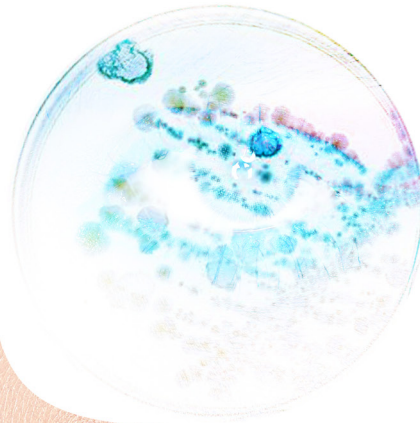




Cosmetics &
Personal Care



**GLOBAL
OFFER**



Global Expertise, Personal Touch

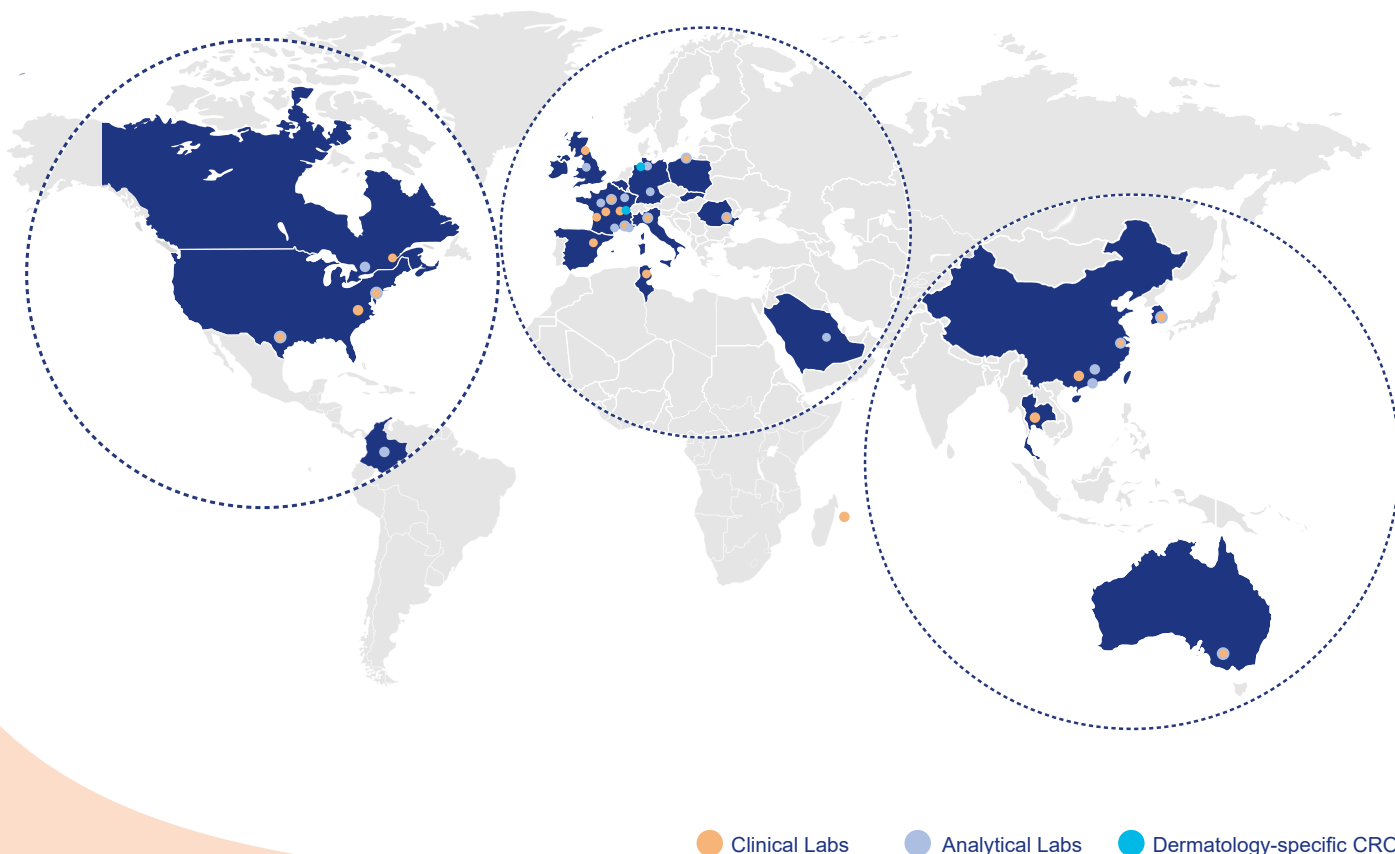
The cosmetics industry continues to move at a fast pace, with new and innovative products, frequently being released to fulfil evolving market requirements and meet the rising safety and efficacy expectations of consumers.

