

## Check the Performance of Your Sun Protection Products



### Your Challenges

There are about thirty solar filters, both organic and inorganic, which are authorised for use in cosmetic products by the EU Directive 76/768/EEC and the European Cosmetic Regulation 1223/2009.

The concentrations of these anti-UVA and anti-UVB substances are defined by Ministerial Decrees of 2001, 2003, and 2005 which help determine the efficacy and safety of a sun protection product.

### Our Solutions

Using our state-of-the-art equipment\*, Intertek can help you ensure the conformity of your formulas. We also offer a wide range of specialised studies including:

#### **Physico-chemical testing**

- Chemical determination of the organic filters by HPLC
- Chemical determination of the inorganic filters by ICP (Titanium Dioxide, Zinc oxide)
- Measurement of particle size (nano and micro)
- Photostability studies
- Measurement of the critical wavelength

#### **In vitro testing**

- Evaluation of the *in vitro* solar protection (SPF, FP-UVA, FP-UVB, UVB/UVA ratio before or after irradiation, critical wavelength)

#### **In vivo studies**

#### **Efficacy**

- Evaluation of solar protection according to recognized standard methods.
  - SPF - UVB (international 2006 method, FDA)
  - SPF - UVA (Japanese method PPD)
  - Waterproof test (Colipa 2005 method, FDA, etc.)
  - Skin-lightening, solar anti-wrinkle products, soothing properties, persistence, self-tanning

#### **Tolerance**

- Phototoxicity study
- Photoallergy study

Intertek designs customized protocols to suit your needs.

\* Solar simulators (Solarlight and Oriol), radiometers, Minolta CR 400 chromametre and spa baths

#### Did You Know?

UV filter performance can be determined through photostability tests (AFSSAPS recommendations).

Some sun screens can degrade after continued exposure to light, which can be also true of other sensitive products such as skin lightening / whitening products.

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