

# COSMETICS AND COSMECEUTICALS Products

QUALITY, INGREDIENT PURITY AND SAFETY TESTING SERVICES

## Your Testing Partner for Natural Cosmetics Ingredients and Products

- Global leader from regulatory consulting to analytical testing for cosmetics and cosmeceutical ingredients
- Over 15 years of in-depth expertise in natural botanical ingredient tests in various products
- ISO-17025 and cGMP111, 210/211 complied state-of-the-art laboratory analytical capabilities

Natural and functional cosmetics and cosmeceuticals are among the fastest growing personal beauty products. However, the complexity of many natural and functional ingredients and their effect and safe use are less understood. FDA regulations for US and similar global regulations require cosmeceutical ingredients and products to meet the safety and efficacy requirements supported by product quality testing and clinical study data. Independent analytical testing of ingredients and products is critical for product assurance and protecting the company's brand.

### The Challenge

Introduction of functional ingredients, particularly natural ingredients, into cosmetic formulation has led to a rapid growth of cosmeceutical products. However, formulation, efficacy and safety studies for this new class of natural cosmeceuticals has presented significant technical challenges



to many laboratories with expertise primarily focused on traditional chemical cosmetics. To meet the challenge of this growing need for analytical data and regulatory requirements requires expertise in natural ingredients (with focus on botanical ingredients) and related analytical sciences. Companies increasingly turn to the in-depth knowledge and analytical capabilities of dedicated external laboratories for their natural ingredient and cosmeceutical product testing needs.

### Our Solutions

Intertek can provide you identification, potency, purity and safety testing based on our breadth of expertise from over 15 years of focused analytical work in natural and synthetic ingredients and products. Our state-of-the-art cGMP and ISO-17025 certified laboratories are equipped with a broad range of platform technologies with regulatory accepted techniques and methodologies. We can support your analytical needs from raw ingredients to finished products throughout the product life cycle. Our laboratories can also provide you the routine safety chemical and microbial testing to ensure regulatory compliance of your products. Our highly

### CASE STUDY

#### Natural ingredient analysis for formulation development:

Natural ingredients such as aloe vera and aloe gel have been used in various traditional medicinal products, and more recently in cosmetics products such as skin and hair care products for various claimed benefits. Testing extracts from different parts of the aloe vera plant require different ingredient markers, therefore choosing incorrect ingredient markers may lead to erroneous testing results and affecting the product formulation. A cosmetic manufacturer was developing a skin care formulation with inclusion of the aloe vera extract. To better reflect the use of extract from only part of the aloe plant, Intertek Champaign Laboratories developed and qualified a method with a more specific ingredient chemical marker for the outer leaf pulp of aloe vera, thus enabling an improved extract quantification used in the new formulation.

experienced scientific and technical staff (many with Ph.D. and M.S. degrees) can provide close support to ensure your needs are met.

## CASE STUDY

### Ingredient specification development:

Castor oil, with its rich content of Ricinoleic acid, has been used in various skin care products for effects ranging from non-comedogenic, moisture retention and texture, to anti-acne and additional properties. A client produced castor oil under a cultivation condition and faced an industry specification variation in benchmarking their unique castor oil. Leveraging our in-depth knowledge of botanical ingredients and analytical expertise, Intertek Champaign Laboratories provided technical consultation and analysis to develop a product specification for the client. We differentiated the castor oil to help ensure the product quality which is important to the client's brand reputation and market success.

## Our Services

Intertek Champaign Laboratories offers a wealth of expertise and analytical capability for identification, potency and purity tests of ingredients and finished cosmetic products in our state-of-the-art laboratories equipped with analytical technologies such as HPTLC, HPLC, GC/GC-MS, LC-MS/MS, ICP, FT-IR, RT-PCR, wet chemistry, biochemical and microbiological analysis. Appropriate techniques are chosen to ensure critical ingredient markers are analyzed while interference by complex botanical matrix and other formulation components is addressed. Our laboratories can provide the analytical testing using either published (e.g., USP, AOAC) or cGMP validated methods in compliance with regulatory and client requirements.

The following are examples of our analytical services for traditional cosmetics and cosmeceuticals:

- **Diverse raw natural ingredient testing** – Identification of key ingredients such as aloe essential oils for potency and purity in support of cGMP manufacturing
- **Skin care and anti-aging ingredients and products** – Vitamins, fatty acid



and derivatives, antioxidants and natural fragrance

- **Sun protection ingredients and products** – Active UV blocking agents and SPF bioassays
- **Antibacterial and hygiene care ingredients and products** – Botanical extract ingredients and antibiotic agents
- **Lip protectant ingredients and products** – Chemical ingredients such as camphore and menthol plus natural botanical ingredients in formulation
- **Hair care and anti-dandruff ingredients and products** – Coal tar, extracts and mineral base
- **Cosmetic preservative and effectiveness** – Ingredient chemical analysis, preservative and effectiveness test
- **Antimicrobial effectiveness and stability** – USP and relevant monograph tests for antimicrobial effectiveness assessment
- **Safety compliance testing** – Detection of trace level heavy metals, solvents and microbial contamination

We provide these services with our dedicated client services team and consultation with senior scientific and technical staff when required.

## The Intertek Advantage

Intertek is a leading Total Quality Assurance provider to industries worldwide. Through our network of more than 1,000 laboratories and offices and over 42,000 people in more than 100 countries, the Group is re-defining the industry with our Total Quality Assurance proposition.

We go beyond physical quality control to provide total peace of mind through our innovative and bespoke Assurance, Testing, Inspection and Certification solutions for our customers' operations and supply chains. Intertek Total Quality Assurance expertise, delivered consistently, with precision, pace and passion, enabling our customers to power ahead safely.

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## FOR MORE INFORMATION



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