The mission of the Eurofins Cosmetics & Personal Care network of companies is to assist international clients in ensuring the quality, safety, performance and regulatory compliance of the supply chain, from raw materials and ingredients to packaging and finished products.

With a team of experts actively involved in standardisation committees, Eurofins companies are committed to staying up-to-date with the current and future regulatory environment, trends and industry demands.

Eurofins Cosmetics & Personal Care network of companies provides consultancy support and an extensive range of testing services for all types of cosmetics and personal care products.

34 competence centers across 5 continents



Success Motivators to Partner with us

1st in Cosmetics & Personal Care Testing Worldwide

- **> 40 years of experience** in Cosmetics & Personal Care
- Community of **well-recognised experts**
- Accessibility to the whole **Eurofins network with single point of contact**

Excellence in Testing

- **Our DNA:** specialist in life science testing
- Unmatched expertise and continuous **innovation**
- Partnership based on **trust, transparency and high quality services**

Entrepreneurial Spirit

- **Flexible** organisation
- **Rapid large-scale** investments to meet client's ambitions



In an increasingly demanding regulatory environment, Eurofins companies can offer personalised support for your cosmetic product compliance procedures, from the first formulation steps, to registering it in different countries, auditing the Cosmetic Product Information File, creating the Cosmetic Product Safety Report, and managing cosmetovigilance throughout the product's entire lifecycle.

Our experts work closely with all relevant departments in the field of product safety and efficacy to ensure optimal coordination and develop a suitable testing plan (i.e. *in vitro* testing, microbiology and clinical studies).

- Regulatory Affairs: MSDS, Registration, Regulatory label check, Borderline products, Market surveillance and vigilance
- Safety Assessment: Toxicological profile, Risk assessment, Cosmetovigilance
- Claim Assessment: Naturalness Index, COSMOS file, NATRUE file, Vegan Verification, Ecolabel Verification
- Scientific Advice / Technical Support

The team has extensive expertise in complex products such as products for babies and pregnant women, sensitive skin, CBD, essential oils, borderline products, solar products, recycled packaging, and specific fields such as container-content interactions, stability, compatibility, allergens, raw materials, medical devices, dietary supplements, exposure of beauticians to professional-use cosmetic products and personalised support during multi-sourcing process.

Eurofins Cosmetics and Personal Care network of companies verifies according to many major standards and regulations around the world, including EU, UK, US, Canadian, Chinese and Indian cosmetics regulations.



With the largest analytical offering worldwide, Eurofins has been supporting companies for more than 35 years.

Our laboratories, working with state-of-the-art equipment, provide high quality services to assess the quality of raw materials, finished products or packaging materials.

