to deliver the active ingredient and the anticipated results.

**Microvectors** are composed of dehydrated components of extracellular matrix interspersed with silica microparticles, in an anhydrous carrier. This silica transfer system allows the microvector to penetrate the skin and deliver the desired active. When the microvector contacts water, it hydrates and swells, mimicking the biological ordering of the extracellular matrix.

The **MicroVesicular System** utilizes phospholipids as well as dehydrated components to provide efficacious and long-lasting benefits with enhanced skin penetration. As the system is anhydrous, it can be loaded with dehydrated components of the human tissue matrix such as collagen, chondroitin sulfate, and hyaluronic acid. The use of dehydrated particles assists in easier skin penetration and the system will self-assemble once it enters an aqueous environment to provide plumping effects in cosmetic applications.
## Delivery Systems

Our state-of-the-art encapsulation technologies and delivery systems provide optimum bioavailability and maximum effectiveness. Enhanced penetration of the actives into the skin and effective delivery of oil-soluble ingredients into an aqueous environment. Stability, solubility, lipophilicity, and size are all obstacles the active must overcome. Delivery systems protect sensitive ingredients from degradation as they carry the ingredients to the target destination therefore maximizing the purpose and effects of the active.

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| 60050 - AC MVS Lips          | Pisum Sati Glycine Soja (Soybean) Seed Extract & Glycyrrhiza Glabra (Licorice) Leaf Extract & Phospholipids vum (Pea) Peptide | A self-assembling micro-scale delivery system that provides lip plumping and intense moisturizing benefits. | • Moisturizing  
• Plumping effect  
• Immediate and long term benefits  
• Sensorially perceivable benefits |
| 16098 - AC Cinnamon Liposome | Water & Cinnamomum Cassia Bark Extract & Phospholipids                      | A liposomal encapsulation as a natural delivery system for lightening and evening skin tone while providing antioxidant benefits. | • Antioxidant  
• Natural skin lightening  
• Down-regulates Tyrosinase activity  
• Balances skin tone |
| 60105PF - AC Vitamin ACE-BC Liposome PF | Water & Phospholipids & Retinyl Palmitate & Ascorbyl Palmitate & Tocopheryl Acetate & Beta-Carotene | A liposomal encapsulation of essential vitamins A, C, and E in combination with beta-carotene. | • Increased stability  
• Enhanced delivery  
• Skin nourishing |
| 60131PF - AC Caffeine Liposome PF | Water & Phospholipids & Caffeine                                          | Capitalizes on the benefits associated with caffeine in hair and skin care such as increasing microcirculation and antioxidant properties. | • Encapsulation technology  
• Nourishing  
• Conditioning |
| 60190PF - AC Turmeric Liposome PF | Water & Curcuma Longa (Turmeric) Root Extract & Phospholipids              | Liposomal incorporation of turmeric to enhance stability and bioavailability of curcumin while maximizing antioxidant and anti-inflammatory benefits for cosmetic applications. | • Antioxidant properties  
• Anti-inflammatory benefits  
• Enhances sleekness  
• Reduces frizz |
| 20421 - AC MicroVector Plump Southerwood HYA OS | Ethylhexyl Palmitate & Silica Dimethyl Silylate & Artemisia Abrotanum Extract & Butylene Glycol & Phenoxethanol & Caprylyl Glycol & Hexylene Glycol & Sodium Hyaluronate | Utilizes the water-binding properties of hyaluronic acid to absorb water from the skin, causing them to plump and fill in the appearance of wrinkles. | • Skin smoothing  
• Moisturizing  
• Increases skin tone and elasticity |
| 60052 - AC NanoVesicular System Cooling | Phospholipids & Citrus Limon (Lemon) Fruit Extract & Yeast Extract & Sodium Chondroitin Sulfate & Hyaluronic Acid & Tocopherol & Tripeptide-29 | System incorporates phospholipids and dehydrated components to bind with free flowing water in the skin; the skin plumps, decreasing signs of wrinkles and offers a perceivable cooling sensation. | • Plumping  
• Cooling effect  
• Nourishing |


At Active Concepts we fully believe in Aristotle’s philosophy that “we are what we repeatedly do. Excellence, therefore is not an act, but a habit.”

**Innovative Technology Platforms**
Our ability to conceptualize, manufacture and locally supply raw materials differentiates us from the competition. Our commitment to assessing, sourcing and creating innovative products and technology platforms mirrors the ever-evolving expectations and marketing environments of the personal care and cosmetic industries. We harness the latest technology to deliver our customers with value added benefits for their final formulations.

**Market-Leading Customer Support**
We have made top-level customer service not only a habit, but truly a priority. What good are a company’s products if the people providing support are not? Our stance on customer services provides you with the best response time in the industry – your needs and satisfaction always take precedence.

**Products with a Purpose**
Our mission is to fully support our customers in promoting and providing brand differentiation. We want to help you achieve your vision! We strive to provide a competitive edge, not only in customer service and innovation, but also in the beneficial nature and product application of our raw materials. *In-vivo* and *in-vitro* testing of our products is a standard.

Active Concepts is equipped with a tissue culture lab as well as an instrument lab where our research team performs all *in-vivo* testing on our DermaLab machine. Testing such as Cellular Viability, ORAC and ELISA IL-6 are conducted in the tissue culture lab, whereas the DermaLab is used to measure moisturization, transepidermal water loss, collagen production, melanin and erythema, elasticity, etc. Additionally, we provide hair care efficacy provided by our in-house salon!

Our marketing stories are in sync with our product’s efficacy and vice versa. This allows us to provide our customers with raw materials that actually serve a purpose, whether it be label claim or activity or functionality, in finished good materials.