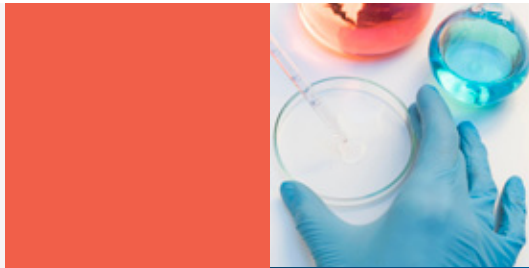
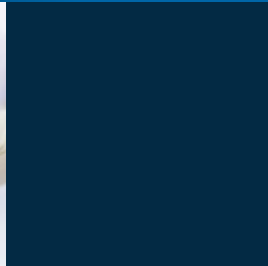




HAMILTON



# COSMETICS TESTING



Over 70 years of experience. At your service.





## About Hamilton

To our customers, the name of J.S. Hamilton means a professional approach to quality and complete impartiality and independence confirmed by relevant accreditations. We offer all the comprehensive quality tests required for cosmetic products to conform with European and international laws. Our work allows our customers to ensure the safety and quality of their cosmetic products, and to secure themselves against claims. The Hamilton team of experienced analysts, cosmetologists, safety assessors and medical specialists are sharply focused on standards and the highest quality. Our testing laboratories operate since 1949 and have always offered a wide scope of chemical, physical, biochemical, microbiological, and sensory analyses. At present, we are the leader in laboratory services in Central Europe.

### Our strengths are:

- highly qualified experts and helpful customer service
- state-of-the-art equipment
- extensive experience
- specialists in regulatory matters
- network of accredited laboratories
- ISO 17025 accreditation
- adherence to the recommendations of GMP & GCP
- innovation
- cooperation based on partnership





## Microbiological Purity and Challenge Tests

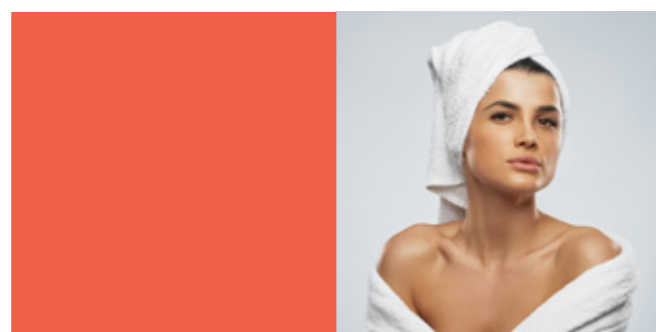
of cosmetics are important to ensure the safety of the products prior to consumer use.

We offer the following test methods:

- ISO 21149 / Total aerobic plate count
- ISO 18416 / Candida albicans
- ISO 22718 / Staphylococcus aureus
- ISO 22717 / Pseudomonas aeruginosa
- ISO 21150 / Escherichia coli
- ISO 16212 / Yeast and mould
- ISO 11930:2019 / Challenge test

## Skin Compatibility Assessment

Skin Compatibility Assessment Patch Test is used to evaluate the potential of a product to cause skin irritation when used by the consumer. The test is conducted on a panel of at least 10 subjects under the control of a dermatologist. The patches used can be occlusive or semi-occlusive depending on the nature of the product. According to the results of the study, J.S. Hamilton helps producers to justify that the product can be claimed to be “non-irritating” on the product label.



## In-use tests (Consumer Acceptability Tests)

In-use tests are based on the self-perception of volunteers and confirm the fulfilment of expectations for the product, used under normal conditions. In-use tests are designed to evaluate the consumer’s acceptance of the cosmetic product, especially if it is intended for general topical use. The main principle of the study is that a panel of volunteers uses the products daily, following a proper application mode and frequency. All project assumptions (volunteer selection, application time and frequency, etc.) are always pre-established with the customer by Hamilton’s experts. Depending on the type of product and customer requirements, testing can be carried out under the supervision of a medical specialist: dermatologist, ophthalmologist, dentist, gynaecologist, paediatrician, etc.



## Stability and compatibility of cosmetic products

The purpose of stability testing of cosmetic products is to ensure that a new or modified product meets the intended physical, chemical and microbiological quality standards as well and has all the functionalities and aesthetic features when stored under appropriate conditions.

- Physical and chemical analysis: sensory analysis (appearance, texture, colour, odour/fragrance), pH value, density, viscosity, density, and emulsion stability (signs of separation).
- Microbiological examination: evaluation of the degree of contamination with bacteria, mould and yeast.
- Packaging stability tests: evaluation of the impact of packaging on the product.

## SPF, Water Resistance, Very Water Resistance, UVA

Sunscreen products contain substances known as ultraviolet (UV) filters, which absorb or block UV radiation from the sun.

Usually, the SPF (Sun Protection Factor) is used to determine the level of protection against UV radiation.

J.S. Hamilton Laboratories offer a range of *in vivo* (done on volunteers) and *in vitro* (done on PMMA plates) testing of sunscreen products: determination of SPF, water resistance, sweat resistance, UVA protection, phototoxicity and photoallergy.

## Efficacy studies

are used to validate your product's intended purpose, justify claims and/or to gain an advantage over your competition.

National and international authorities require that efficacy claims of cosmetic products should be substantiated scientifically using state-of-the-art measurement techniques.

J.S. Hamilton laboratory provides measurements of important skin and skin-related parameters, including:

- skin hydration (Corneometer),
- sebum on the skin surface, scalp and hair (Sebumeter),
- melanin content and erythema level (Mexameter),
- transepidermal water loss and skin barrier function (Tewameter),
- elasticity and firmness (Cutometer),
- pH of the skin and scalp (pH-Meter),
- gloss on skin, lips and hair (Skin-Glossymeter),
- skin topography directly from the skin (Visioscan),
- desquamation level of the stratum corneum (Corneofix),
- skin or hair hydration distribution (MoistureMap MM 200),
- skin thickness and density by ultrasound (Dub SkinScanner),
- monitoring acne lesions by skin fluorescence (Visiopor),
- imaging with measurement to present the skin surface and analyse topographic features such as wrinkles, skin texture, pores, volume, skin colour (Antera 3D),
- wrinkles parameters such as width, depth, amount, and skin surface (Primos Lite),
- high quality and standardized facial images for measuring surface and skin condition parameters such as texture, pores, porphyrins, and spots (Visia),
- high-resolution standardized full-face photography for treatment documentation (VisioFace),
- hair properties measurement such as hair density and thickness, hair pore status and cuticle status and scalp status assessment including keratin, sebum, and scalp sensitivity (Aramo).



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