Our analytical portfolio includes:

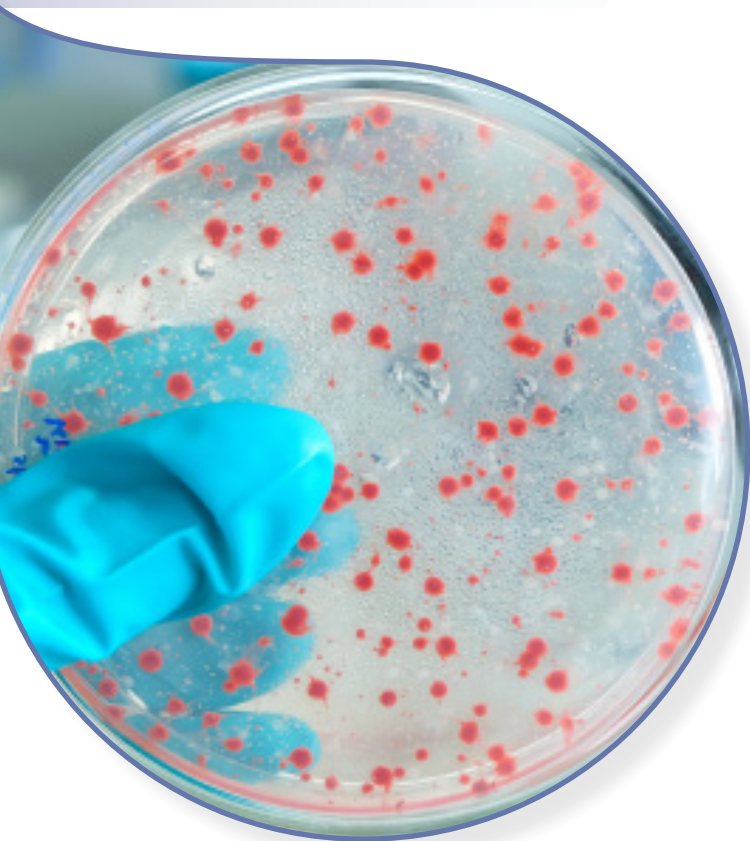
- Restricted Substance Analysis: 26 to 57 Allergens, Formaldehyde, Heavy Metals, Nitrosamines, Phthalates, Parabens, Benzene, PFAS, Preservatives...
- Active substance analysis: Aluminum, Fluoride, Titanium Dioxide, Zinc Oxide, Chemical UV Filters, Vitamin Quantification, Quality of Organic Oil...
- Stability & Compatibility: Particle Size, Food Contact & Migration Testing

In addition to these routine analyses, our laboratory experts also work on the following:

- R&D Support,
- Analytical Method Development,
- Method Validation,
- Implementation of Client's Methods,
- Cleaning Validation Processes
- Physical Testing: pH Value, Density, Flash Point
- Performance Tests

9 Analytical Labs

> 133,000 Analytical Tests



>23,000 Microbiological Studies

3 Microbiology Labs

Microbiological quality is critical to cosmetics product safety assessments. European Cosmetics Regulation (EC 1223/2009) requires evidences of the microbiological quality of cosmetic formula, raw materials, bulk, finished products and also a preservation challenge test.

Eurofins network of companies supports its clients by carrying out complete range of testing and services, in accordance with industry standards and current regulations (ISO, EP, USP, JP or local/clients norms).

- Microbiological Quality Control of Products: Total Counts TYMC and TAMC, Detection and identification of specified microorganisms, Detection and identification of specified and non-specified microorganisms, Sterility tests
- Validation - Method Applicability: Neutralisation of antimicrobial product properties Validate diluent/neutraliser broth and dilution factors
- Evaluation of antimicrobial protection of cosmetic products: Challenge Test, Accelerated stability testing at 40°C and relative humidity testing at 75%, Screening, Measurement of water activity
- Validation of growth medium (Sterility, Fertility, Inhibition, Selectivity)
- Surface and Atmospheric Controls
- Microbiological water analyses
- Customised micro testing
- Compatibility studies



What is Biodegradability?

Biodegradability is the capacity of a material to decompose over time as a result of biological activity into smaller molecules (carbon dioxide, water, mineral salts...).

OECD 301 Guidelines (readily biodegradability) are the standards most commonly used to measure a substance's biodegradability. The standard for the assay is chosen according to the properties of the test substance (solubility, volatility, etc.). Biodegradability tests on finished products and raw materials are very important issues for the cosmetics market. Indeed, biodegradability is a criterion in regulations such as REACH or for labels with a European Ecolabel (according to OECD guidelines).

