

# Nanoparticles in Cosmetic Formulas

Assessing the safety and  
stability of nanoparticles in  
cosmetic formulations



Nanomaterials offer unique benefits in cosmetics, but demand precise characterization and strict safety evaluation. Eurofins Cosmetics & Personal Care provides an integrated approach combining physico-chemical analysis, *in vitro* safety testing, and accredited expertise to ensure compliant, stable, and safe formulations.

## Formula stability

### No (Specific) samples preparation

*Under GLP*

#### ***In vitro* safety: cytotox, phototox, irritation**

- Cytotox
- Phototox
- Eye irritation, vaginal irritation, oral irritation, skin irritation, skin corrosion

### Samples preparation (distribution, dispersion...)

*According to SCCS guidelines*

#### ***In vitro* safety**

*Under GLP*

- Sensitization
- Genotox
- Chromosomal aberration
- Endocrine disruptors
- Skin Penetration

### Analytical part depending on the matrices\*

*Throughout Accredited labs ISO 17025, ISO 9001*

- Detection and chemical composition: ICP-MS
- Physico-chemical properties
- Agglomeration/aggregation state: SEM
- Crystallographic structure: TEM
- Surface area / interactions: SEM, TEM, STEM ((Scanning Transmission Electron Microscopy)), AFM (Atomic Force Microscopy), BET
- Surface characterization: SEM, TEM, STEM, AFM, XPS, TOF SIMS
- Diameter: DLS

*\*MP, PF & packaging*



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