Some of the biodegradability tests offered include:

- Ready biodegradability
- Ultimate aerobic biodegradability
- Manometric respirometry
- Intrinsic biodegradability

What is Ecotoxicity?

Ecotoxicity is the measure of the impact of substances on living organisms in various ecosystems, such as fresh water, sea water, and terrestrial media. Depending on the method, we can study the acute toxicity or the chronic toxicity. Like biodegradability, ecotoxicity is a criterion in regulations or for eco-friendly labels (according to OECD or ISO guidelines).

Some of the ecotoxicity tests offered include:

- Acute and Chronic toxicity
- Fresh water and Sea water organisms:
Daphnia, Microtox, Oyster, Algae, Corals...
- Terrestrial organisms: Worms, Plants

> 500 Samples Biodegradability

> 7,000 Samples Ecotoxicity





Cosmetogenomic analysis allows the response of the human genome to be studied (quantification of the expression of all the genes in the human genome). The human genome reflects physiological or pathological conditions, as well as the effects of a treatment. After RNA extraction/validation from skin explants, cell lines, primary cells, reconstructed epidermis or skin surface samples (stripping), cosmetogenomics helps to screen raw materials or evaluate the efficacy of finished products through gene expression profile analysis.

Eurofins offers comprehensive, quality-driven genomics services that expedite the translation of basic research into cosmetics and nutraceutical product development.

- Adapted biological models for DNA/RNA/miRNA extraction: *in vitro* (2D cell cultures, keratinocytes, fibroblasts, melanocytes, etc.), *ex vivo* (skin explants, adipose tissue, scalp, isolated hairs, etc.), FFPE samples, *in vivo* (skin microbiota, tape strips)
- Tissue challenges: UV irradiation, blue light, infrared light pollutants, pollen exposure, wound methods, 5G, chemicals, etc.
- Custom technical solutions: DNA microarray, miRNA microarray, qPCR-gold standards, PCRarray- Flexible, customisable, etc.
- Analysis of raw data, provided by customer (microarray, sequencing, proteomics)
- Unique software PredictSearch used for rapid biological interpretation of big data
- Eurofins provides all its expertise for your personal care and nutrition projects.
- Discovering new molecular signature of your actives
- Identifying biological mechanisms of ingredient
- Developing high-performance, innovative products
- Rationalising product development cost
- Improving clinical studies

- > 10 000 microarray data from *ex vivo* studies
- > 8 000 microarray data from *in vitro* studies
- > 5000 custom PCRarray evaluations



7 In vitro Labs

> 20 Years of Experience

> 20,000 In vitro safety studies

We offer *in vitro* tests for cosmetic ingredients, finished products, raw materials and medical devices. We have put our experience at the service of players in many industries, such as the cosmetic, biotechnological, chemical, and pharmaceutical industries.

Evaluating the safety of your products and protecting the health of consumers are at the heart of what we do.

Within a demanding regulatory framework, we offer you a unique and comprehensive portfolio of *in vitro* tests to assess the safety of your ingredients and finished products. Our experts support you in selecting the most suitable tests for the development of your cosmetic projects while ensuring compliance with regulatory requirements as soon as possible.

Some of the *in vitro* studies offered include:

Safety

- Cytotoxicity
- Skin and eye irritation and tolerance
- Skin corrosion
- Skin sensitisation
- Phototoxicity (in cell culture and in human 3D skin model)
- Genotoxicity
- *In vitro* vaginal irritation
- *In vitro* oral irritation
- Lipid metabolism / lipolysis

All our studies are carried out in accordance with Good Laboratory Practices (the presumption of conformity is issued by the Supervisory Authorities).

Efficacy

- Anti-pollution *in vitro*
- Antioxidant activity
- Detoxification and photoaging
- Antiaging capacity
- Inflammaging
- Anti-stress efficacy
- Epigenetics and genomics
- Cellular proliferation / skin regeneration etc..

In vitro suncare studies

- Determination of sunscreen UVA photoprotection factor (UVAPF) *in vitro*
- Determination of the *in vitro* SPF screening
- *In vitro* determination of IR blocking potential
- *In vitro* determination of HEV blocking potential
- UPF textile test

Eurofins Cosmetics & Personal Care laboratories have also developed safety tests that are fully vegan.



The efficacy of cosmetic products must be backed by scientific evidence, according to the European Cosmetic Regulation (EC 1223/2009). The *ex vivo* model, using living human skin explants, allows the efficacy of a cosmetic formulation, active ingredient or device to be evaluated under conditions closest to real use.

Topical (on skin surface), systemic (in medium) or injection (intra-dermal or subcutaneous) applications are all possible on skin explants. The *ex vivo* model allows various external stresses to be reproduced, e.g. UV light, pollution, chemical or mechanical aggression, temperature, wound, irritation, pathogenic bacteria.

Various models are available:

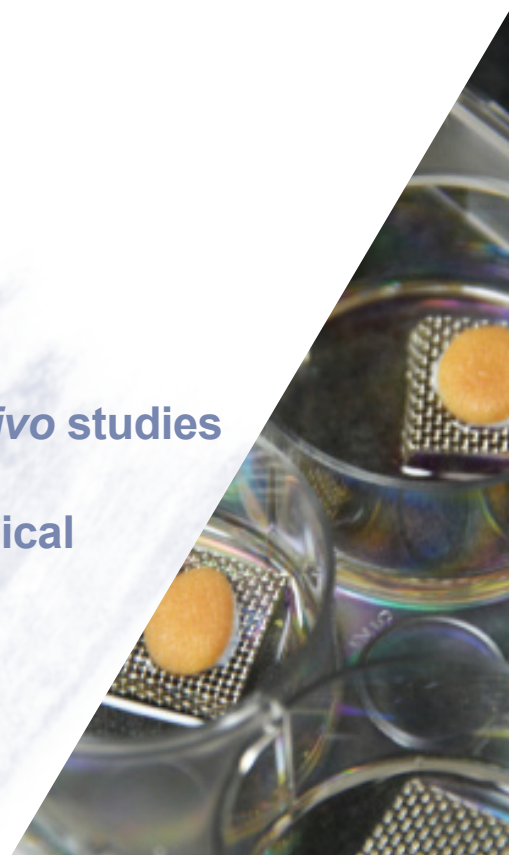
- *Ex vivo* explants
- Perfex vivo
- Psoriasis-like skin / AD-like
- Nerveskin

Eurofins Cosmetics & Personal Care provides testing services to support your cosmetic claims. We perform efficacy tests to provide scientific proof of the claimed effects of your cosmetics, illustrated with photographs. *Ex vivo* studies on living human skin explants may include:

- Histological (immunostaining) analysis
- Biochemical (ELISA) analysis (multiplex)
- RAMAN spectroscopy
- Topography (skin microrelief)
- Instrumental measurements (corneometry, TEWAmetry, cutometry)
- Penetration analysis (Franz cells)
- Macro photographs
- Confocal microscopy
- Microbiological analysis (skin microbiota)
- Electronic microscopy
- 3D imaging.

> 6 500 *ex vivo* studies

> 400 biological markers





Our studies are made under dermatological control, and in the presence of our medical investigators and trained assessors.

Medical Investigators

Dermatologists, Ophthalmologists, Paediatricians, Gynaecologists, Dentists, General Practitioners, Podiatrists, Odonatologists, Rheumatologists, ENTs, Gastroenterologists

Trained Assessors

Aestheticians, Hair Stylists, Beauticians ...

21 Clinical Labs

> 100,000 Multi-ethnic Subjects

> 25,000 Clinical Studies

A clinical study involves human panellists that test the product, either under normal conditions of use ("in use" tests) or under relevant experimental conditions of use (single use, maximised use). With a worldwide network of laboratories, Eurofins has access to a wide panel of multi-ethnic subjects with specific criteria. This allows us to undertake multi-centric trials with a dedicated recruitment process that considers different skin types and environmental aspects.

Assessments may include objective medical exams, beauty experts' and/or instrumental measurements, and consumer preferences through self-assessment questionnaires.

The outcome should take into account the efficacy claims to be substantiated or the safety issue to be addressed by the study, or both.

Some of the clinical studies offered include:

Safety

- Patch test
- Sensitisation test
- Phototoxicity test
- Photosensitisation test
- Photo-irritation
- In Use test
- Clinical scoring ...

Efficacy

- Skin regeneration
- Blue light / infrared protection
- Microbiome analysis
- SPF
- Wellness
- Anti-pollution
- Anti-Aging
- Moisturisation
- Skin Barrier
- Food/dietary supplements
- Athleisure
- Teeth hypersensitivity
- Mask testing
- Hair testing
- Sensitive skin...





> 5000 image analysis studies

> 20 years of experience

More than 30 types of analysis

Pigment spots, shiny areas, the evenness of skin tone...skin analysis by imaging is becoming increasingly important in the cosmetics sector and, more specifically, in illustrating the effectiveness of products, thanks to essential information assimilated in the smallest details of an image.

Since the early 2000s, the Eurofins Cosmetics & Personal Care network offers support for cosmetic companies in image processing for any type of claim, in order to be meet consumer expectations as far as possible. Cosmetic companies can provide us with their own standardised photos or we can produce them in our laboratories.

By using standardised photos taken with powerful tools, you can produce images:

- In cross-polarization, i.e. with suppression of the light on the skin surface;
- In parallel polarization, i.e. with specular light;
- In diffuse light, i.e. with a homogenisation of the light on the skin surface.

We develop many innovative image analysis software dedicated to substantiating cosmetic claims, helping you to:

- Identify and quantify variations in skin and hair parameters
- Illustrate cosmetic benefits
- Create marketing support

Our image analysis tools can be coupled with instrumental methods to suit your needs.

Some of the claims offered include:

Anti dark circles - Anti dark spot - Anti rosacea
- Anti sebum effect - Anti wrinkle - Complexion homogeneity – Complexion radiance - Lifting - Matifying effect – Covering effect - Skin texture
- Tanning effect - Whitening effect - Volumising mascara - Eye opening - Moisturizing effect - etc.



In recent years, manufacturers have noticed that «our emotions play a major role in our purchasing decisions».

Emotions are complex processes difficult to directly apprehend. Therefore, objective analytical methods to consider the different components of emotion, such as the affective sphere, the physiological sphere and the expressive sphere, have been developed.

This multidimensional approach allows the impact of fragrances in a cosmetic cream to be measured, the emotional dynamics at play in the use of make-up products to be explored, and even the importance of the brand label on the packaging to be assessed in terms of a customer's overall satisfaction and hedonic experience.

For over 20 years, this is the challenge that notorious names in the cosmetics and food industries have entrusted to Eurofins. In partnership with specialists in psychology and neuroscience, we can explore pleasure and wellbeing associated with the use of skincare products, make-up or perfumes.

- Cognition: Psychometric measures (validated questionnaires, Lickert-type scales, neurocognitive tests, implicit associations, structuration of free speech (text mining), etc.)
- Behaviour: Behavioural / ethological analysis (posture, gesture, facial expression, eye tracking, specific acts, vocalisations, etc.)
- Physiological: Visceral component (electrodermal response, skin temperature, cardiac activity, respiratory rate, mydriasis, hormonal levels, electromyography, electroencephalography, brain imaging, etc.)
- Specific methods: EmoChar®, EmoVoc®, mirror test, sleep analysis, etc.

> 1 000 emotion studies

More than 30 methods





**16 Locations
in 8 Countries**

> 130,000 Consumers

**120+ partners accross
65+ countries**



Eurofins network of companies offers a wide variety of approaches, methods and tools for sensory and consumer research. These are applied to many different product categories including, but not limited to, health-care, personal-care, cosmetics, perfumery and other related industries.

Our methods provide powerful results in almost all situations and categories where measurement and analysis of consumer perceptions is possible and where results are useful in achieving business objectives. Our outputs play a key role in supporting product development decisions which are directed at both immediate product success and long-term competitive advantage.

This is achieved by a deep understanding of consumer usage, attitudes, responses to, and acceptance of, products and brands in a competitive context.

The aim is to deliver robust, validated results which inform activities such as product optimization, product positioning, product fit within a brand, raw materials selection, quality control and many others.

Some of the studies offered include:

- Consumer Research Testing / Home Use Testing
- Sensory Evaluation: Descriptive method – Full & Rapid Profiling Discrimination Testing..
- Quantitative method: Product Performance, Marketing Mix Assessment...
- Qualitative method: Creativity workshop, Sensory Focus Groups, Home Flash...
- Hedonic Test



Audit & Consulting

Compliance with the regulations of your target market is a key step in order to ensure that you gain fast and unrestricted market access.

We harness the expertise of our global network of Consultants, Auditors and Trainers to ensure that your products, supply chain and distribution flows meet global market and regulatory requirements including, but not limited to:

- GMP following the EU n°1223/2009 regulation, such as ISO 22716
- OTC manufacturing following FDA and Health Canada regulations
- ANVISA RDC 48-2013
- EU n°831/2019 regulation
- EU n°679/2016 regulation, GDPR and others

With a recognised network of experts, Eurofins Cosmetics & Personal Care, through our network of companies, is a world leader in the cosmetic and personal care testing industries, and provides a wide range of services in:

Auditing: Evaluation of your supply chain, manufacturing sites and distribution flows, on-site audits and remote audits.

Consulting: Gap analysis, definition of CAPAs and support in the implementation of them, improvement of quality systems (CAPA, deviation, change control, batch records, OOS, risk analysis etc), support in validation, regulatory filing and quality investigation.

Training: Provision of customised training, in English or local languages, including technical and regulatory training courses, among others.

**40 Countries across
5 Continents**

200 Auditors, consultants

**> 70,000 Inspections and
audits / year**






Sustainable Approach

In recent years, consumers have become more conscientious, understand more, and have a sense of responsibility to purchase products which not only work and are good for their skin but are also ethical and environmentally friendly.

They consider the environment, and therefore gravitate towards more environmentally friendly products. This impacts several product categories and has inspired scientific breakthroughs and innovation.

Brands have to face new sustainability challenges, including the development of new packaging from diversified materials and new marketing claims... all whilst respecting the regulations applicable to cosmetics and personal care products. To achieve this, Eurofins Cosmetics & Personal Care network of companies supports customers to work in a more sustainable way.

A photograph of laboratory glassware on a reflective surface. On the left is a beaker containing water and a green plant stem. In the center is a large Erlenmeyer flask. On the right is a test tube containing a red liquid, with a small pink flower placed inside it. A large green leaf is positioned behind the central flask. A semi-transparent yellow circle is overlaid on the left side of the image, containing text.

In 2020, we announced the ambitious goal of achieving carbon neutrality by 2025, through a considered programme of CO₂ emission reduction and carbon offsetting.

A 3-step Strategy

Environmental Impact

- Ecotoxicity & biodegradability testing
- Compostability testing
- Microplastics testing
- Eco-friendly packaging development
- Product Life Cycle Analysis
- Carbon footprint
- Authenticity and traceability of Raw Materials

Refillable Solution

- Procedures for workers in shops and training
- Cleaning protocols
- Reusable packaging testing
- “Mystery” client audits and quality audits
- Quality control in shops

Vegan Offer

- Toxicology and Regulatory Assessment
- Animal DNA Analysis
- On-site Audit
- Declarations of conformity / labelling



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Cosmetics@cpt.eurofinseu.com

www.eurofins.com/cos

@ Eurofins Cosmetics & Personal Care

